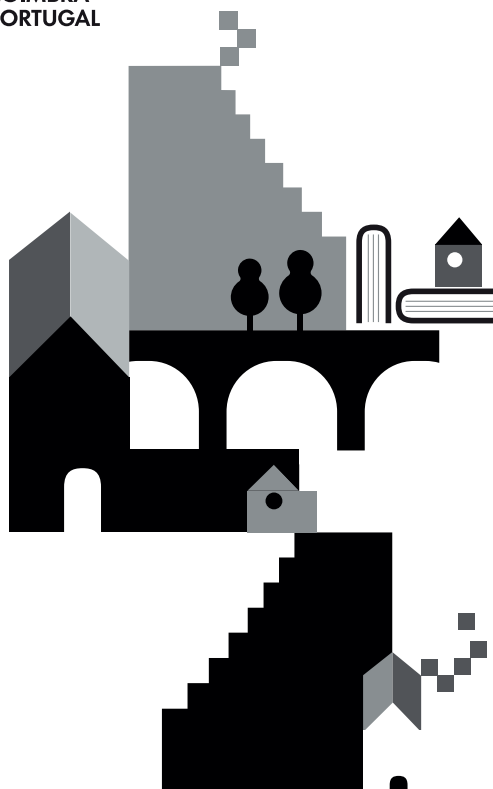




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Celebrating a Global Community of Illustration and Animation

We launched CONFIA in 2012 with the aim of creating a space for discussion and critical reflection in the fields of Drawing and Audiovisual Arts in general, and more specifically in Illustration and Animation, disciplines represented by a Master's programme established in 2010 at the Polytechnic University of Cávado and Ave. It is remarkable that we not only created Portugal's first Master's degree in this area but also established an annual gathering for artists, academics, and researchers from around the world.

Looking back on these years, I can state with confidence that, from a scientific and scholarly perspective, CONFIA has become one of the most respected and internationally recognised conferences in the fields of illustration and animation. Every year, authors and researchers from across the globe travel to Portugal to participate, and we have had the privilege of welcoming keynote speakers representing some of the world's leading institutions and artistic schools.

This year, we are once again joined by thinkers and artists who continue to believe in the possibility of a better world—one in which this network of knowledge, built around art and the creative industries, can continue to thrive. A world in which individuals can continue to meet, travel, exchange ideas, and share their work in a constructive and pedagogical spirit. We remain committed to serving as a meeting point: an open and independent forum where the diverse questions, challenges, and possibilities of illustration, animation, and related disciplines can be discussed freely.

We would like to express our sincere gratitude to the members of the Scientific Committee for their dedication, rigour, and commitment. Without their considerable efforts, this conference would not be possible. We also extend our appreciation to all the authors who travel from distant countries and who overcome significant challenges in securing visas and funding in order to present their work in person.

A special acknowledgment is due to our two keynote speakers, Andrew Hall in Illustration and Wioleta Sowa in Animation. Their contributions will undoubtedly serve as a source of inspiration for all participants, particularly for younger artists, researchers, and academics who are beginning their professional and scholarly journeys. Their work reminds us that these disciplines offer powerful means through which to reflect upon the world and, perhaps, to transform it, reclaiming a space without borders, where ideas can circulate freely and creativity can flourish.

A brief introduction to our keynote speakers, who kindly also contributed texts to this volume of conference proceedings:

In this illustrated lecture, **Andrew Hall** examines the interrelationship between commercially oriented imagery—both static and sequential—and the analogue and digital technologies that have shaped its production. Drawing on his recent publication, *Illustration: A Concise History*, Hall situates contemporary visual communication within a historical trajectory extending from the eighteenth century to the twenty-first century, highlighting the key technological, cultural, and industrial developments that have informed the evolution of illustration.

Building on this historical framework, the lecture engages with current debates surrounding automated digital technologies, artificial intelligence, and generative software. It considers the extent to which a critical understanding of past technological transformations may inform our engagement with the challenges, uncertainties, and opportunities arising from the ongoing reconfiguration of image production in the digital age.

In this presentation, **Wioletta Sowa** examines the evolution of visual media from classical animated film to augmented reality (AR) and virtual reality (VR), exploring how these emerging forms create new possibilities for artistic engagement with intimacy, memory, and everyday experience. Tracing a creative trajectory from linear cinematic narratives to immersive spatial environments, she considers the ways in which contemporary media expand the expressive and conceptual boundaries of visual storytelling.

Grounded in the artistic and theoretical legacy of Tadeusz Kantor, the presentation reflects on creativity as a deeply personal and persistent act of preserving and reinterpreting the “room of childhood” while situating individual experience within broader cultural and historical frameworks. Through this perspective, Sowa investigates how immersive technologies may function as spaces of memory, presence, and critical artistic inquiry, while revisiting the enduring question of the artist’s role in constructing, deconstructing, and reimagining reality.

Paula Tavares

CONFIA General Chair

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Índice / Contents

23	ENVIRONMENT AND CHARACTER DESIGN IN BLACK MYTH WUKONG: AN ANALYSIS OF CHINESE CULTURAL EXPANSION IN THE DIGITAL SPACEL	Josué Duarte
30	NATURE AS INTERFACE: ENVIRONMENT DESIGN AND THE JAPANESE AESTHETIC OF 'MONO NO AWARE' IN GHOST OF TSUSHIMA	Josué Duarte
38	FROM NAVIGATION TO ANIMATION: AN ANALYSIS OF SCROLL-DRIVEN ANIMATIONS IN INTERACTIVE WEB-BASED ARTIFACTS	Mariane Pereira Rubinato
52	EXAMINING THE ROLE OF PHYSICAL ILLUSTRATIONS WITHIN THE HOME TO REPRESENT OUR CONNECTIONS WITH THE CLIMATE EMERGENCY AND ITS POTENTIAL TO INCREASE CLIMATE ACTIONS	Devon Tipping
64	2D RIGGING ANIMATION: A LITERATURE REVIEW	Jovilė Gečaitė, Tomas Mitkus and Vaida Nedzinskaitė-Mitkė
76	APPROACH TO ATMOSPHERIC LIGHTING IN CGI ANIMATION: LITERATURE REVIEW	Elzbieta Poliakova, Tomas Mitkus and Vaida Nedzinskaitė-Mitkė
86	THE SKETCHBOOK AS AN AGENT OF TRANSFORMATION FOR CREATIVE FREEDOM	Luana Silva, Marta Madureira and Paula Tavares
97	HYBRID WORKFLOWS: LAVAMACHINE'S VR ANIMATION PIPELINE AND DIGITAL CLAYMATION AESTHETICS	Christian Feichtinger and Juergen Hagler

107

**REINSCRIBING PLACE: VISUAL NARRATIVE
DEVICES IN URBAN TERRITORY**

Joana Ferreira Oliveira and Américo Luís Enes Marcelino

117

**GENERATIVE SKETCHING ON THE BIG TABLE CANVAS:
CO-CREATING FUTURES IN ART EDUCATION**

Birgit Kriegner, Wolfgang Schreiberlmayr and Juergen Hagler

127

**FROM THE INVISIBLE TO THE VISIBLE THROUGH DRAWING AS
A PROCESS OF COMMUNICATION BETWEEN ART AND SCIENCE**

Lúcia Antunes and Susana Oliveira

137

**RECOGNIZING THE ARTIFICIAL: STUDENT PERCEPTION
AND AESTHETIC EVALUATION OF AI-GENERATED IMAGES**

Victoria Wolfersberger and Jürgen Hagler

145

**THE PATH OF WOMEN IN PORTUGUESE ANIMATION: A
LONGITUDINAL CASE STUDY OF 50 YEARS OF FEMALE
REPRESENTATION IN CINANIMA FESTIVAL
CATALOGUE ARCHIVES FROM 1976 TO 2026**

Cátia Peres

164

**AN EYE IN THE MIND: SUBJECTIVE REALISM DISCOURSE
IN THE SHORT ANIMATED FILM CÃO SOZINHO
(2025), DIRECTED BY MARTA REIS ANDRADE**

Cátia Peres

177

**MOTION SICKNESS IN VIRTUAL REALITY:
A DESIGN-ORIENTED LITERATURE REVIEW**

Almantas Klibavicius, Tomas Mitkus and Vaida Nedzinskaitė-Mitkė

191

**LGBTQIA+ REPRESENTATION: AN ANALYSIS IN
MAINSTREAM ANIMATED SERIES FROM 2000 TO 2025**

Rafael Andrade and Raquel Felgueiras

202

**HIGH CONTRAST IN BLACK AND WHITE
ILLUSTRATION: TECHNIQUE AND MATERIALITY IN
THE VISUAL REPRESENTATION OF ANXIETY**

Daniela Sanz, Marta Madureira and Ana Sabino

213

TIME MANIPULATION IN ANIMATION
THE PLASTICITY OF THE ANIMATED BODY

Ana Pinheiro, Cátia Vidinhas and Manuel Albino

223

ERROR AS A CREATIVE POSSIBILITY IN ANIMATION

Cecilia Traslaviña González and Tania de León Yong

233

ANIMATION AS A CRITICAL PEDAGOGY:
EXPLORING BODY IMAGE THROUGH A STUDENT FILM

Subir Dey and Ayushi Jha

243

WHERE SOUND MEETS IMAGE: PICTUREBOOKS FOR
EARLY CHILDHOOD FROM THE INSIDE OF EDICARE PUBLISHER

Cátia Vide and Rui Vitorino Santos

254

REPOSITIONING THE HANUMAN CHALISA FOR A
YOUNGER AUDIENCE THROUGH CLAYMATION

Swati Agarwal and Prasad Bokil

263

THERAPISDS IN THE WILD:
PALEO-ANIMATION AT THE KAROO ORIGINS CENTRE

Łukasz Pater

274

REFRAMING ROTOSCOPING: A SYSTEMATIC
LITERATURE REVIEW

Tomas Mitkus

288

THE CALLIGRAPHER AND DRAUGHTSMAN MANUEL ANDRADE
DE FIGUEIREDO AND HIS LIBERAL CURSIVE HANDWRITING
IN THE CONTEXT OF THE EDITORIAL ARTIFACT NEW
SCHOOL FOR LEARNING TO READ, WRITE AND COUNT

Jorge dos Reis

301

EXPLORING CONNECTIONS BETWEEN ANIMATION AND
PHENOMENOLOGY THROUGH PRACTICE-BASED RESEARCH

Owen Stickler

314

**K-POP DEMON HUNTERS AND THE IMPORTANCE
OF FEMALE DIRECTING IN CONTEMPORARY ANIMATION**

Mabilli Nadim

324

**FROM PANELS TO PIXELS: RECONFIGURING METAPHOR
AND NARRATIVE TIMING IN THE ANIMATED ADAPTATION
OF SCREEN SMART**

Hannes Rall and Alice Yang

335

**RETURNING TO CHARLES PERRAULT'S DONKEYSKIN:
NEW AESTHETIC CONFIGURATIONS**

Diana Maria Martins and Sara Reis da Silva

348

**THE REPRESENTATION OF FEMALE TRAUMATIC
EXPERIENCE THROUGH ANIMATED DOCUMENTARY**

Mabilli Nadim

357

ILLUSTRATION AS REGENESIS

Awoniyi Stephen

365

VALIDATING VOICES COMICS

Linda Scott

377

**A PORTRAYAL OF LONGING IN TRANSNATIONAL
FAMILIES: A CASE STUDY OF THE CHILDREN'S
PICTUREBOOK "MARIBEL'S YEAR"**

Marina Tiveron and Rui Vitorino Santos

385

SATOSHI KON AND CINEMA AS A DREAM SPACE

Lia Santelmo

394

CONSTRUCTING CHARACTER THROUGH THE MASKED FACE

Sanya Jain and Prasad Bokil

405

**THE ROLE OF ILLUSTRATION IN DIGITAL TEXTILE PRINTING:
A CASE STUDY OF EMMA J SHIPLEY'S LYNX SILK TWILL SCARF**

Rita Emanuela Cardoso Loureiro

414

**CREATIVE PROCESSES AND TEACHING METHODOLOGIES
IN ANIMATION WITHIN VR CONTEXTS**

Nuno Filipe Martins and Cátia Peres

427

**DESIGN TRANSMEDIA NETWORK: ANIMATED EXPLORATIONS
FOR PROMOTING THE EDUCATION IN DESIGN HISTORY**

Nicolò Ceccarelli

435

**GRIEF IN ANIMATION: AN ANALYSIS OF THE
VISUAL AND NARRATIVE REPRESENTATIONS
OF GRIEF IN POPULAR ANIMATION**

Beatriz Santos, Cátia Vidinhas and Gabriela Sá

445

**ILLUSTRATING GRIEF FOR YOUNG ADULTS: A SOCIAL
DESIGN APPROACH TO DEVELOP EMOTIONAL RESILIENCE**

Subir Dey and Deepika Anandan

453

**METHODOLOGY FOR THE DESIGN AND STRUCTURING OF
STYLE GUIDES IN 2D VECTOR ANIMATION PIPELINES**

Sergio Rodríguez Valdunciel

463

TOY THEORY APPLICATIONS WITHIN ILLUSTRATION RESEARCH

Joel Lardner

473

**INSURGENT GRAPHICS: EDITORIAL ILLUSTRATION
AS FEMINIST POLITICAL PRACTICE IN THE
BRAZILIAN PERIODICAL MULHERIO (1981-1988)**

Juliana Meira, Susana Lourenço Marques and Priscila Lena Farias

488

**COMPOSITE SUBJECTIVITY AND FEMALE EXPERIENCE
IN ANIMATED SELF-NARRATIVE CHOCOLATE (2021)**

Zhang Lili

496

**TEARS AND PEARLS: VALUE CONSTRUCTION
IN THE GIRL WHO CRIED PEARLS**

Cynthia Levitan and Miguel Santos de Carvalho

508

**TRACING THE UNSPOKEN: EARLY DEVELOPMENT
OF AN ANALOG DRAWING FRAMEWORK
FOR WOMEN'S HEALTH ADVOCACY**

Sonisa Noun

518

**DRAWING IN DIALOGUE: COLLABORATIVE AUTHORSHIP
AND STYLISTIC POLYPHONY IN COMICS ILLUSTRATION**

Stefan Messam and Claire Hackett

529

**TEXTILE SUPPORT AS A REPOSITORY OF MEMORIES
AND A STORYTELLING MEDIUM IN THE
CONTEXT OF ILLUSTRATION PRACTICE**

Mariana Jacinto, Marta Madureira and Mariana Viana

538

**GROTESQUE: THE ENCOUNTER OF VIOLENCE
AND THE EROTIC IN AN ORIGINAL ERO-GURO COMIC**

Joana Gonçalves, Manuel Albino and Luís Lima

550

DRAWING OUT IDEAS

Alan Crowley

560

**FOUND OBJECT ANIMATION AND ITS ROLE
IN EXPLORING MOVEMENT AND MATERIAL**

Swati Agarwal and Prasad Bokil

571

**GIROFLÉ: TRANSMEDIATION IN THE EDITORIAL DESIGN
OF AN ILLUSTRATED MAGAZINE FOR CHILDREN**

Marta Roda, Diana Martins and Cátia Vidinhas

583

**GODS, KINGS AND DEMONS - REVIEWING IMAGE MAKING IN
INDIAN CLASSICAL TEMPLE ART FOR CHARACTER DESIGN**

Animesh Sharma and Prasad Bokil

591

**SURREALISM IN THE ONEIRIC
REPRESENTATION IN DIGITAL GAMES**

Joana Cardoso, Gabriela Sá and José Raimundo

603

**STORIES IN SCIENCE: COMICS AS A TOOL
FOR SCIENTIFIC COMMUNICATION**

Ana Castro, Anabela Marisa Azul and Susana Jorge

611

**BETWEEN TOUCH AND ALGORITHM:
DRAWING AND CERAMICS IN DIALOGUE WITH AI**

Kateryna Bezpalchenko and Júlio Dolbeth

620

**TACKLING OBESITY WITH COMICS:
THE CASE OF THE PAS GRAS PROJECT**

Rui Tavares, Andreia Silva, João Ramalho-Santos and Anabela Marisa Azul

631

**EXPANDED DRAWING AS EPISTEMIC
SITUATION: INSTALLATION, EMBODIMENT,
AND BRAIN-COMPUTER INTERFACES**

Paulo Bernardino Bastos and Maria Manuela Lopes

640

**THE REPRESENTATION OF THE ‘SELF’ IN ANIMATED
DOCUMENTARIES: BIOGRAPHICAL
AND AUTOBIOGRAPHICAL PRACTICES**

Ana Lúcia Pinto

652

MEMORY, IDENTITY, AND CREATIVE PROCESSES IN ANIMATION

Margarida Ferreira, Cátia Peres and Gabriela Borges

664

**TOWARD AN IDEA OF ANIMATION:
ORIGINS OF THE EXPRESSION ANIMATION CINEMA**

João Apolinário Mendes

674

**DRAWING A LINE BETWEEN VISUAL IDENTITY,
PACKAGING AND ILLUSTRATION: A FRAMEWORK
FOR SPECIALTY COFFEE BRANDING**

Andreia Lopes and Rita Coelho

Andrew Hall

Image: Mechanisation, Automation & Automated Imaginings

Introductory Paragraph

In this (illustrated) talk, I will trace the intertwined relationship between the commercially oriented image, still and sequential, in relation to analogue and digital technologies central to its production. Travelling from the 18th Century to the 21st Century, and using my recent publication 'Illustration A Concise History' as a key reference text, I will discuss the main developments along this chronological trajectory, up to and including our current understanding of automated digital technologies – essentially, can we use our knowledge of the past to negotiate through the many challenges and potential confusion caused by the 'tech' push into artificial intelligence and generative software for future image production?

Main Content

This narrative begins with the rise of the 'Macaroni' influenced commercial satirists, who flourished in Great Britain due to their formidable artistic skills, as well as very limited libel laws in the country at that time. Drawing, etching, hand-colouring, coupled with commercial agent representation and distribution, were all interconnected areas of this market. The agents sold the work at volume, and cheaply, in London print shops to the middle classes. Focused on the lampooning of public figures, notably politicians, and incorporating visual exaggeration, the grotesque, anthropomorphism and Surreal visual juxtapositions, with image and text combined, this popular genre also foreshadowed the development of the comic genre. This bubbling, at volume, of an appetite for art for the home by the middle classes, and at affordable prices, can also be seen in the Ukiyo-e genre in Japan at around the same time – 4-colour woodblock prints, depicting in this case the pleasures of life, and created in what still seems a startlingly modern graphic style.

The narrative then moves to the start of the mass-industrialisation of manufacturing processes, transportation systems and the 'new media'. With major advances in print technology, paper production, and transport systems via the railways, coupled with an explosion in mass-literacy, the printing of illustrated newspapers and journals flourished, with speedy production and distribution to their intended audiences, and establishing a commercial model of editorial content funded by advertising revenue. While illustrators forged strong working relationships with daily, weekly and monthly publications, as did writers such as Charles Dickens, their focus also turned to mass poverty and deprivation, caused by urban populations migrating to cities. Alongside Dickens, who became a central figure in the fight for international copyright laws, Doré and Jerrold engaged in a 3-year illustrated project recording the 'highs' and 'lows' of London, titled 'London A Pilgrimage'.



With the advent of colour lithography, illustrators and artists worked on commercial advertising projects, blossoming in Paris where street posters were allowed, before the start of the two world wars, with a period of deep unease in-between. Governments and political parties employed illustrators to promote certain ideas and directives – wartime recruitment, propaganda, codes of behaviour in wartime, sustainability and self-reliance, and national optimism that one’s own country would emerge victorious. The image itself travelled far beyond early advertising models depicting a product – illustrators, who also worked with type, created intellectually playful and visually complex messages to communicate ideas that could be understood by their intended audience in mere seconds. In both world wars technology advanced at lightning speed, the most dramatic and tragic being the atom bombs dropped on Hiroshima and Nagasaki. The stage was now set for the post-war years.

In this era, the image splintered into two separate directions – commercial sector illustrators worked in advertising agencies, helping sell the ‘dream’ that the ownership of certain objects – houses, cars, hoovers, fridges – as well as branded food and drink products – would deliver happiness and a sense of achievement in a strictly-defined social hierarchy. On the other hand, Counter-Culture illustrators rejected the model to conform to consumerism, using Art Nouveau influences, coupled with screen-printing technologies, to build a ‘psychedelic’ visual language promoting rock concerts, fashions, films and records, essentially a set of tribal symbols that rejected the aspirations of the dominant social group. With Hollywood also offering illustrators and animators new areas of work, including Walt Disney’s feature-length animations, this era culminated in the stunning technical achievement of the Apollo 11 moon landing in 1969.

From the 1970’s onwards, The Information Age began, driven by further technological advances – the Apple Mac, the home printer and the Internet came into the mainstream, facilitating the democratisation of the illustration marketplace, with digital paint packages and early Photoshop models facilitating a new ‘Cookie Cutter’ art. Technology again focused on speed – the illustrator would send artwork via the Internet, rather than by courier. The tech marketplace made rapid advances – Apple, Microsoft, Adobe, Google, began to build their financial empires, with Google adopting the established model of editorial content funded by advertising revenue to startling effect. A positive was that illustrators could advertise their product for minimal cost, internationally, and 24/7. And while David Carson predicted ‘The End of Print’, a fusion of analogue and digital image creation technologies emerged as a new form, the ‘phygital’ artwork. And deep in the background, largely hidden from public scrutiny, AI technology was in its early development phase.

From the 2000’s onwards, AI slowly crept into our lives. The billions created by the 1980’s tech pioneers now became channelled into the development of AI on an industrial scale – if one could pump enough money into this sector, one could find the sweet spot along the ‘The Law of Accelerating Returns’, and one could literally ‘own’ the future. Within

the creation of 'image', 'automated imagining' software is now available, relying on 'data lakes' that include copyright material - coupled with national government-level dithering on applying legislation for 'fear of missing out', a situation has occurred where individual ownership of creative outputs is under threat - with image-focussed creators in the firing line, they must now consider how to manoeuvre a course that neither rejects entirely, nor buckles entirely, to the new AI image software packages, but plots a pathway with and through them...

Wiola Sowa



From Animated Film to Extended Reality and Back Again

„(...) to save the room of my childhood, my family home, to entangle it in this great, sick history of our culture. And then this dream and the will that creativity should be subject only to the artist, only to me, only to my weaknesses, madneses, illnesses, my defeats, my loneliness, against the world, against everything.” - Tadeusz Kantor on the spectacle „Wielopole”

Abstract

The evolution of visual media, from classic animated film to augmented reality (AR) and virtual reality (VR), opens up a new field for artists to explore intimacy, memory, and everyday life. This presentation aims to trace the creative path that leads from linear film narratives to immersive spatial experiences, ultimately returning to the primal question regarding the role of the artist in deconstructing reality. The starting point and constant point of reference is the thought of Tadeusz Kantor - perceiving creativity as a personal, almost obsessive act of saving the „room of childhood” and inscribing one’s own loneliness into the broader context of culture.

1. Animation as a filter of everyday life and existence

In projects such as *Between Us*, *Refrains*, and *XOXO hugs and kisses*, animation serves as a means of defamiliarizing what is most ordinary. Through a specific cinematic language, everyday situations: romantic relationships, gestures of tenderness, or the repetitiveness of domestic rituals are elevated to the level of universal existential themes. Animation does not play a purely aesthetic role here; it is a surgical tool that allows the layer of superficial observation to be separated from the deep emotional structure.

In „Refrains”, repetitiveness becomes a metaphor for endurance, while in „XOXO hugs and kisses”, the graphic synthesis of gesture explores the boundaries of human communication. This approach shows that animated film is capable of giving „ordinary everyday life” a dramatic weight, while simultaneously maintaining the distance inherent in artistic creation.

2. Immersion: The experience of being inside drawing and sound

The transition from screen to space reaches its culmination in the project *Inside a Drawing*. Here, the boundary between viewer and artwork is ultimately dissolved. The recipient no longer looks at the drawing; they begin to inhabit it. This experience of “being inside the drawing” engages not only vision but also hearing, creating a synesthetic environment in which line and sound become the building blocks of a new reality. In this context, Augmented Reality technology ceases to be a barrier and instead becomes an extension of the artist’s sensitivity, allowing the viewer to almost physically touch the creative processes described by Kantor - entering a “room” constructed from lines and noises.

3. Cinematic Virtual Reality narratives - presence in everyday life and the experience of loss

Projects realized as Cinematic VR represent an attempt to redefine the concept of „presence” in domestic space, transforming it into a multi-layered structure of meanings and emotions. In the work „The Tenement House”, I interpret the lives of the residents through the prism of various communication codes that fill the building’s interior. Each apartment becomes a visual and acoustic manifestation of the tenant’s identity, expressed through: musical notation (fragments of scores by Penderecki and Górecki, among others), mathematics (logical sequences of Fibonacci numbers), literature (combinatorics based on the poetry of Szymborska or Miłosz), and programming code (processed fragments of Python language). This spherical narrative allows the viewer to immerse themselves in an everyday life that—although graphically defamiliarized—remains deeply rooted in my personal observations.

On the other hand, the project „Two Maries” shifts the weight of the narrative to a family history that we glimpse in its most intimate moments. This is a return to the „history of the family home”, where daily rituals are interrupted by a traumatic experience - the mother’s death. Accompanying the characters, the viewer becomes a witness to the grieving process. Both productions, through the immersive nature of VR, allow the participant to almost physically experience presence in someone else’s everyday life, turning technology into a tool for exploring human emotions and relationships.

4. Augmented Reality: Animation as a new layer of reality influencing its interpretation

In the field of augmented reality (AR), I focus on adding a new dimension to the real world, where the created digital image intertwines with real reality, uncovering its „hidden dimension”. A key aspect of projects such as „Glitch”, „Scars”, and „The Future Will Be Bright” is the fact that the animated graphics do not replace or physically alter the surroundings, but radically influence how the participant of the experience interprets them. In these works, animation functions as a specific filter—the participant does not look directly at the AR graphics, but rather looks through them at reality, which remains the main motif of the experience.

An extremely vital element of these activities is the impact on the memory of a place. This is a mechanism in which the AR experience, although observed only through a device screen, becomes fixed in the consciousness as a real memory. Despite being aware of an empty square before them, the participant - under the influence of the overlaid digital layer - gains a conviction of the physical presence of the installation, which permanently changes the way they remember that location and the events associated with it. In this way, AR animation becomes a tool for examining the relationship between what is material and what is remembered and subjectively experienced.

Conclusion

The path „from animated film to Extended Reality and back again” is a process of continuously redefining the tools used to describe human experience.

It is an enrichment of traditional artistic practice through the experiences derived from immersion - an understanding that regardless of the medium employed (drawing, VR, AR), I am constantly telling stories about the almost contemplative experience of everyday life. The presented projects constitute a coherent statement about the search for closeness. Visual art becomes a platform for discussion about the human condition, free from social stigma, and subject only to the weaknesses and obsessions of the creator.

References

All materials and quotations originate from the author's private documentation. The quotation by Tadeusz Kantor comes from the treatment for the documentary film *This Is Not Theatre* by Dorota Krakowska and Wiola Sowa.

Environment and Character Design in Black Myth Wukong: An Analysis of Chinese Cultural Expansion in the Digital Spacel

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Abstract

The global video game industry has established itself as one of the most influential vehicles of “Soft Power” and cultural diplomacy in contemporary times. In this context, the Chinese market is transitioning from a technical outsourcing model to the production of original intellectual property, seeking to export its cultural heritage through high-fidelity interactive narratives. This paper analyzes this phenomenon through a case study of the game *Black Myth: Wukong* (Game Science, 2024), a digital reinterpretation of the literary classic “Journey to the West”. The study focuses on environment and character design analysis, investigating how real-time rendering technology (Unreal Engine 5) and techniques such as photogrammetry are used to digitize and preserve Chinese architectural and mythological heritage. Through a visual and descriptive analysis methodology, we examine the transposition of traditional aesthetics, from the protagonist Sun Wukong’s attire to the hyper-realistic representation of Buddhist temples in Shanxi province, into the digital medium. We conclude that the visual design in *Black Myth: Wukong* serves not only ludic or aesthetic purposes but acts as a tool for cultural mediation, translating complex symbols of Eastern tradition for a global audience and validating the video game as a digital archive of intangible cultural heritage.

Keywords

Character Design;
Environment Design;
Digital Heritage; Black
Myth: Wukong; Cultural
Expansion; Video Games.

1. Introdução

Na contemporaneidade, os videojogos estabeleceram-se como uma das indústrias criativas mais influentes a nível global, operando como complexos artefactos culturais capazes de disseminar narrativas e valores para além das fronteiras geográficas. Joseph Nye define o conceito de Soft Power como a habilidade de uma nação atrair e persuadir através da cultura e valores políticos, em vez da coerção [1]. Neste contexto, a indústria chinesa de jogos tem vindo a alterar o seu paradigma, transita de um modelo historicamente focado na subcontratação técnica e jogos móveis, para uma estratégia onde a criação de Propriedade intelectual (PI) original visa exportar a herança cultural chinesa [2].

O jogo *Black Myth: Wukong*, desenvolvido pelo estúdio Game Science e lançado em 2024, emerge como o expoente máximo desta nova vaga. Baseado no romance clássico do século XVI, Jornada ao Oeste, a obra não

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se limita a adaptar a narrativa literária traduzida academicamente por Anthony c. Yu [3], propõe-se a traduzir visualmente a mitologia chinesa através de um rigor técnico sem precedentes. Utilizando o motor gráfico Unreal Engine 5 e tecnologias como Nanite e Lumen, o jogo atinge um nível de fidelidade visual que permite a preservação digital de arquitetura histórica real, como os templos da província de Shanxi [4].

Estudos recentes indicam que *Black Myth: Wukong* funciona como uma ferramenta de diplomacia cultural digital, desafiando as narrativas ocidentais predominantes e introduzindo uma estética oriental não diluída no mercado de jogos AAA [5]. O presente artigo tem como objetivo analisar especificamente o design de ambientes e de personagens desta obra. Questiona-se de que forma a excelência técnica e a direção artística contribuem para a descodificação de símbolos culturais complexos para uma audiência global.

Para tal, o artigo estrutura-se da seguinte forma, primeiramente, apresenta-se um breve enquadramento sobre o design como mediador cultural. De seguida, detalha-se a metodologia de análise visual adotada. Posteriormente, discute-se o estudo de caso, focando na transposição de elementos tradicionais para o espaço tridimensional digital. Por fim, conclui-se sobre o impacto desta produção na validação de videojogos como arquivo de património cultural.

2. Metodologia

A presente investigação adota uma abordagem qualitativa de natureza descritiva e analítica, utilizando o método de Estudo de Caso. O objeto de análise é o videojogo *Black Myth: Wukong* (Game Science, 2024), devido à sua relevância contemporânea na projeção global de uma narrativa baseada no folclore chinês.

Para operacionalizar o estudo, estabeleceu-se um protocolo de análise visual comparativa dividido em duas fases distintas. A primeira é a Análise de Personagens (*Character Design*), onde o método baseia-se na iconografia comparada, contrastando as descrições literárias originais de *Jornada ao Oeste* e estatutária histórica com a reinterpretação digital. A segunda e última fase é a Análise de Ambientes (*Environment Design*), onde a metodologia recorre à justaposição visual entre registos fotográficos de locais reais e capturas de ecrã do jogo. O método avalia especificamente a fidelidade geométrica. O tratamento de materiais e a iluminação, demonstrando como a fotogrametria preserva a integridade estrutural do património.

A seleção das imagens e locais analisados obedeceu a um critério de representatividade patrimonial e narrativa. Para os ambientes, selecionaram-se templos da província de Shanxi (Templo Suspenso, Templo Guangsheng, Complexo Fencheng e Templo Huayan) por constituírem arquitetura histórica documentada, permitindo uma aferição precisa da tecnologia de simulação. Para as personagens, focou-se nos protagonistas de maior peso iconográfico (Sun Wukong e Erlang Shen).

Importa notar, como limitação deste estudo, que a análise incide exclusivamente sobre fragmentos visuais e estáticos (*Visual Studies*), não

contemplando o impacto da mecânica de jogo (*gameplay*), design de som ou a totalidade da vasta escala arquitetónica do título, abrindo assim caminho para investigações futuras mais abrangentes.

3. Enquadramento Teórico

A análise de *Black Myth: Wukong* exige a articulação de dois eixos teóricos, a função geopolítica dos videojogos como instrumentos de Soft Power e o papel das tecnologias digitais na preservação do património (*Digital Heritage*).

3.1. O videojogo na Estratégia de Soft Power

O conceito de Soft Power, definido por Joseph Nye como a capacidade de influência através da atração cultural [1], encontra na indústria dos videojogos um veículo de eficácia superior aos meios tradicionais devido à sua natureza imersiva. No cenário contemporâneo, a produção chinesa tem procurado distanciar-se de representações estereotipadas ou “orientalistas” frequentes em títulos ocidentais, onde a estética asiática é muitas vezes reduzida a um amálgama genérico de tropos visuais [6]. Keane [7] descreve este movimento como a transição do “Made in China” para o “Created in China”, onde o objetivo é a exportação de uma identidade cultural nacional que desafie as hegemonias narrativas no mercado global [8].

Black Myth: Wukong é amplamente citado como o marco definitivo desta transição. O jogo opera como uma ferramenta de diplomacia cultural ao desocidentalizar o imaginário fantástico dos jogos AAA, forçando o jogador global a interagir com a mitologia chinesa sem filtros ou simplificações [9]. Ao contrário de adaptações anteriores que diluíam a narrativa de *Jornada ao Oeste* para consumo fácil, esta obra utiliza o que Zhang descreve como mitogonia pós-moderna, onde a complexidade filosófica e religiosa do texto original é preservada e reconfigurada para a era digital [10].

3.2. Tecnologia e Autenticidade: O Património Digital

A validação desta narrativa cultural depende da fidelidade visual e da precisão do environment design. Totten [12] argumenta que o design de espaços virtuais deve basear-se em princípios arquitetónicos que comuniquem a história e a cultura do lugar ao jogador de forma coerente. A teoria do Património Digital postula que a tecnologia deve transcender o mero arquivo para criar experiências de “presença” em locais históricos [11]. Wu [13] sustenta que *Black Myth: Wukong* exemplifica a “recriação digital da cultura tradicional”, onde o motor de jogo atua como um instrumento de preservação histórica.

A utilização do Unreal Engine 5 e de técnicas de fotogrametria permitiu a digitalização milimétrica de arquitetura real, como os templos da província de Shanxi. Esta precisão técnica no design de ambientes confere uma “autoridade documental” à obra. O jogador não navega apenas por um cenário fictício, mas por um arquivo digital de património tangível, o que reforça a perceção de autenticidade e respeito pela cultura de origem, legitimando a experiência visual como um contacto direto com a herança sínica [13].

4. Análise de Ambientes: A Arquitetura como Arquivo Digital

A construção do mundo em *Black Myth: Wukong* afasta-se da fantasia genérica para abraçar uma reprodução quase documental do património chinês. A equipa da Game Science realizou extensos varrimentos a laser (LIDAR) e fotogrametria em locais históricos, maioritariamente na província de Shanxi. Esta seção analisa três exemplos paradigmáticos desta transposição do real para o digital, observando como a tecnologia serve a preservação cultural.

4.1. Monumentalidade e Integração na Paisagem

A primeira dimensão da análise foca-se na escala e na relação entre arquitetura e natureza. O Templo Suspenso (Hangin Temple / Xuankong Si), construído num precipício do Monte Heng, é recriado no jogo.

Como se observa na Figura 1, o jogo não apenas replica a estrutura de madeira desafiadora da gravidade, mas simula a erosão da rocha e o desgaste da madeira exposta aos elementos. O uso da tecnologia Nanite do Unreal Engine 5 permite que cada viga e suporte seja renderizado com geometria real, em vez de texturas planas, preservando a sensação de vertigem e a filosofia taoista de harmonia entre o homem e a montanha.

No mesmo sentido de monumentalidade, a Torre do Templo Guangsheng (Feihong Pagoda) é apresentada como um marco visual de orientação.

Paralelamente, a Torre Feihong (Figura 2), serve como exemplo adicional desta fidelidade, destacando-se pela reprodução meticulosa do seu revestimento em cerâmica vidrada da Dinastia Ming. Este rigor

na representação material transforma a torre num elemento cométrico tangível, elevando-a para além de um mero objeto decorativo de fundo.



Fig. 1. Comparação entre o Templo Suspenso real e a versão no jogo (Hanging Temple).

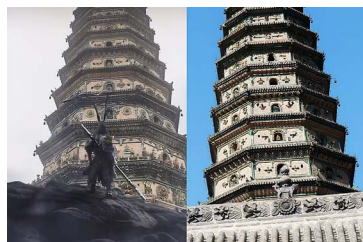


Fig. 2. Comparação da Torre Feihong (Guangsheng Temple) real e a versão no jogo (Hanging Temple).

4.2. O Detalhe Arquitetónico e a “Leitura” do Espaço

Numa escala mais intimista, a análise do Complexo Arquitetónico de Fencheng (Jianchafang) revela a atenção dada ao sistema de suportes de madeira (Dougong), fundamental na arquitetura clássica chinesa.

A Figura 3 demonstra a preservação digital de estruturas que, no mundo real, estão frequentemente em risco de degradação. O ambiente digital atua aqui como uma cápsula do tempo, permitindo a imortalização da complexidade estrutural das vigas e dos beirais curvos característicos, sem a necessidade de restauro físico intrusivo.



Fig. 3. Comparação do edifício Jianchafang (Fencheng) real e a versão no jogo (Hanging Temple).

Por fim, a inclusão de elementos do Templo Huayan introduz a literacia textual no cenário.

Ao contrário de muitos jogos ocidentais que substituem texto estrangeiro por glifos ilegíveis ou traduções automáticas, *Black Muth: Wukong* mantém as inscrições e a caligrafia originais (figura 4). A presença de caracteres chineses legíveis obriga



o jogador a confrontar-se com a densidade histórica do local. O espaço deixa de ser uma arena de combate para se tornar um espaço de reverência museológica, onde a estética informa a função sagrada do local.

Fig. 4. Comparação do Templo Huayan com caracteres visíveis real e a versão no jogo (Hanging Temple).

Em suma, a transposição destes quatro locais não é apenas estética, é uma afirmação de soberania cultural. Ao permitir que jogadores de todo o mundo caminhem virtualmente por estes monumentos de Shanxi, o jogo democratiza o acesso a um património que, de outra forma, seria inacessível para a maioria da audiência global.

5. Análise de Personagens: A Materialização do Mito

A conceção das personagens em *Black Myth: Wukong* segue uma lógica de arqueologia digital, onde a referência primária não é a fantasia ocidentalizada, mas sim a iconografia religiosa e literária chinesa. Esta seção analisa os dois protagonistas centrais, observando o processo de tradução visual.

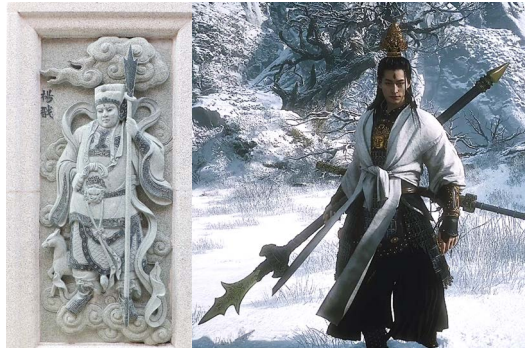
5.1. Erlang Shen: Da Pedra à Pele

A representação de Erlang Shen, uma divindade guerreira central no panteão chinês, exemplifica o processo de transposição direta da estatuaría religiosa para a animação 3d.

Ao comparar a estátua do Templo Ping Sien Si com o modelo de jogo (Figura 5), observa-se que a equipa de design não se limitou a copiar a silhueta. O desafio técnico residuiu em traduzir a rigidez solene da pedra para um corpo orgânico e funcional, sem perder a aura divina. A armadura, que na escultura é uma representação estilizada, ganha no jogo uma materialidade tátil, onde o desgaste do metal e os tecidos de seda sugerem uma antiguidade funcional. A postura altiva e a ornamentação

são mantidas rigorosamente, validando a escultural religiosa como a folha de modelo original.

Fig. 5. Comparação entre a estátua de Erlang Shen no Templo Ping Sien Si (esquerda) e a versão no jogo (direita).



5.2. Sun Wukong: A reinterpretação Literária

Para o protagonista, o “Destined One” (baseado em Sun Wukong), a análise confronta a ilustração clássica da obra literária com a renderização contemporânea.

Fig. 6. Comparação entre ilustração clássica de “Journey to the West” (esquerda) e Wukong no jogo (direita).



A Figura 6 evidencia uma rutura com as representações caricaturais comuns em desenhos animados. O design do jogo aproxima-se das descrições textuais mais cruas de Jornada ao Oeste, favorecendo um antropomorfismo mais animalístico e realista. Enquanto a ilustração clássica foca na iconografia simbólica (o bastão, o diadema), a versão digitalizada utiliza a tecnologia de renderização de pelo (grooming) e texturas de pele de alta resolução para enfatizar a natureza selvagem da personagem. O resultado é um herói que, embora mitológico, obedece às leis físicas e da luz e da anatomia, tornando a sua existência plausível dentro do universo hiper-realista construído.

6. Conclusões

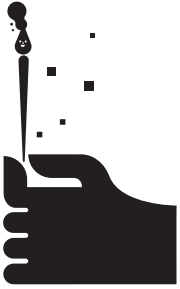
O presente estudo demonstra que o videojogo contemporâneo, suportado por motores gráficos avançados, transcende a sua função primordial de

entretenimento para assumir um papel ativo na preservação e mediação do património cultural. Através da análise visual de *Black Myth: Wukong*, comprovou-se que a utilização de fotogrametria e modelação de alta fidelidade permitiu transformar a arquitetura histórica de Shanxi e a estatuária clássica num arquivo digital explorável.

Este rigor técnico e artístico não é apenas uma escolha estética, mas uma afirmação narrativa. O jogo contrasta ativamente com o histórico de representações orientalistas na indústria, estabelecendo um novo paradigma de diplomacia cultural (“Soft Power”) onde a mitologia chinesa é exportada com autenticidade, sem diluições eurocêtricas. Conclui-se, assim, que a excelência no design de ambientes e personagens atua como o principal veículo de atração deste título, provando que o respeito rigoroso pela fonte original é compatível com o sucesso no mercado global de videojogos AAA.

References

1. Nye, J. (2004). *Soft Power: The Means To Success In World Politics*. PublicAffairs.
2. Xiang, J., & Yuan, S. (2025). eSports and Gaming: China's Quest for Global Soft Power. *East Asia*. <https://doi.org/10.1007/s12140-025-09459-x>
3. Yu, A. (Ed.). (2012). *The Journey to the West, Revised Edition, Volume 1*. University of Chicago Press.
4. kai, R. (2025). *Black Myth: Wukong in Shanxi | 26 Shanxi Temples*. Asia Odyssey Travel. <https://www.asiaodysseytravel.com/shanxi/black-myth-wukong.html>
5. Han, X. (2025). *Black Myth, Digital Soft Power and Counter-National Narratives in China*. Centre for International Governance Innovation. <https://www.cigionline.org/static/documents/DPH-paper-Han.pdf>
6. Sisler, V. (2008). Digital Arabs: Representation in Video Games. *European Journal of Cultural Studies - EUR J CULT STUD*, 11, 203-220. <https://doi.org/10.1177/1567549407088333>
7. Keane, M. (2007). *Created in China: The Great New Leap Forward*. Routledge.
8. Yuan, S. (2025). From play to power: China's video games as instruments of soft power. *The Pacific Review*, 38(4), 728-749. <https://doi.org/10.1080/09512748.2024.2433748>
9. Tang, M. K. (2025). *Black myth: Wukong and China's soft power expansion*. RSIS Commentaries, 020-25. <https://hdl.handle.net/10356/182857>
10. Zhang, Q., & Zeng, H. (2025). Postmodern mythmaking in the digital age: *Black Myth: Wukong and the reconfiguration of Journey to the West*. Adaptation, 18(3), apafo25. <https://doi.org/10.1093/adaptation/apafo25>
11. Cameron, F., Kenderdine, S., Thorburn, D., Barrett, E., & Jenkins, H. (2010). *Theorizing Digital Cultural Heritage – A Critical Discourse*. MIT Press.
12. Totten, C. (2014). *An Architectural Approach to Level Design*. An Architectural Approach to Level Design. <https://doi.org/10.1201/B17113>
13. Wu, H. (2025). *Black Myth: Wukong is based on the Digital Re-creation of Traditional Culture*. 851-856. https://doi.org/10.2991/978-2-38476-440-2_95



Nature as Interface: Environment Design and the Japanese Aesthetic of ‘Mono no Aware’ in *Ghost of Tsushima*

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Keywords

Environment Design;
Diegetic Interface;
Japanese Aesthetics;
Mono no Aware; *Ghost of Tsushima*.

Abstract

The representation of historical settings in video games often faces the challenge of balancing visual fidelity with the need for intrusive user interfaces (HUDs) that disrupt player immersion. This paper analyzes how the game *Ghost of Tsushima* (Sucker Punch, 2020) subverts these design conventions through the implementation of a diegetic interface based on natural elements. The study focuses on the convergence between particle simulation technology, specifically the “Guiding Wind” mechanic, and the Japanese aesthetic concept of *Mono no Aware*, which values a sensitivity toward the impermanence of nature. Through a visual and descriptive analysis methodology, we examine how the art direction employs flora movement, atmospheric lighting, and a color palette inspired by Akira Kurosawa’s *Chanbara* cinema to guide the player, eliminating the need for artificial on-screen maps and markers. We conclude that environment design in *Ghost of Tsushima* transcends the function of a passive backdrop to become an active narrative agent. Technology serves here as a vehicle for cultural translation, allowing the Japanese landscape to communicate directly with the player, reinforcing the work’s thematic identity and proposing a new paradigm for open-world navigation.

1. Introdução

A evolução dos videojogos de mundo aberto na última década trouxe consigo um paradoxo de design, à medida que os mundos virtuais se tornaram graficamente mais realistas e vastos, as interfaces de utilizador (HUD – Heads-Up Display) tornaram-se progressivamente mais intrusivas e saturadas de informação. Para navegar nestes espaços complexos, os jogadores habituaram-se a fixar o olhar em mini-mapas, bússolas e marcadores de objetivos artificiais, criando uma desconexão cognitiva entre a ação e o ambiente envolvente [1]. Este fenómeno, identificado por Jorgensen como “sobrecarga informativa visual”, dilui a imersão e reduz a paisagem digital a um mero pano de fundo transitório, onde a eficiência da navegação se sobrepõe à apreciação estética [2].

O jogo *Ghost of Tsushima*, desenvolvido pela Sucker Punch Productions e lançado em 2020, propõe uma rutura radical com este paradigma hegemónico. Ao recriar a ilha de Tsushima durante a primeira invasão

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Mongol em 1274, a equipa de desenvolvimento, liderada por Nate Fox, optou por eliminar quase totalmente a interface visual tradicional (não-diegético) durante a exploração [3]. Em seu lugar, implementou um sistema de navegação diegético inovador conhecido como Vento Guia (*Guiding Wind*). Esta mecânica foi desenhada para que a própria natureza servisse de bússola, comunicando a direção através do movimento da flora, das partículas no ar e da simulação física de tecidos, mantendo o jogador focado no horizonte e não em ícones [4].

O presente artigo analisa esta decisão de design não apenas como uma inovação mecânica, mas como uma tradução digital de princípios estéticos e filosóficos japoneses. A centralidade da natureza remete para o conceito de *Mono no Aware*, a sensibilidade para com a impermanência e a beleza melancólica das coisas efêmeras [5]. Estudos recentes sugerem que *Ghost of Tsushima* utiliza esta estética do desaparecimento para criar uma experiência de turismo virtual mediativo, distinguindo-se dos ritmos frenéticos ditados pela indústria ocidental [6]. Argumenta-se que, ao obrigar o jogador a “ler” o vento e as flores para se orientar, o jogo transforma o ambiente num agente narrativo ativo, evocando de forma complexa a atmosfera contemplativa e a tensão do cinema *Chanbara* clássico, com referências visuais diretas à filmografia de Akira Kurosawa [7,8].

Para tal, o artigo estrutura-se da seguinte forma, primeiramente, estabelece-se o enquadramento teórico sobre interfaces diegéticas e a estética do *Mono no Aware*. De seguida, através de uma metodologia de análise visual, examina-se a implementação técnica do vento e da iluminação como ferramentas de orientação. Por fim, discute-se como estas escolhas de design reforçam a identidade cultural da obra, permitindo uma experiência de turismo virtual histórico que privilegia a observação sobre a eficiência.

2. Metodologia

A presente investigação adota uma abordagem qualitativa de natureza descritiva e analítica, suportada pelo método de Estudo de Caso. O objeto de análise é o videojogo *Ghost of Tsushima*, selecionado pela sua relevância singular na implementação de interfaces diegéticas em ambientes de mundo aberto.

Para operacionalizar o estudo, estabeleceu-se um protocolo de análise visual focado na interação entre o jogador e a paisagem, dividido em duas categorias. A análise de Sistemas de Navegação (*Navigation Systems*) onde se examina a mecânica do Vento Guia e a utilização de fauna (raposas e pássaros dourados) como vetores de orientação. A metodologia consiste na observação direta de sequências de jogo (*gameplay*) com a interface de utilizador (HUD) desativada, registando como as pistas visuais, direção das partículas, inclinação de vegetação e pistas sonoras, substituem eficazmente os marcadores tradicionais. Já na categoria de análise de atmosfera e iluminação (*Atmospherics e Color Grading*) investiga-se a influência do cinema japonês na direção de arte, especificamente através do “Modo Kurosawa”. Compara-se a paleta de cores e o contraste dinâmico do jogo com fotogramas de filmes seminais do género *Chanbara*, como

Os setes Samurais (1954) e Ran (1985), para identificar a apropriação de técnicas cinematográficas na construção do espaço digital.

3. Enquadramento Teórico

A análise de *Ghost of Tsushima* exige a articulação de conceitos provenientes da teoria do design de jogos (Ludologia), da estética japonesa tradicional e dos estudos cinematográficos. Esta secção explora como a convergência destas áreas permitiu um sistema de navegação que é, simultaneamente, funcional e poético.

3.1. Do HUD à Diegese: A Interface Invisível

A teoria clássica de interfaces em videojogos, proposta por Fagerholt e Lorentzon, distingue entre elementos diegéticos (que existem dentro do mundo narrativo) e não-diegéticos (sobreposições gráficas artificiais como mapas e barras de vida) [1]. A tendência dominante nos jogos de mundo aberto de produção ocidental (exemplificada por séries hegemónicas como *Assassin's Creed* ou *Far Cry*) tem sido a saturação do ecrã com elementos não-diegéticos, criando o que Llanos e Jorgensen descrevem como uma barreira semiótica que recorda constantemente o jogador da artificialidade da experiência [9].

Ao contrário destes títulos, que tratam o cenário como um mero obstáculo entre o ponto A e o ponto B, *Ghost of Tsushima* contraria esta tendência ao adotar uma abordagem de design subtrativo. Ao substituir a seta do GPS por partículas de vento simuladas em tempo real, o jogo converte a interface numa entidade diegética. O vento não é apenas uma ferramenta de UI (*User Interface*), é uma manifestação espiritual do “pai” do protagonista, fundindo a mecânica de jogo com a narrativa xintoísta da ilha [3]. Esta integração valida as conclusões de Mossner, que argumenta as interfaces diegéticas aumentam a retenção emocional de paisagem, pois obrigam o jogador a analisar a topografia em vez de seguir cegamente um ícone [10].

3.2. Mono no Aware: A Estética da Impermanência

A escolha de utilizar a natureza como guia não é meramente funcional, mas profundamente enraizada na filosofia japonesa. O conceito de Mono no Aware (物の哀れ), cunhado pelo erudito Motoori Norinaga no século XVIII, refere-se a uma sensibilidade para com o efémero, uma melancolia suave provocada pela consciência da transitoriedade da vida e da natureza [11].

Em *Ghost of Tsushima*, esta estética não é aplicada como mero “colírio visual” (eye candy), mas como a fundação das mecânicas de navegação. A constante queda de folhas (de Ginkgo dourado ou Momiji vermelho), o movimento da erva dos pampas (Susuki) e as transições climáticas repentinas são representações digitais ativas desta impermanência. O jogo utiliza o motor gráfico para simular a passagem do tempo e a fragilidade do mundo físico, alinhando a experiência do jogador com os valores do Xintoísmo e do Budismo Zen, onde a contemplação da natureza é um ato espiritual [5]. A tecnologia de renderização serve, assim, para traduzir o conceito de “beleza triste” para um meio interativo.

3.3. A Herança Cinematográfica: O “Movimento Kurosawa”

A direção de arte do jogo assume abertamente a influência do cinema Chanbara (filmes de samurais) das décadas de 1950 e 1960. No entanto, reduzir esta relação a um simples filtro preto e branco seria ignorar a complexidade do género. O académico David Desser nota que o cinema de samurais se caracteriza pela tensão rítmica entre a absoluta quietude e a violência explosiva [13]. Prince nota que uma das marcas autorais de Akira Kurosawa era o uso do clima (chuva torrencial, vento forte, nevoeiro) para externalizar o conflito interior das personagens [7].

A Sucker Punch replicou esta técnica através do que podemos chamar de cinematografia algorítmica. O movimento exagerado de tecidos e vegetação no jogo, embora fisicamente implausível em termos meteorológicos reais, emulando as lentes teleobjetivas frequentemente usadas por Kurosawa para comprimir a ação e a natureza num único plano tátil, obedece à verdade cinematográfica estabelecida por filmes como *Os Sete Samurais* e *Ran* [8]. Esta estilização visual transforma o cenário num palco dramático, onde cada rajada de vento serve para acentuar a tensão narrativa, validando o videojogo como uma extensão legítima da linguagem visual do cinema japonês clássico [12,14].

4. Análise de Ambientes: A Paisagem como Narrativa

A direção de arte de *Ghost of Tsushima* opera numa dualidade visual deliberada, por um lado, emula a granularidade monocromática do cinema dos anos 50, por outro, utiliza uma saturação de cor extrema inspirada nas obres tardias de Kurosawa. Esta seção analisa como ambas as abordagens servem a função de interface diegética.

4.1 A Estética do Movimento: O “Modo Kurosawa” e Os Sete Samurais

O jogo oferece uma opção visual denominada “Modo Kurosawa”, que aplica um filtro a preto e branco, adiciona grão de película e equaliza o áudio para emular a tecnologia de gravação da década de 1950. No entanto, a análise comparativa com o filme *Os Setes Samurais* (1954) revela que a semelhança vai além do filtro.



Fig. 1 e 2. Imagens retiradas de cenas do Filme *Os Sete Samurais*.

Como se observa, tanto no filme (figura 1 e 2) como no videojogo (figura 3 e 4), a ausência de cor obriga o olhar a focar-se no movimento. Em *Os Sete Samurais*, Kurosawa utiliza a chuva torrencial e o vento para dramatizar

a ação estática [7]. O jogo replica esta técnica, sem as cores vibrantes para guiar o jogador, o vento guia torna-se a única pista visual legível. O contraste elevado e a simulação de partículas (folhas, poeira e chuva) tornam-se essenciais para a navegação, transformando o vento num vetor de leitura do espaço tridimensional.

Fig. 3 e 4. Print do jogo *Ghost of Tsushima* em “Modo Kurosawa”.



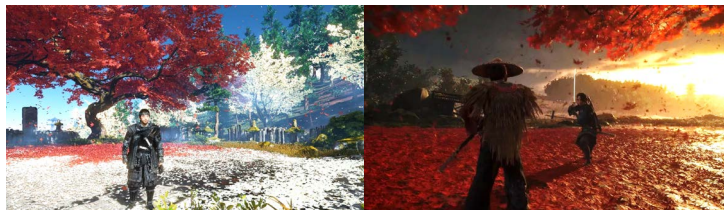
4.2 O Código Cromático: A influência de Ran

Em contraste com o modo monocromático, a versão padrão do jogo utiliza um sistema de codificação por cores (Color Coding) que remete diretamente para a obra de Kurosawa, *Ran* (1985). No filme, as cores primárias são usadas para distinguir exércitos e estados emocionais no meio do caos da batalha.

Fig. 5 e 6. Imagens retiradas do Filme *Ran*.



Fig. 7 e 8. Print do jogo *Ghost of Tsushima*..



As figuras 7 e 8 demonstram a apropriação desta linguagem. Em *Ghost of Tsushima*, a Sucker Punch utiliza biomas monocromáticos (florestas inteiramente douradas, campos de lírios vermelhos (figura 8) ou pântanos azuis) como marcos geográficos. Tal como em *Ran*, onde a cor dita a função da cena, no jogo a cor substitui o mini-map, o amarelo indica objetivos principais, o azul conduz a missões míticas e o branco a santuários. Esta saturação pictórica permite que o jogador identifique destinos a quilômetros de distância sem recorrer a marcadores artificiais, mantendo a imersão na fantasia histórica.

4.3. Turismo Virtual Histórico: A Observação sobre a Eficiência

Ao remover marcadores de missão invasivos e impor a navegação natural, o jogo inaugura um modelo de “Turismo Virtual Histórico” que subverte a lógica utilitária do mundo aberto tradicional. Num mercado focado na eficiência e na rapidez da resolução de missões, *Ghost of Tsushima* implementa mecânicas cujo único propósito é a pausa contemplativa e a imersão geográfica. O jogador é convidado a seguir fauna local, como raposas e pássaros, até santuários remotos, banhar-se em fontes termais para refletir sobre dilemas narrativos, ou sentar-se em locais específicos para a composição de poemas Haiku. Nestas instâncias, a paisagem deixa de ser um mero obstáculo entre objetivos para se tornar o objetivo em si. Esta abordagem privilegia a “leitura” do espaço e a apreciação estética em detrimento da produtividade mecânica, permitindo que o utilizador experiencie uma forma de “presença” que honra a geografia e a arquitetura tradicionais japonesas, transformando o ato de jogar num exercício de mediação cultural e contemplação xintoísta.

5. Análise de Personagens: O Samurai e o Vento

Ao contrário de muitos jogos de fantasia que priorizam armaduras exageradas e impraticáveis, o design de personagens em *Ghost of Tsushima* ancora-se numa pesquisa histórica rigorosa, equilibrada com as necessidades narrativas de interface diegética. Esta secção analisa a construção visual do protagonista, Jin Sakai.

5.1. A armadura Sakai: Arqueologia Digital

A armadura da família Sakai é um exemplo de reconstrução digital de artefactos do período Kamakura (1185-1333).



Fig. 9. Imagem detalhada de armadura completa do jogo *Ghost of Tsushima*.

A análise da Figura 9 revela a atenção à estrutura O-Yoroi (grande armadura). A equipa de design modelou individualmente as *kozane* (pequenas escalas de couro ou metal lacado) unidas por cordões de seda (*odoshi*). O motor gráfico renderiza a rigidez e o peso destes materiais, conferindo ao personagem uma silhueta robusta e historicamente plausível. Este rigor

visual serve para estabelecer o estatuto de samurai de Jin, ele é um monumento vivo da tradição, pesado e sólido.

5.2 O tecido como Bússola: A Roupas do Viajante

Em contraste com a rigidez da armadura, as vestes de tecido, como a capa da Roupas do Viajante, desempenham uma função técnica crucial.

Fig. 10. Imagem do Jin Sakai de lado, com a capa a voar violentamente com o vento (imagem do Jogo *Ghost of Tsushima*).



Como ilustrado na figura 10, o tecido em *Ghost of Tsushima* possui uma física simulada em tempo real que reage à direção e intensidade do vento. Num jogo sem setas de navegação no ecrã, a capa do protagonista atua como uma extensão da interface, se o tecido esvoaça para a direita, o jogador sabe intuitivamente que esse é o caminho a seguir. O design da personagem transcende, assim, a estética, o vestuário torna-se um instrumento de navegação, permitindo que o jogador sinta a direção do objetivo através da animação do avatar.

6. Conclusões

A análise do design de ambientes e personagens em *Ghost of Tsushima* permite concluir que a obra representa uma mudança de paradigma na construção de mundos abertos, ao transitar de uma navegação dependente de interfaces gráficas para uma navegação baseada na intuição e na literacia ambiental.

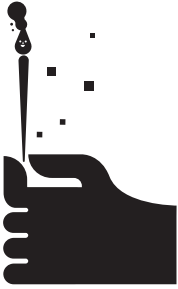
O principal contributo deste artigo reside na demonstração de que a eliminação do HUD tradicional não é apenas uma escolha cosmética, mas uma estratégia de imersão profunda que materializa tecnologicamente o conceito de *Mono no Aware*. Através da simulação física do vento e da vegetação, o jogo converte a transitoriedade da natureza na linguagem principal de interação, validando a paisagem como um agente narrativo ativo.

Além disso, a integração da cinematografia de Akira Kurosawa e da estética *Chanbara* prova que o videojogo pode atuar como uma extensão legítima e interativa da linguagem visual clássica, promovendo um “turismo virtual” que valoriza a observação sobre a eficiência. Conclui-se, assim, que o design ambiental inteligente, quando fundamentado em princípios filosóficos rigorosos, oferece um caminho inovador para a preservação e difusão da identidade cultural nipónica no meio digital.

References

1. Fagerholt, E., & Lorentzon, M. (2009). Beyond the HUD - User Interfaces for Increased Player Immersion in FPS Games. <https://hdl.handle.net/20.500.12380/111921>
2. Jorgensen, K. (2013). *Gameworld Interfaces*. MIT Press.
3. Sucker Punch Productions. (2020). *The Art of Ghost of Tsushima*. Dark Horse Books.

4. Locke, J. (2020). Ghost of Tsushima interview: On why the game doesn't have waypoints, inspirations, and more. Android Central. <https://www.androidcentral.com/ghost-tsushima-creative-director-interview>
5. Pratama, A. J. (2023). Mono-no-Aware game design aesthetic for ecological empathy: The case of "Ghost of Tsushima" the video game. AIP Conference Proceedings, 2594(1), 150014. <https://doi.org/10.1063/5.0110470>
6. Rifqi, H. M. (2025). Virtual Reality in Tourism Research: A Thematic Literature Review. SBS Journal of Applied Business Research, 59-102. <https://doi.org/10.70301/JOUR/SBS-JABR/2025/13/2/3>
7. Prince, S. (2009). The Warrior's Camera: The Cinema of Akira Kurosawa - Revised and Expanded Edition. Princeton University Press.
8. Hutchinson, R. (2019). Japanese Culture Through Videogames. Routledge. <https://doi.org/10.4324/9780429025006>
9. Llanos, S. C., & Jorgensen, K. (2011, janeiro 1). Do Players Prefer Integrated User Interfaces? A Qualitative Study of Game UI Design Issues. Proceedings of DiGRA 2011 Conference: Think Design Play. Proceedings of DiGRA 2011 Conference: Think Design Play. <https://doi.org/10.26503/dl.v2011i.514>
10. Mossner, R. (2022). Exploring Diegetic Interface in videogames: Enhancing Player Involvement. <https://doi.org/10.13140/RG.2.2.23361.63840>
11. Motoori, N. (2007). The Poetics of Motoori Norinaga: A Hermeneutical Journey. University of Hawaii Press.
12. Davis, D. W. (com Internet Archive). (1996). Picturing Japaneseness: Monumental style, national identity, Japanese film. New York : Columbia University Press. <http://archive.org/details/picturingjapanesoooodavi>
13. DESSER, David. The Samurai Films of Akira Kurosawa. Ann Arbor: UMI Research Press, 1983.
14. RICHIE, Donald. The Films of Akira Kurosawa. University of California Press, 1998.



From navigation to animation: An analysis of scroll-driven animations in interactive web-based artifacts

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Keywords

Animation; Scroll-driven
Animation; Interactive
Web-based Artifact;
Digital Media; Interaction
Design; Scrolltelling.

Abstract

This paper explores scroll-driven animations in interactive web-based artifacts like *scrolltelling*, where scrolling drives not just navigation but also visual transformations and meaning-making. Analyzing 67 scroll sequences from six science communication pieces, it identifies key parametric changes (e.g., scale, opacity, translation) and effects (e.g., morph, overlay, pan-zoom), linking them to communicative functions such as conducting, demonstrating, comparing, illustrating, and connecting. Six representative cases highlight how these patterns enhance narrative engagement beyond traditional time-based animation. The study contributes a structured analytical approach to scroll-driven animation, aiming to encourage designers to leverage scrolling as an expressive narrative tool.

1. Introduction

The use of scroll-driven animations has become increasingly popular in web pages as an effective format for capturing audience attention [1]. In this context, scrolling is not limited to navigation but also operates as a driver of animation. In web pages that explore this type of interaction, the scrolling triggers or controls animations of the multimedia elements that compose the artifact, transforming the act of scrolling into a gesture that plays a crucial role in story progression. This approach enables the creation of interactive artifacts and graphic visualization in which time, space, and information are gradually revealed in direct response to the user's gesture.

In the book “Envisioning information”, Tufte [2] argues that graphic visualization – which is the intersection between image, word, numbers and art that make visible the “magnificent displays of complex data” – is a tool capable of transforming complex data into comprehensible and meaningful narratives, making the knowledge transfer easier. In the exercise of projecting futures anchored in a deep knowledge of the arts and sciences, Tufte, already in the 1990s, envisioned the possibility of new tools in computational devices capable of easing the laborious complexity of encodings through dynamic and animated visualizations:

“Perhaps one day high-resolution computer visualizations, which combine slightly abstracted representations along with a dynamic and animated

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flatland, will lighten the laborious complexity of encodings — and yet still capture some worthwhile part of the subtlety of the human itinerary.” [2]

In recent years, the popularity of scroll-driven animations has been particularly evident in *scrollytelling* publications—long-form narrative pieces widely adopted in journalism [1]—due to characteristics that foster immersion and engagement while supporting the comprehension of complex content [1],[3]. This boost is largely driven by technological advances that have made the creation of web pages with scroll-driven animations increasingly feasible through a combination of factors. Visual editors and website builders allow designers to configure scroll-driven animations through graphic user interfaces (GUI), without the need to program every detail in code. In addition, JavaScript libraries and front-end frameworks provide ready-made components for linking scroll position to animation states, while native browser animation APIs—such as recent CSS modules for scroll-driven animations and the Web Animations API—offer a stable and standardized foundation upon which these solutions are built [4].

This article analyzes examples of scroll-driven animation sequences that compose *scrollytelling* and *scrollytelling techniques* [5] — recurring design patterns that control how parametric changes, visual properties, and transformation effects respond to scrolling — with the aim of exemplify how parametric attributes and transformation effects tied to scrolling can influence meaning-making across a complete scroll sequence.

By framing scroll-driven animations as an interaction that goes beyond navigation and is capable of influencing the meaning of information, this article seeks to contribute to the fields of animation and human-computer interaction by providing a systematized analysis that informs and encourages further exploration.

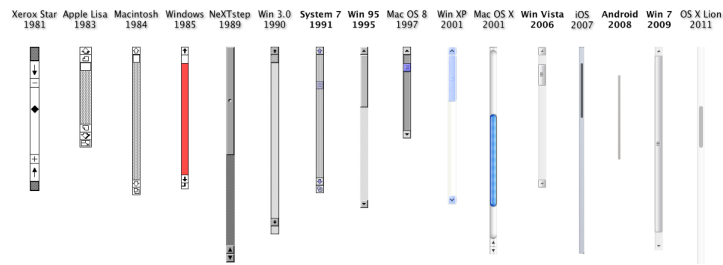
2. Why we scroll

The term scroll is relatively old and, according to the Oxford Learner’s Dictionaries, dates back to late Middle English (c. 1300–1500 CE), deriving from the word *escrow*, which referred to animal skin prepared for writing, that is, parchment (Oxford Dictionaries)[6]. The most common representation of this artifact is that of a long, narrow sheet rolled onto itself, gradually revealing the text as it is unrolled. However, parchment could also be sewn into overlapping sheets in the form of a codex, allowing reading either through unrolling or through the act of turning pages. This dual possibility anticipates, in a way, the path later followed by navigation models in computational devices [7].

With the development of GUIs, scroll became explicitly integrated into the vocabulary of interaction design, no longer being merely a noun associated with parchment and becoming also a verb: to scroll means to move content within the viewport. The gesture of dragging content up or down—mediated by scroll bars, trackpads, or touchscreens—evokes, by analogy, the act of unrolling a scroll and gradually revealing information. Scrolling thus becomes a fundamental navigation gesture and the mechanism through which the pace of content exposure is controlled.

In the early days of interaction design, there were significant debates regarding which navigation model would be most suitable for reading in GUIs. One of the central contrasts opposed scroll-driven navigation, grounded in continuous text within windows, to the card-based model, in which information is segmented into discrete, fixed-size units [8]. Scrollbars are among the oldest GUI widgets, dating back to 1974, when they were first introduced as a mechanism for navigating window content [7]. However, this pattern did not immediately become established. With the release of HyperCard in 1987, Apple popularized the card metaphor, in which each “card” functions as an independent visual module containing text, images, and interactive buttons that encourage non-linear and personalized paths. While the card model emphasizes modularity and jump-based navigation, scrolling offers users a more continuous and gradual cognition of content, supported, for instance, by the scroll bar itself as an indicator of global position [7].

Fig. 1. Visuals of scroll-bars over the years.
Source: From Pick, Click, Flick! The Story of Interaction Techniques by Brad A. Myers (New York: Association for Computing Machinery, 2024), [p.17].



In the more recent history of interaction with computational devices, scrolling ultimately became the dominant standard, with occasional exceptions [9]. This predominance is linked to at least two main factors. First, the broad diffusion of devices with varying screen dimensions—especially following the widespread adoption of smartphones—made fixed card-based models more difficult to sustain, as they relied on predefined display sizes and required greater effort to ensure responsiveness across formats. Second, advancements in touchscreen technologies, catalyzed by the release of the iPhone in 2007, consolidated the vertical finger swipe as an intuitive navigation gesture [10].

We scroll, therefore, because the combination of interface design decisions, technological evolution, and the mass adoption of mobile devices has established scrolling as the most common way of exploring information within the viewport. What today appears to be a trivial gesture is the result of a series of historical and technical choices that transformed scrolling into a dominant means of organizing and revealing digital content.

3. From discrete to fluid transition and scroll-driven animations

Since the consolidation of scrolling as a navigation mechanism in GUIs, this interaction has evolved from segmented movements to the fluid transitions that characterize contemporary smooth scrolling. In simplified

terms, two main models can be distinguished: discrete scrolling, based on constant gain and fixed increments, and continuous scrolling, which relies on variable gain and time-based interpolation [11].

In the early decades of computing, the discrete model dominated in terminals and text editors, which updated the viewport in blocks, favoring precision when referencing specific lines and sections of code. This solution responded both to technical limitations and to the central uses of computers at the time, which were strongly oriented toward writing and programming.

Smooth scrolling emerged from the progressive refinement of scrolling transfer functions, which increasingly incorporated temporal smoothing, persistence, and inertia to simulate physical motion [11]. These mechanisms allow scrolling movements to exhibit momentum and gradual deceleration, producing more continuous and naturalistic interactions [11]. This technological context created the conditions for the scrolling to move beyond functioning solely as a navigation mechanism and to begin acting as a controller for animations, opening space for the emergence of scroll-driven animations.

Scroll-driven animations are animations whose state—beginning, middle, and end—is directly triggered or controlled by the page’s scroll position. As a result, as the user scrolls through the content, specific visual elements move, transform, or appear in synchrony with this gesture, effectively turning scrolling into an animation “slider” [4].

In time-based animations, the dominant axis is chronological time: an event is triggered—for example, a section entering the viewport—and the animation unfolds relatively independently of the user’s actions. In scroll-driven animations, the dominant axis is the user’s gesture: progression is not defined by seconds, but by percentages of the scroll path, the distance traveled, or by anchor points (triggers) distributed along the page [12]. Advancing down the page causes the animation to progress, while scrolling back up causes it to reverse, in a perfectly reversible manner.

In pages that employ scroll-driven animations, the vertical or horizontal scroll position is mapped to animation parameters such as opacity, scale, position, rotation, or the progress of a transition [12]. From a technical standpoint, this can be implemented through different approaches—such as JavaScript libraries or native CSS/HTML APIs. Nevertheless, the underlying principle remains the same: a continuous mapping between scroll position and animation state.

4. From navigation to animation

The term animation derives from the Latin *animare*, meaning “to give life.” In the context of animated media, this notion of “giving life” refers to the creation of the illusion of movement in static forms [13]. Typically, the concept of animation is associated with video, in which motion unfolds along a fixed temporal line, previously defined by the author. However, in contemporary contexts, animation has become a recurring component of graphical user interfaces (GUIs). It appears in microinteractions, state transitions, visual feedback, and, more elaborately, in interac-

tive artifacts that mediate the reading of digital content, as in the case of *scrollytelling* artifacts and graphical visualizations.

In this context, the scrolling can trigger animations, and in such cases, scrolling ceases to function merely as a means of spatial navigation and begins to operate as the engine of animation. Unlike traditional animations, where time is fixed and determined by the author—and playback controls are limited to play, pause, restart, and viewing a timeline bar—scroll-driven animations use scrolling as a temporal axis, orchestrating the sequential revelation of visual elements, the rhythm through which the narrative unfolds, and even allowing the reversal of animation. Scrolling therefore no longer simply means “scroll to see more”, but instead takes on an active role in the production of visual events, becoming a gesture that makes something happen.

This functional shift in scrolling impacts the effects produced in communication. When used as an animation driver, scrolling can acquire semantic value, suggesting actions such as discovering, transforming, constructing, comparing, or revealing. However, this effect is not inherent to its use and depends on how the interaction is designed and integrated into the narrative. In some cases, the user’s gesture becomes a constitutive part of the narrative, establishing a direct relationship between action and perceptible transformation; in others, the animation may operate more independently. In this way, animation does not merely accompany content but responds procedurally to interaction, creating an experience in which events are co-produced by the user.

The semiotic dimensions approach contributes to the analysis of how form is encoded and how meaning is produced in communication. According to Morris [14], semiotics is divided into syntax, which studies the formal relations between fundamental visual signs—such as color, shape, size, and movement; semantics, which examines the relationships between these signs and the concepts they represent; and pragmatics, which considers the effects on the interpreter resulting from the articulation of these elements. This organization reveals how meaning emerges not only from the presence of visual elements, but from their articulation and contextual use, and helps us structure how parametric changes in multimedia elements can produce meaning alongside text and image in scroll-driven animations.

Scroll-driven animations articulate multimedia elements structured around the animated sequence of fundamental visual elements and the temporal dynamics co-produced between the artifact’s authorship and the user’s gesture. In traditional approaches, scrolling operates predominantly in a spatial manner, repositioning content within the viewport to enable reading continuity. In interactive approaches based on scroll-driven animations, it begins to function both as navigation and as an animation engine, assuming the role of an interactive timeline that indicates when the user’s gesture triggers visual transformations that can significantly impact meaning-making in the experience.

The transformation of the two-dimensional image in scroll-driven animations is grounded in changes to parametric attributes, which can be

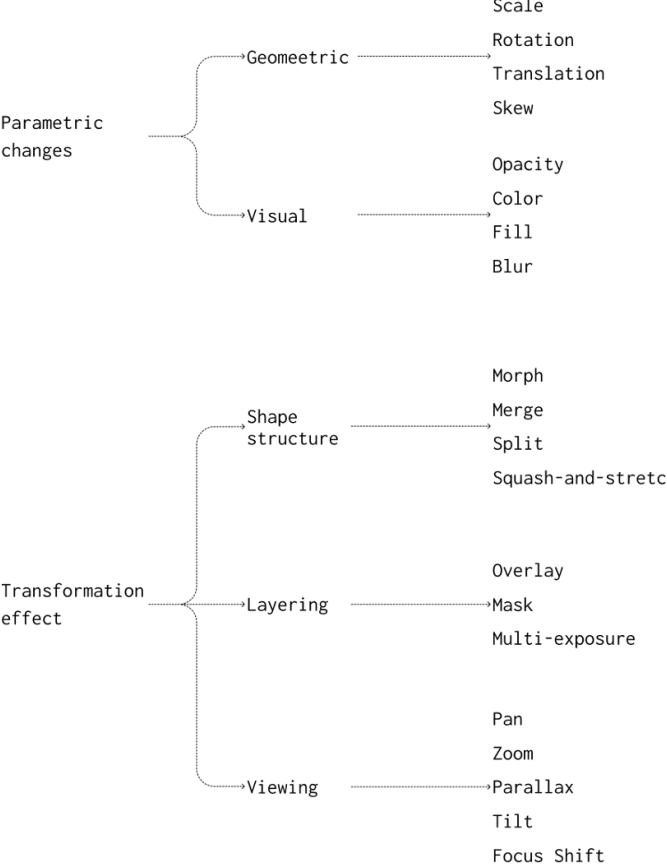
classified as geometric (scale, rotation, translation, and skew) and visual (opacity, color, fill, and blur) [15]. The scale variable regulates the size of the form; translation controls its displacement in the plane; rotation defines its orientation around a fixed point; and skew determines its deformation along the X and Y axes [15]. Changes in opacity control the gradual revelation of the form, while variations in color and fill can simulate progressive filling effects, and blur modulates the visual sharpness of the form. In this context, these attributes operate at the syntactic level, so far as they concern formal and structural relations between visual elements, independently of their meaning, and are considered here as observable categories for analytical purposes [15].

The combination of parametric and visual attributes produces effects of structural transformation of form, namely through transformation effects such as Morph, Merge, Split, and squash-and-stretch; transformations through layering, such as Overlay, Mask, and Multi-exposure; and viewing transformations such as Pan, Zoom, Tilt, Parallax and Focus Shift. In Morph, change occurs progressively, establishing a continuous transition between distinct contours and suggesting the transformation of one form into another. Merge describes the joining of independent forms into a single visual entity while preserving prior characteristics. Split corresponds to the separation of a form into multiple parts. Squash-and-stretch acts on the deformation of the form while maintaining a seemingly continuous volume. In Overlay, there is layering without structural transformation; in Mask, one form defines the visibility of another; and in Multi-exposure, multiple images are combined into a single composition. Pan refers to the lateral or vertical displacement of the frame; Zoom corresponds to the approximation or distancing of the view; Tilt involves the rotation of the frame; Parallax describes the effect in which layers move at different speeds; and Focus Shift refers to the transition of attention from one visual plane to another.

At this level, transformations cease to be merely formal operations and begin to configure potential relations of meaning, corresponding to the semantic level. It is important to note that such effects do not possess intrinsic or universal meaning, and are interpreted here as possibilities of signification grounded in observable formal properties and in the context of the analyzed application.

Transformation is central to scroll-driven animations, which, in this context, produce animation through interaction. The user controls the pace and extent of transformations, visually following the transition from one state to another through the scrolling gesture. Thus, a procedural layer is constituted in which visual elements, interaction, and animation are articulated through scrolling for the construction of meaning. This dimension involves the relationship between signs and the user, considering conditions of use, temporality of interaction, and the experience of interpretation. Within this approach, the semiotic levels help to organize and interpret what has been observed, allowing for the articulation of formal, meaningful, and interpretive dimensions without presupposing a rigid or sequential separation between them.

Fig. 2. Parametric changes and transformation effects diagram.



5. Scrollytelling techniques

A systematic analysis of articles and online publications that employ scroll-driven animations identified five recurring patterns in the use of this type of resource, referred to as *Scrollytelling techniques*, namely *Graphic sequence*, *Animated Transitions*, *Pan and Zooming*, *Showing and auto-playing* and *Moviescroller* [5].

The *Graphic Sequence* technique consists of blocks of text that move over a fixed visual element in the background, which is transformed by a new image each time a new text block appears during scrolling.

The *Animated Transitions* technique consists of smooth transitions between different visual states of the same element triggered by scrolling, without image replacement, but rather through a continuous transformation of a graphic or composition.

The *Pan and Zooming* technique corresponds to a viewing transformation that combines translation and scale, including horizontal movements, zooming in, zooming out, or combinations of these actions, even when the user's scroll gesture is vertical.

The *Showing and Auto-playing* technique is characterized by the activation of animations that are not controlled by scrolling. That is, they are revealed and play automatically when they enter the viewport during scrolling, but are not driven by the gesture itself; scrolling is only responsible for the initial trigger, while the animation follows an independent temporal timeline.

The *Moviescroller* technique consists of controlling a video through the scroll gesture, frame by frame, so that the interaction determines the speed and direction of the video, and when the gesture stops, the video pauses.

These five techniques do not represent the full expressive potential of scroll-driven animations, but they constitute a structured repertoire that serves as a starting point for analyzing and exploring scroll-driven animation.

6. Case study

This study adopts a qualitative analytical approach with a delimited scope to investigate how parametric changes and transformation effects in scroll-driven animations contribute to communicative functions in *scrollytelling* artifacts. The methodological process was structured into four sequential steps, grounded in replicable categorical criteria and centered on the analysis of complete scroll-driven animation sequences—defined as information segments that extend from an entry point to a functionally and intelligibly defined endpoint within a section of the artifact.

The first step consisted of analyzing 67 complete scroll-driven animation sequences extracted from 6 *scrollytelling* artifacts. The *scrollytelling* artifacts were selected prioritizing diversity across thematic domains within science communication, including radioactivity, climate change, and artificial intelligence.

The second step involved evaluating the scroll-driven animations sequences using binary criteria (yes/no) to identify: (i) geometric parametric changes (scale, translation, rotation, skew) and visual changes (opacity, color, fill, blur); (ii) transformation effects (morph, split, overlay, multi-exposure, pan/zoom); and (iii) the presence of a communicative function—defined as an observable relationship between visual transformation and semantic purpose. Scroll-driven animation sequences in which this relationship was not semantically relevant were excluded, namely cases where animation functioned primarily as a spatial navigation mechanism, as a transition between sections without conceptual articulation, or as visual ornamentation lacking interpretative purpose. Of the 67 cases analyzed, only 14 demonstrated a consistent relationship between parametric changes, transformation effects, and specific communicative functions such as to conduct, to demonstrate or to compare, thus justifying their selection for in-depth analysis. This criterion ensures analytical focus on instances in which scrolling transcends navigation and operates as a semiotic operator.

The third step focused on the analysis of the selected cases, enabling the identification of recurring patterns between scroll-driven animations

and communicative functions. The 14 sequences confirmed the recurrence of the categories conduct, compare, and demonstrate, while also revealing emergent functions such as illustrate and connect.

Finally, the fourth step involved selecting six representative complete scroll-driven animation sequences for exemplification in this article—two per primary function identified: conduct (Illuminating Radioactivity 1, Climate Zones 2), compare (Illuminating Radioactivity 3, State of AI Report 4), and demonstrate (Measuring Fairness 5, Climate zones 6). The following subsample illustrates how communicative effects emerge across distinct artifacts:

6.1. Conduct subsamples

Illuminating Radioactivity (1)

In the scroll sequence identified in Figure 3, which is part of the artifact titled *Illuminating Radioactivity* [16], an image representing an atom being gradually decomposed into parts to reveal its structure is observed. This sequence can be categorized as an example of the *Animated transitions* technique, as scrolling down causes some shapes to lose opacity to highlight others that maintain opacity, without image replacement but rather a continuous transformation. The *Multi-Exposure* transformation effect is observed in the visual composition through parametric visual changes in opacity, which, combined with a text element, function as a didactic mechanism for selective focus and annotated explanation, directing the reader’s attention to specific layers of the atomic structure and facilitating progressive understanding of radioactive decomposition. Thus, the main communicative function identified is to conduct.

Fig. 3. Scroll sequence of atomic structure revealed through scrolling interaction.
Source: Illuminating Radioactivity, accessed February 6, 2026, <https://illuminating-radioactivity.com/17/>



Climate Zones (2)

In the scroll sequence identified in Figure 4, part of the artifact titled *Climate Zones* [17], Wladimir Köppen’s classification of climate zones is addressed, focusing on the temperate climate and its occurrences in Europe and North Africa. As scrolling down occurs, the reader is conducted through the map showing the temperate climate in Europe and subsequently its subcategories in the same region. This sequence can be categorized as combining *Pan and Zooming* and *Animated Transitions* techniques, as the map visualization transforms through pan and zoom effects via geometric parametric changes in scale and visual parametric changes in color. The animated transition technique is identified by the emergence of overlaid text boxes on the map that contextualize the transformation, facilitating progressive understanding of climate zones and subcategories. The text box appears via geometric parametric change in translation. The main communicative function identified is to conduct.



Fig. 4. Scroll sequence of world map and climate zones. Source: Climate Zones - The pudding, accessed April 17, 2026, <https://pudding.cool/2024/06/climate-zones/>

6.2. Compare subsamples

State of AI Report (3)

In the scroll sequence identified in Figure 5, part of the artifact titled *State of AI Report* [18], the distribution of funding for the AI industry by global region between 2019 and 2023 is addressed, revealing a growing concentration in the United States compared to Europe and Asia. As scrolling down occurs, the circular shapes composing the graph increase in scale, demonstrating the percentage transformation from 2019 to 2023 for each region. This sequence can be categorized as an example of the *Animated Transitions* technique, as scrolling down alters the graph shapes' scale without image replacement but a continuous transformation. The transformation effect is observed through geometric parametric changes in scale, demonstrating the intensification of funding inequality over time and visually reinforcing asymmetry between regions. Thus, the main communicative function identified is comparative.

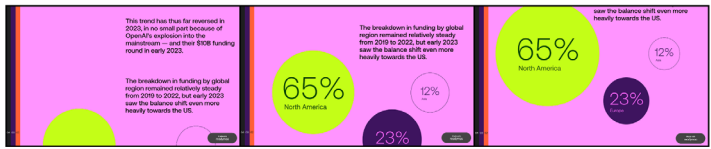
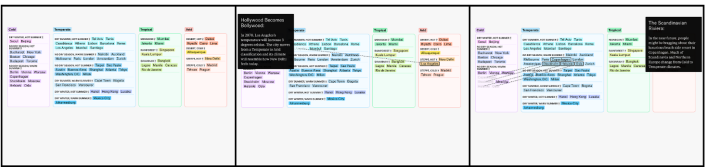


Fig. 5. Scroll-driven visualization of global AI funding by region (2019-2023). Source: State of AI Report, accessed February 6, 2026, <https://readymag.website/vention/4367527/2/>

Climate Zones (4)

In the scroll sequence identified in Figure 6, part of the artifact titled *Climate Zones* [17], the effects of climate change are addressed by comparing a city's current climate to another city's future climate, based on Köppen's classification. Cities are organized in four major zones (Cold, Temperate, Tropical, Arid) and this information is grouped by a rectangular and colored shape. As scrolling down occurs, a city corresponding to a tag (text and shape combination) moves from one block to another, changing color. The tag's origin is indicated by a lower-opacity version at the starting point and a dashed line showing its trajectory. The trigger for the position change is a text block on a shape indicating the temperature increase causing the climate shift. This sequence can be categorized as a combination of *Graphic Sequence* and *Animated Transition*. Transformation effects are observed through geometric parametric changes in translation and visual parametric changes in color and opacity. Thus, the primary communicative function identified is comparison, enabling the understanding of both the original climate zone and the climate zone corresponding to the region's characteristics under the effects of climate change.

Fig. 6. Scroll sequence of cities grouped by climate zones. Source: Climate Zones - The pudding, accessed April 17, 2026, <https://pudding.cool/2024/06/climate-zones/>



6.3 Demonstrate subsamples

Illuminating Radioactivity (5)

In the scroll sequence identified in Figure 7, part of the artifact titled *Illuminating Radioactivity* [16], the movement of an alpha particle toward an object representing a material it cannot penetrate is addressed. This sequence can be categorized as an example of the *Animated Transitions* technique, as scrolling down moves the shape representing the alpha particle toward the object, without image replacement but a continuous transformation of the composition. The transformation effect is observed through geometric parametric changes in translation, visually demonstrating the physical behavior described by the text element in the same sequence. Through the animated behavior, the image not only illustrates the phenomenon but builds a sense of causality, making the interaction between movement and obstacle perceptible through continuous spatial transformation. Thus, the main communicative function identified is to demonstrate.

Fig. 7. Scroll sequence of atomic of an alpha particle toward an object. Source: Illuminating Radioactivity, accessed February 6, 2026, <https://illuminating-radioactivity.com/17/>



Measuring Fairness (6)

In the scroll sequence identified in Figure 8, part of the artifact titled *Measuring Fairness* [19], different ways to measure the accuracy of a machine learning model are addressed, noting that it is often mathematically impossible for it to perform equally well for different groups of people. The article uses a fictional example of a medical screening model to detect a disease to illustrate how performance metrics can vary between groups, represented dynamically by visual compositions of grouped people. This sequence can be categorized as an example of the *Animated Transitions* technique, as scrolling down alters the shapes in the composition without image replacement but a continuous transformation. A chromatic separation of the composition is observed through visual parametric changes in color, producing a split transformation effect where the composition shifts from homogeneous to divided into

two groups with distinct roles. Subsequently, a shape emerges via visual parametric change in opacity, producing a layering overlay transformation effect that adds a second layer of information corresponding to the machine learning prediction. The main communicative function is to demonstrate by visually highlighting the different sampling groups, making the points of variation visible.



Fig. 8. Scroll sequence visual compositions of grouped people. Source: Measuring Fairness - PAIR Google, accessed April 17, 2026, <https://pair.withgoogle.com/explorables/measuring-fairness/>

Sample	Technique	Parametric change	Transformation effect	Communicative function
1	Animated transitions	Opacity	Multi-Exposure	Conduct
2	Pan and Zooming + Animated transitions	Scale, Color, Translation	Pan and Zoom	Conduct
3	Animated transitions	Scale	-	Compare
4	Animated transitions	Translation, Color	-	Compare
5	Animated transitions	Translation	-	Demonstrate
6	Graphic sequence + Animated transition	Color, Opacity	Split, layering overlay	Demonstrate

Table. 1. Font sizes of headings. Table captions should always be positioned *above* the tables.

7. Conclusion

The investigation demonstrates how scroll-driven animations can be operationalized to perform specific communicative functions, such as conducting, demonstrating, and comparing. However, these functions are not inherent to scroll-driven animations. In several of the analyzed cases, scroll-driven animations function primarily as navigation mechanisms, as transitions between sections without conceptual articulation, or as visual ornamentation lacking interpretative purpose.

The analysis of the 14 scroll sequences in which a communicative function was identified revealed a predominance of techniques such as Animated Transitions and Graphic Sequence. It was also observed that not all parametric changes result in transformation effects that can be codified within the defined types (shape structure, layering, and viewing), suggesting limitations in the direct application of this typology.

Three communicative functions — conducting, demonstrating, and comparing — were found to be predominant in the analyzed subsamples. However, functions such as illustrating and connecting were also identified, pointing to a broader spectrum of semantic potentials associated with scroll-driven animations. In this sense, it is acknowledged that the present qualitative analysis has a limited scope, highlighting the opportunity for future research to apply this analysis to a broader and more diverse sample.

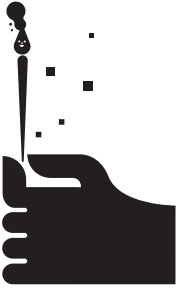
Additionally, the study identifies the opportunity to conduct controlled tests and experiments to measure the actual effects of these strategies on the interpreter. The application of the SUS (System Usability Scale) questionnaire would allow for the assessment of perceived usability, while the NASA-TLX could be used to measure cognitive load, including mental effort and frustration. Furthermore, recall and recognition methods could be employed, through experimental tasks, to evaluate the effectiveness of concept retention.

This article proposes an expanded approach to scrolling, moving beyond its strictly technical role in interface navigation toward its potential within the field of animation. The approach aims to encourage designers and animators to consider scrolling as an expressive resource capable of integrating gesture, visual transformation, and meaning. By identifying and articulating key patterns, the article invites practitioners to explore scroll-driven animation as a fertile ground for aesthetic experimentation, authorial exploration, and the development of new animated artifacts within the context of interactive digital media and human-computer interaction.

8. References

1. Tjärnhage, A., Söderström, U., Norberg, O., Andersson, M., Mejtoft, T.: The Impact of Scrollytelling on the Reading Experience of Long-Form Journalism. In: Proceedings of the European Conference on Cognitive Ergonomics 2023 (ECCE '23), 1–9 (2023)
2. Tufte, E.: Envisioning information
3. Greussing, E., Boomgaarden, H.G.: Simply Bells and Whistles? Cognitive Effects of Visual Aesthetics in Digital Longforms. *Digital Journalism* 7(2), 273–293 (2018)
4. Mozilla Corporation: CSS scroll-driven animations. MDN Web Docs. https://developer.mozilla.org/en-US/docs/Web/CSS/Guides/Scroll-driven_animations (2026)
5. Oesch, J., Renner A., Roth, M.: Scrolling into the Newsroom: A vocabulary for scrollytelling techniques in visual online articles. *Information Design Journal* 27(11), 102–114 (2022).
6. Oxford Dictionaries: scroll verb, https://www.oxfordlearnersdictionaries.com/us/definition/english/scroll_2
7. Myers, B. A.: Pick, Click, Flick! The Story of Interaction Techniques. New York: ACM Books (2024)
8. Nielsen, J. Trip report: Hypertext 2. Nielsen Norman Group. (1989)
9. Zhao, J., Tor, S. R., Soukoreff, W., Ren, X., Balakrishnan, R.: A Model of Scrolling on Touch-Sensitive Displays. *International Journal of Human-Computer Studies* 72(12), 805–821 (2014)

10. Proske, M., Poppe E., Jaeger-Erben, M.: The smartphone evolution - an analysis of the design evolution and environmental impact of smartphones. In: Proceedings of Electronics Goes Green 2020+ (2020)
11. Quinn, P., Cockburn A., Casiez, G., Roussel, N., Gutwin, C.,: Exposing and understanding scrolling transfer functions. In: Proceedings of the 25th Annual ACM Symposium on User Interface Software and Technology (UIST '12), 341-350 (2012)
12. The World Wide Web Consortium (W3C): Web Animations Module Level 1., <https://drafts.csswg.org/web-animations-1/> (2025)
13. Wells, P.: Understanding Animation. New York: Routledge (1998)
14. Morris, C.: Foundations of the Theory of Signs, Chicago: University of Chicago Press. (1938)
15. Mozilla Corporation: transform - CSS. MDN Web Docs. <https://developer.mozilla.org/pt-BR/docs/Web/CSS/Reference/Properties/transform> (2026)
16. Illuminating Radioactivity. <https://illuminating-radioactivity.com/>
17. Climate zones - The pudding.
18. The State of AI. <https://readymag.website/vention/4367527/>
19. Measuring Fairness - PAIR Google. <https://pair.withgoogle.com/explorables/measuring-fairness/>



Keywords

Illustration; Climate
Action; Domestic; Home.

Examining the role of physical illustrations within the home to represent our connections with the climate emergency and its potential to increase climate actions

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Abstract

In a time of upheaval and rapid change individuals and society are challenged emotionally, often expressed as anxiety and a sense of powerlessness. This is particularly relevant in terms of environmental issues and in the context of the climate emergency which has contributed to a rise in eco-anxiety. Within this context, illustration can offer valuable tools to inspire climate action. Artwork, a common feature in most homes, is often viewed daily, yet can it serve a purpose beyond decoration?

The project, Floriography, explored how images within domestic spaces can foster climate awareness. The focus was to engage people who may find climate conversations overwhelming, using illustration to introduce these discussions in ways that counteract the negativity bias of the media to instead look towards a hopeful, action-oriented future.

Many individuals feel a strong desire to act but remain unsure of where to start. This project sought to address those uncertainties, helping people take meaningful steps however small they may be toward climate action. Through creative engagement and hands-on activities, Floriography created space for joy, connection, and optimism. By incorporating each illustration with an accompanying activity card, the project aimed to reduce fear, improve mental wellbeing and aid reflection which then might inspire tangible action.

Drawing upon theories of epidemiology through Gladwell's theory of tipping points [1], and Thaler and Sunstein's nudge theory about the power of small design choices [2], this article explores the ways that physical illustrations can increase personal reflections on our connection to the climate and the ways in which we can engage in positive climate action.

In this capacity illustration within domestic spaces can go beyond surface level representations of nature to reflect our thoughts and feelings on this ecological issue to us, in ways that emphasise positive change, agency and hope.

1. Introduction

The difficulties of sustainability are broad encompassing environmental, political and social issues of which the climate emergency is a major challenge. Aspirations to address this are difficult and interconnected. While

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the United Nations' Sustainable Development Goals [3] present 17 distinct objectives, they are fundamentally interconnected. Sustainability challenges are considered a “wicked problem” [4]. These are, as Logue states, “difficult to define, ambiguous, unstable, do not have one solution, and are beyond the realm or mandate of any one department or discipline” [5]. The urgency of the climate emergency intensifies these issues, making it a crucial aspect of sustainability efforts. Sustainability can be viewed as encompassing multiple wicked problems, with the climate emergency one of these complex challenges.

Considering the lack of cohesive consensus regarding both the recognition of climate change and the appropriate solutions, tackling this issue presents difficulties and this feeds public perceptions. Uncertainty of the solution to these complex issues contributes to confusion and anxiety among the public, partly evident within the growing rise of eco-anxiety [6][7]. Navigating this complexity requires support, and visual illustrations can be a valuable reflective tool to alleviate this anxiety and enhance understanding. While there are debates about the climate and its solutions, I position myself alongside mainstream science in acknowledging anthropogenic climate change as fact, and that societal-level action is required to mitigate it.

Many environmental groups alongside the Intergovernmental Panel on Climate Change (IPCC) [8] call for “urgent action” on a global scale, particularly targeting policymakers and governmental bodies. However, engagement from all sectors of society is needed. Groups like Greenpeace [9] and Extinction Rebellion [10] call for a transformation of society and a radical change of living that necessitates the inclusion and participation of everyone, not only institutions. This article therefore explores how physical illustrations within the home can aid this transformation of society, by including individuals within narratives of the climate crisis. Illustrative works can aid this transformation by representing and reflecting to us, our connections to the natural world. Through this reflective process such visual images can increase individual climate action, in forms that offer positive change, agency and hope.

2. Why Illustration

Illustration is a communicative discipline. While often tied to an “image embellishing text” [11] illustration first and foremost is about communicating an idea. As Doyle *et al.* states, while other visual arts disciplines are “identified by the artistic mediums associated with them...illustration is propelled by purpose – the intention to visually communicate ideas and information” [12]. As a visual discipline grounded in communication, illustration facilitates reflection; the message must be interpreted, understood and reflected upon, before a response can be formed. Illustration encourages audiences to consider their own perspectives, emotions and actions in relation to the ideas being communicated, and this reflective process positions it as a useful medium to represent our connections with the climate.

3. Mental Health and Climate Action

Reporting by the media is overwhelmingly negative, with up to 90% of news being negative [13]. This is trickling into public consciousness and impacting public perception of the climate crisis and its possibility for positive solutions. An international study found 59 percent of people were extremely worried about climate change, and 84 percent were at least moderately worried [14]. This negativity bias leaves people feeling helpless or despondent, neither which are attributes associated with effective action [7][15][16]. Finding solutions that enable people to participate are important for both environmental and mental health. The Royal College of Psychiatrists argues that helping people contribute to “green choices”, that is making decisions that positively impact the planet, on an individual level, as well as connecting to community, are effective methods to take climate action and improve mental wellbeing [17]. This presents a cyclic relationship where taking action can improve mental health, and improved mental health can boost motivation for climate action.

4. Visual Imagery and Mental Health

Illustration can position itself as a primer by providing an accessible entry for people to reflect on their relationship to the natural world. The act of viewing illustration and reflecting on its themes serves as the starting point from which other climate discussions can follow. Illustration in this way can position itself as a primer to affect the cyclic relationship between mental health and climate action, to improve people’s wellbeing and boost motivation for climate action. While related to medical environments rather than domestic spaces, Pfeil found an “overwhelming presence and appreciation of nature-related art displays” [18] within medical settings and Law *et al.*’s scoping review found “promising evidence for effects of viewing artwork on reducing stress” [19]. This is paired with Mikani *et al.* finding that art within urban city environments could reduce “subjective feelings of anxiety, stress, and negative mood” [20]. This suggests a link between viewing visual images and improved mental wellbeing, that could apply to domestic spaces as well as medical and urban environments. Visual imagery that portrays environmental themes has the potential to enhance our mental wellbeing and reflect our connection to the natural world. If this is the case, the ability of such imagery to both represent our relationship with nature and elevate our mood may play a role in easing eco-anxiety by reinforcing our connections to the environment in a way that promotes a positive emotional state.

5. Focusing on the Home

A common form of illustration is that of a framed print that decorates a living room or hallway. Beyond its decorative purpose, illustration serves as a visual communication tool that can spark behavioural change. While illustration in all its forms can be a starting point for reflection, this article focuses on physical illustration within the home, drawing on its history of an image linked to objects. Janzer and Weinstein’s social design matrix provides a useful framework for understanding how design projects,

including illustration, can address social contexts, stakeholder interactions, and intended social impact. The matrix positions many illustrations as concerned with applications to a variety of surfaces [21]. While this includes exhibitions, packaging, and commercial design, the home is of specific focus due to its accessibility. Artwork within domestic spaces can reach a wide audience breaching cultural, class and location barriers to include the diversity of people with eco-anxiety and those in need of tools for constructive climate action.

A further consideration for the focus on domestic environments is the capacity of the home to reflect the broader ideologies and values of their inhabitants. Blunt's 2005 review of cultural geographies of home illustrates how the lived experiences associated with the home are interconnected with identity and belonging, therefore influencing and reinforcing ideologies and values [22]. This relationship indicates that the home could be a powerful site for reflection and exploration of these ideologies, particularly when applied to our feelings, thoughts and values on the ecological crisis and our identification with it. The home as a possible place of privacy and safety can inspire social and behavioural changes that extend beyond the domestic sphere, contributing to positive ecological outcomes. Illustration within these domestic spaces can facilitate the connection between identity and affirmative climate action by visually expressing our relationship with the natural world. To explore the potential of this I created a series of illustrations to investigate these possibilities.

6. My Practice

Floriography [23], is a series of lino-prints that use the Victorian language of flowers to encourage people to reflect upon what qualities they think are needed to tackle the climate crisis, as seen in figures 1-3. While today the meanings of flowers are used in isolation for individual flowers, during the height of the era it was used to send complex messages by pairing flowers together into bouquets [24]. This concept was developed to create a bouquet for the climate. Each flower was selected to embody the qualities needed in the fight against the climate crisis. Individually and together these flowers ask us to reflect on whether we need more of these qualities in our lives and how to develop it. The artwork hopes to evoke a sense of forward looking to remind us of the beauty and fragility of the world we inhabit. By visually capturing the ideas of energy in adversity, valour, wisdom and faith, transformation, and the return of happiness, through the meanings of the flowers the illustrations inspire a deeper connection to the planet and foster a sense of responsibility and care. Each print is accompanied with an activity card, as seen in figure 2, to highlight what I refer to as floriographical meanings, and invite the individual to reflect on what qualities they want to build to increase a sense of climate agency. These illustrative prints highlight how physical images within a home can represent our connections with the climate and through this create the potential for increased climate action in those who purchase them.

By using floral imagery, the artwork encourages connection to nature, which if actioned can reduce eco-anxiety and motivate climate action.

Nature prescriptions are increasingly prescribed to reduce mental illness [25], and so by invoking a sense of nature, the design hopes to foster a connection to the natural world to enhance mental health. Floral imagery was specifically chosen as flowers are accessible in urban environments and wild spaces alike. This choice aligns with an increasing interest in flowers [26]. The design aims to draw people in through appealing imagery, serving as a visual reminder of the climate aims, to prime the audience for future behavioural change.

Fig. 1. Chine-collé original lino-print of a bouquet representing environmental themes in *A bouquet for the climate*, *Floriography series* (2023).



Fig. 2. Side 1 and Side 2 of The bouquet for the climate activity card, *Floriography series* (2023)

A bouquet for the climate

Thank you so much for purchasing this print! You are supporting community action and the running of creative workshops.

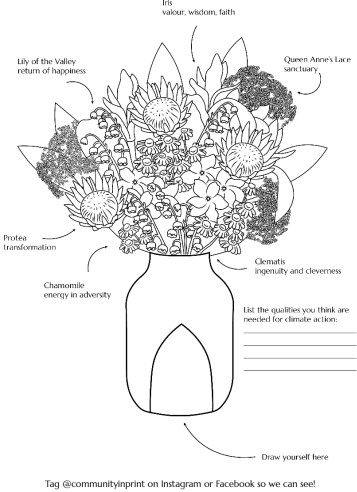
Using the Victorian art of floriography, each of these flowers were chosen to represent the qualities we need to combat climate change and build a resilient future.

 Chamomile energy in adversity	 Lily of the Valley return of happiness
 Clematis ingenuity and cleverness	 Protea transformation
 Iris valour, wisdom and faith	 Queen Anne's Lace sanctuary

On the reverse of this card are the flowers to colour in. Perhaps ponder on the qualities you wish to bring forward in tackling climate change.

I hope this print, and activity will add some much needed joy into a discussion that can feel overwhelming. Thank you again.

@communityinprint
www.communityinprint.co.uk



Iris valour, wisdom, faith

Lily of the Valley return of happiness

Queen Anne's Lace sanctuary

Clematis ingenuity and cleverness

Protea transformation

Chamomile energy in adversity

List the qualities you think are needed for climate action:

Draw yourself here

Tag @communityinprint on Instagram or Facebook so we can see!



Fig. 3. Original lino-print of a chamomile flower with the text energy in adversity underneath, in *Energy in adversity, Floriography series* (2023); Original lino-print of an iris with the text energy in adversity underneath, in *Valour, wisdom, faith, Floriography series* (2023); Original lino-print of a protea flower with the text energy in adversity underneath, in *Transformation, Floriography series* (2023); Original lino-print of Lily of the Valley with the text return of happiness underneath, in *Return of happiness, Floriography series* (2023) [left to right].

7. Illustration as Reflection

Artwork within the home could bring themes of environmental action into personal spaces where they can be reflected upon. Ranci re states that art’s power lies in its invitation to see “behind everyday objects” and view a world transformed [27]. Illustration can help visualise such transformed worlds, enabling the imagination of a better future, to offer solace and hope. The person walking through the vase within ‘A bouquet for the climate’ [28], see figure 1, seeks to create a narrative of transformation, of entering a world where the qualities represented in the bouquet are in abundance. Through this visual metaphor, the artwork encourages individuals to envision their role in shaping a more sustainable future, fostering both personal reflection and a sense of possibility.

This idea of illustration prompting reflection is emphasised by including participatory elements alongside the static image, through

activity cards. These were created to clearly link the concepts of climate action to the visual imagery, and as a device to encourage buyers to position themselves within these themes as active participants. This links to theories of participatory design where users are included within the design process [29]. In the case of this Floriography series, viewers become co-creators with the artwork in the act of filling in the activity card. Within participatory design, involving participants in active ways can increase users' sense of agency, strengthen engagement and foster greater interest with the product and its themes; The Design Council find that tangible tools lead to strong senses of ownership and agency [30]. An example is the 'IKEA affect' where consumers place a higher value on products they have partially helped create [31]. By providing opportunities for viewers to become actively engaged, it helps embed senses of agency and greater reflection on the ecological themes within the artwork. These activity cards then act as an opportunity to support deeper reflection beyond the everyday engagement that viewing physical illustrations within the home can foster.

The hope is that these cards can heighten possibilities of transformation as by encouraging active participation in the ecological themes alongside the passive participation of viewing the artwork, the activity cards can reinforce viewers own reflections back to themselves. Using prompts such as 'List the qualities you think are needed for climate action', asks the viewer not only to reflect upon these themes, but to make a concrete commitment, that takes the artwork from an expression of what the illustrator thinks, to a space of collaboration, of what do I think? Do I agree or disagree with the illustrator's views? By writing their response on the activity card, these potentially abstract ideas of their role within climate action are externalised into concrete qualities to be highlighted and reinforced. As Bishop comments, participatory elements can enable the audience to "determine their own social and political reality" and visualise solutions they might not reach alone [32]. Such responses make illustration an effective tool to prime climate action through both passive and active participation, to increase the viewers' sense of relationality and agency with the ecological themes.

8. Social Tipping Points

Drawing on theories of epidemiology Gladwell suggests that social patterns are contagious and there comes a "tipping point" when things spread at a tremendous rate [1]. He outlines three characteristics "one, contagiousness; two, the fact that little causes can have big effects; and three, that change happens not gradually but at one dramatic moment" [1]. Based on this theory every person in climate discussion, big or small contributes to the altering patterns of society. He states that epidemics can be visual, auditory, or even emotionally contagious [1]. The rise of eco-anxiety [6] points towards a growing emotional tipping point. The importance is turning this into a contagion of action, so that the tipping point can be not of reduced mental health but of increased climate engagement. This is where illustration can act as a primer to action. In a

time of upheaval, change and increasing eco-anxiety, illustration can be a valuable tool for increasing ecologically aligned action through its ability to prompt reflection when it is viewed.

9. Physicality

Alongside the ways that illustration can visually represent our connection to the natural world, as physical objects within our homes, such artworks also act as a primer for action through its ability to engage the senses. As something physical that can be held, as well as looked upon, it has a greater sensory impact than object-less forms of illustration. Just as some of the effectiveness of creative workshops are their ability to engage the senses [33], physical objects carry a small part of this essence too, but crucially without the requirements of skill, resources, or time commitments. Studies have shown that engaging the senses increases the number of neural pathways in the brain related to memory, building stronger association patterns [34], and that touch particularly can create longer-lasting memories compared to our other senses [35]. Physically holding the print, hanging it on a wall, even dusting it, could activate thought patterns in a way that object-less outcomes cannot and this is especially beneficial because these activities are small, accessible and easily achieved. The First Things First manifestos illustrate just how effective visual imagery is at priming behaviour with it “manufacturing demand for things that are inessential at best” [36]. While the act of viewing illustration may be small it could be a catalyst for positive climate action where there was none [37]. This positions visual imagery as a useful form for reflections on our relationship with the natural world and what climate action we seek to enact.

This physicality feeds into Walter’s assertions that original works of art hold an “aura” which is lost through reproduction methods [38]. The “aura” of the work means that it is held in regard, an object to be looked after and placed thoughtfully on display. Visual imagery, especially originals, within the home can increase participation on the climate because it is more likely to have sustained engagement over something without this “aura”. For example, a social media post of the same image can be quickly skimmed past. While Walter claims reproductions have less of an aura than an original, I would argue that this effect is minimal. The agency involved in choosing artwork could be argued to build aura. Whether purchasing an original or a reproduction, it is chosen for enjoyment and decoration, and these attributes remain whichever type of product is bought. What reproductions do allow is accessibility. Physical illustration through leveraging original and reproductions means everyone of scaling financial means can have illustration within their home and enjoy the aesthetics of an original.

Exploring the aesthetics of hand-made illustration is important when examining the aura of a reproduction and its ability to nudge behaviour. Black investigates the possibility that “illustration that appears to be handmade has something more innately approachable and inviting about it” [39]. This might be why I would argue that a reproduction retains the aura of an original, as a key component is the handmade aesthetic. While

not handmade, reproductions offer the same aesthetic paired with affordability. A scaling back perhaps rather than a complete loss of aura. One way that visual imagery for the home can nudge behaviour for climate action, whether original or reproduction, is through illustration's aesthetic which makes the artwork and therefore its subject matter more desirable.

This is important because artwork for the home has permanence. While designs on social media are widely accessible they are short-lived. The average video content on Facebook is viewed for 1.7 seconds on mobile [40]. Galleries and exhibits on the other hand might engage over a slightly longer time period, with an average of 28.63 seconds for a painting in a gallery [41] but are limited by attendance. Physical artworks can engage for long periods of time, as they are often kept in the home over many years, and, through reproduction, are accessed by a large amount of people.

The accessibility and permanence of physical artwork works together to play a key role in increasing climate participation. Returning to Gladwell's theory of social tipping points, the building of small actions was emphasised. This combines well with Thaler and Sunstein's nudge theory about the power of small design choices in "focusing the attention of users in a particular direction" [2]. Repetitiveness is crucial across both theories: something small that focuses attention again and again. Physical illustrations in the home possess this ability by being accessible and permanent. The extended life-span makes it an effective tool for conversations on the climate, as it repetitively nudges behaviour each time it is viewed. This might offer different affordances on individual behaviour compared to digital artwork or in-person events.

10. Limitations

Despite arguing for the longevity that artwork within the home can provide, it is also important to acknowledge that we often stop perceiving objects within our familiar surroundings. Through selective filtering our brains remove the perception of irrelevant stimuli, everyday backgrounds being one of them [42]. This risks the longevity of artwork in the home being redundant. This is one reason why the activity cards accompany the physical illustrations, as they attempt to redirect focus, to see with new eyes, what is familiar. However, this might not have as limiting an effect on the benefits of artwork in the home as first seems. Dijksterhuis *et al.* found that "behaviour unfolds unconsciously as a result of the mere perception of cues in the environment" [43]. Even if the artwork is not consciously looked upon, it will be unconsciously processed affecting behaviour in subtle ways. And returning to Blunt's assertion that the home reflects our ideologies and values, the presence of such artwork that is connected to themes of ecology, helps to reinforce individual's identities to that of environmentalism, that can therefore motivate positive behaviour. Of course, these benefits only impact participation if the artwork is clearly linked to the topic, and the activity cards are a device to clearly link the visual imagery with the concepts of the climate emergency. Clear contextualisation of each illustration is therefore of importance so that the audience associates it with ideas of the ecological crisis.

Despite this potential to stimulate climate action, I am also aware of potential biases in purchasing behaviour. Just like data can be skewed because volunteers in studies are more likely to be altruistic compared to the general population [44], the same problems are at play in the field of illustration through self-selection. People engaged in the climate are more likely to buy a print themed on the climate. When bringing in mental health perspectives, this may not be a bad thing, reaching those who feel despondent but desire to act. Floriography aimed to facilitate that desire, creating spaces for positivity to counteract the negativity in the media. While the effectiveness of climate themed visual imagery at reaching new audiences is perhaps debatable, it could encourage existing audiences. The importance, as Gladwell emphasises, is in the building of small actions. Aesthetics and consumer purchasing habits are varied and so whether the buyer is already engaged in the climate or not, the physical artwork remains a positive tool to nudge behaviour and reinforce action.

11. Conclusion

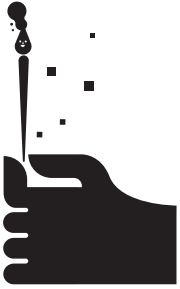
Illustrations in the home can be utilised as a precursor for climate action, reinforcing behavioural change through its ability as a reoccurring reflection on our relationship to the environment. Physical artwork contributes to societal change by nudging behaviour towards action, alongside providing a joyful counternarrative to traditional discussions on climate change, improving mental wellbeing for those with eco-anxiety. Gladwell emphasises that small actions lead to tipping points and illustration can position itself as a tool to build a social tipping point on climate action. In this capacity illustration within the home can go beyond surface level representations of nature to reflect our thoughts and feelings on this ecological issue to us, in ways that emphasise positive change, agency and hope to build upon a social tipping point of ecological engagement.

References

1. M. Gladwell, *The Tipping Point: How Little Things Can Make a Big Difference*. Back Bay Books, (2001).
2. R. H. Thaler and C. Sunstein, *Nudge : improving decisions about health, wealth, and happiness*. Yale University Press, New Haven (2008).
3. The 17 sustainable development goals (2024), <https://sdgs.un.org/goals>
4. S. Manning and J. Reinecke “We’re failing to solve the world’s ‘wicked problems.’ Here’s a better approach,” in *The Conversation*, ed. 3 October, (2016).
5. D. Logue. “Wicked problems and business strategy: is design thinking an answer?” in *The Conversation*, (2012), <http://theconversation.com/wicked-problems-and-business-strategy-is-design-thinking-an-answer-6876>
6. A. Gregory and A. G. H. editor, “‘Eco-anxiety’: fear of environmental doom weighs on young people,” in *The Guardian*, (2021).
7. H. Pearson, “The rise of eco-anxiety: scientists wake up to the mental-health toll of climate change,” *Nature.*, vol. 628, no. 8007, pp. 256-258, (2024), doi/10.1038/d41586-024-00998-6
8. “Summary for policymakers,” Intergovernmental Panel on Climate Change, Cambridge University Press, (2022), <https://www.ipcc.ch/report/ar6/syr/summary-for-policymakers/>

9. Greenpeace UK, Environmental issues, explained, (2024), <https://www.greenpeace.org.uk/challenges/>
10. A. G. Clare Farrell, Sam Knights and William Skeaping, Ed. This is not a drill: an Extinction Rebellion handbook. London: Penguin Books, (2019)
11. A. Male and D. Arnold, A Companion to Illustration: Art and Theory. Wiley, (2019)
12. S. Doyle, J. Grove, and W. Sherman, The history of Illustration. Bloomsbury, London (2018)
13. S. Pinker, "The media exaggerates negative news. This distortion has consequences," in The Guardian, ed, (2018)
14. J. Shaw, "Eco-anxiety: Worrying about climate change can be stressful but it can also help to spur us into action," in Science Focus, ed, (2022)
15. M. Mackinnon, A. C. Davis, and S. Arnocky, "Optimistic Environmental Messaging Increases State Optimism and in vivo Pro-environmental Behavior," Frontiers in Psychology, vol. 13, (2022), doi: 10.3389/fpsyg.2022.856063
16. C. L. C. Troy, M. Norman, N. Kim, C. Skurka, and J. G. Myrick, "Can you picture it? Effects of positive and negative depictions of climate futures on climate action intentions," Journal of environmental psychology., vol. 96, p. 102312, (2024), doi: 10.1016/j.jenvp.2024.102312
17. Royal College of Psychiatrists. The climate crisis is taking a toll on the mental health of children and young people. (2020), <https://www.rcpsych.ac.uk/news-and-features/latest-news/detail/2020/11/20/the-climate-crisis-is-taking-a-toll-on-the-mental-health-of-children-and-young-people>
18. C. W. Pfeil, Visual Art and Healing in Medical Environments (2021)
19. M. Law, N. Karulkar, and E. Broadbent, Evidence for the effects of viewing visual artworks on stress outcomes: a scoping review, BMJ Open, vol. 11, no. 6, p. e043549 (2021)
20. J. Mikuni et al., Art in the city reduces the feeling of anxiety, stress, and negative mood: A field study examining the impact of artistic intervention in urban public space on well-being, Wellbeing, space and society., vol. 7, p. 100215 (2024)
21. C. L. Janzer and L. S. Weinstein, "Social Design and Neocolonialism," Design and culture, vol. 6, no. 3, pp. 327-343 (2014), doi: 10.2752/175613114X14105155617429
22. A. Blunt, "Cultural geography: cultural geographies of home," vol. 29, pp. 505-15 (2005)
23. D. Tipping. "Floriography." Community in print (2024) <https://communityinprint.co.uk/projects-o/floriography>
24. J. Roux, Floriography: An Illustrated Guide to the Victorian Language of Flowers. Andrews McMeel Publishing, (2020)
25. S. H. Mughal R., Polley M., Sabey A. & Chatterjee H.J., "How the natural environment can support health and wellbeing through social prescribing," (2022), https://social-prescribingacademy.org.uk/media/zaknornng/how-the-natural-environment-can-support-health-and-wellbeing-through-social-prescribing_.pdf
26. South West flower count survey (2024), <https://www.nationaltrust.org.uk/features/south-west-flower-count-survey>
27. J. Ranci re, "Problems and transformations in critical art," in Participation, C. Bishop ed. Whitechapel Gallery and MIT Press, London pp. 82-88 (2004)
28. D. Tipping, "A bouquet for the climate," in Floriography, ed: Community in print, (2023) Limited-edition linoprint.
29. Cross, N. (eds.) *Proceedings of the Design Research Society International Conference*,

- 1971: *Design Participation*, London, Design Research Society, (1972), <https://dl.designresearchsociety.org/conference-volumes/1>
30. Design Council, “The Design Value Framework”, DesignEconomy, (2022), https://www.designcouncil.org.uk/fileadmin/uploads/dc/Tools_and_Frameworks/DC_DE_Design_Value_Framework.pdf
31. Norton, M.I., Mochon, D. and Ariely, D. “The IKEA effect: When labor leads to love”, *Journal of Consumer Psychology*, 22(3), pp. 453–460 (2012), <https://doi.org/10.1016/j.jcps.2011.08.002>.
32. C. Bishop, *Participation*. MIT Press, London (2006)
33. L. Barry, *What It Is*. Drawn & Quarterly Publications (2008)
34. J. P. McGann, “Associative Learning and Sensory Neuroplasticity: How Does It Happen and What Is It Good For?”, *Learn Mem*, vol. 22, no. 11, pp. 567–576, (2015)
35. S. Magsamen and I. Ross, *Your Brain on Art: How the Arts Transform Us*. London, Random House Publishing Group (2023)
36. J. Barnbrook et al. “First Things First Manifesto 2000.” *Émigré Fonts* (2000)
37. M. O’Brien et al. “First things first, a manifesto, 2020 edition.” AIGA Eye on Design (2020), <https://www.firstthingsfirst2020.org>
38. B. Walter, *The Work of Art in the Age of Mechanical Reproduction*. Penguin Books Limited, (1936)
39. S. Black, “Fibs and fripperies: References to the real in digital illustration,” *Journal of Illustration*, vol. 6, no. 2, pp. 289–304, (2019) doi: 10.1386/jill_00015_1
40. Facebook IQ, <https://www.facebook.com/business/news/insights/capturing-attention-feed-video-creative>
41. I. Kaplan, What is a good amount of time to spend looking at art in a museum, Artsy, (2017)
42. J. Lewis, This is how the brain filters out unimportant details, *Psychology Today* (2015)
43. A. Dijksterhuis, P. K. Smith, R. B. van Baaren, and D. H. J. Wigboldus, “The Unconscious Consumer: Effects of Environment on Consumer Behavior,” *Journal of consumer psychology*, vol. 15, no. 3, pp. 193–202, (2005)
44. J. Bethlehem, Selection Bias in Web Surveys, *International statistical review*, vol. 78, no. 2, pp. 161–188, (2010)



2D Rigging Animation: A Literature Review

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Theory.

Abstract

While traditional, stop-motion, and *CGI* animation are theoretically stabilised within animation studies, a fourth production approach remains terminologically fragmented and conceptually underdefined. Despite its widespread use in contemporary television and game production, there is no consensus on its classification or designation. This study addresses this gap through a structured qualitative review of academic and industry-oriented sources in English and Lithuanian. The analysis identifies recurring terminological patterns and examines production workflows to isolate the technique's defining structural principle. The article proposes the term *2D rigging animation* and defines it as a strategic-level animation technique that uses segmented two-dimensional assets through a rig-based control system. Its advantages include efficiency, scalability, and asset reusability, while its limitations arise in projects that require extensive morphological transformation or non-reusable designs.

1. Introduction

In dominant classificatory models of animation production, four primary animation techniques are typically distinguished. Three of these—traditional animation, stop-motion animation, and *CGI* animation—are well-established and well-defined in both scholarly literature and professional discourse. The fourth technique, however, remains conceptually unstable. While many scholars and practitioners acknowledge the existence of a distinct production approach—albeit sometimes only in passing—that differs from the aforementioned techniques, they rarely define it with conceptual precision, particularly regarding the required skills, workflow structures, and labour organisation. Furthermore, there is currently no consensus on how it should be defined or labelled.

This ambiguity is reflected in the wide range of terms used to describe the technique. It has been variously referred to as *2D animation*, *2D digital animation*, *2D rig animation*, *2D Bone Based Animation*, *Paperdoll animation*, *Computer Graphics animation*, *(2D) Vector animation*, *Keyframe (2D) animation*, *Skeletal Animation*, *Digital Puppet animation*, *Puppet pin*

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rigging animation, *2D Technical Animation*, *Rigged animation*, *Motion graphics*, and related variations [1], [2], [3], [4], [5], [6], [7], [8], [9], [10], [11], [12], [13], [14], [15], [16]. However, this terminological plurality does not indicate a lack of scholarly engagement (or poetic inspiration), but rather reflects the technique's somewhat hybrid nature. In other words, the difficulty of classification arises partly because this fourth technique shares significant characteristics with both traditional and *CGI animation*.

The absence of terminological and conceptual consensus reveals a significant knowledge gap in animation scholarship. In response to this unresolved issue, the present article investigates the following research questions:

RQ1: What is the most conceptually precise label for the fourth animation technique?

RQ2: How can this technique be defined in relation to existing animation paradigms?

RQ3: What are its principal advantages and limitations within contemporary animation production?

This article's main contribution is a comprehensive analysis of a dataset derived from three sources: research papers on the method, literature on animation practice, and publicly available texts that present professional positions or insights on this technique. Additionally, the research examines what are the key strengths and drawbacks of this technique.

2. Animation techniques, types, and methods

This chapter must begin with the observation that animation-related literature—particularly methodological texts and publications presenting practitioners' personal insights—employs a wide range of terms to describe different approaches to animation production. The most frequently used concepts include techniques, types, and methods³ [1], [2], [3], [4], [5], [6], [7], [8], [10], [16]. Although these terms overlap to some extent, they are not synonymous. The problem is further compounded by the fact that various authors often conflate techniques, their subcategories, and stylistic variations within a single classificatory framework. In other words, they employ categorical systems that lack sufficient conceptual coherence and fail even under minimal analytical scrutiny. It is therefore necessary to establish clear definitional boundaries between these terms. The following section will clarify these distinctions and subsequently present arguments for why the term *animation technique* is the most conceptually appropriate for describing the highest-level approaches to animation production.

In the context of animation studies, the term *animation technique* refers to a strategy-level approach within a production framework for producing animated content (e.g., a pipeline). Thus, it refers to a structured set

3. It is worth bringing forward one example – in Deguzman's article on types of animations [6], in one paragraph, Claymotion is referred to as a genre and as a style. While rotoscope is labelled as a technique and a method. Alhumaidhi [4] uses interchangeably the terms type, technique, method, and even style while describing different workflow approaches to animation content production.

of practices that require particular knowledge, skills, workflow structures, equipment, and a division of labour. The identification of an animation technique, therefore, implies not a stylistic outcome, but a specific production logic. As seen in Figure 1, the contrast between the two animation techniques, CGI and 2D traditional animation, lies in the production process, while pre-production and post-production remain the same.

An animation *method* is a procedural strategy or specific organisational process used within a given animation technique to achieve a desired aesthetic outcome or to provide a preferred execution. In other words, animation methods indicate how something is executed within a specific animation technique. A great example is the term ‘rotoscoping’, which today describes the use of live-action footage to create animated content without specifying the exact procedure.

Animation *type* is a somewhat loose concept, as it can be used in quite different contexts to indicate a classificatory subdivision based on formal, structural, or production characteristics that do not alter the core production logic of a technique. In other words, the classificatory term can be used to describe a subcategory within a technique (i.e., claymation, puppet, cut-out or pixilation subcategories in stop motion animation technique), format (i.e., short or feature length, cinema or TV, etc.), or technical approach (analogue or digital). Thus, the meaning of the term depends on the context.

It is worth noting that the term *animation technique* is most frequently employed as a designation in the reviewed literature. However, it is often applied inconsistently, with some authors using it to describe subcategories, procedural methods, or merely variations between analogue and digital implementations of specific production tasks. In such cases, the term expands beyond its conceptual limits and, at its most expansive, may encompass as many as 13 [13], 15 [5], or 16 [4] distinct categories.

The authors therefore propose a classification framework based on four strategic-level animation techniques, each defined by distinct production logic, workflow structure, and labour organisation. The following section outlines and defines each technique.

Stop-motion animation is among the earliest animation techniques systematically employed [17]. It is a production method in which physical objects or models are incrementally manipulated and photographically captured frame by frame. The illusion of life emerges through the animator’s direct manual interaction with tangible materials [18]. Thus, the stop-motion technique refers to the underlying production principle—the physical deformation of material objects.

Traditional animation is defined as a production method in which the illusion of movement is generated by drawing each frame individually [6], [11], [14], [15]. The defining feature of this technique is the animator’s act of drawing, which structures both the workflow and the distribution of labour. Movement is constructed through sequential image creation, and the method’s technical identity lies in this frame-by-frame drafting process.

CGI animation, by contrast, operates within a computational environment [11]. In this technique, three-dimensional object representations are created using specialised software (such as *Autodesk Maya*, *Autodesk 3ds Max*, *Autodesk Softimage*, *MAXON Cinema 4d*, and *Blender*), and movement is produced by manipulating these virtual objects within a digital spatial framework [4], [5], [13], [19]. The illusion of motion emerges from frame-by-frame transformations in a virtual environment rather than from physical deformation or manual drawing.

It is important to clarify why the definitions of these animation techniques are not articulated in greater technical detail. Animation production practices are continually reshaped by technological innovation, and specific tools, software environments, or procedural steps may change significantly over a short period. Anchoring a technique's definition to particular technological operations would therefore require constant revision. For this reason, the techniques outlined above are defined at the levels of production logic, workflow structure, and labour organisation rather than in terms of technical specifics. It should also be noted that each animation technique offers particular strengths while simultaneously imposing certain constraints on creators. These structural characteristics shape both the aesthetic possibilities and practical limitations of production.

The fourth animation technique, which constitutes the central focus of this article, will be introduced and examined in the following chapters.

3. Methodology

The aim of this study is to examine academic and industry-oriented literature in order to clarify the conceptual status of the fourth animation technique and to propose a more precise definition. To achieve this, a structured literature review was conducted, combining scholarly publications and professional practice-oriented sources. Searches were conducted across major academic databases (including Scopus, Web of Science, and Google Scholar), as well as industry-specific platforms and industry-oriented publications. The search included peer-reviewed articles, textbooks, historical reflections, interviews with practitioners, professional tutorials for animators, and industry-oriented web publications. The inclusion of industry sources was deliberate, as the fourth animation technique is primarily defined by evolving production practices rather than by academic discourse alone. Search queries included combinations of the following keywords: “2D rigging animation,” “Computer Graphics animation,” “Skeletal animation,” “Digital puppet animation,” “Vector animation,” in combination with “animation pipeline,” “animation method,” and “animation technique.” The search was limited to English- and Lithuanian-language sources.

Table 1. Inclusion and exclusion criteria of a review.

Inclusion criteria	Exclude criteria
English language	Non-English language
Lithuanian language	Non-Lithuanian language
Academic articles	Forum posts
Textbook	Comments on the Internet
Industry-oriented web articles	Interviews with people not working with rigging and character design
Industry-oriented videos from animators	
Interviews with animators working with forth animation technique	

The initial search, conducted through January 2026, yielded fewer than 150 texts. After removing duplicates and screening for relevance, texts were filtered according to predefined inclusion and exclusion criteria (see Table 1). In the first stage, titles and abstracts were reviewed to assess thematic relevance. Publications addressing unrelated animation topics or treating the subject only superficially were excluded. Following this screening process, 58 sources were retained for qualitative analysis.

The authors employed a qualitative synthesis approach. The selected texts were examined comparatively in order to identify recurring definitional patterns, terminological usage, and descriptions of production workflows. This broader source-inclusion strategy helps mitigate publication bias [20], [21], and enables a more comprehensive evaluation of both scholarly and industry perspectives on the fourth animation technique.

4. Findings and discussion

As noted in the introduction, the fourth animation technique currently circulates under a wide variety of designations. Most of these proposed terms, however, are either overly abstract or excessively narrow. This instability can be traced to the technique’s historical development: it emerged during the broader process of digitalisation and evolved alongside *CGI* technologies and their expanding technical capabilities. Consequently, both scholars and practitioners have frequently named this production approach according to its most immediately visible characteristics at a given moment—such as 2D aesthetics [8], vector⁴ graphics [5], [14], digital formats [4], [13], or specific software tools [10], [12]—rather than identifying its underlying structural principle. As a result, attempts at classification have often failed to isolate the technique’s defining production logic or to establish a conceptually precise, widely accepted label.

Before proposing a terminological resolution, it is necessary to outline the principal structural characteristics of this technique. First, the illusion of movement is not generated by manually producing every individual frame. Second, the production process operates exclusively within a digital envi-

4. As White [14] observes, at the dawn of the internet, vector-based animation held a significant advantage over raster-based content and consequently came to dominate online distribution.

ronment; no physical objects are manipulated to create motion. However, these characteristics alone are insufficient, as they also apply to *CGI* animation. A more precise distinction must therefore be articulated: whereas *CGI* animation primarily involves manipulating three-dimensional objects within a volumetric virtual space [19], the fourth animation technique operates within a two-dimensional spatial logic [4].

The most distinctive feature lies in its reliance on a rigging system to animate two-dimensional characters or objects [2], [6], [8], [9], [10], [20], [21]. Rather than drawing each frame individually, the animator manipulates a digitally constructed skeletal or puppet-based structure, with motion emerging through deformation and interpolation between keyframes [2], [4], [6], [8].

This approach enables characters to move, deform, and express emotion in a controlled and efficient manner. The resulting flexibility and production efficiency have contributed significantly to its widespread adoption, particularly in television and video games contexts [2], [6], [16]. Although the technique was historically associated with inexpensive and limited animation, this perception no longer reflects contemporary practice. While it remains comparatively cost-efficient, it is not inherently limited unless creators or commissioners deliberately impose such constraints.

In response to the first research question—What is the most conceptually precise label for the fourth animation technique?—this study proposes the term *2D rigging animation*⁵. This designation reflects the two defining structural components of the technique: (i) the animation of two-dimensional objects and (ii) the reliance on a rigging or skeletal system that enables consistent, repeatable, and scalable motion production.

Moreover, the construction of a functional rig is a complex, skill-intensive process that requires technical expertise, theoretical knowledge, and a comprehensive understanding of pipeline organisation. The workflow must therefore be specifically adapted to this production logic, further reinforcing its status as a distinct animation technique rather than a subcategory or stylistic variation of existing paradigms.

However, while the proposed designation clarifies the earlier identified terminological ambiguity, naming alone does not resolve the broader conceptual question. It is therefore necessary to articulate the structural definition of 2D rigging animation within the proposed four-part classificatory framework. In response to the second research question—How can this technique be defined in relation to existing animation paradigms?—the following section examines its defining production principles, workflow configuration, and labour organisation. By situating 2D rigging animation alongside traditional, stop-motion, and *CGI* animation, the analysis demonstrates that it constitutes a distinct animation technique rather than a methodological variation or stylistic subtype of computational animation.

5. It should be noted that the term 2D skeletal animation is also conceptually coherent as a designation for this technique and may be used synonymously.

2D rigging animation represents a structurally distinct approach within digital 2D production and operates as an alternative to traditional frame-by-frame animation. Its workflow begins with constructing a character's structural framework: the animator (or technical artist) defines the character's form and connects a two-dimensional mesh to a rig or bone-based control system that governs movement. This stage establishes the foundational skeletal hierarchy [8]. Animation is subsequently produced by manipulating this skeletal structure via keyframe specification, with motion emerging from interpolation between them [22]. As Lee [2] notes, many 2D rig systems are technically derived from 3D bone-driven architectures, adapted to operate within a two-dimensional spatial logic.

Figure 2 illustrates this workflow during production: the bone hierarchy, produced at the very start of the production phase, determines every limitation and possibility of the animated character's motion. This reliance on rig-based deformation constitutes the core production logic of the technique, distinguishing it fundamentally from frame-by-frame animation, in which each drawing is created independently without an underlying mechanical skeleton, yet still operating in two-dimensional space. Therefore, crucially, the design of 2D assets must anticipate the rigging system.

Character components are created in discrete segments (i.e., layers) so that they can be organised into an efficient hierarchical control structure [23], [24]. Each element must be prepared to respond appropriately to transformations within the skeletal chain, enabling controlled rigidity, bending, and deformation [22]. In this sense, the structural planning of assets is inseparable from the rigging workflow itself. Historically, this approach can be traced to cut-out animation practices [25], although contemporary digital implementations significantly expand its flexibility and precision.

Character design within this technique typically includes a comprehensive asset library: multiple poses or angle variations of body parts, pre-defined key poses for recurring actions (e.g., walk cycles), charts of facial expressions and mouth shapes for dialogue, and, where necessary, assets at varying levels of detail for different shot scales [26]. Consequently, production requires creating and organising a substantial library of visual components. Preparing such character models for animation demands specialised technical expertise, theoretical knowledge of hierarchical control systems, and a clear understanding of pipeline integration [27]. Therefore, unlike traditional animation, where motion emerges from the sequential creation of images, or *CGI* animation, where volumetric objects are manipulated in three-dimensional space, 2D rigging animation constructs movement through hierarchical deformation of segmented two-dimensional assets.

In response to the final research question—What are its principal advantages and limitations within contemporary animation production?—this section evaluates the production contexts in which 2D rigging animation represents the most effective strategic choice.

From a production standpoint, 2D rigging animation is particularly associated with projects that prioritise efficiency, scalability, and

stylistic consistency without sacrificing established quality standards [8]. Although the initial construction of a functional rig requires considerable technical expertise and time investment, this cost is offset in long-running or episodic productions, where asset reuse, speed, and consistency become decisive factors. The technique is therefore especially well-suited to projects that aim to generate large volumes of animated content using stable character assets while maintaining moderate budgets. For this reason, 2D rigging animation is frequently adopted in fast-paced television production environments.

Prominent examples of Western animation productions include *Rick and Morty* (2013-), *Bob's Burgers* (2011-), *Bluey* (2018-), *South Park* (1997-), *Bojack Horseman* (2014-2020), *Rise of the TMNT* (2018-2020), *Invincible* (2021-), and *The Cuphead Show!* (2022). While production methodologies vary across studios, these cases illustrate the suitability of rig-based 2D workflows for serialised storytelling formats. Because the technique enables systematic asset reuse, flexible rigging strategies, and integration with other animation methods, it supports recurring characters and stylistic continuity across episodes [21]. Furthermore, rig-based animation facilitates the efficient population of scenes with multiple characters, as movement can be generated through controlled deformation rather than fully redrawn sequences [29].

A notable contrast can be observed between production trends in different animation industries. While 2D rigging animation has gained increasing prominence in many Western production contexts, the Japanese anime industry has remained largely committed to traditional frame-by-frame character animation. Major productions such as *One Piece* (1999-), *Attack on Titan* (2013-2023), and *Jujutsu Kaisen* (2020-) continue to rely predominantly on this approach. At the same time, it should be noted that Japan has developed specialised 2D rigging tools, such as Live2D, which are widely used to animate static illustrations and enable real-time motion capture in two-dimensional space.

Although a comprehensive explanation for the limited adoption of rig-based character animation in anime production lies beyond the scope of this article, several contributing factors can be identified. Anime character design typically emphasises highly expressive, stylised features and dynamic movement patterns [31], which are more readily achieved through frame-by-frame animation. Replicating this level of expressiveness within a rig-based system would require highly complex and labour-intensive rigs, potentially reducing the economic advantages associated with 2D rigging. Furthermore, as Takashi Murakami argues, anime aesthetics are closely connected to the “superflat” visual paradigm, which he associates with broader cultural tendencies in Japanese visual art [32]. Within this context, rig-based animation may be perceived as less suitable for achieving the desired aesthetic outcomes.

Beyond television, 2D rigging animation is widely employed in video game production, particularly among independent studios, and the cultural separation narrows significantly in this area. The game *Cult of the Lamb* (2022), developed by *Massive Monster*, demonstrates how rig-based

2D animation can support visually distinctive design while enabling the reuse of movement systems across characters and environmental elements. Rigging can also be applied to background assets—such as vegetation or props—allowing environments to appear dynamic without extensive frame-by-frame animation. Because rig-based systems allow iterative adjustments later in production, they offer flexibility particularly valuable in interactive media contexts. Japanese game studios have also embraced 2D rigging in their productions to deliver anime-style characters in interactive environments, especially dialogues and cut-scenes. The Japanese game studio Square Enix has released a game *Emberstoria* (2024), that animated 2D models in story scenes by implementing 2D rigging to make the game feel more emotionally engaging and stand out, as most mobile games use static frames for these kinds of scenes [33].

However, the structural advantages of 2D rigging animation diminish under certain conditions. Its efficiency relies on asset reuse and repeatable character systems; therefore, projects that require large numbers of unique, non-repeating character designs or extensive one-off visual elements reduce its economic benefits [30], [31]. Similarly, projects aiming to achieve highly fluid morphing transformations or complex volumetric dynamics may encounter limitations within rig-based constraints. In such cases, achieving lifelike motion often requires integrating traditional frame-by-frame animation to supplement the performance of a rigged character [11], [21], [30], [31].

In summary, 2D rigging animation can be seen as a hybrid production method that combines elements of digital computational control with two-dimensional aesthetic logic. Its main advantages include efficiency, scalability, reusability of assets, and precise deformation control. However, it is not always the best choice; its effectiveness depends on the story's scope, stylistic goals, and the scale of production. The widespread use of this technique—especially in animated television—indicates that it is most beneficial when production priorities focus on consistency, speed, and moderate budgets rather than highly dynamic or ever-changing visual complexity.

5. Conclusion

This article set out to address the persistent terminological and conceptual instability surrounding what has been referred to by numerous competing designations in both academic and industry-oriented discourse. Through a structured review of scholarly and professional sources, the study demonstrated that this instability stems not from a lack of engagement but from the failure to isolate the technique's defining production logic. By distinguishing between technique, method, and type, the article established a classificatory framework within which the fourth animation technique could be evaluated at the strategic level of animation production.

In response to the first two research questions, the study proposed the term *2D rigging animation* as the most conceptually precise designation and defined it as a production paradigm grounded in the hierarchical manipulation of segmented two-dimensional assets through a rig-based

control system. Its reliance on rig construction, asset segmentation, and interpolation-based animation establishes a distinct workflow configuration and labour structure.

Finally, the analysis of its principal advantages and limitations demonstrated that the effectiveness of 2D rigging animation is context-dependent. Its strengths—efficiency, scalability, asset reusability, and production consistency—make it particularly suited to serialised television and game production environments. By clarifying its conceptual status, this study contributes to a more coherent theoretical understanding of animation techniques and provides a foundation for future research into evolving production paradigms.

References

1. Mitkus, T., Nedzinskaitė-Mitkė, V.: *Animacijos pagrindai*. Technika, Vilnius (2020)
2. Gaming Academy, <https://www.youtube.com/watch?v=ptpZkq2uulQ>
3. RMCAD, <https://www.rmcad.edu/blog/the-evolution-of-animation-techniques-from-traditional-to-digital/>
4. Alhumaidhi, H. A.: Animation Techniques and Styles, *World Applied Sciences Journal*. 38(5), 422--426 (2020)
5. Oldakowska, K., <https://explainvisually.co/en/top-15-animation-techniques/>
6. DeGuzman, K., <https://www.studiobinder.com/blog/types-of-animation-styles/>
7. Yelowbick, <https://www.yellowbrick.co/blog/animation/top-animation-techniques-a-comprehensive-overview>
8. Rahmi, A., Prasetyaningsih, S., Ramadhani, W. P.: Skeletal Animation Movement: technique for Expressing Character Performance in 2D Animation “Lancang Kuning”. In: ICAE 2023– Proceedings of the 6th International Conference on Applied Engineering. pp/ 179--1879 (2023)
9. Rahmi, A., Nasrullah, M. F. A., Prasetyaningsih, S., Indriyani, S., Nasution, U. K., Rizky, H. N., Leviana, D.: Rig Implementation Using Duik Bassel Plug In 2d Animation “Terjebak Hoaks”. In: ICAE 2022– Proceedings of the 5th International Conference on Applied Engineering. pp/ 198--207 (2022)
10. Satria, D. A.: Analisis Penggunaan Puppet Pin Rigging Pada Pergerakan Karakter Animasi 2d. *Jurnal Ilmiah Informatika*. 7(2), 87--91 (2019)
11. O’Hailey, T.: *Hybrid Animation: Integrating 2D and 3D assets*. Focal Press, London (2010)
12. Harris, M., Husbands, L., Taberham, P.: *Experimental Animation: From Analogue to Digital*. Routledge, London (2019)
13. Musburger, R. B.: *Animation Production: Documentation and Organization*. CRC Press, London (2018)
14. White, T.: *Animation: From Pencils to Pixels*. Focal Press, London (2006)
15. Furniss, M.: *Art in Motion: Animation Aesthetics*. John Libbey & Company Ltd, London (2014)
16. SVGator, <https://www.svgator.com/blog/what-is-2d-animation/>
17. Cavalier, S.: *The World History of Animation*. Eurum Entertainment, London (2011)
18. Pribe, K. A.: *The advanced Art of Stop-Motion Animation*. Boston Course technology (2011)
19. Lanier, L.: *3D Lighting: History, Theory, and Application*. Routledge, London (2018)
20. Li, T., Qi, J.: *Building 2D skeletal animation for body control in unity with machine*

learning, In: Proc. SPIE 13256, Fourth International Conference on Computer Vision and Pattern Analysis (2024).

21. Bloop Animation, <https://www.bloopanimation.com/types-of-animation/>

22. Gu, Z., Liu, D., Langlois, T., Fisher, M., Davis, A.: How to Train Your Dragon: Automatic Diffusion-Based Rigging for Characters with Diverse Topologies. *Computer Graphics Forum*. 44(7). 1--11 (2025).

23. Shahbazi, N., <https://pixune.com/blog/2d-animation-pipeline/>

24. Connolly, M., <https://educationalvoice.co.uk/2d-rigging-techniques/>

25. Lucas, D., Cut-Out Animation: Explained Simply. <https://prolificstudio.co/blog/cut-out-animation/>

26. Zaid, A., <https://www.youtube.com/watch?v=5KtW6g3MOcQ>

27. Smith, H. J., He, N., Ye, Y.: Animating Childlike Drawings with 2.5D Character Rigs. *ArXiv:2502.1--10* (2025)

28. Moho Animation Software, <https://www.youtube.com/watch?v=yy3Ub8UeovI>

29. Dudok De Wit, A., <https://www.cartoonbrew.com/artist-rights/video-essay-why-the-animation-on-rick-and-morty-needs-to-change-208756.html>

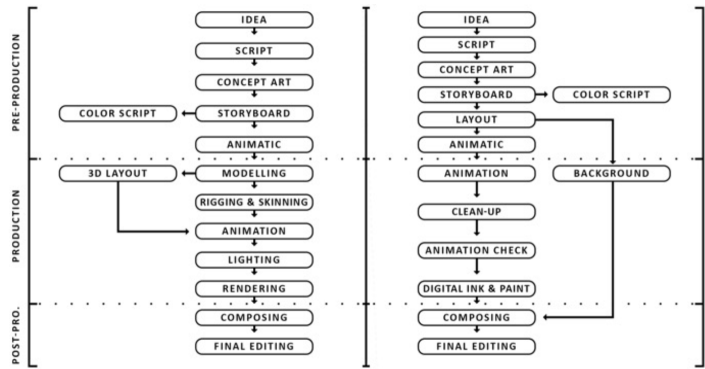
30. The Canipa Effect, <https://www.youtube.com/watch?v=dRAxYD3VlSk&t=206s>

31. Öze, N. & Esengöl, G.: Perception of anime cartoon characters depending on their visual traits and facial features. *Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 27 (1), 82-108 (2025)

32. Murakami, T.: *Superflat*. MADRA Publishing, Tokyo (2000)

33. Automaton West, <https://automaton-media.com/en/interviews/square-enixs-em-berstoria-pushes-live2d-animation-to-its-limits-to-achieve-a-hand-drawn-feel-3d-models-cant-replicate/>

Fig. 1. Simplified animation production pipelines: *CGI* animation (left) and traditional animation (right) (sound pipeline not included). Diagram composed by the authors.



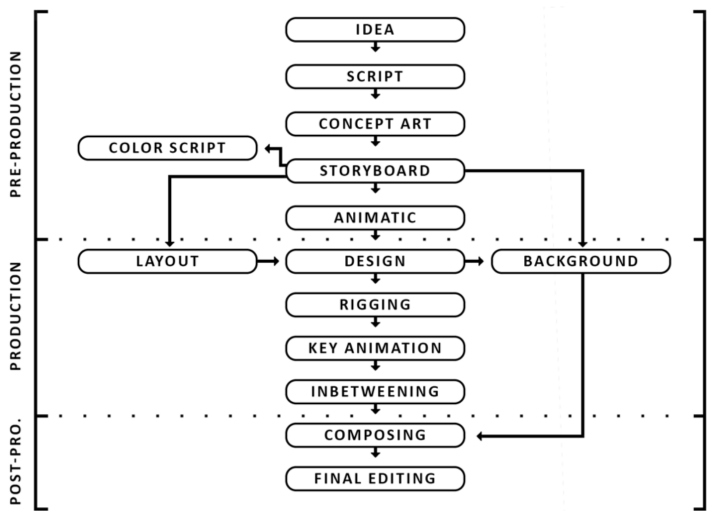
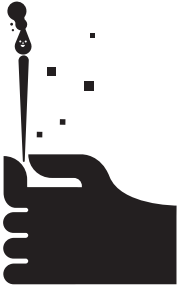


Fig. 2. Simplified 2D rigging animation production pipeline (sound pipeline not included). Diagram composed by the authors.



Approach to Atmospheric Lighting in CGI Animation: Literature Review

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Keywords

Stylistic lighting;
Cinematic; Scene Mood;
Light and Shadow.

Abstract

This study presents a structured literature review examining approaches to atmospheric (stylistic) lighting in *CGI* animation. While lighting has traditionally been understood as a technical necessity, this study positions it as a central narrative and aesthetic device within cinematic language. Addressing three research questions, the review investigates how lighting functions as a narrative and atmospheric regulator. Based on qualitative thematic synthesis of 38 scholarly sources, the findings indicate that atmospheric lighting operates at the intersection of cinematic convention, visual perception, and digital affordance. Although *CGI* animation technique enables extensive control and iterative refinement, effective lighting depends less on physical realism than on intentional orchestration aligned with narrative goals. The study proposes an integrated conceptual framework for approaching atmospheric lighting in *CGI* animation production.

1. Introduction

Animation is not only a visual medium but also a cinematic one. In its simplest sense, it employs aesthetic tools to tell stories that engage audiences “on emotional and intellectual levels through the art of visual storytelling” [1]. Aesthetics, therefore, is fundamental to animation: it does not merely support visual coherence, but shapes believability and fosters emotional connection with characters and worlds [2], [3]. As Furniss [4] argues, aesthetic achievement in animation emerges from the orchestration of image (character and background design), colour, composition, line, lighting, movement, kinetics, and sound—the overall *mise-en-scène*. While animation shares cinematic principles with live action, it also operates under distinct audience expectations. As Herhuth [5] observes, even when animation approximates reality, viewers seek experiences that are not simply realistic but believable and imaginatively constructed.

Within this aesthetic framework, cinematic lighting functions as a crucial narrative device, guiding perception and shaping emotional meaning in a scene [6]. Lighting in animation extends far beyond techni-

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cal illumination; it actively constructs atmosphere, mood, and spatial coherence [6]. However, approaches to lighting vary significantly across animation techniques, styles, and production contexts [2]. For this reason, this literature review focuses specifically on the *CGI* animation technique. Unlike hand-drawn or stop-motion animation, computer-generated imagery (*CGI*) is produced in a fully digital environment where geometry, materials, and lighting are defined computationally [3], [5], [6]. Its lighting practices are therefore based on physically based rendering models, virtual cinematography, and algorithmic simulation of light transport (e.g., ray tracing or global illumination). This enables precise control over parameters such as intensity, colour temperature, reflectance, and shadow behaviour [6]. Moreover, *CGI* has become the dominant animation technique in contemporary feature films, video games, and immersive media (i.e., *XR*) [7], [8] making it a particularly relevant field for examining current approaches to atmospheric lighting in animated content production.

In order to systematize the theoretical foundations discussed above and to narrow the scope of this study to *CGI*-based production contexts, this study formulates a set of research questions that structure the subsequent literature review and analysis. These questions aim to investigate how best to approach atmospheric lighting using *CGI* animation techniques:

RQ1: How does cinematic lighting function as a narrative and atmospheric device in animation?

RQ2: What aesthetic and psychological mechanisms link lighting, mood, and emotion in animated films?

RQ3: In what ways do *CGI* technologies expand or transform traditional cinematic lighting practices in animation?

By addressing these questions, this article offers a comprehensive analysis of a dataset derived from representative scholarly and professional literature on cinematic lighting, atmospheric direction, and *CGI* animation practices. Its main contribution lies in synthesising theoretical perspectives from film studies, animation theory, and colour research in order to articulate a structured framework for approaching atmospheric lighting in a *CGI* animation project.

2. Cinematic lighting

Lighting is a powerful storytelling tool, as it helps to produce meaning to the audience by communicating characters' emotional states, social environments, and broader cultural and technological contexts [6], [9], [10], [11], [12], [13]. As noted by Saygin, the history of cinema may be understood as a continual redefinition of light and its meanings across generations [9]. The development of a film's visual style is primarily guided by the director and cinematographer (director of photography), whose role is to coordinate visual elements into a coherent aesthetic whole [14]. Calahan similarly emphasises that cinematography directs the viewer's eye, clarifies action, establishes time and place, and shapes visual style [15].

Historically, lighting practices emerged from technical necessity. Early cinema relied heavily on sunlight to ensure sufficient exposure, with sets physically adjusted to maximise natural illumination [14], [17], [18]. The transition to indoor studios enabled greater control and experimentation. As artificial lighting technologies advanced, two principal tendencies developed: realistic lighting, aiming to reproduce natural conditions, and stylistic lighting, designed to express emotional and psychological states [16], [17], [18].

A different lighting system evolves with the photographic (and painting) arts – 0-point⁴, 1-point and 3-point lighting are among the most popular; however, other limited light variations also exist [6]. Thus, lighting has evolved from a technical prerequisite for visibility to a central component of cinematic language. Beyond shaping space and form, it structures narrative meaning and emotional experience. Three-point lighting—comprising a key, fill, and rim light—became the dominant illumination model in Golden Age Hollywood, establishing a standardised visual grammar for character presentation.

Technological innovation in film stock significantly influenced lighting aesthetics. The introduction of deep-focus cinematography and chiaroscuro in the 1940s, supported by new film stocks, facilitated high-contrast imagery associated with film noir [19]. Conversely, early colour film stock, with lower sensitivity, encouraged high-key lighting and reduced contrast [20]. By the 1980s, further advancements again expanded the possibilities for high contrast [19]. Thus, technological innovations in cameras and film stock effectively changed what audiences could expect from the cinematic look.

In contemporary production, digital cameras, image correction tools, and virtual effects environments allow greater flexibility and iterative experimentation. The shift towards LED technology has revolutionised the audiovisual industry, offering a more energy-efficient solution without compromising on quality. Furthermore, the development of smart lighting systems has created new opportunities for dynamic, complex shooting environments that can be programmed to work cohesively with camera and sound [21], [22]. It is important to note that research on cinematographic techniques shows that different lighting approaches, combined with camera movement strategies, can enhance audience involvement and emotional response [23]. However, in most Hollywood movies, naturalistic lighting (i.e., space lit solely by the sun) dominates aesthetic preferences [6]. This lighting creates a space in which objects can be easily perceived as three-dimensional and as having a continuous surface [24].

However, a stylistic lighting approach can also be found in various live-action films worldwide. This lighting approach departs from naturalistic illumination by employing strong ambient light or pronounced backlighting, which flattens spatial depth and produces a two-dimensional effect. In doing so, it enhances expressive potential by overriding

⁴ As Lanier notes [6], 0-point lighting (i.e., lighting when art does not communicate any lighting information) is an approach that is possible mostly in graphical-based art forms.

viewers' conventional expectations about surface properties [24]. Stylistic lighting is often used in horror, science fiction, and fantasy projects [6], where it is crucial for eliciting emotional resonance, particularly by emphasising characters' experiences and the film's overall mood [25]. Furthermore, stylistic lighting choices fundamentally shaped not only genre-aesthetic conventions but also the ways lighting contributes to depictions of fear, uncertainty, coldness, and restlessness [26], [27], [28]. Thus, the stylistic approach in genre films uses lighting to reinforce narrative messages and themes.

Elements that contribute to a film's mood can be broadly classified into low-level features—such as visual, auditory, and temporal properties [29], [30], [31]—and high-level, metaphorical concepts, including qualities such as beauty, interest, or surprise [31]. Low-level features are typically quantifiable: visual features include brightness and colourfulness; auditory features encompass loudness and dialogue- or music-related elements; and temporal features include shot duration and rhythmic structure [29], [30]. There is a demonstrable relationship between these low-level features and high-level aesthetic perceptions. For example, brightness and colourfulness are often associated with beauty, fast-paced and vivid imagery with energy, and dark, loud combinations with tension [31]. Such correlations suggest the possibility of computational approaches to genre identification based on the mood of individual shots [30]. However, audience responses to these features remain highly context-dependent, leading to significant variation in emotional interpretation [24], [31]. Consequently, high-level features continue to present challenges for reliably modelling the relationship between film style and genre [30]. This historical and conceptual overview provides the necessary foundation for the following methodological chapter, which outlines the approach to systematically reviewing literature on atmospheric lighting in CGI animation.

3. Methodology

This study employs a structured literature review to examine how stylistic (aesthetic) lighting is conceptualised and discussed within *CGI* animation scholarship. The aim is not to conduct a statistical meta-analysis, but to systematically map theoretical positions, recurring conceptual frameworks, and methodological tendencies within film, animation, and visual culture studies. By synthesising existing academic discourse, the review seeks to clarify how atmospheric lighting is understood in relation to narrative construction, mood formation, and *CGI*-specific project contexts.

The literature search was conducted between October 2025 and January 2026 across major academic databases relevant to film and media studies, including Scopus, Web of Science, and Google Scholar, as well as subject-specific repositories in art, film, and animation research. The search strategy combined Boolean operators and thematic keyword clusters. Terms referring to animation technique (“3D animation”, “computer graphics animation”, “CGI”) were combined with lighting-related concepts (“animation lighting”, “cinematic lighting”, “atmospheric lighting”, “stylistic lighting”, “lighting and shadows”). Addition-

ally, the terms “style” and “mood in film” were searched for theoretical studies of mood creation in film.

The search was limited to English-language publications, and the study’s scope allowed analysis only of mainstream animation cases.

Table. 1. nclusion and
exclusion criteria of a
systematic review

Inclusion criteria	Exclude criteria
Studies that focus on atmospheric lighting	Non-English language
Studies that focus on cinematic lighting	Studies not on animation
Studies that are peer-reviewed	Studies focused exclusively on technical rendering algorithms
Studies written in English	Studies on stereoscopic systems
Scholarly books	Studies on architectural/real-world lighting without narrative or aesthetic analysis

To ensure conceptual coherence, inclusion and exclusion criteria were defined prior to screening (see Table 1). Included sources comprised peer-reviewed academic articles and scholarly books addressing lighting in animation or film. Excluded were publications not available in English, non-academic online content (e.g., forums, blogs, informal commentary), and studies focused exclusively on technical rendering algorithms, stereoscopic systems, or architectural/real-world lighting without narrative or aesthetic analysis. Research centred solely on mathematical modelling or formula-based illumination, without discussion of cinematic or atmospheric implications, was also excluded.

The initial search yielded 60 records following abstract screening. Full-text evaluation was conducted independently by multiple reviewers to enhance reliability and reduce selection bias. Discrepancies regarding eligibility were resolved through discussion and consensus. During this stage, duplicates were removed, and studies that did not align with the review’s conceptual focus were excluded. The final sample comprised 38 sources, including 5 scholarly monographs.

The selected literature was analysed using qualitative thematic synthesis. Rather than aggregating quantitative findings, the analysis focused on identifying recurring theoretical constructs and interpretative patterns. Through iterative comparison and cross-reading, broader conceptual clusters were established, enabling the articulation of dominant perspectives and gaps within the field.

The following chapter presents the findings derived from this synthesis.

4. Findings and discussion

The qualitative thematic synthesis of the 38 selected sources reveals a coherent theoretical pattern: atmospheric lighting in the *CGI* animation technique doesn’t exist in isolation – it operates at the intersection of cinematic aesthetics, genre conventions, and psychological responses. Across the reviewed literature, lighting is consistently framed not as mere

illumination but as a narrational system that communicates meaning [9], [20], invokes mood [3], [32], [33], [38], and guides audiences [2], [6]. And in some cases, lighting can serve as a primary narrative device, supporting character development and conveying emotional meaning [32].

A central conceptual distinction emerging from the dataset concerns realistic (naturalistic) versus stylistic (atmospheric) lighting in CGI animation. However, contemporary animation rarely aims for strict photorealism, as excessive visual realism may evoke uncanny responses and conflict with audience expectations of animated worlds. Herhuth [5] distinguishes between *photorealism* and *styled realism*, arguing that animated imagery is evaluated differently from live action. Photorealism attempts to replicate the visual qualities of camera-captured reality, whereas styled realism retains recognisable real-world references while preserving aesthetic mediation. Within this framework, realistic lighting in CGI reproduces plausible environmental conditions and often relies on motivated light sources visible within the frame to reinforce diegetic coherence [6], [9]. For example, lighting may be used to signal a specific time of day (e.g., sunset) or spatial context (e.g., candlelight in a dark interior), thereby grounding the scene in perceptual plausibility.

Stylistic lighting, by contrast, deliberately manipulates contrast, chromatic temperature, softness, and directionality to construct atmosphere and emphasise psychological states, creating tribute to other art forms⁵ or establishing a parallel world of timeline [2], [32], [33], [34], [40]. Within this study, aesthetic lighting is treated as synonymous with stylistic lighting, foregrounding its expressive rather than imitative function in the animation medium. The literature further suggests that atmosphere cannot be reduced to lighting alone; rather, it permeates the entire cinematic fabric, including *mise-en-scène*, performance, editing, design, overall direction, and sound [2], [5], [35]. Nevertheless, lighting operates as a primary regulator of atmospheric perception, organising spatial hierarchy and emotional tone within the frame [14].

From a perceptual perspective, the findings align with established principles of visual cognition. Human attention is drawn to areas of highest luminance contrast and compositional prominence, making brightness hierarchy and shadow modulation effective tools for directing the viewer's gaze [6], [14], [38], [39]. This corresponds to Gestalt-oriented figure-ground dynamics, where contrast facilitates perceptual organisation. Depth construction through atmospheric (aerial) perspective—where distant objects appear less saturated and lower in contrast—further enhances spatial immersion [20], [43]. In animated crowd scenes and visually complex compositions, selective illumination can isolate narrative focal points while suppressing secondary elements [6], [40]. Thus, lighting's narrative function rests on both perceptual mechanisms and culturally learned viewing conventions.

⁵ Lanier notes [6] that in CGI animation, lighting can be employed with the intent to mimic a particular school of art, graphic and cinematic style, or any other art form.

The review also clarifies the relationship between lighting, mood, and emotion. Emotions are typically defined as short-term, object-directed responses, whereas moods constitute broader, longer-lasting affective states that shape interpretative frameworks [6], [24], [38], [48], [49]. Lighting modulates both. High-key illumination, characterised by low contrast and even distribution, is frequently associated with safety, optimism, or calmness, whereas low-key lighting, marked by strong chiaroscuro and deep shadow, conveys tension, ambiguity, or threat [3], [6], [14], [20], [45]. Colour temperature further intensifies these effects: warm hues tend to evoke intimacy and comfort, while cool hues suggest distance, melancholy, or unease [15], [46]. Historical and cross-media analyses demonstrate that time-of-day lighting symbolism—such as dawn as renewal, sunset as farewell, and night as suspense—remains remarkably persistent across aesthetic traditions [14], [42]. Genre studies similarly show that horror, science fiction, and fantasy frequently rely on stylised low-key or chromatically coded lighting to amplify uncertainty and fear [26], [27], [28], [49]. At the same time, these genres are not bound to a single visual strategy: for instance, horror employs a wide range of cinematographic techniques to evoke fear, while fantasy more consistently utilises chromatic lighting to convey narrative meaning at a subconscious level. The findings also suggest that film noir established conventions of low-key lighting that have influenced subsequent genres.

These observations open further avenues for exploration. For example, genres might benefit from deliberately subverting conventional time-of-day symbolism. Moreover, as recent studies tend to focus on still images or isolated shots, future research could examine how lighting key, colour temperature, and rhythmic variation interact over time to shape mood construction.

Within *CGI* production contexts, these established cinematic principles are technologically expanded rather than replaced. Virtual lighting systems allow extensive manipulation of intensity, falloff, volumetrics, and colour grading, often adjustable at advanced stages of production [6], [36], [38]. Such flexibility enhances iterative experimentation and precise atmospheric calibration. At the same time, *CGI* imagery frequently incorporates conventions associated with analogue cinematography—such as calibrated depth of field or controlled optical artefacts—to maintain perceptual continuity with established cinematic realism [6].

A recurring tension identified in the literature concerns the balance between physical accuracy and narrative legibility. While physically based rendering systems enable highly accurate simulation of light behaviour, expressive clarity often requires selective stylisation. Excessive realism may obscure focal hierarchy or weaken emotional contrast. Consequently, effective atmospheric lighting in *CGI* depends less on photometric precision than on intentional orchestration aligned with narrative objectives. Taken together, the findings demonstrate that atmospheric lighting in *CGI* animation emerges from three interdependent dimensions: (1) inherited cinematic conventions structuring visual grammar, (2) perceptual and affective mechanisms shaping viewer response, and (3) digital affordances enabling refined control and stylization.

5. Conclusion

This structured literature review examined how atmospheric lighting should be approached within the *CGI* animation technique, addressing three research questions: its narrative function, its psychological and aesthetic mechanisms, and its technological transformation in digital environments. The findings demonstrate that cinematic lighting operates as a core narrative device in animation, structuring spatial hierarchy, guiding audience attention, and regulating atmospheric perception.

In response to the second research question, the synthesis confirms that lighting mediates mood and emotion through perceptual principles and culturally embedded conventions. Contrast, colour temperature, diffusion, and depth cues influence both short-term emotional reactions and broader affective states. The distinction between realistic and atmospheric lighting proves conceptually productive, as stylistic approaches deliberately foreground expressive functions over purely mimetic reproduction.

Regarding the third research question, the analysis shows that *CGI* technologies expand traditional cinematic lighting practices by enabling unprecedented control, flexibility, and iterative refinement. However, digital affordances do not replace established cinematic grammar; rather, they extend and recalibrate it. Effective atmospheric lighting in *CGI* animation depends less on physical accuracy than on intentional orchestration aligned with narrative objectives.

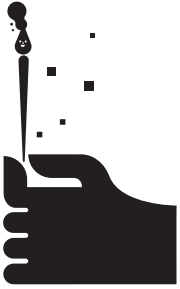
Finally, findings suggest a broader conceptual shift in how lighting should be understood within *CGI* animation (mainstream and otherwise). Unlike analogue cinematography, where lighting is constrained by physical production conditions and recorded through the camera apparatus, *CGI* reconfigures lighting as a fully constructed and revisable system. In other words, *CGI* technology enables lighting to be fully designed and controlled as a parametric element within the scene. As a result, atmospheric lighting in *CGI* functions less as an index of physical reality and more as a symbolic layer of narration, in which perceptual realism and expressive stylisation can be continuously negotiated.

References

1. Maratbaevna S. G.: The Evolution of Cinematic Language and Visual Expression Methods, Ilm Fan Qanoti. 1(1), 1–4 (2026)
2. Mitkus, T.: Aseksualaus nuogumo, erotikos ir pornografijos estetika 2D animacijoje. Technika, Vilnius (2025)
3. Mitkus, T., Nedzinskaitė-Mitkė, V.: Animacijų pagrindai. Technika, Vilnius (2020)
4. Furniss, M.: A new history of animation. Thames & Hudson, New York (2016)
5. Herhuth, E.: Pixar and the aesthetic imagination: Animation, storytelling, and digital culture. University of California Press, Oakland (2017)
6. Lanier, L.: Aesthetic 3D Lighting. History, Theory, and Application. Routledge, London (2018)
7. Solomons, M., <https://www.linearity.io/blog/animation-statistics/>
8. Lucas, D., <https://prolificstudio.co/blog/animation-industry-statistics/>
9. Saygin, K. D.: The Narrational Role Of Lighting Design In The Lights Of The Dark City. The Turkish Online Journal of Design Art and Communication. 15(3), 1136–1161 (2025)

10. Wees, W. C.: *Light Moving in Time*. University of California Press, Los Angeles (1992)
11. Millerson, G.: *Lighting for Television & Film*. Focal Press, London (1999)
12. McCartney, S.: *Photography Lighting Simplified*. Allworth Press, New York (2003)
13. Mascelli, J. V.: *The Five C's of Cinematography*. Silman-James Press, Los Angeles (1965)
14. Alton, J.: *Painting with Light*. Berkeley University Of California Press, London (2013)
15. Eggleston, R., Calahan, S., Jessup, H.: *The art of Pixar: the complete colorscripts from 25 years of feature films*. Chronicle Books, London (2020)
16. Pareboom, M.: *History and Film: Moving Pictures and the Study of the Past*. Routledge, London (2011)
17. Thompson, K., Bordwell, D.: *Film History: An Introduction*. McGraw-Hill, London (2003)
18. Cook, D. A.: *A History of Narrative Film*. W.W. Norton & Company, London (2016)
19. Franklin, J. A., Thompson, E. M.: Dark Visions: Cinematic Techniques In Modern Neo-Noir Films. *Ayden Journal of Management and Social Sciences*. 10(3), 35--52 (2022)
20. Brown, B.: *Cinematography: Theory and Practice*. Routledge, London (2022)
21. PacLights, <https://www.paclights.com/explore/cinema-lights-modern-lighting-engineers-perspective/>
22. Hendry, M. F., Kottmann, N., Huber, V., Schaerer, M., Iseli, C.: Simulate This! Virtual Production and Cinematic Education with cineDESK. *Avanca Cinema*. 532--538 (2024)
23. Yilmaz, M. B., Lotman, E., Karjus, A., Tikka, P. An embodiment of the cinematographer: emotional and perceptual responses to different camera movement techniques. *Frontiers Media*. 3(17), 1--13 (2023)
24. Grodal, T. K.: *Film Lighting and Mood. Moving image theory: Ecological considerations*. Southern Illinois University Press. 152--163 (2005)
25. Li, J.: Review of the Cinematic Elements in Two Men and A Wardrobe. *Arts, Culture and Language*. 1(4), 1--4 (2024)
26. Francisco, A.: Small town, big hell. *M/C Journal*. 28(1) (2025)
27. Sayad, C.: *Found-Footage Horror and the Frames Undoing*, University of Texas Press. 55(2) 43-66 (2016)
28. Trkdodu, H., Yasar, D., Kkali, U.F.: Analyzing Light Atmosphere Patterns Across Film Genres: A Student-Perception Based Content Analysis and AI-Assisted Visual Modeling. *Architecture Image Studies*. 6(3) 1979-1993 (2025)
29. Davenport, G., Smith, T. A., Pinciver, N.: Cinematic primitives for multimedia. *IEEE Computer Graphics and Applications*. 11(4), 67--74 (1991)
30. Rasheed, Z., Sheikh, Y., Shah, M.: On the Use of Computable Features for Film Classification. *IEEE Transactions on Circuits and Systems for Video Technology*. 15(1), 52--64 (2005)
31. Tarvainen, J., Westman, S., and Oittinen, P.: The Way Films Feel: Aesthetic Features and Mood in Film. *Psychology of Aesthetics, Creativity, and the Arts*. 9(3), 254--265 (2015)
32. Sharizan, P.N.B.B., Juhan, M. S.: Illuminating Emotion: The Role of Lighting in Shaping Atmosphere in Kubo and The Two Strings (2016). *International journal of research and innovation in applied science*. 1--6 (2025)
33. Pilling, J.: *Animating the Unconscious: Desire, Sexuality and Animation*. Wallflower Press, London (2012)

34. Sawzan, M. E. I. A.: Content Analysis of Lighting and Color in the Embodiment of Fear Concept in Horror Movies: A Semiotic Approach. *Information Sciences Letters*. 9(2), 135--142 (2021)
35. Spadoni, R.: What is Film Atmosphere? *Quarterly Review of Film and Video*. 37(1), 48--75 (2020)
36. Katatikarn, J., Tanzillo, M.: *Lighting for animation: the art of visual storytelling*. A Focal Press Book, London (2017)
37. Matbouly, M. Y.: Quantifying the Unquantifiable: the Color of Cinematic Lighting and Its Effect on Audience's Impressions Towards the Appearance of Film Characters. *Current Psychology*. 41(6), 3694--3715 (2022)
38. Newman, L. S.: *Lighting in 3D: Enhancing Realism and Mood in Your Models*. Kindle Edition (2024)
39. Kakar, M., Muzafar, R.: Investigating the Role of Film Lighting and Its Effect on the Audience's Emotional Response. *Addaiyan Journal of Arts, Humanities and Social Sciences*. 7(8), 34--44 (2025)
40. Walvoord, D.: *Dreamworks Animation. Lighting design for stylized animation*. ACM SIGGRAPH 2019 Courses. 1--42 (2019)
41. Maszerowska, A.: Casting the light on cinema – how luminance and contrast patterns create meaning. *MonTI: Monografías de Traducción E Interpretación*. 4, 65--85 (2012)
42. Huang, X.-Y.: Explore scene atmosphere in animation creation. 2016 International Conference on Applied System Innovation (ICASI). 1--4 (2016).
43. Wang, Q.: Light and Shadow: Exploring the Aesthetics of Dune's Visual Spectacle Through Effects, Design, and Art Direction. *Journal of Research in Social Science and Humanities*. 3(2), 14--21 (2024)
44. Seif El-Nasr, M.: Projecting tension in virtual environments through lighting. 2006 ACM SIGCHI international conference on Advances in computer entertainment technology (ACE '06). 1--8 (2006)
45. Brinckmann, C. N.: Cinematic Color as Likeness and as Artifact. In S. Lindberg (Trans.) *Color and Empathy: Essays on Two Aspects of Film*. Amsterdam University Press, 11--32 (2014).
46. Guochao, S., Donghyuk, C.: An Association Study on the Aesthetic Characteristics of Digital Lighting and Impressionist Painting -- Taking "Zootopia" as an example. *IASCT*. 159--162 (2018)
47. Wisessing, P., Zibrek, K., Cunningham, D. W., Dingliana, J., McDonnell, R.: Enlighten Me: Importance of Brightness and Shadow for Character Emotion and Appeal. *ACM Transactions on Graphics*. 39(3), 1--12 (2020)
48. Sauchelli, A.: HORROR AND MOOD. *American Philosophical Quarterly, JSTOR*. 51(1), 39--50 (2014)
49. Wang, Q., Sharudin, S. A.: The Impact of Color in Animation Scenes on Emotional Expression. *International Journal of Literature and Arts Studies*, 1(1), 64--71 (2025)



The Sketchbook as an Agent of Transformation for Creative Freedom

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Keywords

Creative Block; Visual Experimentation; Creative Freedom; Artistic Investigation.

Abstract

This study investigates the sketchbook as both an agent and a central tool for overcoming creative block in drawing, articulating theoretical review and analysis of contemporary practices. Creative block is understood as a multidimensional phenomenon sustained by perfectionism, fear, idealized expectations, and self-censorship, which restrict creative flow and demand a reorientation of the artist's relationship with their practice. Drawing is approached as a sensitive experience in which perception, emotion, and reflection interweave, shifting the focus from technical mastery to the development of visual perception and the productive acceptance of error and uncertainty. The sketchbook emerges as a protected space of continuous experimentation, in which the suspension of outcome pressure fosters confidence and authenticity. The research adopts a qualitative, analytical-interpretative approach, examining sketchbook pages by contemporary artists. Formal and procedural elements, such as overlapping, corrections, repetition, and unfinished work, are interpreted as mechanisms that sustain experimentation and the construction of visual solutions, in accordance with the theoretical framework. The findings indicate that the sketchbook extends beyond a preparatory support, functioning as an environment that embraces uncertainty, promotes creative freedom, and consolidates the artist's visual language, reaffirming its potential as a practice-based research methodology.

1. Introduction

In the contexts of drawing education and practice, creative block constitutes an obstacle affecting both novices and experienced artists alike. This phenomenon manifests through various fears, such as insecurity regarding the quality of one's own work, self-doubt about one's talent, and anxiety surrounding the development of a visual language. According to Mandić [1], author of *Overcoming Your Creative Blocks: 44 Activities to Help You Unlock Your Creative Potential*, creative blocks are inhibitions that prevent individuals from initiating, continuing, or completing creative projects, manifesting in both cognitive, emotional, and motivational

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symptoms, as well as difficulties in relationships and the management of expectations about one's own work.

Overcoming this complexity, however, goes beyond its identification; it demands a fundamental reorientation in the creator's relationship with the practice of drawing. It is necessary that drawing cease to be understood only as a technique or skill to be mastered and come to be understood as a lived experience that reconnects perception, emotion, and reflection. In this perspective, regular practice can be transformed from a pursuit of perfection into a space where experimentation, error, and discovery acquire intrinsic value. There thus emerges a gap between the theory of creative block and the practical strategies for overcoming it.

It is within this gap that the present article is situated, proposing the sketchbook as both an agent and a central tool, directly articulated with the author's artistic practice, in which the graphic diary functions as an instrument of continuous and protected experimentation. By enabling the development of confidence and overcoming inhibitions, this study seeks to understand how the sketchbook offers a pathway for both creative unblocking and the development of a free and authentic visual language. This investigation is justified by the concrete need to articulate strategies that enable the transition from a state of inhibition to an authorial creative flow, a challenge relevant both to arts pedagogy and to professional practice.

Differentiating itself from an ordinary notebook, the sketchbook is here understood as a personal low-risk laboratory, a "space for uncertainty" [2] where the pressure for results is suspended. By creating a protected context from external judgment, it allows the creator to establish a reflective and gradual dialogue with their fears, facilitating the organic emergence of an authentic visual language. It is therefore argued that the sketchbook constitutes a privileged space for mitigating creative block in drawing.

The central purpose of this study is, therefore, to identify and analyze the mechanisms through which the sketchbook operates this transformation and to promote the construction of one's own visual language. To this end, the article begins with a literature review underpinning the three pillars of the study, namely, creative block, drawing as an experience, and the sketchbook as a conceptual tool. Next, the methodology is detailed, describing a qualitative and analytical-interpretative approach within the field of artistic research, where the sketchbook is understood as a space for knowledge production through practice. The core of the argument then advances to the analysis, where artists' sketchbooks are interpreted in light of the theoretical framework. Finally, the article concludes with a synthesis of the findings, their implications, and perspectives for future deepening, articulating theoretical reflection and interpretation of artistic practice in the development of visual language.

2. The Multifaceted Nature of Creative Block

The creative process is characterized by its non-linear nature, constituting a dynamic flow in which intuition, experimentation, and reflection are

continuously articulated. The interruption of this flow does not manifest merely as a momentary scarcity of ideas, but as a paralysis that compromises the creator's relationship with their own practice. Nachmanovitch [3] observes that spontaneous creation already exists within the individual and that it is the creator's task to unblock the obstacles that impede its natural flow. Such a perspective highlights creative block as an active and multidimensional phenomenon, the understanding of which requires an examination of its constitutive mechanisms.

Among the mechanisms that sustain it, perfectionism acts as a principle that inhibits creative action. Far from representing a genuine commitment to quality, it functions as a paralyzing mechanism, replacing practice with idealization. Bayles and Orland [4] illustrate this dynamic by recounting a ceramics class in which the group evaluated by the number of pieces produced and engaged in cycles of trial and error achieved qualitatively superior results compared to the group instructed to produce a single perfect piece. The pressure for an ideal outcome, in this case, restricted experimentation and reduced learning. Cameron synthesizes this logic by defining perfectionism as “a loop — an obsessive, debilitating closed system that causes you to get stuck in the details of what you are [...] making and to lose sight of the whole” [5]. By shifting the focus from the process to an idealized result, perfectionism compromises the creative flow.

This dynamic is also marked by a discrepancy between idealized expectations and the concrete reality of practice. Bayles and Orland observe that “it is altogether too seductive to approach your proposed work believing your materials to be more malleable than they really are, your ideas more compelling, your execution more refined” [4]. The distance between the ideal image and the material reality of the work generates frustration and resistance to the continuation of the process. Mandić [1] describes this state as an accumulation of thoughts and feelings that obstruct spontaneous and fluid creative action, turning the imagined ideal into stagnant mental noise.

This tension is intensified by the presence of fear, which operates as one of the most powerful sustaining forces of creative block. Bayles and Orland [4] identify two main categories of fears associated with creation: those related to self-image and one's own ability, and those linked to reception and external judgment. Mandić [1] conceptualizes this dynamic as a structured conflict between instances of the creative subject, in which the pursuit of security sabotages action. This state manifests in procrastination, self-censorship, and the abandonment of ideas, revealing the difficulty of sustaining work in the face of uncertainty. For Nachmanovitch, “surrender means cultivating a comfortable attitude toward not-knowing, being nurtured by the mystery of moments that are dependably surprising, ever fresh” [3], thereby recognizing uncertainty as constitutive of the creative process.

A central expression of creative block is the internal critic, a constantly evaluative censor that transforms experimentation into a threat and error into failure. Cameron describes this critic as “our own internalized perfectionist, a nasty internal and external critic, the Censor,

who resides in our (left) brain and keeps up a constant stream of subversive remarks that are often disguised as the truth” [5], while Mandić analyzes this mechanism as an internal conflict in which “the creative inner child wants to express itself freely in a spontaneous, artistic way, and the internal critic does everything in its power to sabotage, inhibit, and punish it” [1]. The internal critic thus synthesizes the different dimensions of creative block, preserving an illusory sense of control at the cost of interrupting the creative process.

Creative block, therefore, emerges as a process sustained by interconnected mechanisms: paralyzing perfectionism, the discrepancy between expectation and reality, fear of experimentation and judgment, and internalized self-censorship. Overcoming it requires contexts that minimize judgment and encourage experimentation, creating space for practices capable of restoring openness to risk and sensitivity to the process.

3. Drawing as Experience

Understanding drawing as experience implies recognizing it as a practice embedded in everyday life, capable of transforming one’s relationship to the world and to one’s own perception. This transformation involves active participation in experience, in which observation and recording are articulated as an opportunity for discovery. As Dewey states, “to perceive, is more than to recognize” [6], indicating that aesthetic experience emerges from direct and profound engagement with reality. Drawing, therefore, goes beyond a purely technical approach, emerging as a practice of reorganizing experience, in which perception, emotion, and reflection are articulated into a meaningful unity.

In this process, the difficulty lies not primarily in manual execution, but in the way one sees. Edwards observes that “most people never learn to see well enough to draw” [7], thereby shifting the problem from the hand to perception. Drawing, in this sense, requires sustaining attention to what presents itself visually, suspending immediate responses and prior judgments, which may give rise to moments of cognitive conflict. As the author warns, “the difficulty of making that mental shift causes a feeling of conflict and confusion — and even a momentary mental paralysis. [...] The visual system, which is largely without language, just keeps looking for ways to solve the problem according to another kind of logic — visual logic.” [7]. Such episodes require the creator to reorganize visual information and to incorporate error as a productive resource.

The uncertainty that emerges from these moments should not be interpreted as failure or interruption, but as a constitutive element of artistic practice. Molina states that “the work always arises as a formalization of chaos; it is uncertainty rather than certainties that gives rise to creation” [8, authors’ translation]. Drawing, therefore, does not rely on prior guarantees but is constructed through confrontation with indeterminacy, demanding continuous decisions in the very development of the work. As the process advances, the practice produces results that may generate estrangement, and it is precisely these moments of estrangement that propel the work forward [8]. The experience of drawing thus emerges as a

constant negotiation with the unpredictable, in which conflict operates as a driving force of visual elaboration.

According to Duff [9], drawing manifests as a provisional and unfinished activity, enabling the creator to test hypotheses and explore paths without the demand for immediate resolution. This exploratory nature is reflected in the artist's experience, as Lord recounts: "Every time I start to embark upon a picture I always feel as if I'm a novice. It is slow and deliberate work and makes me feel tense [...] I find I am holding my breath for ages dreading the drawing going wrong" [9]. The emotional and existential dimension of drawing manifests itself in the tension between control and improvisation that accompanies the development of the work, reinforcing its exploratory character. As Lord notes, "the resultant illustration is a reconciliation between control on the one hand and lack of control on the other. I daren't question the way the drawing is going in case I stop it in its tracks" [9].

This exploratory approach, which embraces error, layering, stain, and unpredictable interactions, operates as a driving force of visual evolution, fostering the artist's graphic development by revealing new formal solutions and expanding expressive repertoire. In this sense, drawing asserts itself as a formative practice that shifts the focus from the result to the continuity of the process, integrating conflict, tension, and unpredictability into the very development of the work. Such a reconfiguration transforms what might otherwise operate as blockage into a constitutive element of visual learning, demonstrating that its overcoming does not lie in the elimination of uncertainty, but in the capacity to sustain it. It thus becomes pertinent to examine how the sketchbook may enhance this procedural dynamic by offering a continuous space in which such operations can become consolidated practices.

4. The Sketchbook as a Conceptual Tool

Understood beyond its materiality, the sketchbook can be conceived as a condition of practice that reorganizes the subject's relationship with artistic practice. Building upon the notion of drawing as experience, it emerges as a space that embraces uncertainty and experimentation, shifting the focus from the result to the process. This understanding transcends the restricted notion of the sketchbook as merely a notebook used for drawing, revealing it as a vital link between the artist and their creative process.

By operating as a conceptual tool, the sketchbook establishes a logic of practice characterized by the suspension of judgment and the reduction of the demand for immediate resolutions. Unlike exhibition-oriented formats, it offers a safe environment for continuous practice. Penketh observes that the sketchbook constitutes "a risk-free space for playing and mistake-making. There is always a space to act and create" [2], allowing not-knowing to be understood as a productive condition of learning. Pellegrin and Cunico reinforce this idea by describing it as "something akin to a diary, where thoughts and concerns emerge, and where it is possible to visualize, organize, express, experiment, and, above all, to make mistakes" [10, authors' translation], thereby legitimizing instability as a constitutive element of creative practice.

The sketchbook establishes itself as a deeply personal space, in which daily practice consolidates the artist's relationship with their own creative process. Scheinberger [11] observes that it functions as a diary, a notebook, and a space for experimentation, allowing the artist to record impressions, explore ideas, and develop visual solutions without external pressure. This sustained practice fosters the development of visual repertoires that evolve over time. As Block emphasizes, "sketchbooking is the gift that you give your future self. All those hours spent filling up pages of sketchbooks [...] I was building myself a reference library of inspiration and images that will always be there for me" [12]. At the same time, the sketchbook functions as an open laboratory in which drawing may occur without predefined purpose, allowing visual language to develop through repetition, variation, and accidental discovery, thereby strengthening creative autonomy.

In light of these mechanisms, the sketchbook can be understood as a framework that creates favorable conditions for mitigating the factors associated with creative block. By offering a protected environment for sustained practice, it shifts the creative act from the domain of judgment — internal and external — to that of the ongoing process. By fostering experimentation, legitimizing error, and consolidating habit, the sketchbook contributes to alleviating the obstacles that interrupt creative flow. It is not, therefore, a mere accessory, but a practice-based framework within which creative freedom can be exercised and cultivated. This understanding underpins the methodological approach adopted in the following section, in which these mechanisms will be examined through case studies based on the theoretical framework presented.

5. Methodology

This study adopts a qualitative, analytical-interpretative approach, grounded in the articulation between visual analysis and the theoretical framework. From this perspective, knowledge is constructed through the interpretation of visual and discursive materials, rather than through measurement or causal verification. Within this approach, the research does not aim at empirical generalization, but at identifying operative modes through which drawing processes may be understood in relation to the concepts discussed. The selected corpus consists of sketchbook pages by the artists Emma Carlisle and Beatriz Lostalé, reproduced in Martin Salisbury's *Illustrators' Sketchbooks* [13].

The selection of the cases was based on three complementary criteria: (1) the availability of reproductions of sufficient quality to allow detailed formal observation; (2) the presence of statements by the artists regarding their processes and their use of the sketchbook, considered here as primary discursive sources; and (3) the productive contrast between their approaches, which enables the examination of different modes of relating to the sketchbook as a space of practice. The choice of the artists is not arbitrary, as both explicitly articulate processes that relate to the theoretical concerns of this study: Carlisle emphasizes safety and the acceptance of error, while Lostalé foregrounds non-linear construction and progressive image development.

The analysis unfolds through the integrated articulation of formal description, the artists' statements, and the theoretical framework. The selected pages are described with attention to elements such as line, composition, layering, erasures, repetition of lines, unfinished areas, and the relationship between text and image. These observations are examined in dialogue with the artists' own statements, to understand how they describe the function of the sketchbook within their processes. The visual and discursive data are then interpreted through the theoretical mechanisms previously discussed, such as the suspension of judgment, the valorization of error, and the reduction of self-censorship, establishing a dialogue between observation and theory that allows the identification of operative correspondences with the attenuation of factors associated with creative block. These theoretical mechanisms served as analytical lenses to guide observation, while the artists' statements acted as a constraint on interpretation.

It should be noted that the analysis is based on reproductions of sketchbook pages rather than direct observation of the sketchbooks, which may limit the perception of the materiality of the process. However, for the purposes of this study, this material is considered sufficient, as the inquiry focuses on the formal, procedural, and discursive relations present in the visual representations and in the artists' statements. The interpretations do not seek to reconstruct the artists' intentions, but to identify modes of operating relevant to this research, based on careful observation of the available materials. These analyses do not assume that the artists produced their pages with the explicit intention of overcoming creative block; rather, they examine how formal and procedural aspects may operate in ways consistent with the theoretical framework.

5.1. Emma Carlisle: The Sketchbook as a Secure Space of Experimentation

Carlisle's relationship with the sketchbook is marked by an affective density crystallized in the recurring image of home. From this perception emerges the sense of protection described by the artist: "There is a safety to sketchbooks that you don't get anywhere else. They feel like a home for your drawings. If something doesn't quite work, you can turn the page and start again or shut the book and walk away." [13]. Such safety extends beyond the emotional sphere, assuming an operative dimension by fostering continuity in the process and encouraging experimentation.

In Figure 1, a double-page spread depicts a coastal landscape composed of broad areas of blue, white, green, and ochre applied in layers. The variation between more translucent areas and denser passages suggests the use of a water-based medium, over which dark blue linear interventions and foreground mark-making can

Fig. 1. Double-page sketchbook spread by Emma Carlisle, depicting a coastal landscape. [13]



be observed, possibly executed in a dry medium. Over the clouds, white hatching applied onto the painted layer suggests successive reworkings of the surface; brushstrokes and tonal adjustments remain visible, preserving the construction within the final image. In light of the theoretical framework adopted, this visibility may be understood as indicative of a practice that integrates instability and revision into the development of the drawing, aligning with the suspension of judgment and the reduction of self-censorship discussed earlier.



In Figure 2, another double-page spread depicts a reclining figure represented nude, wearing accessories such as a white collar, a green glove, and high heels. The body is predominantly delineated in blue lines, with passages in red, apparently executed in colored pencil. Areas of color structure the furniture: the yellow chair and red fabric stand out, with overlapping

Fig. 2. Double-page sketchbook spread by Emma Carlisle, depicting a reclining figure (life drawing). [13]

lines remaining visible. In the lines of the arm and leg, repetition and adjustment can be observed, preserving intermediate decisions. Small patches of color in the background expand the pictorial space without fully stabilizing it. The gesture is not erased, remaining as a trace of the ongoing process. Such visibility may be interpreted as compatible with a practice in which judgment is suspended and uncertainty is integrated into the creative trajectory, thereby sustaining the creative process.

Although the pages analyzed were not presented by the artist as deliberate responses to creative block, the formal elements observed allow them to be understood, within the framework of this study, as practices that reduce the centrality of judgment and expand the scope of experimentation. The sketchbook thus emerges not merely as a material support, but as an operative environment that sustains the process, contributing conceptually to the attenuation of factors associated with creative block.

5.2. Beatriz Lostalé: The Sketchbook as Progressive Image Construction

The illustrator and researcher Beatriz Lostalé offers a perspective complementary to that of Carlisle, shifting the focus from the affective dimension to a methodological understanding of the sketchbook as a tool for visual inquiry. In *Illustrators' Sketchbooks*, she states: "Sketchbooks are a vital part of my practice [...] I often use them in a non-linear way [...] creating a comprehensive record of raw ideas and images" [13]. She further notes: "I struggle to visualize images in advance. This is something that sketchbooks have helped to counteract by allowing me to progressively build the illustrations before me" [13]. The sketchbook thus emerges as a medium through which the image is constructed in the course of the work, shifting it from a chronological repository to a space of circulation and progressive image development.

Fig. 3. Double-page sketchbook spread by Beatriz Lostalé presenting studies of horses and riders. [13]



In the lower corner, a denser grouping of these figures brings together variations in pose and overlapping lines, concentrating greater graphic intensity. On the right page, the same theme reappears with variations in posture, occupying almost the entire surface. The difference in scale and organization between the pages reveals the coexistence of distinct approaches to the same motif, with the visible persistence of patches, annotations, and formal variations, suggesting the progressive construction mentioned by the artist.

Fig. 4. Double-page sketchbook spread by Beatriz Lostalé, presenting compositional studio with landscapes, portraits, and typographic elements. [13]



of framing and thematic associations. Linear sketches and annotations accompany the compositions, revealing relationships between structural synthesis and chromatic application. The right page maintains this structural logic, yet presents greater visual density and introduces ornamental elements, such as foliage patterns and patches of color along the margins, expanding the comparative field and reinforcing the regularity of the framings and their reiterated variation. A more organized comparative procedure can be observed here, in which the sketchbook operates as an instrument of formal ordering and evaluation.

In Lostalé's case, the declared difficulty in visualizing the image in advance does not constitute a paralyzing obstacle, but rather a starting point for a progressive construction process. The sketchbook functions as an intermediate surface upon which the image may gradually emerge through variations and comparisons. In light of the research question guiding this study, it can be observed that the sketchbook offers a concrete means of transforming uncertainty into formal elaboration. If, in the previous analysis, creative unblocking was associated with maintaining a protected space for experimentation, here it manifests in the possibility of constructing the image while thinking, thereby displacing the demand

In Figure 3, the double-page spread devoted to studies of horses and riders makes this non-linearity visible. On the left page, silhouettes in earthy tones are arranged diagonally, accompanied by chromatic patches alongside which small handwritten annotations can be observed, integrating into the visual field.

In Figure 4, experimentation assumes a more systematized configuration. The double-page spread is organized according to alignments resembling a grid, with colored miniatures that evoke editorial studies, within which landscapes, portraits, and typographic compositions such as "Greenland" and "Polynesia" appear, suggesting explorations

for prior visualization. In both cases, the sketchbook emerges not merely as a material support, but as an operative mechanism that sustains the development of an individual visual language, allowing creative freedom to take shape within the process itself.

6. Conclusion

This study demonstrates that the sketchbook constitutes a transformative pathway within the creative process, functioning as a continuous space for experimentation and visual elaboration. Based on the theoretical review and the qualitative analysis of the practices examined, the sketchbook moves beyond its condition as a preparatory support, assuming an active role in image construction and in sustaining artistic practice.

In the cases analyzed, the sketchbook proved to be both a space for embracing uncertainty and an instrument for the progressive organization of formal solutions. Thus, creative unblocking does not emerge as the result of spontaneous inspiration, but as the effect of sustained practices that allow visual language to consolidate within the process itself. Creative freedom therefore emerges from sustained experimentation and from the possibility of constructing the image in the act of thinking, fostering a reconfiguration of the author's identity and stance in relation to the creative process.

In the context of drawing education, this approach emphasizes the development of the creative process, fostering autonomy and confidence among learners through non-judgmental experimentation. In professional practice, it provides concrete strategies for exploring new visual solutions and overcoming creative block. Such contributions resonate with the author's ongoing master's project, in which the systematic practice of the sketchbook — as a practice-based research methodology — not only empirically tests the findings of this study, but also systematizes the sketchbook as a dynamic space for the transformation of visual language and of the artist's relationship with herself.

These perspectives open avenues for future research, such as empirical studies on the implementation of the sketchbook in formal educational contexts or through practical workshops. In both cases, the practice could be structurally integrated to allow for the systematic assessment of its impact on the autonomy, experimentation, and creative development of the participants. Another possibility consists of longitudinal studies that follow artists over the course of a year of continuous practice, enabling the observation of changes in visual repertoire and in the creative process. Such approaches would allow for the quantitative validation of the benefits observed in this study, extending its impact beyond the analytical-interpretative framework adopted here.

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References

1. Mandić, T.: Overcoming Your Creative Blocks: 44 Activities to Help You Unlock Your Creative Potential. Between Sessions Resources, Norwalk, CT (2018)
2. Penketh, C.: Sketchbooks: A Space for Uncertainty. TRACEY: Contemporary Drawing Research (2010)
3. Nachmanovitch, S.: Free Play: Improvisation in Life and Art. Jeremy P. Tarcher/Putnam, New York (1990)
4. Bayles, D., Orland, T.: Art & Fear: Observations on the Perils (and Rewards) of Art-making. The Image Continuum, Santa Cruz, CA & Eugene, OR (2001)
5. Cameron, J.: The Artist's Way: A Spiritual Path to Higher Creativity. Souvenir Press, London (2020)
6. Dewey, J.: Art as Experience. Perigee Books, New York (1980)
7. Edwards, B.: The New Drawing on the Right Side of the Brain (Rev. and expanded ed.). Jeremy P. Tarcher/Putnam, New York (1999)
8. Gómez Molina, J.J. (Coord.): Estrategias del dibujo en el arte contemporáneo. Ediciones Cátedra, Madrid (1999)
9. Davies, J., Duff, L. (eds.): Drawing: The Process. Intellect Books, Bristol (2005)
10. Pellegrin, R., Cunico, A.P.O.: O sketchbook como recurso no estímulo da experiência de criação no ensino da Arte Contemporânea. Revista Apotheke 7(2), 224--239 (2021)
11. Scheinberger, F.: Sketchbook Sem Limites: O Companheiro de Viagem do Urban Sketcher (D. Fracalossi, Trad.). Editorial Gustavo Gili, SL, Barcelona (2017)
12. Block, E.: Keeping a Creative Sketchbook: Build Your Artistic Practice for a Joyfully Inspired Life. Running Press, Philadelphia (2024)
13. Salisbury, M.: Illustrators' Sketchbooks. Thames & Hudson, London (2023)

Hybrid Workflows: Lavamachine's VR Animation Pipeline and Digital Claymation Aesthetics

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Abstract

Animation, with a century-long legacy, has evolved continuously, and recent technological advances have fueled a surge in digital productions—especially in virtual reality (VR). VR offers immersive experiences for creators and audiences while posing challenges such as limited motion tracker precision, creating unique research opportunities. Given VR's novelty compared to established animation workflows, its evolving tools, production paradigms, and aesthetic consequences warrant investigation. This study examines how hybrid VR animation workflows contribute to emerging digital claymation aesthetics. After briefly outlining VR animation tools and selected VR films, the paper presents a case study of the German animation studio *Lavamachine*, focusing on its Quill-to-Maya production pipeline. Through the examples from *What Time Is It?* (2022), the analysis shows how tool-specific constraints and pipeline decisions shape visual elements such as form language, materiality, lighting, camera movement, rendering, animation timing, and typography. Rather than treating VR as a replacement for physical claymation, the paper frames *Lavamachine's* work as a hybrid digital workflow that reinterprets selected claymation qualities through VR painting, frame-by-frame animation, shader design, and offline rendering. Dissecting *Lavamachine's* pipeline, this study identifies effective workflows for filmmakers, demonstrates how this VR-to-3D production process reinterprets stop-motion and claymation aesthetics, and illustrates how VR's constraints drive creative decisions—insights that may inspire innovative hybrid techniques and guide future tool development in immersive media.

Keywords

Animation; Claymation; Virtual Reality; Visual Aesthetics.

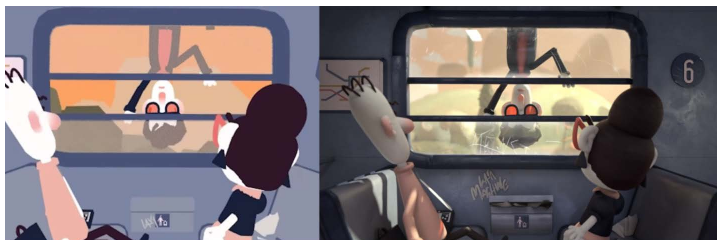


Fig. 1. *What Time Is It?* [1, T=00:00:32:12] Comparison between Quill-Output (left) and final rendering (right) [2].

1. Introduction

Animation has existed for over a century and remains a highly complex discipline, especially in character animation, as viewers quickly detect inconsistencies in movement. Advances in computational power have led to increasingly powerful systems, enabling digital workflows for animators. Today, software tools like *Blender* or *Maya* employ keyframe animation to achieve extremely detailed results. These trends also extend to virtual reality (VR), where the availability of affordable devices (e.g., *Meta Quest 3*) has made more of an effort to produce VR-focused animation.

Integrating design and animation processes into VR allows users to experience artworks from completely new perspectives, both in conceiving and creating animated films. Thanks to VR's inherent interactivity, animated works for VR can be purely audiovisual or include interactive elements. They may also be categorized by production pipeline, given the availability of VR-specific tools (e.g., *Quill*, *Tilt Brush*) alongside digital animation programs—either as part of a hybrid workflow or used exclusively within VR.

Following this introduction, the article examines a practical approach to VR animation using the animation studio *Lavamachine* as a case study.

2. Background: VR Animation Workflows and Claymation Aesthetics

This section provides the conceptual and technological background for the following case study. First, it briefly outlines the development of VR as a creative medium and introduces selected VR animation tools and projects that are relevant for hybrid animation workflows. Second, it defines claymation and stop-motion as reference aesthetics, since *Lavamachine's* films do not use physical clay but digitally evoke selected claymation qualities through VR-based painting, frame-by-frame animation, shading, rendering, and post-production.

2.1. VR Development, Animation Tools, and Selected Projects

The first attempts to introduce VR devices date back to the 1950s, including Morton Heilig's *Sensorama VR*, which allowed viewers to become immersed in short films, and the *Telesphere Mask*, the first head-mounted display (HMD) [3]. Later, Ivan Sutherland's *Sword of Damocles* introduced another early HMD system, often described as a first attempt to depict the real world with a display [3], while Jaron Lanier introduced the term “virtual reality” in 1987 [4]. However, due to a lack of technological progress, especially in rendering realistic visuals, VR only became broadly relevant for artists and filmmakers after the commercial success of the *Oculus Rift*, which emerged from Palmer Luckey's *Kickstarter* campaign in 2012 [3]. This technological shift made VR not only a medium for experiencing immersive content, but also a production environment in which artists could paint, model, and animate directly in three-dimensional space.

Because VR's mainstream success is relatively recent, most innovations in VR animation emerged after 2012, although earlier conceptual approaches such as *HoloSketch* already explored three-dimensional sketching and animation in virtual space [5]. Tools such as *Tilt Brush* [6,

7], *AnimationVR* [8, 9], and *Quill* [10] demonstrate different approaches to creating animated content in VR. *Tilt Brush* was initially designed for spatial painting rather than animation [6, 7], while *AnimationVR* uses controller-based puppeteering by applying recorded VR motion to a 3D model or camera, which can be understood as a light version of motion capture [8, 9]. *Quill* is particularly relevant for this paper because it enables artists to paint and animate directly in three-dimensional space, similar to *Blender's Grease Pencil*. It supports frame-by-frame animation, puppeteering, and transformation- or opacity-based keyframes [11]. However, rigging is restricted to transformation hierarchies, with no bones, joints, or weight painting [12].

VR tools are often integrated into more elaborate pipelines for producing animated films (see *Lavamachine* Film-Series in subsection 3.2) and do not necessarily replace established 3D/CG production software such as *Maya*. *Dear Angelica* (2017) [13], for example, was painted and animated in *Quill* [14], while *Wolves in the Walls* (2018) [15] used *Quill* during pre-production as a sketching tool to communicate complex three-dimensional scenes more easily. In the production pipeline *Quill* also played a role, but only for certain scenes, where the aesthetics of *Quill*-drawings was advantageous, e.g., for scenes where the protagonist encounters anxiety [16].

These examples show that VR tools can function both as self-contained creative environments and as components within hybrid digital workflows. This is especially relevant for *Lavamachine*, whose recent films combine *Quill*-based spatial painting and animation with *Maya/Redshift* shading, lighting, rendering, and post-production (see section 3).

2.2. Claymation and Stop-Motion as Reference Aesthetics

Claymation can be understood as a clay-based form of stop-motion animation, in which physical figures are animated frame by frame [17, p. xvii]. Ken A. Priebe describes clay animation through Will Vinton's "Claymation," where everything on screen could be made from clay, including puppets, props, and sets [17, p. 30]. This makes claymation strongly tied to material production: figures are sculpted, touched, reshaped, posed, and lit in a physical environment. Priebe also notes visible traces such as "lumpy texture and fingerprints." [17, p. 26] Barry J. C. Purves further emphasizes claymation's tactile quality, describing clay and plasticine animation as involving sculpting, resculpting, transformation, rawness, and the physical pleasure of working with the material [18, pp. 142–143]. Because stop-motion movement is built between frames, claymation also has a temporal quality in which small irregularities can reinforce its handmade impression [18, pp. 9–11].

This background is relevant because *Lavamachine's* films do not use physical clay, but evoke claymation qualities through a digital workflow. In this paper, the term "digital claymation aesthetic" refers to a visual style that resembles aspects of clay animation—such as tactile-looking surfaces, visible deformation, low-frame-rate animation, and deliberate material imperfection—without being produced through physical stop-motion.

3. Case Study: Lavamachine

In the following, the focus will be on a German animation studio called *Lavamachine*, which was founded by Eric Giessmann and Piers Goffard. This animation studio has recently published several VR animation films.

3.1. Recent Projects

Despite Eric Giessmann formerly specialized in digital animation, which can be seen in his films *Typewriterhead* (2015) [19] and *Sand Wanderer* (2017) [20], he decided to take advantage of VR technology when experimenting with different VR animation tools [21]. This was the starting point of his company *Lavamachine* [22] in 2017 [23], which integrated *Quill* into their animation pipeline [24].

As seen in section 2, VR technology has its paradigms, one of them being that the user is completely immersed in the artwork by wearing a headset. Since the motion controller of the VR headset does not track hand movements entirely correctly, there is limited precision when drawing. Visually this can manifest in aesthetics which are similar to clay and claymation. *Lavamachine's* recent projects *What Time Is It?* [1] *Reincarnation Mall* (2023) [25] and *Monster* (2024) [26] are part of a film series and are good examples of this [27]. This motivates a comparison between claymation and VR animation in subsection 3.3.

3.2 Pipeline of Lavamachine

In the Gumroad-Tutorials [28], [29], and [30] as well as in the video [23], *Lavamachine* shared further details about their production pipeline which is adapted to different films. In [23] and [30], Eric Giessmann demonstrates it with two sample scenes called *Yokozuna Artwork* (2020) [31] and *Immune System Cosmonaut* (2020) [32]. Subsection 3.3 discusses how this pipeline has influenced the appearance of *Lavamachine's* other works. In general, they want to portray the aesthetic and technical qualities of claymation and VR animation, which is also reflected in their pipeline.

Overview. Normally, they start with analogue sketches, a storyboard, and gathering reference images. In production, *Quill* is used for painting (modeling) and animation. Since the color palette, as well as lighting and shading, is very limited in this VR tool, they import the model and animation data from *Quill* into *Maya*. Here, they use complex shading networks and physically based rendering (PBR) with the rendering engine *Redshift*. This is possible because the final films are rendered offline for screens rather than viewed interactively, which is also true for the VR version of *Lavamachine's* films. Additionally, further 3D objects can be placed in *Maya* (e.g., the metal rig within the *Yokozuna Artwork* [31]) [23, T=01:07:00:00]. Post-processing and adding music or sound effects are usually done within *Adobe Premiere Pro* [23, T=01:20:00:00].

Quill. In *Quill*, a simple file-structure of the *Quill* project is mostly preferred with rather flat transformation hierarchies. Furthermore, planar surfaces are avoided when painting, because they do not integrate well with clay-like shapes.

To mimic stop-motion and claymation, Eric Giessmann uses low frame rates (e.g., 6 FPS in the *Yokozuna Artwork* [31]). When exporting from *Quill*, FBX is used since frame-by-frame animation is easier to edit in that format compared to Alembic files. Alembic supports motion blur and exports everything as one large 3D mesh with baked animations, where shaders can be applied faster. FBX, in contrast, exports each frame as a separate object with its visibility channel animated over time, making changes in *Maya* more time-consuming. Furthermore, loop data is lost and must be recreated in *Maya*.



Fig. 2. Example bump map for clay shader with fingerprints [23, T=00:42:30:00].

Maya: Colors. When importing the FBX scene, Maya cannot interpret colors by default, because *Quill* uses vertex color rather than UV maps and texturing. Therefore, Eric Giessmann created a Redshift shader [28] that works with color sets from the VR applications *Quill*, *AnimVR*, *Tiltbrush*, and *Medium* [23, T=00:18:00:00]. Sometimes color correction is needed—particularly when adjusting between *linear*- and *gamma-colorspace* or modifying saturation or contrast. The shader can also adjust vertex-color falloff and reflection or refraction properties.

Maya: Clay Shader. Accurate color interpretation alone is not enough for a realistic clay look, so bump and displacement maps are used to achieve a more plastic aesthetic. Bump maps often contain fingerprints (see figure 2) and noise textures that blend together, conveying the impression of clay being manipulated by animators [23, T=00:47:05:00]. Displacement maps, which are also implemented as noise textures, help smooth out hard edges by applying tessellation.

Although *Quill* can export UV maps, they are often unoptimized if geometry overlaps. Therefore, UV maps are generally created in *Maya* via automatic mapping, which can be time-consuming because each frame is a separate object [23, T=00:45:00:00]. Bump maps can also be generated via projection mapping, but in that case, the bump pattern remains fixed in space as the object moves, producing a particular aesthetic.

Sometimes noise textures, as well as the rotation of displacement and bump maps, are animated over time to simulate the changing appearance of real clay—just as it would be deformed by hand in stop-motion. Because each frame is a separate object in FBX, different deformations can be applied per frame. Internally, Eric Giessmann uses expressions in *Maya* to modify these properties based on time multiplied by a constant [23, T=01:05:00:00].

Maya: Lighting. When painting in *Quill*, there are no actual light sources, so variations in color for lighting and shadows must be painted

as geometry. In *Maya*, *Lavamachine* replaces these painted shadows with dynamically calculated ones (e.g., in *Immune System Cosmonaut* [30, 32]) and uses Global Illumination with the *Brute Force* setting in *Redshift*, resulting in brighter, softer shadows, which require a background, where light bounces back [23, T=00:40:31:00].

Light sources are configured so the key light is larger than the fill light, and they are often made invisible. Volumetric lighting is applied in [32] by creating an atmospheric effect within the render settings, with light rays implemented as a noise-texture affecting the light-shape. A cardboard-texture is also applied to the ambient-light and the spot-lights for variation on the ground [30].

Fig. 3. Film analysis of Eric Giessmann’s video series [1, 25, 26].

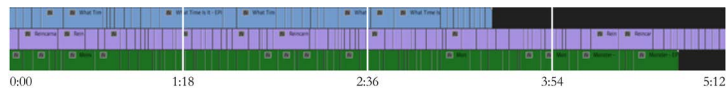
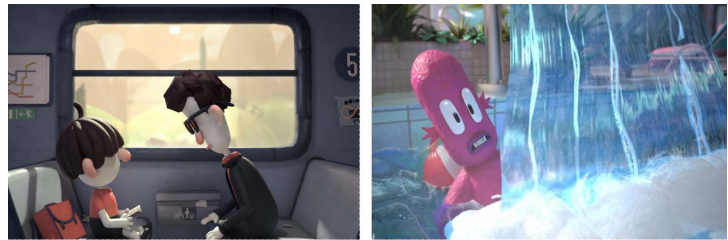


Fig. 4. Longest and shortest shots of Eric Giessmann’s video series [1, 26].



Maya: Camera and Rendering. Camera settings can be adjusted in *Maya*, including different frame rates for the camera and movements—an advantage over physical claymation. *Quill* also supports flexible frame rates since its export data can automatically be adapted later. To mimic VR movement, *Lavamachine* simulates headset shakiness in *Maya* using camera shake expressions for each axis—though camera movements could also be done in *Quill* [23, T=01:14:30:00]. Motion blur is not used in the *Yokozuna Artwork* [31], reflecting the discrete frames of physical claymation. However, Depth of Focus is employed by linking the camera to the focused object via a measurement tool, enabling dynamic distance updates for a *Bokeh effect* in *Redshift*. Post-processing effects (e.g., vignettes, exposure, and saturation adjustments) are done in *Maya* or *Adobe Premiere Pro*.

3.3. Pipeline Effects on Visual Style

The following analysis examines how *Lavamachine*’s production pipeline shapes the visual style of *What Time Is It?*. It first provides a brief film analysis before using the pipeline knowledge from subsection 3.2 to discuss how VR-based production affects claymation-inspired visual aesthetics.

Film Analysis. Figure 3 shows the general cutting structure of *What Time Is It?* in comparison with the other films in the series. All three films are rendered at 24 FPS: *What Time Is It?* is shown at the top, *Reincarnation Mall* in the middle, and *Monster* at the bottom. *Reincarnation Mall* is the



Fig. 5. Wind-animation (left) and special lighting (right) [1].



Fig. 6. Text written in *Quill* (left) vs. text in *Maya* (right) [1].



longest film at 5:12, while *What Time Is It?* is the shortest at 3:30.

Monster has the shortest shot at just 19 frames, highlighting the monster's low self-esteem as it quickly peeks out from behind a waterfall to avoid being seen (see figure 4, right image). In comparison, *What Time Is It?* includes the

Fig. 7. Difference between character animation and post-processing animations (*What Time Is It?* [1, T=00:00:49:08]).

longest shot without a cut (27 seconds), which requires sufficient visual content for entertainment: In this shot, the right character in figure 4 (left image) explains his mission to his younger self on the left, serving as an exposition. However, in general, *Lavamachine's* films do not contain much spoken dialogue—especially *Reincarnation Mall* [25] and *Monster* [26].

Normally, a faster-cutting pace creates tension, but in figure 4, tension rises because the older self of the character explains that a girl will enter the train who he has to talk to. Nevertheless, the film is not cut quickly, but the camera rather follows the character's subjective perspective, looking first at the front door and then the back. Based on these observations, the following section relates the films to *Lavamachine's* production pipeline.

Film series in terms of the pipeline. VR animation has limited precision due to the motion controllers, so simpler art styles like digital claymation (as in *Lavamachine*) are easier to achieve [24]. Movements of characters created in *Quill* are not smooth because frame-by-frame animation relies on a simple transformation hierarchy, and keyframe interpolation is only available for transform and opacity values. This contrasts with a fully *Maya*-based approach with complex rigs. The adult version of the main character in *What Time Is It?* (figure 4, left)

demonstrates this simplicity, with body parts made of primitive shapes and four-fingered hands. The child's head, on the other hand, is smaller and rounder than the adult's long, elliptical head, emphasizing the age difference via the baby schema.

Because of this simplified style, the complexity of animation is also limited. For instance, wind is depicted by moving plants in the second shot (figure 5, left) through the puppeteering method with motion controls [33]. *Lavamachine's* approach is not entirely VR-based (see subsection 3.2): in *What Time Is It?*, train movement is mimicked by camera shakes, while dynamic lighting effects—like the shadows in figure 5 (right)—are calculated in *Maya*, since they cannot be painted in *Quill*. Additionally, three-dimensional fonts in the film's title contrast with *Quill's* painted aesthetic for the credits. Figure 6 shows how these *Quill*-painted credits differ from the 3D text.

All these elements reflect *Lavamachine's* specific pipeline, including character movement that does not match the film's frame rate.

Claymation vs. VR animation. Focusing on the claymation aspect, as mentioned in subsection 3.2, Eric Giessmann uses a clay shader in *Maya* with bump and displacement maps. VR offers advantages over physical claymation because clay, being sensitive to touch, does not need to be physically sculpted or stabilized with external rigs in a digital pipeline, and no external cameras are required. However, accurately simulating real clay properties in shaders remains challenging. One way to approximate the tactile deformation of clay is by animating the clay shader and its displacement map, which becomes especially visible in characters such as those in *Monster*.

The digital pipeline also facilitates the integration of 3D and CG elements, as illustrated by the character, camera, and train movements in *What Time Is It?*. Characters are animated on twos (12 FPS) via *Quill*, while post-processing effects like lighting and the train's movement are rendered on ones (24 FPS). This setup is not impossible in physical claymation, since different temporal rhythms can also be combined in stop-motion and post-production. However, the digital pipeline makes these layers easier to separate, adjust, and recombine after the animation stage. Figure 7 shows an example of this. Likewise, incorporating fonts (figure 6, right) or looping animations (figure 5, left) is much easier digitally. This combination of claymation-inspired aesthetics and VR animation adds an artificial quality to the final result.

4. Discussion & Conclusion

VR animation can accelerate production and offers a new way to engage with artwork. *Lavamachine* builds on this by integrating *Quill* into a broader hybrid production process. In their film series, the pipeline—evident in shapes, materials, lighting, camera movement, rendering, animation, and fonts—contributes to a digital claymation aesthetic. This aesthetic results from the interaction between *Quill*-based spatial painting, *Maya/Redshift* shading and rendering, and post-production decisions. *Quill's* vertex colors and simplified forms are enhanced by a custom clay shader

in *Maya*, while frame-by-frame animation on VR models underscores their reduced and tactile appearance. At the same time, *Maya* handles lighting, camera movement, final rendering, and parts of the animation, compensating for *Quill's* limited precision. Global Illumination in *Redshift* produces lighting and shadows, and camera effects such as shaky movements further shape the final visual style, as seen in the train animation in *What Time Is It?* [1, T=00:00:49:08].

Compared to physical claymation, *Lavamachine's* digital artifacts offer greater visual flexibility, especially because individual layers (e.g., character animation, lighting) can remain adjustable within the pipeline. However, replicating authentic clay qualities—such as natural fingerprints—remains challenging and requires manual adjustments. The digital workflow therefore does not replace physical claymation, but reinterprets selected material and temporal qualities through VR-based and 3D/CG production methods. Since the creators have not disclosed all details of their pipeline, the analysis in section 3.3 remains limited. A structured interview would be essential for a more comprehensive dissection of the films and a clearer understanding of how technology influences the final visual style.

Overall, this paper shows how *Lavamachine's* hybrid VR animation workflow contributes to a digital claymation aesthetic. It demonstrates how digital tools can reinterpret classic animation aesthetics through hybrid production techniques, offering filmmakers practical workflow insights.

References

1. Giessmann, E.: *What Time Is It?*. Lavamachine (2022). <https://www.oculus.com/experiences/media/515318603809618>
2. Lavamachine: Split Screen comparison between: Rough Quill Animatic <> Final Quill Animation <> Final Maya Redshift. Instagram (2022). <https://www.instagram.com/p/ChE4l4PqTGI/>
3. Barnard, D.: History of VR – Timeline of Events and Tech Development. VirtualSpeech (2024). <https://virtualspeech.com/blog/history-of-vr>
4. Lowood, H.E.: Virtual Reality. Britannica (2025). <https://www.britannica.com/technology/virtual-reality>
5. Deering, M.F.: HoloSketch: A Virtual Reality Sketching/Animation Tool. ACM Trans. Comput.-Hum. Interact. 2, 3, 220–238 (1995). <https://doi.org/10.1145/210079.210087>
6. Muzaffar, A.: Tilt Brush by Accident : by Guest Speakers Drew Skillman and Patrick Hackett. Museumor (2021). <https://www.museumor.com/blog/tilt-brush-by-accident-by-guest-speakers-drew-skillman-and-patrick-hackett>
7. Ungerleider, N.: Google's Tilt Brush Is The First Great VR App. Fast Company (2016). <https://www.fastcompany.com/3056668/googles-tilt-brush-is-the-first-great-vr-app>
8. Vogel, D., Lubos, P., Steinicke, F.: AnimationVR – Interactive Controller-based Animating in Virtual Reality. In: 2018 IEEE 1st Workshop on Animation in Virtual and Augmented Environments (ANIVAE), pp. 1–6. IEEE (2018). <https://doi.org/10.1109/ANIVAE.2018.8587268>
9. Vogel, D., Lubos, P., Steinicke, F.: IEEE VR 2018. AnimationVR - Interactive Controller-based Animating in Virtual Reality. YouTube (2018). <https://youtu.be/GdYEmyH85fs>

10. Quill by Smoothstep, <https://quill.art/>
11. Fujita, G.: Quill - Painting & Animation Techniques. YouTube (2019). <https://youtu.be/HWHiSCtioBk>
12. Fujita, G.: Quill - Rigs and Cameras. YouTube (2020). https://youtu.be/dXPv5P_pJeI
13. Unseld, S.: Dear Angelica. Oculus Story Studio (2017). <https://www.oculus.com/story-studio/films/dear-angelica>
14. Roettgers, J.: Inside 'Dear Angelica': How Oculus Reinvented VR Animation, With a Little Help From Geena Davis. Variety (2017). <https://variety.com/2017/digital/spotlight/inside-dear-angelica-oculus-vr-1201963034/>
15. Billington, P.: Wolves in the Walls. Fable Studio, Inc. (2018). <https://www.meta.com/de-de/experiences/2446271755437605/>
16. Billington P.: Quill and Wolves in the Walls. Virtual Beings Summit (2019). <https://www.virtual-beings-summit.com/blog1/quill-and-wolves-in-the-walls>
17. Priebe, K.A.: The Advanced Art of Stop-Motion Animation. Course Technology, Boston (2011)
18. Purves, B.J.C.: Stop Motion: Passion, Process and Performance. Focal Press, Oxford (2008)
19. Giessmann, E.: Typewriterhead. Vimeo (2015). <https://vimeo.com/131229751>
20. Giessmann, E.: Sand Wanderer. Vimeo (2017). <https://vimeo.com/327023991>
21. Giessmann, E., Tokarev, K.: Introduction to 3D Painting in VR. 80.lv (2019). <https://80.lv/articles/introduction-to-3d-painting-in-vr/>
22. Lavamachine, <https://www.lavamachine.com/>
23. Giessmann, E.: Quill to Maya/Redshift Pipeline with Lavamachine. YouTube (2020). <https://youtu.be/TGLxKorlkdo>
24. Giessmann, E., Sergeev, A.: Voodoo Eye: The VR-to-Unreal Engine Pipeline in Animation. 80.lv (2023). <https://80.lv/articles/voodoo-eye-the-vr-to-unreal-engine-pipeline-in-animation/>
25. Giessmann, E.: Reincarnation Mall. Lavamachine (2023). <https://www.oculus.com/experiences/media/1328791754577048>
26. Giessmann, E.: Monster (2024). Lavamachine (2024). <https://www.oculus.com/experiences/media/709466504173181/>
27. Lavamachine Products, <https://lavamachine.vhx.tv/products>
28. Giessmann, E.: Clay Shader & Tutorial - (Quill, VR). Gumroad (2024). <https://lavamachine.gumroad.com/1/aHhCL>
29. Giessmann, E.: Oculus Quill - Stereo 360° Camera. Gumroad (2024). <https://lavamachine.gumroad.com/1/LMNzL>
30. Giessmann, E.: Quill (Virtual Reality) to Autodesk Maya Pipeline - Tutorial. Gumroad (2024). <https://lavamachine.gumroad.com/1/ZxmLB>
31. Giessmann, E.: Tutorial - Clay Shader - Yokozuna Artwork - (Autodesk Maya Redshift). YouTube (2020). https://youtu.be/77SyKQLV_3o
32. Giessmann, E.: Immune System Cosmonaut. YouTube (2020). <https://youtu.be/j5cWQpVrP9I>
33. Fujita, G.: Art in VR: The Creative Potential of Quill and Medium. YouTube (2016). <https://youtu.be/PZcYvrbKWJc>

Reinscribing Place: Visual Narrative Devices in Urban Territory

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Abstract

This article analyses the representation of place as a process of symbolic reinscription of territorial experience within the context of artistic practice. Representation is understood not as a reproduction of reality, but as a transformation of lived experience into a sensible form, in which memory assumes a structuring role in the transition from experience to image. Visual narrative thus emerges as a spatial and symbolic organisation of experience, articulating body, time, and territory.

In the contemporary urban context, marked by logics of acceleration and functionality, the act of walking is mobilised as a critical practice of deceleration and bodily inscription. By suspending the instrumental dimension of movement, walking enables a sensitive reading of space and reveals its social, political, and affective layers.

The research is materialised through the implementation of a pedestrian route in the city of Lisbon, structured according to a methodological protocol that integrates different modes of recording. Among these, the walking notebook stands out as a central device of documentation and reflection. Within it, bodily experience is processually transformed into material for thought and representation, consolidating the articulation between memory, body, and territory.

The notebook thus configures itself as a site where representability materialises, constituting an expanded archive of experience and a conceptual matrix of artistic production. The research therefore proposes an understanding of visual narrative as a spatial practice that critically reinscribes the urban territory through the body in movement.

1. Introdução

A presente investigação parte da convicção de que o território não constitui apenas um dado geográfico ou uma realidade física, mas um campo relacional onde memória, experiência e corpo se entrecruzam na construção de sentido. A questão central que orienta o artigo é compreender de que modo a experiência territorial se torna representável e como a prática artística pode operar a passagem do vivido à sua materialização sensível.

Keywords

Visual Narrative; Walking; Notebook; Route; Urban Territory.

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No contexto urbano contemporâneo, marcado por lógicas de aceleração e funcionalidade, o caminhar é assumido como prática crítica de desaceleração, atenção e inscrição corporal. A investigação desenvolve-se no âmbito do projeto *Lugar Habitado*, a partir da implementação de um percurso pedonal em Lisboa e da utilização do caderno de percurso como dispositivo central de registo, reflexão e produção de narrativa visual.

O texto organiza-se em três momentos: primeiro, discute-se a representação do lugar; depois, analisa-se o território urbano como campo de inscrição corporal; por fim, apresentam-se o percurso pedonal e o caderno de percurso como dispositivos de materialização da experiência.

2. Representação do Lugar: Criação de Narrativas Visuais

Na prática artística, a experiência territorial não se esgota na presença física, prolongando-se na sua tradução em expressão plástica. *Como se torna representável* a experiência do território? A representação surge como processo de reinscrição simbólica, através do qual a relação com o território se transforma num discurso sensível, partilhável e reativável.

Neste sentido, Edward Casey afirma que conhecer um lugar implica “ser capaz de o recordar”³ [1], isto é, de o reter, reinscrever e reorganizar internamente no campo da experiência simbólica. A memória assume aqui um papel estruturante, não apenas como arquivo do vivido, mas como “condição bastante fundamental da representabilidade”⁴ [1], com participação ativa na produção de conhecimento. É neste intervalo entre experiência e memória que se estabelece a representabilidade: a memória não apenas conserva o vivido, mas reorganiza-o, tornando possível a sua configuração em forma.

Esta operação implica a criação de uma narrativa que reconfigura o espaço vivido e o transforma em expressão. A imagem atua como dispositivo de mediação, capaz de condensar temporalidades, afetos e experiências diversas. O lugar, enquanto entidade atravessada por memória, experiência e imaginação, adquire visibilidade através de construções simbólicas que procuram traduzir as suas múltiplas camadas, revelando tanto o que é visível como aquilo que permanece latente ou ausente. Como afirma Casey, o lugar

“é também substituído, dotado de um lugar próprio — um lugar elevado à segunda potência, que não é conhecido senão pelo seu próprio lugar no lugar de outro. Se ainda se trata de representação, esta não ocorre como simples representação, mas como substituição”⁵ [1]

A representação emerge, assim, como gesto de síntese, no qual experiências dispersas são articuladas pela memória. A narrativa visual nasce como estrutura relacional, como organização espacial e simbólica da

³ Tradução nossa a partir de: “to be able to remember it” [1].

⁴ Tradução nossa a partir de: “a quite fundamental condition to representability” [1].

⁵ Nossa tradução a partir de: “It is re-placed, given a place of its own – a place to the second power that is none other than its own place in the very place of another. If this is still a matter of representation, it does not occur as representation but re-impacement” [1].

experiência, situada no campo do desenho enquanto prática de pensamento, registo e inscrição.

O lugar, tal como aqui é compreendido, não corresponde apenas a um recorte físico do espaço geográfico, mas a uma construção simbólica, isto é, “o lugar do facto passou a ser o lugar da forma”⁶ [1]. Nesta perspetiva, a representação constitui uma forma ativa de produção de sentido, através da qual o território é reinscrito no campo da experiência sensível. Esta abordagem aproxima a representação de um gesto poético e performativo, no qual se condensam trajetos, memórias e geografias subjetivas. Representar o lugar constitui, assim, um ato de tradução e de invenção, no qual a experiência vivida é reorganizada, fragmentada ou intensificada, dando origem a novas formas de relação com o espaço.

Neste processo, “a desmaterialização da perceção exige a concretização da memória para alcançar a atualidade da obra de arte”⁷ [1]. A imagem surge como lugar de materialização do vivido, tornando presente a experiência sem perder a sua condição processual, instável e aberta.

Trata-se de um lugar habitado tanto pela presença como pela ausência, pela materialidade como pela evocação. Casey sublinha que “esta forma é a transformação do lugar”⁸ [1], pelo que cada representação visual pode ser entendida como uma narrativa espacial: uma tentativa de dar forma à relação dinâmica entre corpo, tempo e território. A narrativa não se afirma apenas como sequência temporal, mas como uma estrutura estratificada, na qual se sobrepõem memórias, afetos e experiências sensoriais, produzindo imagens que não fixam o lugar, mas o mantêm em permanente devir.

Importa ainda sublinhar a dimensão corporal deste processo. A memória não é apenas mental, mas também incorporada, uma vez que “em todas estas ações bivalentes, o corpo desempenha um papel essencial”⁹ [1] na apreensão, transformação e transmissão do vivido. Desde o deslocamento no espaço até ao gesto que materializa a imagem, o corpo funciona como mediador essencial entre experiência e representação. A imagem resultante carrega, assim, a marca da ação corporal, tornando visível uma experiência que foi antes percorrida, sentida e incorporada.

É neste enquadramento que a representação do lugar, enquanto construção sensível e narrativa espacial, encontra no território urbano o seu campo privilegiado de experimentação. Se a representação implica uma substituição simbólica do lugar, no contexto urbano essa operação assume a forma de reinscrição corporal, através da qual o território é experienciado, apropriado e narrado.

3. Território Urbano: Inscrição de Pertença

No contexto urbano, a relação entre corpo e território intensifica-se através da negociação constante entre domínio pessoal e domínio público. Marcado pelo movimento, pela sobreposição de temporalidades e pela

6 Tradução nossa a partir de: “The locus of fact has become the place of form” [1].

7 Tradução nossa a partir de: “The dematerializing of perception calls for the concretizing of memory in the attaining the actuality of the work of art” [1].

8 Tradução nossa a partir de: “this form is the transformation of the place” [1].

9 Tradução nossa a partir de: “in all such bivalent action, the body plays an essential role” [1].

coexistência de múltiplas presenças, o espaço urbano constitui um campo onde a experiência quotidiana é simultaneamente regulada, fragmentada e aberta à produção de narrativas sensíveis.

Mais do que uma realidade exclusivamente física ou funcional, o território urbano afirma-se como um campo relacional e vivido, continuamente produzido e resignificado pela ação dos indivíduos. Atravessado por fluxos e ritmos contrastantes, constitui um contexto onde a experiência quotidiana se apresenta fragmentada, mas ainda assim propícia à emergência de narrativas sensíveis e subjetivas. A inscrição corporal desempenha, neste processo, um papel central, contribuindo para a apropriação e a leitura do território.

Esta condição é, contudo, tensionada pelas lógicas contemporâneas de organização do espaço. Nas sociedades atuais, marcadas por princípios de produtividade, eficiência e aceleração, o espaço urbano é estruturado através de rotas programadas e percursos previsíveis. Como observa Bruce Bégout, a modernidade imprimiu nas cidades “uma ordenação do espaço que tenta inscrever nos corpos e nas suas deslocações uma grelha repressiva, um espartilho de disciplinas e de automatismos que os moderam” [2]. Paradoxalmente, esta crescente organização funcional do espaço não conduz a uma maior apropriação por parte dos indivíduos, mas antes à sua abstração e impessoalização, dificultando a apreensão da sua totalidade.

Neste contexto, Rebecca Solnit compara os espaços habitados a ilhas que se tornam progressivamente mais densas com a construção de novos edifícios:

«As ruas são o espaço que sobra entre os edifícios (...) o espaço livre deixou de ser como o mar e passou a assemelhar-se a rios, canais e ribeiros que correm entre massas de terra. As pessoas deixaram de mover-se ao acaso pelo mar aberto do campo e passaram a circular pelas ruas; e, assim como o estreitamento de uma via fluvial aumenta o caudal e a velocidade, converter o espaço aberto nos canais das ruas dirige e intensifica o fluxo dos transeuntes.»¹⁰ [3].

O deslocamento urbano passa, assim, a ser dominado por ritmos acelerados e fluxos contínuos, que moldam comportamentos e percepções, tendendo a uniformizar as experiências e a atenuar a dimensão subjetiva do espaço.

É neste enquadramento que o caminhar adquire um potencial crítico. Ao contrário de outras formas de deslocação, como o automóvel ou os transportes públicos, o caminhar suspende parcialmente a lógica instrumental do trajeto e reconfigura a relação entre corpo e território. Como sublinha Tim Ingold, “é seguramente através dos nossos pés, em contacto com o chão (...), que estamos de modo mais fundamental e contínuo em

¹⁰ Tradução nossa a partir de: “Streets are the space left over between buildings. (...) they became a continent, the remaining open space no longer like the sea but like rivers, canals, and streams running between the land masses. People no longer moved anyhow in the open sea of rural space but traveled up and down the streets, and just as narrowing a waterway increases flow and speed, so turning open space into the spillways of streets directs and intensifies the flood of walkers.” [3].

contacto com o que nos rodeia”¹¹ [4]. O percurso deixa, assim, de ser apenas um meio para alcançar um fim e transforma-se numa prática de inscrição, numa forma de mapear o território a partir do corpo em movimento.

Ao introduzir uma temporalidade desacelerada e permeável ao acaso, o caminhar subverte o tempo cronometrado da deslocação funcional e restitui ao espaço urbano as suas dimensões simbólicas, sociais e históricas. Para além da sua dimensão sensível, implica também uma exposição às estruturas sociais e políticas que atravessam o território. O espaço urbano materializa relações de poder e processos históricos de segregação e exclusão, que se tornam visíveis na experiência do deslocamento. O encontro com os outros, mesmo no anonimato, revela corpos que “trazem consigo, incorporada nos seus próprios corpos, a experiência da arquitetura, do vestuário, do calçado”¹² [4], tornando perceptíveis as condições sociais inscritas na própria matriz urbana. Enquanto prática pública, o caminhar articula, assim, reivindicação e vulnerabilidade, reinscrevendo o corpo no espaço comum e expondo as lógicas que o estruturam.

Neste contexto, a cidade de Lisboa surge como ponto de partida para a prática artística de Joana Paraíso, nome artístico de Joana Ferreira Oliveira, território habitado desde 2005, caracterizado por transformações contínuas, ritmos e encontros. Através do ato de caminhar, estabelece-se uma relação sensível com o território urbano, entendido como um campo que convoca percepções, emoções e modos singulares de habitar. Esta ação afirma-se como um gesto de implicação, através do qual o corpo participa na experiência e na transformação do território.

A investigação parte da premissa de que a identidade e o sentimento de pertença se constroem através das relações que os indivíduos estabelecem com os territórios que habitam e das memórias que neles se inscrevem. Como afirma Maurice Halbwachs [5]:

“Se entre as casas, as ruas e os grupos de habitantes, não houvesse mais do que uma relação acidental e de curta duração, os homens poderiam destruir as suas casas, os seus bairros, as suas cidades e reconstruir outros, no mesmo lugar, segundo outros planos. Mas apesar das pedras se poderem transportar, não é tão fácil modificar as relações que se criaram entre as pedras e os homens.”

4. Caderno de Percurso: Registo Multisensorial

No âmbito do projeto *Lugar Habitado*, foi implementado um percurso pedonal em Lisboa como dispositivo metodológico de observação, registo e análise da experiência urbana. A ação permitiu observar de que modo o corpo em deslocação reage às dinâmicas espaciais, sociais e afetivas da cidade.

O percurso foi realizado pela primeira vez entre fevereiro e março de 2024 e repetido entre novembro e dezembro de 2025, permitindo confron-

¹¹ Tradução nossa a partir de: “For it is surely through our feet, in contact with the ground (...), that we are most fundamentally and continually ‘in touch’ with our surroundings.” [4].

¹² Tradução nossa a partir de: “bring with them, incorporated into their very bodies, the experience of architecture, dress, footwear” [4].

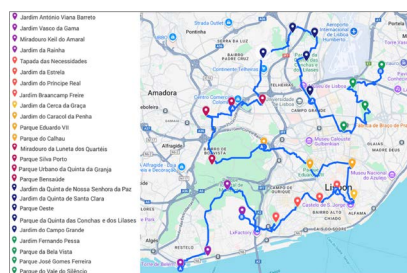
tar diferentes temporalidades da experiência. Integralmente desenvolvido em espaços exteriores e públicos, o trajeto ligou o Jardim António Viana Barreto, em Belém, ao Parque do Vale do Silêncio, nos Olivais, integrando vinte e cinco jardins selecionados segundo critérios de diversidade tipológica, continuidade pedonal, acesso público e representatividade geográfica. Com cerca de 50 quilómetros, o percurso foi dividido em seis etapas de aproximadamente 8 a 8,5 quilómetros, correspondentes a cerca de três horas de caminhada cada, de modo a garantir continuidade, sustentabilidade física e condições para o registo sistemático.

Embora previamente planeado, o percurso manteve-se aberto à contingência. A diferença entre o itinerário projetado e a realidade urbana exigiu pausas, desvios, reorientações e decisões imediatas, determinadas pelas condições topográficas, pelos ritmos locais e pelas situações encontradas no terreno.

A travessia permitiu contactar com diferentes configurações morfológicas e sociais da cidade, evidenciando contrastes entre zonas densas e áreas mais dispersas, entre espaços de circulação acelerada e lugares de permanência. Os jardins funcionaram como pontos de pausa e observação, favorecendo o registo de sons, cheiros, fluxos de pessoas, variações de luz e atmosferas. Em contraste, ruas e avenidas impuseram ritmos mais rápidos, associados ao atravessamento funcional. Em zonas como a Mouraria ou Monsanto, emergiram sensações de tensão, desconforto ou vulnerabilidade, confirmando a dimensão afetiva e corporal da experiência.

O caminhar foi assumido como método de observação situada, articulando experiência corporal, registo e produção de conhecimento. Cada etapa integrou movimento, pausa, hesitação, desvio e encontro, permitindo recolher vestígios, anotações, imagens e memórias posteriormente revisitados em contexto de atelier. Deste modo, o percurso não funcionou apenas como deslocação ou experiência performativa, mas como procedimento metodológico através do qual o território foi mapeado a partir do corpo em movimento.

Fig. 1. Mapa do itinerário realizado. Fonte: Joana Ferreira Oliveira.



Para estruturar a implementação do trajeto, foi definido um protocolo com critérios, etapas e modos de registo. Como refere Karen O'Rourke, “um protocolo é uma regra, diretriz ou documento que especifica como uma atividade deve ser realizada”¹³ [6]. Este protocolo assegurou um equilíbrio

entre planeamento e abertura ao imprevisto, definindo previamente os seguintes modos de registo: registos gráficos e escritos em caderno, registos videográficos, registos fotográficos e organização posterior no mapa de

¹³ Tradução nossa a partir de “A protocol is a rule, guideline, or document that specifies how an activity should be performed” [6].

itinerário desenvolvido na plataforma *Google My Maps*. Estes meios permitiram articular experiência vivida, documentação e posterior tradução em matéria de reflexão e criação.

De facto, “por vezes, os artistas determinam a forma geral de uma caminhada que pretendem realizar, sem saber de antemão como irão gerir os detalhes”¹⁴ [6]. Esta perspetiva reflete o modo como o percurso combinou uma estrutura orientadora com a disponibilidade para acolher contingências do espaço urbano e decisões emergentes do próprio ato de caminhar.

Entre as várias camadas de registo previstas pelo protocolo, o caderno destaca-se como o dispositivo onde a experiência se transforma de modo mais explícito em matéria de pensamento e elaboração crítica.

O caderno, enquanto dispositivo analógico de registo, permitiu reunir desenho, escrita e outras formas de notação produzidas no contacto direto com o território. A sua natureza híbrida possibilitou articular observação empírica, perceção sensível e reflexão conceptual.

Neste projeto, adota-se a designação de caderno de percurso¹⁵, sublinhando a sua ligação direta ao ato de caminhar. O caderno reuniu vestígios produzidos ao longo das seis etapas, sob a forma de desenhos, notas, esquemas e marcas gráficas. Para além da função documental, constituiu um espaço de tradução e interpretação da experiência, preservando a natureza fragmentária, contingente e rítmica do percurso.

Como refere Bernd Heinrich:

“Foi isso que fez a diferença entre simplesmente observar e conseguir chegar ao cerne da investigação científica. Quando estou no terreno a recolher informação, procuro aquilo que é nascente, novo e inesperado, aquilo que pode emergir do que já me é familiar.”¹⁶ [8].

Esta perspetiva reforça o modo como o caderno de percurso funciona enquanto mediador entre o corpo em deslocação, o ambiente atravessado e a construção de sentido. Enquanto arquivo de processo, o caderno articula diferentes planos temporais: por um lado, conserva o imediato — notas rápidas, registos em movimento, impressões sensoriais e afetivas; por outro, permite uma leitura retrospectiva, na qual o material recolhido é reorganizado e reinterpretado em contexto de atelier, adquirindo estrutura, continuidade e direção.

A Fig. 1 apresenta páginas do caderno onde coexistem anotações escritas, traços, esquemas e marcas gráficas. Para além da função documental, o caderno foi considerado como corpus de análise qualitativa.

14 Tradução nossa a partir de: “Sometimes artists determine the overall shape of a walk they intend to make without knowing beforehand how they will manage the details” [6].

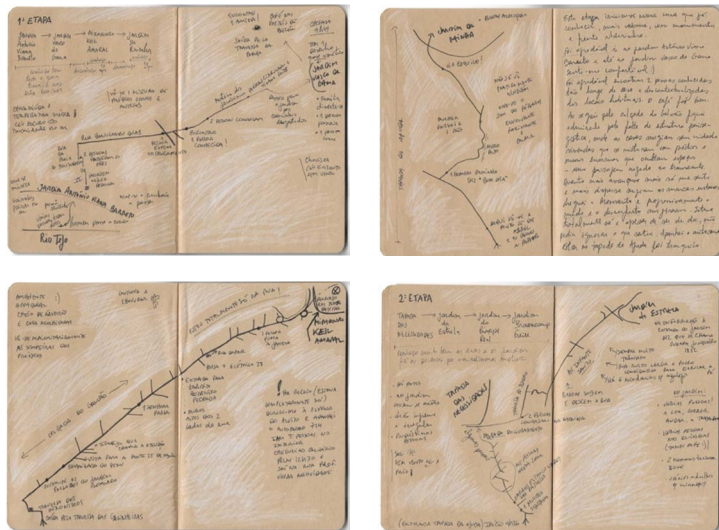
15 A expressão *caderno de percurso* é adotada para enfatizar o caráter processual e itinerante do dispositivo de registo. O termo *percurso* deriva do latim *percurrere* (“correr através”, “atravessar”), composto por *per-* (“através de”) e *currere* (“correr”) [7]. Esta origem etimológica sublinha a ideia de deslocação contínua no tempo e no espaço, articulando corpo, movimento e experiência. Assim, o *caderno de percurso* enfatiza a continuidade da experiência espaço-temporal, articulando observação em movimento, inscrição corporal e construção gradual de sentido.

16 Tradução nossa a partir de: “They have made the difference between simply observing and being able to get to the meat of the science. When I am in the field collecting information, I am on the lookout for the nascent, the new, and the unexpected that may spring out of the familiar.” [8].

A sua leitura permitiu identificar padrões recorrentes, contrastes espaciais, variações rítmicas e modos diferenciados de percepção do território. Foram observadas regularidades na forma como certos elementos surgem associados — por exemplo, a relação entre intensidade do fluxo urbano e densidade gráfica do registo, ou entre permanência num lugar e extensão das anotações textuais. Estas recorrências possibilitaram estruturar a experiência em categorias interpretativas, tornando o caderno não apenas um repositório, mas um instrumento ativo de produção de conhecimento.

A materialidade do caderno — visível no papel, no formato, nos instrumentos utilizados e nas irregularidades do traço — evidencia a presença do corpo no ato de escrever e desenhar, revelando uma dimensão performativa do registo que prolonga a fisicalidade do percurso. Trata-se, como refere Heinrich, de reconhecer e registar “indícios de que um problema possa existir”¹⁷ [8], abrindo espaço à formulação de hipóteses e interpretações.

Fig. 2. Caderno de Percurso, p. 3-7. Fonte: Joana Ferreira Oliveira.



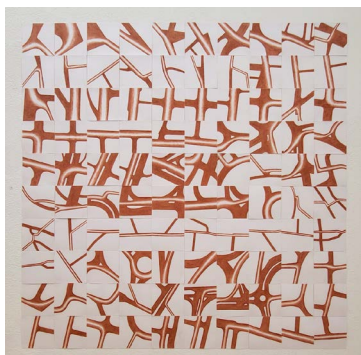
O caderno de percurso funcionou, assim, como espaço de articulação entre os cinco métodos de mapeamento definidos para o projeto: Mapear Linearmente, Mapear Sentidos, Mapear Afetos, Mapear Atmosferas e Mapear Pensamentos. Nele se reuniram, de forma não hierárquica, traçados espaciais, descrições sensoriais, impressões emocionais, registos de atmosferas e notas reflexivas. Esta organização permitiu cruzar diferentes camadas de experiência e evidenciar relações entre percepção, deslocamento e inscrição gráfica.

Mais do que um repositório de informações, o caderno operou como instrumento de atenção, análise e produção de conhecimento. A sua leitura permitiu reconhecer padrões, recorrências e contrastes no ambiente urbano, identificando situações, ritmos e estímulos associados aos dife-

17 Tradução nossa a partir de: “I’m open to signs of one.” [8].

rentes modos de mapeamento. Desse modo, constituiu um dispositivo central da metodologia, articulando corpo, território, memória e percepção na construção da narrativa visual.

A passagem do caderno para a obra ocorre através de um processo de seleção, reorganização e transposição dos registos recolhidos durante o percurso. As notas escritas, os traços, os esquemas, as impressões sensoriais e as recorrências identificadas no caderno são revisitados em atelier, deixando de funcionar apenas como documentação da experiência para se constituírem como matéria visual e conceptual da produção artística. Neste processo, determinados elementos são isolados, ampliados, sobrepostos ou reconfigurados, permitindo transformar a experiência fragmentária do caminhar numa narrativa visual. A obra não resulta, assim, da ilustração direta do percurso, mas da sua reinscrição plástica, na qual memória, percepção e gesto se reorganizam em forma sensível.



A Fig. 3 evidencia a transformação dos registos do caderno numa estrutura gráfica onde o percurso deixa de ser entendido como continuidade linear, passando a ser representado como um conjunto de decisões e bifurcações. As direções inscritas na obra derivam dos momentos de escolha registados durante o percurso, convertendo mudanças de direção, hesitações e opções de trajeto em linhas e orientações

Fig. 3. Cruzamentos II, 2024. Pó de sanguínea sobre papel. 210 cm x 210 cm. Fonte: Joana Ferreira Oliveira.

visuais. Deste modo, torna-se visível o processo de orientação e redefinição do percurso, traduzido numa linguagem gráfica que reinscreve o movimento do corpo no espaço.

5. Conclusão

A investigação permitiu compreender que a narrativa visual não resulta apenas da documentação de uma experiência territorial, mas da sua transformação crítica através do caminhar, do registo e da revisitação em atelier. O percurso pedonal e o caderno de percurso constituem, nesse sentido, dispositivos complementares: o primeiro ativa a experiência incorporada do território; o segundo organiza, sedimenta e reconfigura essa experiência enquanto matéria de pensamento e criação.

No contexto urbano contemporâneo, marcado por ritmos acelerados e lógicas instrumentais de deslocação, o caminhar revelou-se uma prática crítica de desaceleração e inscrição corporal. Ao suspender a funcionalidade imediata do trajeto, o corpo em movimento reconfigura a percepção do espaço e restitui ao território as suas dimensões simbólicas, sociais e afetivas.

Representar o lugar é, assim, menos fixá-lo do que reinscrevê-lo: tornar visíveis as relações entre corpo, memória e espaço, e abrir novas formas de pertença e leitura do território urbano.

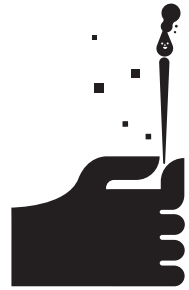
Referências

1. Casey, Edward S.: *Representing Place: Landscape Painting and Maps*. University of Minnesota Press; 19, 27-28, 76-77, 109 (2002).
2. Bégout, B.: *Dériville Cidade-Deriva, Os Situacionistas e a Questão Urbana*. Círculo de Artes Plásticas de Coimbra; 20 (2024).
3. Solnit, R.: *Wanderlust: A History of Walking*. Penguin Books; 175-176 (2013)
4. Ingold, T. *Lines: A Brief History*. Routledge; 45, 48 (2007)
5. Halbwachs, M: *A memória coletiva*. (2ª ed.). Centauro Editora. 136 (2006)
6. O'Rourke, K: *Walking and Mapping*. MitPress; 47, 48, 57, 59 (2016)
7. Dicionário Priberam da Língua Portuguesa. "Percorrer." Disponível em: <https://dicionario.priberam.org/percorrer> (consultado em 28 fev. 2026).
8. Heinrich, B.: *Untangling the bank* (pp. 33-48). In M. R. Canfield (Ed.), *Field notes on science & nature*. Harvard University Press; 39-40 (2011)

Generative Sketching on the Big Table Canvas: Co-Creating Futures in Art Education

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Abstract

This paper introduces *Generative Sketching on Big Table Canvas* as an innovative, co-creative drawing method in art education, situated at the intersection of comic, illustration, and education. The approach builds on practices of graphic recording and is theoretically grounded in the concept of presencing within Otto Scharmer's Theory U. Presencing describes a mode of shared awareness in which participants act from a deep connection to the present while sensing emerging future possibilities. Knowledge is not reproduced but co-created through attentive, generative listening to what unfolds within the social field. In combination with collaborative visualization, this process gives rise to shared visual knowledge spaces, referred to as *Big Table Canvases*.

The paper presents four case studies from higher art education: (1) the visual reinterpretation of art educational narratives in the form of graphic novels, (2) the development of individual art education concepts, (3) the visual exploration of theoretical content based on Umberto Eco's work, and (4) the long-term creation of a collaborative table canvas as a visual thinking space.

Building on these studies, a participatory format is introduced and tested in a public context. The findings suggest that Generative Sketching functions as a dialogical practice that integrates perception, reflection, and visual thinking, fostering participation, collective knowledge production, and the development of individual visual languages.

1. Introduction

This paper presents *Generative Sketching on Big Table Canvas* as a co-creative approach to drawing in art education that integrates visual thinking, dialogical processes, and inquiry-based learning. Building on practices of graphic recording and grounded in Scharmer's concept of generative listening, the approach understands drawing not merely as representation but as a process of collective sense-making. Through the combination of listening, reflecting, and visualising, shared visual knowledge spaces—so-called *Big Table Canvases*—emerge. The paper draws on a series of case

Keywords

Generative Sketching; Art Education; Co-Creation; Visual Thinking; Graphic Recording; Generative Listening; Presencing, Theory U; Visual Narration; Participatory Practices; Knowledge Visualization; Collaborative Learning.

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studies from higher art education and explores how these practices can be transferred into participatory contexts. Against this background, several guiding research questions are addressed:

How can drawing skills, engagement with disciplinary history, a differentiated interplay of text and image, and an inquiry-based approach be productively combined? To what extent does the medium of the graphic novel offer new possibilities for integrating these aspects in art education? Furthermore, how can “cross-mediality in text and image” [7, p. 18] be implemented in ways that foster sustainable learning processes?

The paper examines how visual methods function not only as tools of representation but also as means of understanding and collaborative meaning-making. Within the fields of comic, illustration, drawing, and visual narration, text and image are considered closely interconnected forms of expression that go beyond explanatory functions and enable “complex processes of (self-)education” [7, p. 18] as well as reflective engagement.

Engagement with key approaches to visualization, such as those of Kelvy Bird [1] and Vera F. Birkenbihl [3], as well as selected works from the students’ own academic context, provides opportunities for developing individual visual languages and personal styles. At the same time, this raises the question of which methods can foster multidimensional interpretative processes in which text, image, line, and spatial composition function as equally relevant tools.

In response, the paper introduces *Generative Sketching on Big Table Canvas* as a practice that understands drawing as a mode of thinking and knowledge production. A central prerequisite is *generative listening* [10, p. 187], conceptualized as a dialogical form of listening that goes beyond the mere reception of information. Following Scharmer listening is understood as a multi-level process [9], [10], [11] ranging from factual to empathic and ultimately generative listening, in which participants open themselves to emerging possibilities and engage in shared processes of meaning-making.

The aim of this paper is to derive practical guidelines for the application of this approach based on the analysis of case studies and to demonstrate its contribution to reflective and inquiry-based learning. While rooted in art education, the approach is not limited to school contexts but is equally relevant for museums, cultural institutions, and other collaborative environments. The capacity to visualize and condense complex relationships offers specific potentials for communication, understanding, and the collective development of perspectives.

2. Related Works

2.1. Graphic Recording

Visual design can do far more than illustrate; it structures thinking, supports communication, and makes complex content accessible. Birkenbihl demonstrated that visualizations can facilitate cognitive processes and make difficult to verbalize experiences visible. Particularly striking are her examples from a headache clinic, where children and adolescents repre-

sented their pain experiences graphically. These visualizations supported both diagnosis and communication between patients and medical staff, as subjective sensations became visible and comparable [3].

Graphic novels can also be understood as methodologies in which embodiment is central. The act of drawing with one's own body often translates bodily experiences into visual forms and thereby renders knowledge production itself an embodied process. For instance, Scavarda and Grüning [8] show that comics in embodied and graphic based qualitative sociology can open narrative access to neurodivergent experiences and foster reflection on everyday ableism. In relation to working with young people in schools, this can, for example, strengthen an inclusive mindset and support the development of projects that enable diverse insights into subjective perceptions.

In the context of collective learning and transformation processes, the work of graphic facilitator Kelvy Bird shows that collaborative visualization is not merely documentary but also meaningmaking [1]. Graphic recording translates dialogue into visual structures, reveals relationships between ideas, and supports groups in developing shared understanding [2].

Further research emphasizes the role of graphic recording as a method within participatory and evaluative contexts. Jara DeanCoffey highlights how visual facilitation can support reflection, group alignment, and knowledge cocreation in collaborative settings [5]. Similarly, Schiller et al. underline the importance of graphic recording as a tool for live illustration in meetings and workshops, enabling complex discussions to be externalized and collectively processed [12].

2.2. Graphic Novels in Art Education

The publication *Kunstdidaktische Erzählungen* edited by Anna Maria Loffredo demonstrates how graphic novels can function as both research and teaching formats in art education [7]. In Loffredo's art education project, students engage with disciplinary history through visual narratives, reconstructing and critically reflecting theoretical content. The publication positions itself both as a research outcome and as a methodological proposal for an aesthetically inquiry-based approach to higher education. The development of subsequent teaching formats builds on this foundation and reflects the underlying claim that art education should be understood as a reflective practice that continuously experiments with new forms of representation and knowledge production [5].

2.3. The Art of Dialogue

David Bohm understood dialogue as a process of shared thinking in which fragmented perspectives can be overcome, allowing a "free flow" of meaning to emerge [4]. He identified the fragmentation of thought as a key obstacle to open communication. As he writes: "... it is thought that divides everything. Every division we make is the result of our way of thinking. In reality, the whole world consists of flowing movements" [4, p. 38].

In this sense, dialogue involves recognizing and transforming habitual patterns of thinking so that meaning can circulate freely between

participants. Transferred to visual practice, drawing becomes a medium of collective knowledge production. In collaborative drawing processes, such as work on a shared table canvas, individual perspectives remain visible while contributing to a coherent whole.

2.4. Generative Listening

A central element of cocreative visual practice is the ability to listen. Otto Scharmer describes a particularly profound form of listening as *generative listening*, referring to the capacity to attend to what is not yet fully articulated but may be in the process of emerging [6]. This form of listening goes beyond the reception of information and focuses on the potential of future possibilities.

In *Theory U*, Scharmer conceptualizes listening as a multilevel process, ranging from habitual and factual listening to empathic and ultimately generative listening [10, p. 368]. Generative listening represents the highest level, in which participants open themselves to emerging possibilities and engage in shared meaningmaking. He compares this process to a “guidance before the blank canvas,” distinguishing three perspectives: (1) focusing on the finished artwork, (2) focusing on the creative process as it unfolds, and (3) focusing on the group before the creative act begins, in order to understand the internal conditions that enable collective creation to be guided from a future-oriented perspective [11, p. 24].

When translating what is heard into visual form, a complex process unfolds, especially when multiple participants draw simultaneously, interpret contributions, and respond to each other. Drawing thus becomes a medium that interweaves listening, perception, and creation, enabling all participants to experience a sense of synchronicity. Referred to Scharmer, generative listening involves cultivating openness and appreciation toward persons, groups, or organizations by intentionally creating an inner space of attentive presence. It means listening beyond what is already known and engaging the heart as a deeper faculty of awareness to sense what is emerging from the whole [11, p. 98].

2.5. Generative Sketching

Generative Sketching extends established approaches of graphic recording by introducing an explicitly dialogical and cocreative dimension. In contrast to traditional settings, where a single person visually documents content, this approach involves multiple participants who draw, listen, and respond simultaneously. The visual outcome evolves continuously and remains open to new impulses.

This practice requires attentiveness and sensitivity to both individual perception and the shared context. It is closely related to Scharmer’s concept of presencing, which describes the ability to sense emerging future possibilities and bring them into present action [10 p. 187]. *Generative Sketching* integrates perception, reflection, and creative action into a unified process. Co-founder of the Presencing Institute at Massachusetts Institute of Technology (MIT) and generative scribing artist Kely Bird [2, p. 97] describes presencing as acting in the present moment in response

to an emerging reality. When combined with scribing, it involves pausing before drawing to attune to voices, the surrounding space, and the wider social system. Bird expands on this practice: “In the moment before lifting a pen, I imagine the extended range of connection between people in the room and outside it, the meaning of the session in their culture, the context of their work in the context of society. I also consider our moment in time and our placement in the span of time.”

The resulting images are not merely documentary but can be understood as visual manifestations of a shared space of thinking and creation, in which individual contributions are interwoven into a collective whole.

3. Case Studies – Art Education

The following four case studies demonstrate a progressive shift from individual interpretation toward collective knowledge production. They illustrate how drawing and visual narration function not only as expressive tools, but as epistemic practices that enable analysis, reflection, and shared meaning-making within art education.

3.1. New Interpretations of the Book's Contributions

Based on the publication *Kunstdidaktische Erzählungen* [7], students worked in small groups to analyze selected graphic novels, interpret them visually, and translate their insights into large-scale posters. The aim was to move beyond purely textual engagement and to develop autonomous visual narratives.

Through drawing, key concepts, historical developments, and theoretical positions were not simply reproduced, but actively transformed. The resulting posters functioned as visual spaces of thought and discourse, condensing, restructuring, and collectively reflecting on complex content. Drawing thus became a medium of analysis, reflection, and conceptual development.

Throughout the seminar, collaborative work with students showed that analyzing existing graphic novels through the same visual medium in which they were created offered significant value. These initial insights led to the idea of subsequently having students develop their own concepts in art education.

3.2. My Own Private Art Education Concept (MOPAEC)

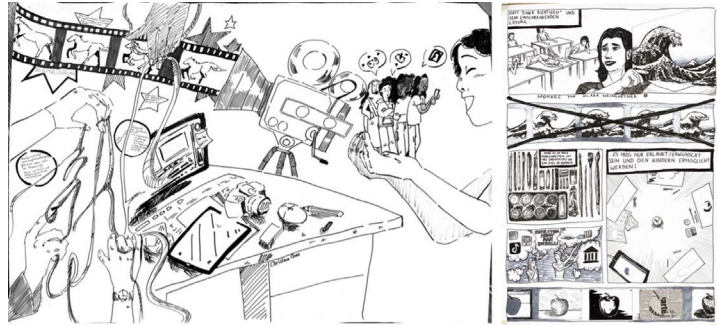
A central component of the course is the format *My Own Private Art Education Concept* (MOPAEC), continuously developed by Wolfgang Schreiberlmayr since 2015. It aims to empower students to actively and reflectively shape their future role as art educators. Already at the beginning of their studies, students initiate the development of a personal concept in which they articulate their understanding of art education, their sources of inspiration, as well as their individual focuses and experiences.

This concept evolves throughout the entire study programme as a dynamic and ongoing process. In line with the notion of personal didactics [13], authenticity, empathy, and acceptance form its core. Visualization—often in the form of posters, but also as three-dimensional objects

and mobiles—translates abstract ideas into individual visual languages, making pedagogical positions tangible. Ideas for personal, visionary subject-specific didactic concepts can emerge through and during the processes of visualization.

The exchange and discussion of the different concepts create a shared space for reflection in which individual positions are not only presented but also further developed. MOPAEC thus integrates personal development, theoretical grounding, and artistic practice.

Fig. 1. Left: “MOPAEC, The History of Film,” © Christina Chan, student at the University of Education Upper Austria & University of Art and Design Linz. Right: “MOPAEC, A Variety of Options,” © Klara Weingartner, student at the University of Education Upper Austria & University of Art and Design Linz, 2025.



3.3. Umberto Eco Project

Building on these principles of visual mediation, the *Umberto Eco Project* explores how students engage with Eco’s classic text on academic writing [6] through drawing. Rather than merely reading the text, students translate its content into comics, illustrations, and graphic structures.

Central arguments, conceptual distinctions, and the author’s stance are visually interpreted and reorganized. Drawing functions here as a tool for understanding and structuring knowledge: complex ideas are condensed, relationships made visible and critically reflected upon. The resulting visual works enable both personal and academically grounded engagement with the text.

Fig. 2. “The Search for Topics,” © Christina Chan, student at the University of Arts Linz. Center: “The Search for Sources,” © Amelie Steinek, student at the University of Education Upper Austria & University of Art and Design Linz. Right: “The Choice of Topic – A Clever Chess Move,” Christina Chan, student at the University of Education Upper Austria & University of Art and Design Linz, 2025.



3.4. Big Table Canvas – Collaborative Drawing as Generative Practice

The *Big Table Canvas* extends these approaches into a continuous, collective process. Over the course of a semester, a tablecloth in the form of a large roll of paper serves as a shared thinking space on which drawings, notes, and reflections accumulate (see Fig. 3).



Initially marked individual areas gradually merge into a collective visual structure. Through changing positions, continuing each other's drawings, and connecting different image zones, a dialogical process unfolds in which individual perspectives intersect with

Fig. 3. “Sketching at the *Big Table Canvas*,” students at the University of Education Upper Austria & University of Art and Design Linz, 2025. © Birgit Kriegner.

collective meanings. Drawing becomes a social and generative practice, enabling communication, reflection, and collaborative thinking.

4. Generative Sketching on Big Table Canvas

Building on the case studies, *Generative Sketching* is extended into a participatory festival context. The nextcomic 2026 Festival⁴ in Linz provides a framework in which students collaboratively realize a co-creative drawing project together with visitors.

Under the title “*Speak Up. Draw Together – A Collaborative Drawing Project for Democracy in Practice.*”, drawing is understood as a form of lived democracy. The *Big Table Canvas* functions as an open, shared surface that invites active participation. Drawings emerge simultaneously, respond to one another, and continuously evolve. The image remains unfinished, in flux, and processual.

Students are prepared for this practice through training in different modes of listening—*informational*, *pictorial*, and *emotional listening* [12, p. 24]. These form the basis for generative listening, which enables an open perception of contributions and their further development within a shared visual dialogue.

Generative Sketching differs fundamentally from conventional graphic recording. Rather than documenting content by individuals, it fosters a collective, dialogical process in which perception, reflection, and visualization are intertwined. The resulting image is not pre-defined but emerges through interaction.

Students engage directly with visitors—particularly children and young people—and integrate their perspectives into the evolving visual field. Drawing thus becomes a medium of participation, dialogue, and collaborative imagination, enabling shared processes of meaning-making and future-oriented thinking.

The approach presented here holds significant potential for art education across diverse contexts. At the same time, the implementation of co-creative practices poses challenges, particularly in environments shaped by time constraints, performance pressures, and heterogeneous levels of prior experience. Bird emphasizes, “But if the room is not aware of shifts in consciousness, scribes can only go so far with their own process; a limit in collective awareness limits the depth of the mani-

⁴ nextcomic 2026 <https://www.nextcomic.org/>.

festation” [2, p. 98]. This underscores the need to take responsibility for one’s own state of consciousness and to foster a higher level of collective attunement among all participants.

Fig. 4. Result of a generative sketching process on a Big Table Canvas (1.5 m × 5 m), developed within the project “Speak Up. Draw Together – A Collaborative Drawing Project for Democracy in Practice” at the nextcomic 2026 Festival in Linz. © Fabian Wenzelhummer.



Fig. 5. Children participating in a generative sketching process at the nextcomic Festival 2026, collaboratively drawing on the Big Table Canvas. © nextcomic.



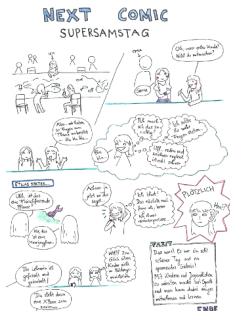
Bird describes the balance between constraint and freedom through the axes of **advocacy and inquiry** [2]. Advocacy refers to clearly articulating one’s own perspective, while inquiry involves an open, non-judgmental stance aimed at understanding others. From the students’ perspective, the festival combined an open framework with carefully designed questions that reduced the anxiety of the blank page while supporting creative processes without limiting them. Overall, a collection of questions was designed for the participants to spark ideas and support the creative process when needed. The questions served as creative research impulses to explore how imagination, drawing, and inquiry can inform future perspectives in art education. At least four students held a shared space between structured guidance and open, associative drawing.

Following the event at nextcomic, the students were asked to reflect on the project in the form of a graphic novel and to visualize their own position as future art educators. Reflection within the same medium fosters an ongoing process of differentiation and integration. Figs. 6 and 7 show two visualized reflections.

Fig. 6. Visual Reflection on *Speak Up. Draw Together*: “A daily reminder for my future teaching practice.” © Alexandra Hofer, student at the University of Education Upper Austria & University of Art and Design Linz.



Fig. 7. Visual Reflection on *Speak Up. Draw Together*: “Phew, am I doing this right?” © Mirjam Reiter, student at the University of Education Upper Austria & University of Art and Design Linz.



5. Conclusion and Outlook

This paper aims to encourage the development of viable forms of collaborative visualisation in order to shape processes of change within educational contexts. The field of collaborative drawing opens up diverse possibilities for further developing existing approaches through new ideas and conceptualisations. A central concern of this paper is to strengthen both individual perception and expressive capacities while also developing a sensitivity for group processes within fluid working contexts. To unfold this potential sustainably, continuous methodological development is required. Tasks and visual strategies must be designed to enable low-threshold access while supporting differentiated forms of expression. This involves carefully balancing openness and guidance, as well as individual contribution and collective coherence. A central barrier is the widespread assumption of “not being able to draw,” which often leads to hesitation and withdrawal. Generative Sketching offers a crucial shift in perspective: the emphasis is not on technical virtuosity, but on perception, participation, and dialogical engagement.

Building on the nextcomic experiment, in which around 60 participants engaged in a oneday generative sketching process, future work could extend the approach into longer-term formats. This would allow for a deeper exploration of collective meaning-making and the evolution of visual narratives over time.

Further research could focus on documenting the process of image creation, for instance through video, to better understand the dynamics of collaborative drawing. In addition, translating the resulting canvases into other media, such as animation, may expand their narrative potential.

The concept could also be adapted for school contexts by developing participatory formats in which students collaboratively explore selfchosen topics through drawing. Finally, generative sketching offers potential as a research method in art teacher education, particularly through the further development of visual feedback as a tool for reflection and dialogue.

References

1. Bird, K.: “About.” <https://kelvybird.com/about/> (n.d.)
2. Bird, K.: *Generative Scribing: A Social Art of the 21st Century*. Pi Press. Cambridge (2018)
3. Birkenbihl, V.F.: “Ohne Worte – Wortlos denken.” DVD-Video (1988)
4. Bohm, D.: *Der Dialog*. Klett-Cotta, Stuttgart (1996)
5. Dean-Coffey, J.: Graphic recording. In: *New Directions for Evaluation*, 2013(140), pp. 47–67.
6. Eco, Umberto. *Wie man eine wissenschaftliche Abschlussarbeit schreibt*. UTB. Stuttgart (2020)
7. Loffredo, A.M. (ed.): *Kunstdidaktische Erzählungen: Reflexionen zur Gegenwart und Geschichte des Kunstunterrichts als Graphic Novel*. Transcript. Bielefeld (2018)
8. Scavarda, A., & Grüning, B.: Towards an embodied and graphic based qualitative sociology: Methodological reflections on reflexivity and pictorial embodiment in the field of health and illness. *The Qualitative Report*, 30(4), 3458–3475. <https://doi.org/10.46743/2160-3715/2025.8164> (2025)

9. Scharmer, C.O.: "Zuhören ist nicht gleich zuhören." YouTube. <https://www.youtube.com/watch?v=VZ7VTQeJaEo> (2014)
10. Scharmer, C.O.: Theory U: Leading from the future as it emerges. Berrett-Koehler Publishers. San Francisco (2016)
11. Scharmer, C. O.: The Essentials of Theory U: Core Principles and Applications. Carl-Auer Verlag. Heidelberg (2018)
12. Schiller, A.L., Klanten, R.; Ehmann, S. (eds.): Graphic Recording. Gestalten. Berlin (2016)
13. Teml, H., Teml, H.: Erfolgreiche Unterrichtsgestaltung. StudienVerlag. Innsbruck (2006)
14. Weitbrecht, M.: Co-Create!: Das Visualisierungs-Buch Taschenbuch. Wiley (2015)

From the Invisible to the Visible through Drawing as a Process of Communication between Art and Science

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Abstract

The visual communication project for science at the Católica Biomedical Research Centre originated the project *Do Invisível ao Visível através do Desenho como Processo de Comunicação entre Arte e Ciência* making drawing applied to science its main tool. The use of scientific drawing is a conscious and planned choice, executed simultaneously with the development of the CBR's communication strategies, whether institutional or related to sharing and supporting research developed by various research groups, to guarantee the coherence and integrity of the communication strategy. This communication approach includes a concern for adapting the message it seeks to convey to the target audience. The articulation between the two processes is materialized in the development of the illustrations: the clarity of the institution's visual identity prepares the public to receive the scientific complexity that the drawing conveys and reveals. This illustrated communication becomes essential by providing visual resources with scientific content to a non-specialized audience, thus bridging the gap between this audience and the scientific community. The collaboration between researchers and illustrators can stimulate imagination and creativity in both science and art. This study also explores how drawing methodologies contribute to ongoing research at CBR and how it fosters collaboration between scientists, illustrators, and science communicators.

1. Introdução

O projecto de investigação de doutoramento em curso *Do Invisível ao Visível através do Desenho como Processo de Comunicação entre Arte e Ciência* parte de uma prática profissional de Ilustração Científica (e para a Ciência)³ em colaboração com o CBR, visando a produção de material de comunicação visual de Ciência como apoio aos projectos de investigação e actividades do centro, na disseminação, divulgação e promoção dos mesmos para que se tornem mais acessíveis a determinado público.

Keywords

Drawing; Scientific Illustration; Visual Communication; Process.

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³ Parte dos projectos realizada visa o apoio à divulgação de actividades como seminários, congressos e outros eventos de divulgação científica.

As actividades desenvolvidas têm como principal ferramenta o desenho aplicado à Ciência, fazendo também uso de estratégias e metodologias da área do Design de Comunicação, numa abordagem multidisciplinar e interdisciplinar, que procura promover uma colaboração entre cientistas, ilustradores e comunicadores (de ciência) [1]. Pretende-se que o uso de ilustrações científicas, aliado a uma estratégia de comunicação pré-estabelecida, contribua para a promoção e divulgação de conceitos de ciência, com abordagens adaptadas e adequadas a diversos meios e públicos-alvo.

Os projectos realizados são integrados em tipologias de ilustração com parâmetros definidos, códigos visuais específicos e soluções gráficas determinadas consoante a aplicação e o público a que se destina. Exploram-se também questões base da presente investigação como questões de observação e entendimento, o papel do desenho na externalização de conceitos complexos [2], a relação e diálogo com o cientista, e o contributo do ilustrador para a partilha da informação e a forma como intervém nesse processo [3].

2. Projecto de Investigação

2.1. Contextualização

O projecto de investigação teórico-prático que se encontra em desenvolvimento intitula-se *Do Invisível ao Visível através do Desenho como Processo de Comunicação entre Arte e Ciência* e procura responder a questões relacionadas com a prática profissional em Ilustração Científica que tenho vindo a desenvolver desde 2012. É, no entanto, a colaboração estabelecida em 2023 com o CBR, um centro de investigação biomédica focado em ciências da saúde e ciência fundamental,⁴ que originou e motiva o desenvolvimento deste projecto de investigação, sendo as problemáticas daí decorrentes o foco da investigação.

Até à data da colaboração com o CBR a maioria das áreas de acção do meu trabalho de Ilustração Científica focava-se na Botânica e na Zoologia, maioritariamente ilustrações representando morfologia externa para diversos públicos, com aplicações destinadas à sensibilização e educação ambiental, aplicações a suportes comerciais e identidade de marcas comerciais. Frequentemente tem sido possível a integração da minha actividade na ilustração com a actividade na área do Design de Comunicação (a minha formação académica base), sendo que a conjugação das duas é fulcral na metodologia que aplico no desenvolvimento dos projectos ilustrados. Este novo campo de acção do meu trabalho de ilustração conduziu a uma alteração na forma como os projectos são abordados, exigindo uma abertura a novos conceitos, a aprender e procurar conhecimento em temas que me são desconhecidos. Sobretudo porque comunicar ciência não se resume somente à tradução de dados – o potencial de tradutibilidade visual concretiza-se pela criação de pontes visuais, na interpretação de conceitos abstractos e tradução dos

⁴ Distinguindo-se da ciência básica por se caracterizar pela procura e expansão do conhecimento por si só, e dos princípios e mecanismos fundamentais subjacentes aos fenómenos naturais. Não existe necessariamente uma aplicação prática imediata como parte dos seus objectivos.

mesmos em formas compreensíveis a determinado público. No livro *The technical image: a history of styles in scientific imagery*, o historiador Peter N. Miller refere que “Imagery is not passive, not simply an illustration of what is, not simply the corollary of the correspondence theory of truth. Rather, the capability of putting some phenomenon into an image is an interpretative intervention.” [4]. Gera-se uma abertura a novas formas de observar os modelos a serem representados livre de ideias pré-concebidas, o aceitar de imprevistos e de novos conceitos através do acto de desenhar [5]. Também a relação com o cientista muda, torna-se mais próxima, gera diálogo e promove a troca de informação entre o domínio de conceitos científicos e a sua tradução visual. Este diálogo é essencial para que se chegue a um resultado eficaz, potenciando o desenvolvimento de narrativas aptas para vários públicos, com o intuito de fomentar curiosidade e literacia científica [6].

Acrescendo à produção de Desenho de Ciência, parte das minhas funções passa pela manutenção geral de toda a identidade; para além do apoio aos investigadores na produção de material de comunicação visual ilustrado, pretende-se o desenvolvimento global dos materiais e uma integração da ilustração nos seus suportes de forma a promover coerência e integridade da estratégia de comunicação da identidade CBR. A articulação entre os processos de Design com o Desenho é concretizada também no desenvolvimento das ilustrações, dado que a clareza da identidade visual da instituição (Design) prepara o público para a recepção da complexidade científica que o Desenho transporta e revela. As peças de Design produzidas são efectivamente o suporte de reprodução das ilustrações, e o contacto do público com as mesmas é materializado por essa via, cumprindo assim o propósito de informar, esclarecer [7] e iluminar.

2.2. Metodologia: A Prática como Dispositivo de Investigação

O projecto de investigação adopta uma metodologia de cariz qualitativo e processual, centrada na Investigação Baseada na Prática (*Practice-Based Research*). Neste contexto, o Desenho não é perspectivado meramente como um subproduto final ou uma ferramenta de transcrição, mas sim como dispositivo crítico de mediação e produção de conhecimento [8]. A prática desenvolvida no CBR actua como um laboratório vivo, onde o método se desdobra em três eixos:

- **Observação Participante e Diálogo Interdisciplinar:** O processo criativo inicia-se na interacção direta com os investigadores e cientistas, onde o desenho serve de linguagem comum para a estabilização de conceitos biológicos abstractos;

- **Iteração Visual e Tradutibilidade:** Através de esboços e modelos digitais, exploram-se as possibilidades de tradução do “invisível” molecular para formas ilustráveis, testando a eficácia da marca autoral face ao rigor científico;

- **Análise Autoetnográfica:** O registo sistemático das decisões tomadas durante a produção das ilustrações [9] permite mapear as heurísticas do desenho, transformando o “saber-fazer” técnico [10] num corpo teórico passível de ser comunicado à comunidade académica [11].

A importância de uma comunicação visual de ciência eficaz é particularmente relevante para a promoção de uma boa literacia científica e em saúde [12]. Esta torna-se imprescindível ao fornecer recursos visuais de conteúdo científico a um público não especializado de forma a estreitar o fosso entre a comunidade científica e o grande público [13]. Deste modo, importa explorar a forma como as metodologias do Desenho contribuem para a investigação, estimulando a imaginação e a criatividade, aspectos frequentemente negligenciados numa formação convencional nas áreas da medicina e da biomedicina, promovendo novos pontos de vista sobre estes temas [14]. A consciencialização desta problemática na relação com os investigadores do CBR pretende promover uma sensibilização para a importância do uso de comunicação visual ilustrada, que deverá influenciar positivamente a prática no sentido de a tornar mais eficaz.

2.3. Objectivos

Procura-se estabelecer uma abordagem ao Desenho e à Ilustração Científica como áreas de fronteira inerentemente transdisciplinares, que integram nas suas práticas o conhecimento com origem em múltiplas disciplinas. Estas práticas exigem também um conhecimento específico das temáticas a ilustrar, aliado ao domínio técnico em que se navega, uma relação vital com os cientistas para quem se produz e o público-alvo que a recebe. Mais especificamente procura-se:

1. Explorar o Desenho de ciência, os seus processos e metodologias como meio de estudo, entendimento e transmissão de conceitos (de ciência) complexos;
2. Compreender a relação e o diálogo que se estabelece entre ilustrador e cientista, a forma como a partilha de informação entre estes dois agentes fornece a massa crítica que permite o desenvolvimento de uma ilustração;
3. Explorar o papel do ilustrador, a sua marca autoral⁵ e a expressão criativa dentro das especificidades, cânones e exigências de rigor inerentes à tradução visual e transmissão de conceitos científicos;
4. Caracterizar o papel do Desenho e da Ilustração de ciência enquanto elementos de continuidade de identidades visuais;
5. Esclarecer o panorama da comunicação visual de ciência na forma ilustrada no contexto das instituições científicas, na área da investigação biomédica e afins, que possam não só contextualizar e informar, como também conduzir à sua prática integrada;
6. Desenvolver uma prática de Ilustração Científica na área da investigação biomédica que englobe várias tipologias de ilustração adaptadas a diversas funções, meios de divulgação e públicos-alvo dentro do universo do CBR;

⁵ A expressividade do traço, mas também a subjectividade na selecção do que se escolhe representar ou omitir. A capacidade de se fazer uso de uma “omissão selectiva” é característica inerente à Ilustração Científica, faz parte da forma como contamos a “história”, o que comunicamos, o que mostramos, como explicamos e a quem chegamos.

7. Produzir uma análise global do corpo de trabalho ilustrado desenvolvido no decorrer da investigação, desconstruir as tipologias desenvolvidas em que se enquadram, as metodologias, aplicações específicas, integração na comunicação da instituição, e resultados obtidos.

3. Questões de Observação, Entendimento e Comunicação

É importante estabelecer que uma ilustração científica, independentemente da área de actuação, requer um cuidadoso processo de observação, estudo e pesquisa que visa a recolha de informação e referências fiáveis que apoie e permita um entendimento do conceito a ser representado.

Elaine R. S. Hodges, ilustradora científica do Smithsonian National Museum of Natural History e fundadora da *Guild of Natural Science Illustrators*, no manual de referência de Ilustração Científica *The Guild Handbook of Scientific Illustration*, refere que, para se alcançar os melhores resultados, um ilustrador necessitará de dedicar horas à observação, complementando-a com a consulta de literatura, examinando ilustrações já existente, entre outras fontes de informação que estejam disponíveis [15].

Este processo, mais do que qualquer outro de ordem técnica, é fundamental na construção da imagem final, e processa-se em duas frentes: observa-se para conhecer e observa-se para comunicar. Mas não observamos ‘apenas’, no processo de observação progredimos para a tomada de notas, esboços e esquemas que apoiam o pensamento. Nas palavras da artista Gemma Anderson, “(...) It is the act and experience of drawing itself that creates intuitive understanding” [16]. O objectivo é a decomposição do modelo em partes individuais, o estudo da relação entre as partes e através desse exercício, a desconstrução do problema. E é em parte esse processo que permite um entendimento profundo do modelo ou conceito que desenhamos. Frequentemente, como ilustradores surge-nos a ideia de que conhecemos as estruturas do que temos de desenhar, sobretudo com modelos como de botânica ou fauna que nos serão porventura mais familiares – até ao momento em que temos de os desenhar com todas as suas características diagnosticantes⁶, e nos apercebemos nesse exercício que de facto esse conhecimento nos escapa. Ao escritor romântico Goethe é frequentemente atribuída a afirmação: “não se vê realmente uma planta até a desenharmos”, mas embora questionável [17] a minha prática de ilustração tem provado que essa afirmação se verifica.

Olga Pombo, Professora de Filosofia da Ciência da Universidade de Lisboa, no livro *As Imagens com que a Ciência se Faz*, refere como este processo de entendimento ocorre não só na construção de imagens de Ciência – pelos desenhadores e ilustradores – mas também por parte dos cientistas nos seus apontamentos pessoais. Na procura da representação visual dos conceitos, gera-se uma necessidade de ampliação da capacidade de observação. Temos de fazer o exercício de observar melhor, procurar ver o que antes nos escapava. Olga Pombo oferece

6 Em Biologia, são aquelas que servem para diagnosticar determinada espécie separando-a das demais.

ainda duas proposições para os objetivos e papel desta observação: “Ilustrar é iluminar. Mas, iluminar para outro ver o que nós vemos (redobrar, recordar, representar) ou iluminar para nós vermos o que nós não víamos (ampliar, fazer brilhar)?” [18] Pela óptica do ilustrador diria que ambas são parte integrante da construção de uma Ilustração de ciência, embora em momentos distintos.

Mário Bismarck, Professor Catedrático de Desenho, realça que uma das características do acto de desenhar (nas áreas da biologia), é a de forçar a determinação concreta do que se observa no papel. É um acto que nos conduz à tomada de decisões, à selecção e à identificação de estruturas na procura da clarificação e simplificação do que é complexo [19]. Em ilustrações de microscopia e de processos biológicos, o processo de pesquisa e observação é bastante mais complexo (e complicado) do que o processo em ilustrações de descrições morfológicas (externas) e depende quase exclusivamente do material que o investigador nos irá fornecer. Sobretudo em situações em que os conceitos a serem ilustrados estão em progresso, ainda em desenvolvimento, e são muitas vezes abstractos. Mais ainda quando apreendidos pelo entendimento não treinado para estes temas – como será natural quando não existe uma formação específica em biologia. Um dos paradigmas com a observação para este tipo de Ilustração é que a forma como observamos os modelos muda. Gemma Anderson, referindo-se à observação ao microscópio, descreve:

“Often when drawing through a microscope, it is difficult to immediately recognize even the general nature of what we are looking at; whereas when observing a specimen at macroscale (...), it is still possible to recognize that the specimen is a mineral. This is not always the case under a microscope: it is often impossible to tell from observation if the object is animal, mineral or vegetable.” [20]

Quando fazemos observações ao microscópio, perdemos frequentemente a familiaridade do referente visual, o conhecimento prévio e, eventualmente, as ideias preconcebidas que temos dos objectos a representar. Anderson desenvolve esta ideia explicando que desenhar via microscópio permite uma abertura no Desenho, precisamente por ser mais difícil de assumir que conhecemos o modelo que observamos, e será neste ‘território desconhecido’ que surgem novas questões e, assim, o potencial para gerar novo conhecimento. Portanto, o processo de entendimento força-nos a observar e não simplesmente a ver, revela aspectos inesperados nos modelos observados e conduz-nos ao pensamento e à procura do conhecimento. Jenny Keller, ilustradora científica e Professora na California State University em Monterey Bay, explica este processo:

“The creation of an accurate drawing requires a systematic approach, patient observation, an openness to unforeseen possibilities, and ability to regard a topic from a variety of perspectives, a willingness to pay attention to both the exciting and the mundane, and the deliberate setting aside of preconceived ideas.” [21]

O mecanismo, que nos leva a analisar e decompor os fenómenos para posteriormente os organizar, constitui uma extensão do processo de observação. No caso de Ilustração realizada com base em imagens de microscopia surge a oportunidade (e necessidade) para a simplificação e esquematização que potencialmente levarão a um melhor entendimento do conceito a ser representado. [22] O processo de entendimento e posterior tradução dos modelos de ciência permite um leque variado de intervenções por parte do ilustrador no sentido de potenciar uma melhor representação. Olga Pombo, referindo-se às ilustrações de ciência afirma:

“Elas serviriam para representar o já sabido, fixar o já visto, mas também para ver o que sem elas não se veria. Elas serviriam para esquematizar, filtrar, resumir, condensar dados. Mas, também, para seleccionar, simplificar, manipular, focar, fixar, sistematizar as informações. Para mostrar, apresentar, explicar, expor, comunicar os resultados, tanto aos pares como ao público em geral. Mas, também, para observar melhor, ver num relance, avistar tudo de uma só vez, descobrir relações, proximidades, revelar distâncias, oposições, desvendar similitudes, mostrar articulações, sentidos insuspeitados. Numa palavra, para compreender o que sem elas não se compreendia. Tornar visível o invisível.” [23]

Mais do que meras representações, as ilustrações são interpretações fundamentadas, sujeitas a revisões e reformulações que refutem ou complementem o material representado visualmente. Os resultados não são necessariamente a representação de uma verdade absoluta, mas a melhor representação possível de determinado conceito, baseada na informação disponível.

4. Processos de Desenvolvimento

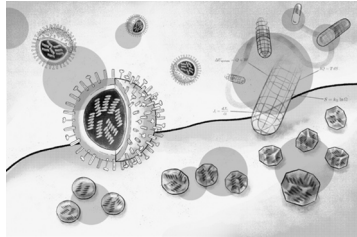
Como referido, a Ilustração Científica ocupa um papel de destaque na estratégia de comunicação e acompanha os vários materiais de comunicação sempre que possível. Os temas abordados são complexos e abarcam diversas áreas de investigação – à data o CBR tem 10 grupos de investigação em áreas de intervenção que vão da biologia vascular à genética, da biologia celular à virologia, dos estudos dos cromossomas e divisão celular ao parasitismo, passando pelo tratamento computacional de dados biológicos relacionados com patógenos. Sendo que minha área de formação não é nas áreas da Biologia e das Ciências Naturais (e ainda que uma base nesta área trouxesse vantagens no entendimento de vários conceitos) o leque de conceitos é vasto o suficiente para necessitar de um apoio redobrado com os cientistas para cuja investigação se realiza conteúdo visual, sobretudo porque este material será de apoio directo à comunicação dos seus projectos.

4.1. Questões de Tipologia

De forma a conduzir e balizar o leque de opções que se podem contemplar no processo de construção da Ilustração, e tendo a comunicação do CBR

vários níveis de informação, um dos objectivos inicialmente estabelecidos passou pela implementação de diferentes tipologias de Ilustração agregada à sua função, aplicação e público-alvo:⁷

Fig. 1. Lúcia Antunes, 2024. *A Hardening Stance on Virus*. Ilustração para artigo do Laboratório de Maria João Amorim. <https://doi.org/10.7554/eLife.85182>



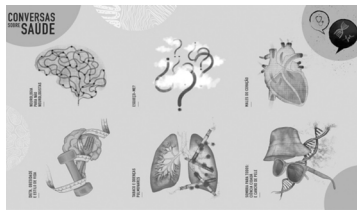
gos publicados pelos investigadores, aplicam-se a comunicação externa, para o público geral, mas também para comunicação interna.

Fig. 2. Lúcia Antunes, 2025. Ilustração para identificação do Grupo de Investigação em Hematopoiese no Desenvolvimento de Nina Schmolka.



retiradas da paleta cromática da identidade CBR numa abordagem mais abstracta do que a tipologia anterior, que acompanha o material relacionado com os grupos. A sua utilização é sobretudo agregada a uma comunicação externa para o público-geral (embora não exclusivamente).

Fig. 3. Lúcia Antunes, 2024-2025. Ilustrações para Ciclo *Conversas Sobre Saúde* em Oeiras, parte do programa *LitUp* em colaboração com o Município de Oeiras. Ilustrações digitais.



o nível de conhecimento dos habitantes de Oeiras – com particular ênfase no ensino secundário. Estas ilustrações são muito mais livres no que diz respeito à sua formatação, sendo uma derivação visual das ilustrações da primeira tipologia, mantendo o uso da paleta cromática da identidade CBR, uma abordagem gráfica mais próxima da cultura visual e digital do seu público-alvo.

– Science Digests:⁸ Ilus-

trações de base monocromática, procuram uma maior proximidade à morfologia dos elementos apresentados e são associadas a formas circulares retiradas diretamente do universo cromático da identidade CBR. Presentes sobretudo no *website* institucional e materiais como resumos de arti-

– Ilustrações de identificação dos Grupos de Investigação:

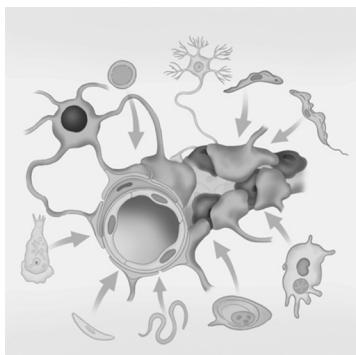
Vectoriais, simplificadas e esquematizadas que pretendem ser uma introdução visual à área de investigação, procuram representar de forma estilizada as estruturas biológicas associadas às temáticas investigadas. Usam cores planas

– Ilustrações para o Programa de Literacia em Ciência e em Saúde em Oeiras (LitUp):

concebidas para comunicação externa para o público-geral bem como para um público escolar. Acompanham a missão do programa que visa aumentar e iluminar ou acender o interesse e

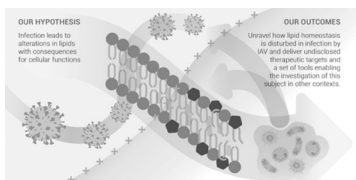
⁷ A determinação do público-alvo a quem estamos a dirigir a Ilustração é vital para uma execução bem-sucedida, permite-nos determinar a estratégia para o desenvolvimento da Ilustração, o detalhe e pormenor conferido e eventualmente até a técnica a usar.

⁸ Procuram explicar de uma forma curta e acessível e a um público leigo alguns dos artigos científicos publicados pelos investigadores do CBR, salientando as contribuições que estes vão fazendo para o conhecimento científico das áreas em que fazem investigação.



– Ilustrações de artigos para **publicações** da especialidade: procuram ser mais livres, tanto graficamente como na abordagem estética, não se pretendendo que estejam coladas aos pressupostos da identidade do CBR. Pretende-se que permitam mais liberdade gráfica como maior presença da marca autoral do ilustrador. São ilustrações de visualização científica que visam representar fenómenos científicos. A sua

comunicação está associada a um público especializado, externo ao universo do CBR.



– **Graphic abstracts e Data and information visualization:** Ilustrações de carácter mais iconográfico e abordagem mais infográfica. A sua utilização será aplicada a artigos e publicações dos investigadores. À semelhança da tipologia anterior não se

pretende necessariamente uma ligação à identidade do CBR, embora todo o material ilustrado irá eventualmente retirar algo à estética das primeiras tipologias.

Com o desenvolvimento de várias tipologias de Ilustração, procura-se a promoção de flexibilidade gráfica, criando amplo espaço para a liberdade criativa na realização das ilustrações mantendo em simultâneo uma clara e eficaz ligação à identidade do CBR que, a par da comunicação de ciência, de conceitos e processos biológicos é um dos principais objectivos.

4. Considerações Finais

O progresso da investigação registado neste artigo procura confirmar a viabilidade e a relevância da ponte estabelecida entre o Desenho e as Ciências Biomédicas. A integração no CBR, *Católica Biomedical Research Centre*, permite que a investigação transcenda a mera ilustração morfológica, penetrando no campo da interpretação funcional e na comunicação de ciência.

Os resultados obtidos até à data, visíveis na diversidade de tipologias gráficas produzidas, demonstram que o Desenho é um motor de clareza epistemológica. A transição da Botânica e Zoologia para a Biomedicina não representa apenas uma mudança de objecto, mas uma evolução metodológica: a passagem da representação do visível para a construção visual do invisível.

Futuramente, a continuação do desenvolvimento da investigação centrar-se-à na sistematização desta taxonomia visual e no aprofundamento do papel da autoria artística dentro dos limites da objectividade

Fig. 4. Lúcia Antunes, 2025. Ilustração para artigo *Mechanisms of parasite-mediated disruption of brain vessels*. Ilustrações digitais. <https://doi.org/10.1002/1873-3468.70255>

Fig. 5. Lúcia Antunes, 2025. Ilustração para *graphic abstract – Investigating Lipid Metabolism in Influenza. A Virus-host Interactions*. Ilustração vectorial.

científica. Em suma, o trabalho realizado nesta fase consolida a premissa de que a Ilustração Científica, enquanto processo de comunicação, é uma componente intrínseca e indispensável da própria descoberta científica.

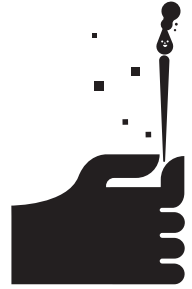
References

1. Roughley, M., (ed.) Approaches for Science Illustration and Communication. Vol. 4., Biomedical Visualization., Springer Nature Switzerland, v., 17 (2023)
2. Petherbridge, D.: The primacy of drawing: histories and theories of practice. Yale University Press. 16 (2010)
3. Bredekamp, H., Dünkel, V., Schneider, B. (eds.): The Technical Image: A History of Styles in Scientific Imagery. Chicago: The University of Chicago Press, ix, x. (2015)
4. Bredekamp, H., Dünkel, V., Schneider, B. (eds.): The Technical Image: A History of Styles in Scientific Imagery. Chicago: The University of Chicago Press, ix, x. (2015)
5. Anderson, G.: Drawing as a Way of Knowing in Art and Science. Intellect. 53 (2018)
6. Roughley, M., (ed.) Approaches for Science Illustration and Communication. Vol. 4., Biomedical Visualization., Springer Nature Switzerland, v., 17 (2023)
7. Gould, S. J.: Bully for Brontosaurus: Reflections in Natural History. 2. [impr.]. Norton, 171 (1991)
8. Candy, L., Edmonds, E.: Practice-Based Research in the Creative Arts: Foundations and Futures from the Front Line. Leonardo 51, n.o 1 63–69 (2018)
9. Sullivan, G.: Art Practice as Research: Inquiry in the Visual Arts. Nachdr. Sage, 60 (2006)
10. Gannon, R., Fauchon, M.: Illustration Research Methods. Bloomsbury, 6 (2020)
11. Biggs, M., Buchler, D.: Eight Criteria for Practice-Based Research in the Creative and Cultural Industries. Art, Design & Communication. In: Higher Education 7, n.o 1 pp. 5–18, 12 (2008)
12. Literacia em Ciência e em Saúde, <https://cbr.fm.ucp.pt/Literacia-Ciência-e-Saúde>
13. Roughley, M., (ed.) Approaches for Science Illustration and Communication. Vol. 4., Biomedical Visualization., Springer Nature Switzerland, v., 17 (2023)
14. Roughley, M., (ed.) Approaches for Science Illustration and Communication. Vol. 4., Biomedical Visualization., Springer Nature Switzerland, v., 17 (2023)
15. Hodges, E. R. S.: The Guild Handbook of Scientific Illustration. Hoboken, New Jersey, USA: John Wiley & Sons, Inc. 80 (2003)
16. Anderson, G.: Drawing as a Way of Knowing in Art and Science. Intellect. 53, 24 (2018)
17. Landin, J.: Botanical Illustration, Goethe, and the Mysterious Quote. Journal of Natural Science Illustration. 30 (2013)
18. Pombo, O., Di Marco, S.: As Imagens com que a Ciência se Faz. Fim de Século Edições. 10, 71, 11, 69 (2011).
19. Bismarck, M., Almeida, P.L., Simões, S., Silva, V.: DESENHAR ENTRE FRONTEIRAS: Aprendizagem, Investigação e Comunicação pelo Desenho na Universidade. Universidade do Porto. 36 (2023).
20. Anderson, G.: Drawing as a Way of Knowing in Art and Science. Intellect. 53, 24 (2018)
21. Canfield, M. R. (ed.): Field Notes on Science & Nature. Cambridge, Mass: Harvard University Press. 161-162 (2011)
22. Pombo, O., Di Marco, S.: As Imagens com que a Ciência se Faz. Fim de Século Edições. 10, 71, 11, 69 (2011).
23. Pombo, O., Di Marco, S.: As Imagens com que a Ciência se Faz. Fim de Século Edições. 10, 71, 11, 69 (2011).

Recognizing the Artificial: Student Perception and Aesthetic Evaluation of AI-Generated Images

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Abstract

The rapid advancement of generative artificial intelligence (GenAI) is reshaping creative practices and challenging established concepts of authorship, originality, and aesthetic evaluation. As AI tools become increasingly integrated into media production, media education must expand its competency frameworks to include AI literacy. This paper examines how students in a first-semester 2D Design course perceive, evaluate, and critically reflect on AI-generated imagery within higher design education. The study combines quantitative and qualitative methods. In the first phase, 68 students assessed 11 images and indicated whether they believed each image was AI-generated, as well as whether they found it aesthetically appealing. Although all images were AI-generated, only one participant correctly identified them all. Notably, images perceived as human-made were rated as more aesthetically appealing, while those assumed to be AI-generated were evaluated less favorably. This suggests that perceived authorship significantly influences aesthetic judgment. In a second phase, students engaged with generative tools and participated in guided discussions on originality, creativity, inspiration, and the limitations of AI systems. Qualitative findings reveal recurring descriptions of AI-generated images as overly smooth, generic, “uncanny,” and lacking depth or intentionality. Emotionally compelling images, in contrast, were associated with storytelling, authenticity, detail, imperfection, and a personal touch. While opinions were divided on whether AI-generated images can be considered original, most students expressed skepticism regarding AI’s ability to be truly creative. AI was primarily understood as recombining existing data rather than generating ideas grounded in lived experience, reflection, or independent judgment. Overall, the findings underscore the importance of integrating critical AI literacy into design education, enabling students to thoughtfully engage with both the creative potential and limitations of generative technologies.

1. Introduction

In recent years, text-to-image models such as Stable Diffusion, DALL-E, and Midjourney have gained significant relevance in creative practice. Their technological foundations can be traced back to the development

Keywords

AI Literacy; GenAI; Design Education; Media Education; AI-Generated Images; Aesthetic Perception; Authorship; Originality; Creativity; Student Perception; Human–AI Comparison; Visual Culture.

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of Generative Adversarial Networks (GANs) between 2014 and 2017 [1]. Early breakthroughs were achieved with models such as StackGAN (2016), which demonstrated for the first time the systematic generation of images from textual descriptions [2]. Continuous advances in image quality, natural language processing, and user-friendly interfaces have led to a rapid expansion of these technologies since 2021.

Today, Generative AI (GenAI) is widely used not only by professional artists and designers but also by non-experts in areas such as art, advertising, and visual communication. At the same time, these tools are increasingly integrated into contemporary artistic workflows. Artists such as Glenn Marshall and Kim Sujin employ GenAI as part of their creative processes, thereby redefining authorship and reshaping established production methods in the creative media sector [3], [4].

Figure 1 illustrates selected examples of these developments. The broader cultural implications of this shift are exemplified by the case of Boris Eldagsen, who won a prize at the Sony World Photography Awards in 2023 with an AI-generated image (see Fig. 1). Only after the award was granted did he disclose that the work had been created using artificial intelligence [5]. The incident sparked international controversy and underscored how increasingly difficult it has become to distinguish between human-made photographs and Artificial Intelligence (AI) generated imagery.

Against this backdrop, the progressive integration of AI into media production and consumption is fundamentally transforming the field of media education. To adequately address the resulting opportunities and challenges, existing competency frameworks must be expanded to include AI literacy [6]. Such an extension enables learners to develop a comprehensive understanding of how AI systems operate, how they are applied in media contexts, and what social, cultural, and ethical implications they entail [7].

Fig. 1. From left to right: Glenn Marshall, *The Crow* (2022); GenAI Short; Kim Sujin, *Dissolution* (2023); GenAI Short; Boris Eldagsen, *The Electrician* (2023); AI Image.



2. Method

The 2D Design course constitutes a core component of the first semester in the Digital Arts (DA.ba) and Media Technology and Design (MTD.ba) bachelor's programs at the University of Applied Sciences Upper Austria, Hagenberg. As an introductory module, it combines foundational design principles—such as composition, color theory, typography, and visual communication—with practical training in industry-standard software, including Adobe Illustrator, Adobe InDesign, and Adobe Photoshop.

Beyond these technical and conceptual fundamentals, the course deliberately integrates generative design approaches and AI literacy as essential contemporary competencies. Students are encouraged not

only to experiment with current AI-based creative tools but also to critically reflect on their aesthetic qualities, underlying mechanisms, and broader societal implications. In this way, the course situates generative AI within both practical design workflows and a critical media-educational framework.

This paper presents findings from a survey conducted with 68 students (Part One) and 77 students (Part Two) enrolled in the winter semester 2025/2026. The study examines whether students were able to reliably identify AI-generated images and how they distinguished between human-created and AI-generated visual content. In addition, it explores their attitudes toward the use of AI in creative practice. By analyzing both perceptual and evaluative dimensions, the study contributes to a broader discussion on the aesthetic, educational, and ethical implications of generative AI in design education.

2.1. Survey: Part One

The first survey was embedded in a lecture session that introduced key concepts and theoretical foundations related to generative design, prompt bias, hallucinations, and deepfakes. Following this conceptual input, students were presented with a set of 11 images. For each image, they were asked to indicate whether they believed it to be AI-generated (yes/no). In addition, they were required to evaluate whether they found the image aesthetically appealing.

The selection included the works mentioned in the introduction, such as pieces by Kim Sujin, Boris Eldagsen, and Glenn Marshall, and was expanded to include works by Paul Trillo [8], Laen Sanches [9], and Tanja Nuijten [10], as well as several additional images generated through custom prompts. These artists were deliberately chosen because they are regarded as pioneers and widely recognized figures who have integrated generative AI into their work—often in ways that are not immediately identifiable as AI-generated. This is exemplified by Boris Eldagsen, who drew major attention in 2023 by declining the Sony World Photography Award after revealing his submitted image was AI-generated, sparking debate about authorship and authenticity (as noted in the introduction). Similarly, Glenn Marshall's work *The Crow* transforms existing video footage of a dancer through AI-based processes, while Kim Sujin also incorporates generative AI as an integral part of her creative workflow. Tanja Nuijten likewise uses AI to generate intermediate frames based on her paintings, further obscuring the visibility of AI within the creative process.

Reflecting this curatorial rationale, all 11 selected images were in fact AI-generated; however, this information was deliberately withheld from the students. Instead, they were asked to evaluate each image and determine whether they believed it to be AI-generated or not, enabling an assessment of how convincingly such works can emulate non-AI imagery.

As concluding questions, students were invited to describe how they would characterize the aesthetic qualities of AI-generated images in stylistic terms. They were also asked to reflect on what, in their view,

constitutes emotionally compelling and successful imagery—what makes an image personally engaging or meaningful to them.

After the completion of the survey, it was revealed to the students that all presented images had been generated using AI.

2.2. Survey: Part Two

Following the first survey, a practical exercise session was conducted in which the latest features of Adobe Firefly were introduced and demonstrated. Students were given the opportunity to experiment with the tool themselves to gain hands-on experience with generative AI workflows.

This was followed by small-group discussions addressing several guiding questions: Where do students themselves draw inspiration from in their creative processes, and where do AI tools “draw” their inspiration from? What defines an original image? Can AI-generated images be considered original? These questions were motivated by the broader debate surrounding AI-generated images and videos, which increasingly raises issues of authorship, copyright, and the distinction between human and artificial creativity, as discussed by researchers such as Mark A. Runco [11]. Furthermore, participants discussed the perceived limitations of AI tools in comparison to human creators—specifically, what AI systems may not be capable of achieving that humans can.

Together, these two survey components combined perceptual evaluation, practical experimentation, and critical reflection to explore students’ understanding of generative AI aesthetics and creativity within media education.

3. Results

The following section presents insights into the quantitative and qualitative findings of the study. It summarizes the statistical results of the image recognition and evaluation tasks, as well as the thematic patterns that emerged from students’ written responses and group discussions. By combining numerical data with interpretative analysis, this section aims to provide a comprehensive understanding of how students perceive, assess, and critically reflect upon AI-generated visual content within the context of design education.

3.1. Quantitative Findings

Evaluation of AI-Generated Imagery. Only one out of 68 participants of the lecture correctly identified that all 11 images were AI-generated. In general, the self-prompted images created with relatively simple prompts were more frequently recognized as AI-generated than those produced through more sophisticated workflows or by combining AI tools with original photographic material.

A still frame of the animation *Sensual* by Tanja Nuijten was rated “no” (i.e., not AI-generated) by 80.9 % of respondents, making it the image least frequently identified as AI-generated (see Fig. 2). It was followed by *PLSTC* by Laen Sanches (66.2 % “no”) and *The Hardest Part* by Paul Trillo (63.2 % “no”).

The survey further indicates a correlation between perceived origin and aesthetic evaluation: images that were classified as AI-generated were generally rated as less appealing, whereas those assumed to be human-made were perceived as more aesthetically pleasing. In other words, the participants' judgment of whether an image was AI-generated significantly influenced how they evaluated and experienced it aesthetically.



Fig. 2. Excerpt from the survey (Part One): Frame from *Sensual* by Tanja Nuijten [10]. 80.9 % of respondents perceived the image as not AI-generated and rated it as rather visually appealing.

Generative AI: Originality and Creativity. Responses to the question of whether AI-generated images can be considered original were highly divided. Students expressed mixed opinions, revealing uncertainty about how originality should be defined in the context of generative systems (see Fig. 3).

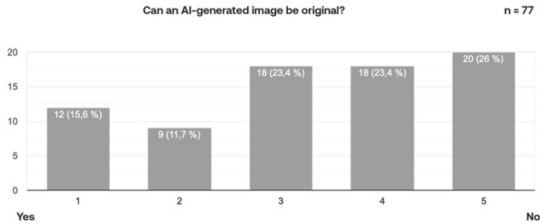


Fig. 3. Excerpt from the survey (Part Two): Can an AI-generated image be original?

When asked whether AI tools themselves can be creative, however, there was a noticeable tendency toward skepticism. A larger proportion of students leaned toward rejecting the idea that AI systems can possess creativity in a human sense, often implicitly distinguishing between computational generation and intentional artistic expression.

Similarly, opinions were mixed regarding the question of whether students feared being replaced by AI tools in the future. While responses varied considerably, there was a slight inclination toward concern, indicating an underlying sense of uncertainty or anxiety about the long-term professional implications of generative AI in creative fields.

3.2. Qualitative Findings

Aesthetics of AI-generated images. When asked to describe the aesthetic characteristics of AI-generated images, students repeatedly referred to similar descriptive patterns. AI images were frequently characterized as “uncanny,” overly perfect, smooth, flat, and lacking texture. Many respondents perceived them as too soft, generic, or repetitive, often noting a certain uniformity in color grading—such as a tendency toward yellowish tones or a washed-out appearance. Furthermore, students pointed to a perceived absence of intentionality behind the stylistic choices, describing the images as lacking continuity, depth, and authenticity, and ultimately as somehow “unreal.”

What Makes an Image Compelling? Student Perspectives.

When asked what characterizes emotionally compelling, engaging, and successful images, students emphasized qualities associated with depth and intentionality. They described powerful images as those that convey a story and evoke a sense of meaning beyond the surface. Detail richness carefully considered composition and lighting, and a distinctive or intriguing art style were frequently mentioned. Moreover, respondents highlighted the importance of integrity within the work, valuing authenticity, subtle imperfections, and a recognizable personal touch that reflects individual perspective and creative intention.

Sources of Inspiration: Human vs. AI Perspectives. When asked where they draw inspiration from, students frequently referred to personal experiences, their environment, emotions, and individual life events. At the same time, they acknowledged external influences such as inspiring works found online or created by other artists. Inspiration was thus described as both deeply personal and socially interconnected.

In contrast, the question of where AI derives its “inspiration” was answered far more unequivocally. Students identified data, existing works, and the image and text datasets used during training as the primary sources. Many explicitly rejected the term “inspiration” in relation to AI, arguing that it implies intention and subjective experience. Instead, they suggested that terms such as data processing, recombination, or pattern recognition would be more appropriate descriptions.

Perceived Limitations of AI Compared to Human Creativity.

When asked what AI tools cannot do in comparison to humans, students articulated clear boundaries between computational generation and human creativity. Many argued that AI is unable to create something genuinely new in the sense of originating ideas independent of existing data. Rather than inventing, it recombines patterns derived from its training material.

Furthermore, students emphasized that AI systems do not possess emotions and therefore cannot produce truly personal or emotionally

grounded work. They highlighted the absence of lived experience, subjective perspective, and intentional expression as key differences. In addition, respondents pointed out that AI cannot genuinely reflect, critically evaluate its own output, or hold an independent opinion. These capacities were described as inherently human qualities that remain central to artistic authorship and creative decision-making.

4. Discussion

The findings from this study echo broader research on how people perceive AI-generated imagery. Consistent with the results by Rueda-Arango and colleagues [12], which explored human perception of AI-generated artworks, individuals often struggle to accurately identify such images based on their origin, and this does not necessarily correlate with preference or aesthetic evaluation. In that study, participants could sometimes distinguish AI-generated works from human-made ones with moderate accuracy, yet their aesthetic preferences remained unaffected by the ability to identify the image source, highlighting a complex relationship between recognition and appeal [12].

In this survey, students tended to find images that they believed were human-made more aesthetically appealing and emotionally engaging, while images classified as AI-generated were often judged as less appealing. This suggests that the attribution of authorship itself influences aesthetic judgment: when an image is perceived as AI-created, this may trigger certain biases—such as perceptions of artificiality, lack of intentionality, or absence of emotional depth—that reduce its perceived attractiveness. These patterns align with research showing that people often experience generative AI outputs as “strange” or uncanny, which can affect both perception and emotional response [13].

Overall, these qualitative and quantitative insights point to an important pedagogical implication: students’ judgments about visual appeal are not purely based on formal aesthetic qualities, but are also shaped by beliefs about agency, creativity, and authenticity [11]. This underscores the importance of fostering critical AI literacy in media education, including a reflective discussion of both the potentials and limitations of these workflows, as well as strategies for using such tools while maintaining one’s own artistic intention and standards [6], [14].

5. Conclusion

From a media-educational perspective, the findings of this study point less toward improving students’ ability to reliably distinguish AI-generated from human-made images, and more toward the limitations of such perceptual judgment altogether. The experiment demonstrated that even when engaging critically with the images, students found it highly difficult to identify AI-generated content—an issue that is likely to intensify as generative systems continue to improve in mimicking visual authenticity. At the same time, the results clearly indicate that the perceived origin of an image—whether assumed to be human-made or AI-generated—significantly influences its evaluation and appreciation.

Given these insights, the responsibility should not rest primarily on viewers to detect artificiality, but rather on the producers and providers of such technologies. This suggests a growing need for clear standards of transparency, in which AI-generated content is consistently and explicitly labeled. Such measures would support informed interpretation, preserve trust, and enable a more critical and contextualized engagement with visual media in an era of increasingly indistinguishable AI-generated imagery.

References

1. I. Goodfellow et al., “Generative adversarial networks,” in *Advances in Neural Information Processing Systems (NeurIPS)*, 2014. [Online]. Available: <https://arxiv.org/abs/1406.2661>
2. H. Zhang et al., “StackGAN: Text to photo-realistic image synthesis with stacked generative adversarial networks,” *arXiv preprint arXiv:1612.03242*, 2016. [Online]. Available: <https://arxiv.org/abs/1612.03242>
3. L. Manovich and E. Arielli, *Artificial aesthetics: A critical guide to AI. Media and Design*, 2021.
4. J. Hagler, *New animation art: The history and evolution of computer animation at Prix Ars Electronica*, 2024.
5. K. Sujin, “Reimagining animation making through style transfer,” in *SIGGRAPH Asia 2023 Art Papers*, Association for Computing Machinery, 2023, pp. 1–6.
6. D. Long and B. Magerko, “What is AI literacy? Competencies and design considerations,” in *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*, Association for Computing Machinery, 2020, pp. 1–16. doi: 10.1145/3313831.3376727
7. I. McDonald, “AI and artist’s copyright: Stay tuned,” *Artlink*, vol. 43, no. 2, pp. 28–31, 2023.
8. P. Trillo, “The hardest part,” *Ars Electronica*, 2024. [Online]. Available: <https://ars.electronica.art/hope/en/washed-out-the-hardest-part/>
9. L. Sanchez, “PLSTC,” 2023. [Online]. Available: <https://www.plstcfilm.com>
10. T. Nuijten, H. Sturm, V. Maurer, and A. Graefe, “Implementing AI-driven frame interpolation for a hand-crafted animated watercolor film,” in *Proceedings of the Conference on Animation and Interactive Art (Expanded ’25)*, Association for Computing Machinery, 2025, pp. 142–148. doi: 10.1145/3749893.3749971
11. M. A. Runco, “AI can only produce artificial creativity,” *Journal of Creativity*, vol. 33, no. 3, p. 100063, 2023. doi: 10.1016/j.jyoc.2023.100063
12. S. Rueda-Arango et al., “Exploring human perception of AI-generated artworks,” *Utrecht University Research Portal*, 2023. [Online]. Available: <https://research-portal.uu.nl/en/publications/exploring-human-perception-of-ai-generated-artworks/>
13. A. Rapp, C. Di Lodovico, F. Torrielli, and L. Di Caro, “How do people experience the images created by generative artificial intelligence? An exploration of people’s perceptions, appraisals, and emotions related to a Gen-AI text-to-image model and its creations,” *International Journal of Human–Computer Studies*, vol. 193, p. 103375, 2025. doi: 10.1016/j.ijhcs.2024.103375
14. M. C. Laupichler, A. Aster, J. Schirch, and T. Raupach, “Artificial intelligence literacy in higher and adult education: A scoping literature review,” *Computers and Education: Artificial Intelligence*, vol. 3, p. 100101, 2022. doi: 10.1016/j.caeai.2022.100101

The path of women in Portuguese Animation: A longitudinal case study of 50 years of female representation in CINANIMA festival catalogue archives from 1976 to 2026

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Abstract

In the year that Portugal's most relevant animation festival, CINANIMA, celebrates its fiftieth anniversary (1976–2026), this article presents an analysis conducted to the festival archives to map and document the presence and representativity of female directors in Portuguese animation. Framed by a feminist theoretical perspective, this research responds to the absence of systematic scholarship on gender inequality within Portugal's animation field. The study makes two primary contributions: (i) it traces a quantitative trajectory of Portuguese female professional films registered on the festival catalogues on competitive sections (professional films only); and (ii) it qualitatively examines through interviews, filmmaker's arguments about advantages and disadvantages as well as key and changing factors of their careers. To address and debate these questions this research framework employs mixed-methods design combining: (a) archival mapping of female presence in CINANIMA catalogues in competitive sections, with systematic data collection and statistical analysis; (b) quantitative analysis of funding allocation to those identified authors by the Instituto do Cinema e do Audiovisual (ICA) over the same period; (c) administration of questionnaires to the Portuguese directors identified in the archival mapping; (d) semi-structured interviews with selected directors; and (e) review of the curricula of national production companies. The integration of these methods facilitates cross-validation and yields a consolidated quantitative and qualitative account of the phenomenon. By inaugurating a systematic survey of women's presence in Portuguese animation, the article aims to stimulate scholarly debate and to inform professional and policy discussions that promote greater representational and institutional change in the sector.

Keywords

Female Representation;
Female Animation
Direction; Portuguese
Animation; Equity.

1. Introduction to the context of feminism in animation

Feminism in animation constitutes a critical interdisciplinary field that examines how gendered power relations are produced, reproduced and contested. Within animated media across production and direction practices, textual and aesthetic representativity, reception and institutional structures and it draws on feminist film theory, media studies,

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cultural studies and animation scholarship to interrogate both historical and contemporary dynamics.

Historically, animation has witnessed since early days a circulation of gender masculine norms through character design stereotypes and within sometimes over masculine stereotyped narratives. As well, early studio systems, industrial labour divisions and commercial imperatives often marginalized women in creative and technical roles such as directing and producing, male gaze representational regimes of animated aesthetics, voice, and genre [1]. Feminist approaches problematize essentialist readings of gender in animated texts [2], emphasizing intersectional analyses that foreground race, class, sexuality and global inequalities [3][4]. The problematic resides on one end on the significance of authorship, labour and institutional policy in shaping who gets to make animated and directing creative work and its consequent type of narratives and aesthetics used to represent women on the screen. On the production side, research highlights persistent structural barriers, such as unequal access to education, formal funding, and leadership positions, while it documents the emergent presence of female directors, writers, animators and producers in independent festival and auteur animation contexts. In this context, it is proposed alternative aesthetics, autobiographical approaches and pedagogical initiatives to contest normative paradigms and to create spaces for marginalized voices.

Textually, feminist scholars on animation addresses how content, form and technique afford distinct modes of bodily representation and affective identification enabling nuanced articulations of subjectivity, care, and corporeal vulnerability. The impact of these narratives on children and the perpetuation of unequal subjects on the screen, as well as transnational animated animation trace how female subjectivities and feminist themes (care, maternity, domestic labour, non-normative relationships, reproductive politics, and intergenerational memory) are encoded through visual design, symbolic imagery, temporality, and sound. Key examples of female directing films can be identified in: Caroline Leaf (Canada/USA), *The Street* (1976), *The Owl Who Married a Goose* (1974), in the experimental, autobiographical approaches that foreground female subjectivity and labour of care; Joanna Quinn (UK) *Famous Fred* (1996), *Girls' Night Out* (1998), a feminist satire of gender roles and women's labor; strong female protagonists; Nina Paley (USA) *Sita Sings the Blues* (2008), feminist retelling of epic narrative centering women's voice and authorial autonomy; Céline Devaux (France) *Vieille canaille* (Shorts), contemporary work addressing female interiority and social constraints; Marjane Satrapi (Iran/France), *Persepolis* (2007), autobiographical narrative of female coming-of-age under political oppression; Signe Baumane (Latvia/USA), *Rocks in My Pockets* (2014); Yegane Moghaddam (Iran), *Our Uniform*, (2024) unveiling the education of girls since early ages in school in oppressive regimes; Nora Towney (Ireland); *The Breadwinner* (2017, 94'), addressing the inequity of female's right to work to survive [5][6][7].

In this study the approach to these issues adopts a methodological feminist approach in animation which advocates: archival recovery, oral history, female director's interviews, curricular developments, textual

analysis, map of funding program patterns, festival representation and critical industry studies—to uncover occluded histories of female trajectories. In order to adapt the methodology to the scale of this article it was prioritized statistical data to inform in a first stage empirical information, although small sections reveal insights from interviews and surveys which determined the analysis of the statistical data. The adopted methodological framework involved a combination of 5 methods: (a) fifty-year (1976-2026) archival consultation which corresponds to the total number of catalogues, retrieval and quantitative analysis of director entries on the CINANIMA catalogues archive (all entries, international and national for better positioning analysis and comparison); (b) cross data with archival retrieval and quantitative analysis of ICA-Support Program funding for Animated Short Films (1991-2026); (c) questionnaires administered to female directors entries; (d) semi-structured interviews conducted to female directors entries and e) analysis of curricula vitae and institutional profiles of Portuguese production companies. From the total number of 50 female animation directors identified and registered in the total number of festival catalogues archive and funding program mapping, a sample of 36 directors answered both surveys and 15 answered interviews that helped to validate qualitative answers on the phenomena. This initial line of research is initial and needs to be constantly subject to revisions, updates and adjustments in the face of new information, new findings and adjustments in order to continue to be complete in such a big scale of information.

2. The path of women in the Portuguese Animation

In this section it is presented the statistical result of data collection of the full catalogue history of CINANIMA International Animation Festival of Espinho, a fifty-year (1976-2026) longitudinal record and analysis mapping the occurrences of the presence of directors at the festival made through systematic decade-by-decade coding. Figure 1 presents an overview of the results of the 5 decades, coded in four variables (international men, international women, Portuguese men and Portuguese women) for better comprehension of the international and national contexts and better positioning and comparison between gender.

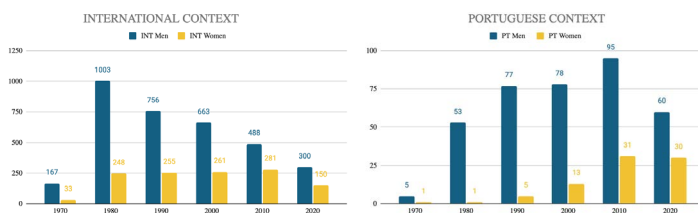


Fig. 1. Bar chart of the results of data collection of all entries from the full CINANIMA Festival archive catalogues (1976 to 2026).

The results of the evolutionary bar chart of the full consulted catalogues (1976-2026) of Fig.1 indicates a pronounced disparity between the international (left) and Portuguese (right) contexts. International counts are dominated by male filmmaker category, which range up to approximately 1,000 catalogue entries in one decade, whereas Portuguese male counts do

not exceed 100 entries in any decade. This scale differential underscores the relatively low presence of both male and female Portuguese directors. The results also reveal divergent temporal trajectories between the international (left) and Portuguese (right) contexts. Internationally, male-authored entries exhibit a declining trend while female-authored entries show a modest increase, suggesting movement toward greater gender parity. In the Portuguese context, male and female entries display an upward trajectory, but a pronounced gender gap persists, with male representation substantially higher than female remaining markedly imbalanced. Overall, the marked disparity between the dominant group (international male filmmakers) and the lower group (Portuguese female filmmakers) raises a troubling question regarding equity: stark evidence of women's underrepresentation in the animation field relative to their peers.

3. A Fifty-Year analysis on CINANIMA's Catalogues

In this section, five subsections reveal the statistical results of each one of the five decades, from 1976 to 2026. In each decade it is presented a concise analysis of the director's entries evidencing patterns and exceptions of occurrences with focus on female-authored contextualising and initiating the discussion of notable paradigm shifts in female representation. The recording criteria in this study excluded student films and advertising, music video, children TV animation formats such as animated songs, to focus only on professional author films. An entry was classified as professional if it met at least one of following conditions: a) inclusion in a competitive section of CINAMINA Catalogues (referenced as CC (cinanima catalogue), 1979 (year), sec. International (section/page) [8]. Additional information was taken in consideration when there was evidence of: b) evidence of formal national funding from the Instituto do Cinema e do Audiovisual (ICA) and its Portuguese Support Program for the Production of Animated Short Films - Institute of Cinema and Audiovisual) retrieved by ICA archival analysis (referenced as ICA-2020 (yearX) [9]; c) production company Curriculum (referenced as CCiclope films: abbreviation of "curriculum" of "Production company X"), d) evidence of register at the platform of Agência da Curta-Metragem (referenced as ACM) [10]. Additionally interview references are coded as e.g. ID Regina Pessoa (abbreviation of Interview to the director X).

3.1. Portuguese female animation filmmakers during the 1970s

In 1976, two years following the decisive political shift of the 1974's Carnation Revolution, which ended a nearly 50 years of Portuguese dictatorship, CINANIMA was born as a non-competitive showcase of animated films and became one of the most relevant events in the country even in the current days. Only in 1977 the event was institutionalized as a festival introducing a competitive programme. During the decade of 1970, the sole documented presence of a Portuguese professional female animation filmmaker at CINANIMA occurred in 1979, alongside 25 recorded national male entries and 92 international male entries (Figure 2).

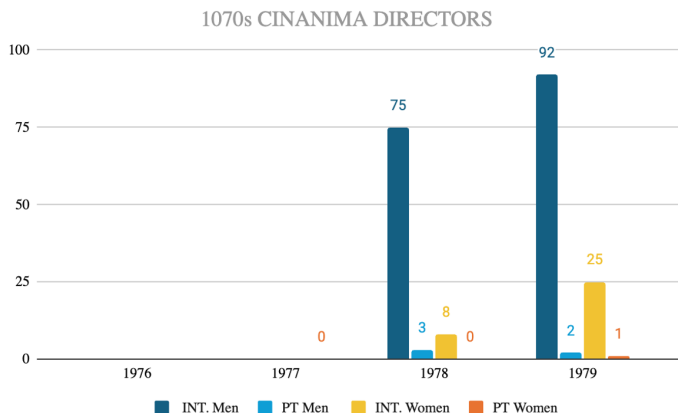


Fig. 2. Bar chart of the 1970s data collection from CINANIMA Festival archive catalogues (1976 to 1979): coding International Men, Portuguese Men, International Women, Portuguese Women.

Description of the sole recorded female Portuguese entry in the decade of 1970s:

- 1979 | *Sorriso e Alfazema* (1979, 16 mm, black and white), directed by **Manuela Bacelar**, Topefilmes - RTP (CC 1979, sec. Portugal)

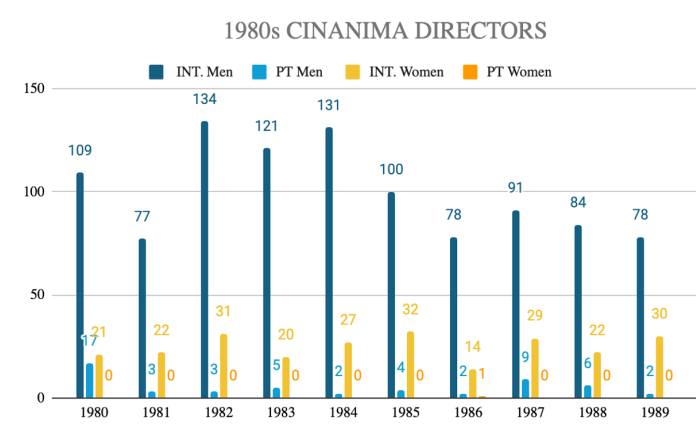
Manuela Bacelar, the earliest recorded female animation filmmaker in this study, was a pivotal figure of Portuguese illustration with over 100 illustrated books. Born in Coimbra (1943), raised in Porto, trained at the Soares dos Reis School, she encountered Jiří Trnka's work in a 1963 visit to Paris, where she received a 1987 scholarship to study for seven years in Prague at UMPRUM (Academy of Arts, Architecture and Design), to pursue the program of illustration and visual conception for animation. Archival interviews indicate limited documentation of some early works but her testimony underscores structural constraints faced by women artists: the importance of international training due to the absence of national programmes, the difficulty of sustaining an artistic career alongside maternity and caregiving responsibilities, the precarious financial sustainability income paid in the field, and the necessity of supplementary, often bureaucratic, employment to secure financial independence a testimony that recent female filmmakers evidenced in interviews which will be discussed later, but which proves to be a transversal pattern since its beginning regarding female representation [11]

3.2. Portuguese female animation filmmakers during the 1980s

During the 1980s three female animation directors' occurrences were recorded, but only one corresponded to a professional Portuguese director in a competitive section of the festival (Joana Rebelo). The other two entries listed in grey in the list below, are from Isabel Aboim's ACARTE productions: *Existo!* (1986), validated by interview but lacking a Cinanima cata-

logue entry criteria) and *Ecce Canis* (1986), listed in Cinanima catalogues, but lacking a Cinanima competitive section catalogue entry criteria).

Fig. 3. Bar chart of the results of data collection of all entries from the full CINANIMA Festival archive catalogues (1980 to 1989).



Description of the recorded female Portuguese entries in the decade of 1980s. Listed in grey two films are registered but without a direct match to the selection criteria in this study as being out of competitive section of the festival CINANIMA):

- 1986 | *Existo!* (1986, 3'30''), directed by **Isabel Aboim**, Atelier de Cinema de Animação: ACARTE-Fundação Calouste Gulbenkian. (ID Isabel Aboim, in Jan. 2026)
- 1986 | *Ecce Canis* (1986, 2'30''), directed by **Isabel Aboim**, Atelier de Cinema de Animação: ACARTE-Fundação Calouste Gulbenkian (ID Isabel Aboim, in Jan. 2026)
- 1986 | *Evasão/Invasão* (1986, 3'), dirigido por **Joana Rebelo**, Fernando Galrito e Paulo Simões (CC 1986, sec. G; CC 20 Anos, p.66)

Although excluded from this study's primary definition of professional films, these two entries constitute a major evidence of ACARTE's (Serviço de Animação, Criação Artística e Educação pela Arte — Fundação Calouste Gulbenkian) relevance, which operated as an experimental laboratory for multidisciplinary practices, including animation, and organised Lisbon's first professional spaces to produce and learn animation. Also Isabel Aboim would become a prolific female filmmaker, with later festival recordings on competitive sections.

3.3. Portuguese female animation filmmakers during the 1990s

Across the 1990s Portuguese female representation in animation expanded and diversified in television idents, children's songs, Christmas special formats, student works and professional short films at the festival

[12][13][14]. Of the 15 recorded female recordings in this decade, only four correspond to professional author films included in competitive sections and met the selection criteria of this study.

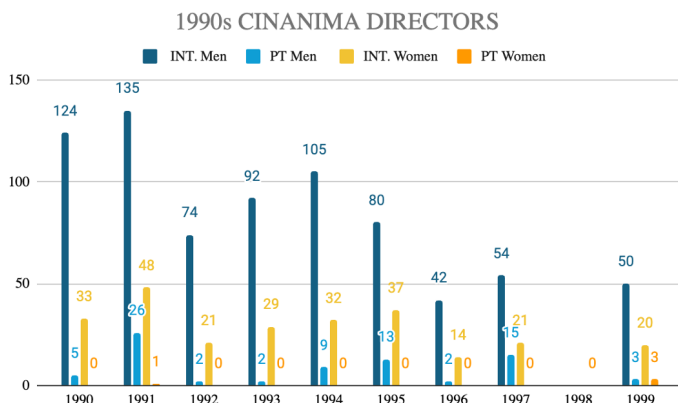


Fig. 4. Bar chart of the results of data collection of all entries from the full CINANIMA Festival archive catalogues (1990 to 1999).

Description of the four recorded female Portuguese entries in the decade of 1990s. Listed in grey films registered but without a direct match to the selection criteria in this study as being out of competitive section of the festival CINANIMA):

- 1998 | *Neste Natal eu Queria* (2'50" - christmas special), directed by **Graça Maria Vieira Gomes**, Cineclube de Avanca, Filmógrafo (CC 1999, pp.76)
- 1999 | *A Casa do João*, (animated song) directed by **Daniela Duarte** (CC 1999, pp.158, honorable mention)
- 1999 | *As Pombinhas da Catrina*, (animated song) directed by **Graça Maria Vieira Gomes**, Filmógrafo, RTP, (CC 1999, pp.70)
- 1999 | *Estrela* (10", TV ident) directed by **Paulina Vieira**, produced by RTP (CC 1999, pp.74)
- 1999 | *Brinquedos* (10", TV ident) directed by **Marta Monteiro**, Filmógrafo - RTP (CC 1999, pp.103)
- 1999 | *Bola* (10", TV ident) directed by **Marta Monteiro**, Filmógrafo - RTP (CC 1999, pp.104)
- 1999 | *Corda* (10", TV ident) directed by **Marta Monteiro**, Filmógrafo - RTP (CC 1999, pp.103)
- 1999 | *Espiral I* (10", TV ident) directed by **Marta Monteiro**, Filmógrafo - RTP (CC 1999, pp.104)
- 1999 | *Espiral II* (10", TV ident) directed by **Marta Monteiro**, Filmógrafo - RTP (CC 1999, pp.105)
- 1999 | *K-9* (1999, 1'30", short film), directed by **Cátia Peres, Rute Santos**, CITEN - Fundação Calouste Gulbenkian (ID Cátia Peres; C - CITEN, ID Cátia Peres)

- 1991 | *Uma História de Amor*, (1991, 3') directed by **Alice Geirinhas**, 1991, 3', ACARTE - Fundação Calouste Gulbenkian, awarded at CINANIMA (CC 1991, sec. I Competitive, CC 20 Anos, p.80)
- 1999 | *O Inverno* (1999, 3'30"), directed by a collective of **Susana Pinto, Catarina Pé-Curto**, Francisco Xavier Menezes CITEN - Fundação Calouste Gulbenkian (CC 2000, pp.70, ID)
- 1999 | *De Cabeça Perdida* (1999, 18') directed by **Isabel Aboim**, Aníma AVPL (CC 2001, pp.147; ICA 1996, ID Isabel Aboim, ACM)
- 1999 | *A Noite* (1999, 6'35") directed by **Regina Pessoa**, Filmógrafo, awarded with honorable mention. (CC 1999, sec. 4, p. 80; CC 2000, p.216; CC 20 Anos; ICA 1998; ID Regina Pessoa; ACC)

In 1991, Alice Geirinhas was the first recording with correspondence to a professional film of the decade, on a competitive section and CINANIMA award registration, another film produced at ACARTE. Around 1995, ACARTE was transformed into CITEN (Centro de Imagem e Técnicas Narrativas do Centro de Arte Moderna José de Azeredo Perdigão/Fundação Calouste Gulbenkian), where additional female practitioners produced films, such as Susana Pinto, Catarina Pé-Curto (*O Inverno* (1999), registered in catalogues), and Cátia Peres and Rute Santos (*K-9*, 1999, not registered in catalogues, and excluded from counting, but listed in grey as registered by interview). This evidence demonstrates the foundational relevance of ACARTE / CITEN for directors. As reported in interview by several filmmakers, this was one of the first places to possibly to watch and learn from the masters of eastern europe and international animation, to experiment techniques, and to have influential training from filmmakers and teachers as Zé Miguel (José Miguel Ribeiro) or Zepe (José Pedro Cavalheiro) (C. Peres, personal communication, January 1, 2026; I. Aboim, January 1, 2026). Parallely, in a time where television was very present, women directed a variety of television idents, children's specials and animated songs, who were trained at Filmógrafo and RTP (e.g. Graça Maria Vieira Gomes, Daniela Duarte, Paulina Vieira, Marta Monteiro) another initial pattern in animation training (Filmógrafo) by filmmaker and teacher Abi Feijó. Marta Monteiro would become an influential female filmmaker and Daniela Duarte a very recognized animator in the field. A decisive institutional shift occurred around 1986 with Portugal's entrance to the then, European Economic Community (EEC) with significant, specific formal funding for animation which took shape in the early 1990s in ICA - Instituto do Cinema e do Audiovisual (ICA). In 1991 the first animated film was funded, *Salte-adores* directed by Abi Feijó and produced at Filmógrafo (ID Abi Feijó 2026: Animation Magazine 2024). Regina Pessoa and Isabel Aboim emerge as two of the first Portuguese female animation directors and the first female directors to secure formal ICA financial support and festival competitive representation establishing themselves as animation professional prominent directors in following decades. Pessoa's *A Noite* (1999) employed hybrid drawing and engraved-plaster animation to explore loneliness and intergenerational estrangement between mother and daughter; Aboim's *De Cabeça Perdida* (1999) used symbolic formal devices to narrate a surreal

quest of someone who loses their head. As mentioned in an interview, Regina Pessoa's key influences were specific related with workshops at CINANIMA by Rodolfo Pastor and Gaston Roch, Abi Feijó's workshops at Filmógrafo and estúdio Laznec Bretagne (today's JPL films and Vive-ment Lundi), FOLIMAGE, National Board of Canada and CINANIMA and ANNECY festivals are referenced as pivotal and extremely influential as the director didn't have other formal training (ID Regina Pessoa). As mentioned in an interview by Isabel Aboim, ACARTE played a foundational and formative role in the formative space in Lisbon, promoting a sense of wonder and resisting standardized formats and pedagogy, with foundational and influential teachers as Zepe (José Pedro Cavalheiro) in her career (I. Aboim, personal communication, January 1, 2026; Together, these developments signal the consolidation of formally funded professional practice among Portuguese women animation directors at the turn of the century who will continue to work consistently.

3.4. Portuguese female animation filmmakers during the 2000s

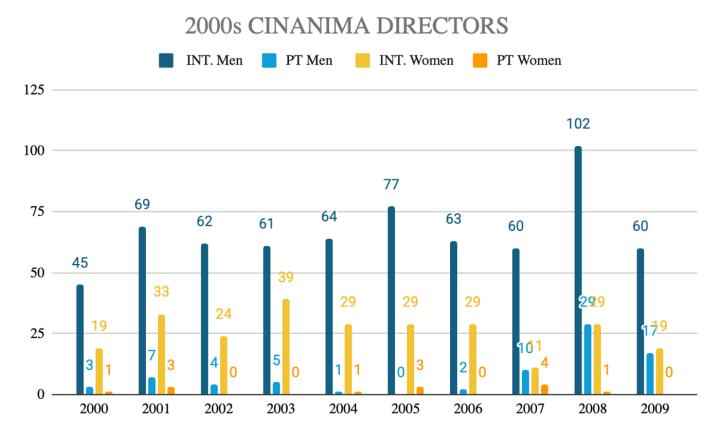
During the 2000s Portuguese women's representation in animation diversified and consolidated. Female authorship increased from four films in the 1990s to thirteen in the 2000s, with foundational visibility for new directors such as Cristina Teixeira, Marina Estela Graça, Sandra Santos, Joana Toste, Irina Calado and Marina Palácio, while Regina Pessoa and Isabel Aboim sustained prolific, award-winning careers. Formal support from the Instituto do Cinema e do Audiovisual (ICA) was instrumental in enabling financial autonomy which awarded Joana Toste with four formal fundings by ICA in this decade. Production diversity expanded with the rise of production companies such as Animais Ltd., Gomtch-Gomtch (female-founded), Zeppelin Filmes, Filmógrafo, Ciclope Filmes, embracing female directing films and a professional production pipeline for their films. Joana Bartolomeu (RCA - NFTS, UK), Cátia Peres (RCA - NFTS, UK), Sandra Santos (La Poudrière, France) and Sara Barbas (UWE BRISTOL, UK) pursued international animation training, when Portuguese educational programmes were still developing since the 1990s. Cátia Peres's student film, directed in the UK was shortlisted for the 2006 Student Oscar (C. Peres, personal communication, January 1, 2026; and she later developed an academic career at the University of Algarve; Sandra Santos also became a professor in Animation; Joana Bartolomeu and Sara Barbas continue on directing films.

Three prolific and consolidated filmmakers consolidate their paths in this decade: Isabel Aboim (three films), Regina Pessoa (two films) and Joana Toste (five films), which were instrumental in enhancing Portugal's female representation on the international animation stage, by securing funding, producing sustained authorial work and obtaining awards at major festivals. Regina Pessoa's *História Trágica com Final Feliz* (2005, 7'46") is an excellent example of this international recognition, having received the Crystal Award at the International Film festival of Annecy, and prized at a great number of festivals around the world.

Interviews with the three directors revealed recurring concerns regarding equity: access to formal education and international training; the formative role of travel and exposure to international films and debates; the necessity of active international promotion and visibility; and the importance of stable financial support beyond the existing ICA funding.

Also emphasised was the need to enhance promotion to reach wider audiences, and sustained institutional recognition. Moreover, the necessity of combining multiple professional activities to secure financial stability, often accompanied by excessive workload emerges as a constraint on sustained creative practice on the field. Maternity often emerges as a delicate subject, described as both a joy that conducts to creativity but as well a constraint when it comes to time and creative availability which often differs from male counterparts.

Fig. 5. Bar chart of the results of data collection of all entries from the full CINANIMA Festival archive catalogues (2000 to 2009).



Description of the sole recorded female Portuguese entry in the decade of 2000s. Listed in grey are films registered without a direct match to the selection criteria, due to the fact that were directed abroad and in this sense not considered as Portuguese films, but which help to construct the Portuguese director’s timeline:

- 2005 | *The Tailor’s Kiss* (2005, 13”), directed **Joana Bartolomeu** (student Film, RCA-NFTS Master Arts - Animation Direction, UK)
- 2006 | *Synchronoff* (2006, 11”, Oscar shortlisted), directed **Cátia Peres** (student Film, RCA-NFTS Master Animation, UK)
- 2008 | *Wherever You Go There You Are/ Onde quer que vás, lá estarás*, directed by **Sara Barbas**, Zeppelin Filmes (Graduation Film - MA Animation, UWE, Bristol, UK)(CC 2009, pp.115)
- 2000 | *Fragmentos de Sal* (2000, 7’), directed by **Cristina Teixeira**, Animais Ltd. (CC 2000, pp.67)
- 2001 | *Táxi!* (2001, 7’37”), directed by **Isabel Aboim**, Animais AVPL, RTP (CC 2000, pp.115; CC 2002, pp.129)

- 2001 | *Coisas & Loiças* (2001, 5'), realizado por **Sandra Santos**, Museu Nacional Soares dos Reis, Porto 2001, Capital da Cultura, Filmógrafo (CC 2001, p. 111)
- 2001 | *Interstícios* (2001, 5'46"), directed by **Marina Estela Graça**, Filmógrafo (CC 2000, pp.100; CC 2002, pp.130; ACM)
- 2004 | *A Dama da Lapa* (2004, 4'30"), directed by **Joana Toste**, Zeppelin Filmes (CC 2004, pp.81; ACM)
- 2005 | *História Trágica Com Final Feliz* (2005, 7'46), directed by **Regina Pessoa**, Office National du film du Canada, Folimage, Ciclope Filmes (CC 2003, pp. 91, CC 2005, pp.67, ACM)
- 2005 | *Selo ou não Sê-lo* (2005, 9'), directed by **Isabel Aboim**, Animaís AVPL (CC 2016, ACM; ICA, ID Isabel Aboim)
- 2005 | *Menu* (2005, 3'21"), directed by **Joana Toste**, Gomtch-Gomtch (CC 2005, pp.63; CC 2003, pp. 91; ACM)
- 2007 | *Serão* (2007, 3'), directed by **Joana Toste**, Gomtch-Gomtch (ICA 2005; ACM)
- 2007 | *Silêncio* (2007, 7'31"), directed by **Irina Calado**, Anima-nostra (ID Irina Calado, ICA, C Animanostra)
- 2007 | *No Ponto Mais Alto da Lua* (2007, 9'08"), directed by **Marina Palácio**, Zeppelin Filmes (ID Marina Palácio, ICA)
- 2007 | *Cães Marinheiros* (2007, 6'30"), directed by **Joana Toste**, Filmógrafo (CC 2008, sec. Awards 2007, ACM)
- 2008 | *Guisado de Galinha* (2008, 5'), directed by **Joana Toste**, Gomtch-Gomtch (ICA 2004; ACM)

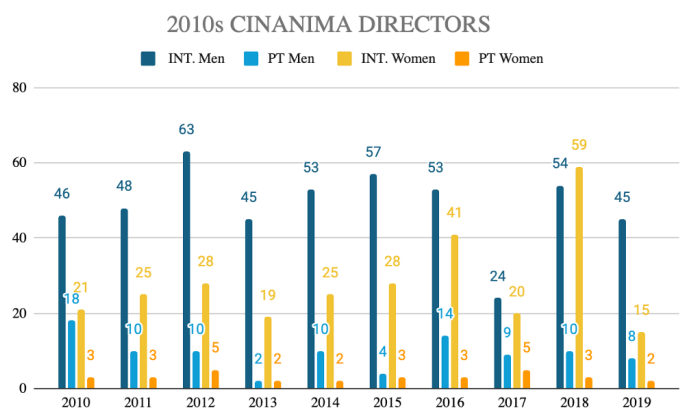
Most interviews revealed that workshops and training at CINANIMA, Centro de Imagem e Técnicas Narrativas (CITEN, Gulbenkian) Avanca, Mostra, Casa da Animação, and Filmógrafo and Tobistoon as some of the biggest educational influences and Abi Feijó, José Miguel Ribeiro, Zepe (José Pedro Cavalheiro), José Xavier e Nuno Beato as the most significant mentors evidencing an absence of female mentors although for those who studied internationally some female mentors are referenced such as Caroline Leaf, Ruth Lingford and Joanna Quinn as the most relevant. Culturally Portuguese female directors also looked at female international work as influences especially at festivals, being the most referenced the works of Lotte Reiniger, Caroline Leaf, Michaela Pavlátová, Signe Baumane, Amanda Forbis & Wendy Tilby, Marjut Rimminen, Alison De Vere, Vera Neubauer, Marie Paccou, Suzie Templeton, Céline Devaux, Marjane Satrapi, Lizzy Hobs, Toril Kove Tal Kantor, Camila Kater, Yegane Moghadamm, Brenda Chapman, Nora Twomey, Domee Shi, which reveals a great variety of cultural references and animation literacy.

3.5. Portuguese female animation filmmakers during the 2010s

During the 2010s Portuguese women's presence in animation consolidated into sustained, high-quality and formally diverse output, encompassing experimental techniques, differentiated styles, documen-

tary-animation hybrid approaches and an increase in award-winning films. The decade records approximately 30 films (including six notable student works), involvement of 16 production companies, and the record of the second and third female-founded production company (e.g. Rita Curuchinho’s *Modo Imago*; and also horizontal hierarchy cooperative with female co-founders BAP studios Animation, since 2011, indicating a modest increase in female artistic autonomy.

Fig. 6. Bar chart of the results of data collection of all entries from the full CINANIMA Festival archive catalogues (2010 to 2019).



Description of the sole recorded female Portuguese entry in the decade of 2010s. Listed in grey are films registered but without a direct match to the selection criteria as being directed abroad or being student films and in this sense not meeting the selection criteria of this study.

- 2013 | *Três Semanas em Dezembro* (2013, 6’13”), directed by **Laura Gonçalves** (student Film, Master of Animation, Arts University Bournemouth, UK), (CC 2013, pp.66, CC 2014, pp154)
- 2015 | *Within* (2015, 3’), directed by **Natália Azevedo Andrade** (Student film, FBAUP, Porto)(CC 2015, pp.55)
- 2019 | *Inside Me* (2019, 5’), directed by **Maria Trigo** (student film, Film university Babelsberg Konrad Wolf Germany)(CC 2019, pp.66)
- 2010 | *Olinda* (2010) directed by **Margarida Madeira** (student film Animation Master in Barcelona, Spain)
- 2019 | *Ahead* (2010, 5’20”) directed by **Ala Nunu** (student film Animation, Royal College of Art, Cola Animation, CC 2020, pp. 42)
- . 2013 | *Peel* (2013, 1’15”) directed by **Natália Andrade** (Student film Moholy-Nagy University, Hungary)
- 2019 | *Ahead* (2010, 5’20”) directed by **Ala Nunu** (student film Animation, Royal College of Art, Cola Animation, CC 2020, pp. 42)

- 2010 | *R-Xyz* (2010, 5’) directed by **Joana Toste**, Gomtch-Gomtch (CC 2010, pp.85; ICA 2008; ACM)
- 2010 | *Vacas* (2010, 9’35”), directed by **Isabel Aboim**, Animais AVPL

- 2010 | *E Se...* (2010, 7'), realizado por **Sandra Santos**, Zeppelin Filmes (CC 2010, pp. 83)
- 2011 | *Elo* (2020, 11'), directed by **Alexandra Ramires**, Bando à Parte (CC 2010, pp. 83)
- 2011 | *Independência de Espírito* (2011, 10'), directed by **Marta Monteiro**, Sardinha em Lata (ICA 2009; CC 2010, pp. 64; ACM)
- 2011 | *Mulher Sombra* (2011, 7'33"), directed by **Joana Imaginário**, Animegas (ICA 2008; CC 2010, pp. 66)
- 2012 | *Kali, O Pequeno Vampiro* (2012), directed by **Regina Pessoa**, 9'20", Studio GDS, Office National du film du Canada, Folimage, Cíclope Filmes (PSPPAF-ICA 2006; CC 2012, pp. 84; ACM)
- 2012 | *Do Céu e da Terra* (2012, 14'), directed by **Isabel Aboim**, Animais AVPL
- 2012 | *M* (2012, 9'30"), directed by **Joana Bartolomeu**, Bando à Parte (ICA)
- 2012 | *A Minha Casinha* (2012, 7'30"), directed by **Raquel Atalaia**, Animegas, Cineclube de Avanca, Filmógrafo (ICA 2008, CC 2014, pp. 63)
- 2012 | *De quem é este chapéu* (2012, 5'), directed by **Joana Toste** (ICA 2009, CC 2012, pp. 82)
- 2013 | *Ana - Um Palíndromo* (2013, 4'58"), directed by **Joana Toste**, Sardinha em Lata (ICA 2011; CC 2013, pp. 69, CC 2014, pp. 154; ACM)
- 2013 | *Dona Fúnfia* (2013, 2'14"), directed by **Margarida Madeira**, Pickle Films (CC 2013, pp. 66)
- 2014 | *Raquel Silvestre, a pastora* (2014, 12'21"), directed by **Marina Palácio**, Pilot Design, Zeppelin Filmes e Sparkle Animation (ICA 2009)
- 2014 | *Foi o fio* (2014, 5'), directed by **Patrícia Figueiredo**, Cineclube de Avanca, Filmógrafo (ICA 2009; CC 2014, pp. 55)
- 2014 | *Os Prisioneiros* (2014, 7'), directed by **Margarida Madeira** (ICA 2013; CC 2014, pp. 60), Pickle Films
- 2015 | *Nossa Senhora da Apresentação* (2015, 6'), directed by **Laura Gonçalves, Abi Feijó, Alice Eça Guimarães, Daniela Duarte, Laura Gonçalves**, Curtas Metragens C.R.L. (ACM)
- 2015 | *Amélia & Duarte* (2015, 8'30), directed by **Mónica Santos e Alice Guimarães**, Cíclope Filmes, Studio Film Builder (ICA 2011; CC 2015, pp. 43; ACM)
- 2015 | *Vigil* (2015, 13'), directed by **Rita Curuchinho**, Modo Imago (ICA 2009; CC 2015, pp. 56 ACM)
- 2016 | *Final Call*, (2016, 11'30), directed by **Sara Barbas**, Anima-nostra
- 2016 | *Sendas* (2016, 5'), directed by **Raquel Felgueiras**, Cineclube de Avanca, Filmógrafo (CC 2016, pp. 53)
- 2016 | *A Casa ou a Máquina de Habitar* (2016, 12'20), directed by **Catarina Romano**, Modo Imago (ICA 2011; CC 2016, pp. 54, ACM)

- 2017 | *A Gruta de Darwin* (2017, 13'03"), directed by **Joana Toste**, Sardinha em Lata (ICA 2014; CC 2017, pp71; ACM)
- 2017 | *A Tocadora* (2017, 7'52"), realizado por **Joana Imaginário**, Sardinha em lata (CC ICA 2014) (ICA 2015, CC 2017, pp. 45)
- 2017 | *A Sonolenta* (2017, 10'20"), directed by **Marta Monteiro**, Animais AVPL (ICA 2014; CC 2017, pp72; ACM)
- 2017 | *Água Mole* (2017, 9'15"), directed by **Laura Gonçalves e Alexandra Ramires**, Bando à Parte (ICA 2014; CC 2017, pp. 41, ACM)
- 2017 | *Desempregato* (2017, 4'54"), realizado por **Sara Marques e André Matos**, Take it easy, Easy Lab
- 2018 | *Entre Sombras* (2018, 13'25), directed by **Mónica Santos and Alice Guimarães**, Vivement Lundi! (ICA 2015; CC 2018, pp.73, ACM)
- 2018 | *Ensaio sobre a Morte* (2018), directed by **Margarida Madeira**, Pickle Films (ICA 2016, CC 2018, pp.74)
- 2018 | *Razão entre dois Volumes* (2018, 8'), directed by **Catarina Sobral**, Animanotra, Filmanimática (ICA 2015, CC 2018, pp.73)
- 2019 | *Tio Tomás, A Contabilidade dos dias* (2019), directed by **Regina Pessoa**, 13', Les Armateurs, ONF/NFB, Cíclope Filmes (ICA 2013; CC 2019 pp.71;ACM)
- 2019 | *Maré* (2019,14'), directed by **Joana Rosa Bragança**, Animanotra, Filmanimática (ICA 2016)

The decade is marked by a pronounced increase in female directors who pursued international training and introduced diversified aesthetic approaches in Portuguese animation. Established authors such as Regina Pessoa, Isabel Aboim and Joana Toste consolidated as directors, producing distinctively personal work and receiving sustained international recognition and awards. Concurrently, a new cohort emerged, many trained abroad, whose debut films achieved notable festival success. Collaborative female teams also gained prominence, Laura Gonçalves and Alexandra Ramires (Bap Studios) with acclaimed ani-doc projects, and Alice Guimarães and Mónica Santos with visually striking pixilation and stop-motion aesthetics. Other significant filmmakers such as Daniela Duarte, Marta Monteiro, Rita Curuchinho, Catarina Romano, Margarida Madeira, Patrícia Figueiredo, Joana Imaginário, Catarina Sobral and Marina Palácio developed intimate, formally original films addressing gendered themes and expanding graphic and illustrative vocabularies in animation. Collectively, this generation broadened formal diversity, advanced thematic complexity (including feminist concerns), and substantially increased international visibility for Portuguese female filmmakers. Interview findings reiterate patterns observed previously regarding the lack of female representation: insufficient film funding programs, the need of reinforce transparent funding criteria, the need for mentorship and residency programmes for women, the need of overcoming occupational instability requiring multiple income sources, a shortage of female-founded production companies, the need for greater gender equity within domestic and societal spheres to enable sustained career development for women, the need to reinforce

equity policies in festivals, broadcasters and studios, the need of expand formal training, childcare support and flexible work practices, the need of data collection and publish gender-disaggregated statistics across education, funding and festival rosters. As key influences the directors indicated in interviews CINANIMA and ANNECY festivals to be influential in their careers. The relevance of international training is high with a great number of filmmakers having studied abroad in a number of diverse countries at Royal College of Art Arts University Bournemouth (UK), Supinfocom and Podriére (France), Academy of Fine Arts in Kraków, Poland, Film university Babelsberg Konrad Wolf (Germany), Moholy-Nagy University (Hungary) and Animation Master in Barcelona (Spain).

3.6. Portuguese female animation filmmakers during the 2020s

In the current decade we assisted to an expansion of new filmmakers with the recording 30 entries of female directors, being in this decade archives more scarce on recent films, but with film premieres it was possible to make this list of professional films due to their production companies curriculum validation, interviews and professional funding.

Description of the sole recorded female Portuguese entry in the decade of 2020:

- 2020 | *Elo* (2020,11'), directed by **Alexandra Ramires**, Bando à Parte (ICA 2017; CC 2020, pp58; ACM)
- 2020 | *Lascas* (2026, 9'47"), directed by **Natália Andrade**, Jozsef Fulop, Hungary (CC 2020, pp56)
- 2020 | *Seja Como For* (2020, 12'23"), directed by Catarina Romano, AIM Creative Studios (ICA 2017; CC 2021, pp.61; ACM)
- 2021 | *A Menina Parada* (2021, 9'), directed by Joana Toste, Sardinha em Lata (ICA 2018; CC 2021, pp.61; ACM)
- 2022 | *A Casa para Guardar o Tempo* (2022, 12'), realizado por Joana Imaginário, Sardinha em Lata (ICA 2019, CC 2024, pp.40)
- 2022 | *Algo que eu disse/Something I Said* (2022, 10'50"); directed by Sara Barbas, Animostra (ICA 2018, CC2024, pp.60)
- 2022 | *O Homem do Lixo* (2022, 11'50"), directed by Laura Gonçalves, Bando à Parte (ICA 2018; CC 2023, pp. 44; ACM, Prémio CINANIMA)
- 2022 | *O Casaco Rosa* (2022, 8'20), directed by Mónica Santos, Animais AVPL, Um Segundo Filmes, Vivement Lundi! (ICA 2018; CC 2023, pp.62; ACM)
- 2022 | *As Horas* (2022, 4'04"), directed by **Marta Reis Andrade**, **Marta Sousa Ribeiro** BAP Animation Studios.
- 2022 | *Comezainas* (2022,12'), directed by **Mafalda Salgueiro**, Tonelada
- 2022 | *Polvo* (2022, 8')directed by **Catarina Sobral**, Animostra, Take it Easy - Easy Lab (ICA 2019; CC 2023, pp.63)
- 2022 | *Degelo* (2022, 11'), directed by **Susana António e Filipa Gomes da Costa**, Sardinha em Lata (ICA 2019; CC 2023, pp.63)
- 2023 | *Sopa Fria* (2023, 9'50), directed by **Marta Monteiro**, Ani-

- mais AVPL (ICA 2019; CC 2024, pp. 36; ACM)
- 2023 | *Telshe* (2023, 8'), directed by **Ala Nunu e Sophie Colfer**, COLA Animation, Pigeon Studio
- 2023 | *Fox Tale* (2023, 6'), directed by **Alexandra Allen** (ID Alexandra Allen; CC 2024, pp.60)
- 2023 | *Pelo na Venta* (2022, 2'14"), realizado por **Margarida Madeira**, Bro (ICA 2)
- 2023 | *A Rapariga de Olhos Grandes e o Rapaz de Pernas Compridas* (2023, 10'51"), directed by **Maria Hespanhol**, Alibi Filmes (CC 2024, pp.63)
- 2023 | *Morning Shadows* (2023, 12') directed by **Rita Curuchinho**, Modo Imago (CC 2024, pp.32)
- 2023 | *Telshe* (2023, 8'), directed by Ala Nunu e Sophie Colfer, COLA Animation, Pigeon Studio (Distinção CINANIMA 2023)
- 2024 | *Percebes* (2024, 11'30"), directed by **Laura Gonçalves and Alexandra Ramires**, BAP - Animation Studios (CC 2024, Prémio CINANIMA, ICA 2020)
- 2024 | *Amanhã Não dão Chuva* (2024, 10'), directed by **Maria Trigo**, AIM Creative Studios, WAIT A SECOND! (CC 2024, Distinção CINANIMA, ICA 2019)
- 2024 | *Pietra* (2024, 13'), directed by **Cynthia Levitan**, Sardinha em Lata, Pangur Animation, WFF (CC 2025, sec national competition; ICA)
- 2024 | *Maleza/ Erva Daninha* (2024, 6'), directed by **Carina Corso**, Studio Kimchi, (Prémio Cinanima)
- 2024 | *Três Vírgula Catorze* (2024, 11'40), directed by **Joana Nogueira e Patrícia Guimarães**, Animais AVPL (CC 2025, sec. national competition; ICA 2020)
- 2025 | *Cão Sozinho* (2025, 13'02"), directed by **Marta Reis Andrade**, BAP Animation Studios (CC 2025, Prémio Cinanima)
- 2025 | *Porque Hoje é Sábado* (2025, 12'24"), directed by **Alice Guimarães**, Animais AVPL (CC 2025, Prémio Cinanima)

The following films lack register due to the fact of being very recent and some still lack publishing of the latest catalogue archives but which received funding from ICA and are present in our list as professional and which probably will appear in the next volumes of the catalogue archives.

- 2024 | *O Estado de Alma* (2024, 10'), directed by **Sara Naves**, Sardinha em Lata, Glow (ICA 2014, Mostra festival Award)
- 2025 | *A Última Meia* (2025, 11'), directed by **Carolina Batista**, Amarela Mecânica (ICA 2025)
- 2025 | *Lina* (2025, 8'), realizado por **Margarida Madeira**, Bro (ICA 2023)
- 2026 | *Submerso* (2026, 8'), directed by **Margarida Ferreira**, Amarela Mecânica (ICA 2022)
- 2026 | *Talvez Não Haja Nada Aqui* (2026), directed by **Natália Andrade**, AIM Creative Studios (ICA 2023)

The current decade is particularly relevant for Portuguese animation which is experiencing a notably dynamic and internationally visible phase. More production companies have emerged to support female filmmakers (AIM Creative Studios, Amarela Mecânica, Bro, Tonelada, Studio Kimchi, COLA Animation) most of them with male founders which means a direction in supporting gender equity by male producers which is a positive pattern in Portugal. A new Portuguese studio founded by a female producer, Anã Azul (founded by Susana António) emerged in the recent year. With more female representation, more female representativity on the screen emerges in recent films which clearly addresses feminist issues while establishing a provocative approach to debate the subject in a public space, in the classrooms where students can study their approaches and meanings which ultimately takes women out of their invisibility and gives the new generation new models to research. Interviews reveal similar concerns about equity as the previous decade noting that the problem of equity is still existent with more predominant weight on the question of allowing more visibility, funding and animation residencies.

5. Conclusions and contributions

A generic conclusion of this study is the critical importance of systematically collecting and making visible data on women's representation in Portuguese animation to inform scholarly debate and policies. The near-absence of prior information on this topic opened challenges, which required exploratory approaches and, at times, new archival strategies to retrieve data which prove to reveal huge insights about the Portuguese landscape with CINANIMA catalogues archive to become a seminal and continuous and consistent source and because of that a very relevant tool of research allowing an initial study to map 50 female directors in this study. Data collection involved extensive fieldwork across multiple archives and full catalogue consultation spanning approximately three years, using mixed-methods approach, quantitative/statistical analysis to indicate structural trends, complemented by qualitative inquiry to elucidate meanings and contexts—proved essential in order to project a chronological timeline of the phenomenon and which revealed solid patterns on occurrences. Qualitative research identified a coherent pattern of structural constraints shaping women's careers in Portuguese filmmakers.

In synthesis the results of this study indicated: **a)** Education played a central role, initially absent in Portugal in formal courses, with limited access to specialized training specially at Filmógrafo workshops, CINANIMA workshops and ACARTE/CITEN courses in early 1990s. At least 15 from the 50 female directors sample mapped in this study achieved international training which is a significant number, with all of them directing films after that revealing the importance of education and training in the field; **b)** CINANIMA and ANNECY festivals played a major role on promoting short courses, workshops, masterclasses and animation culture; **c)** ICA revealed to be the foundational, pivotal and primary source of funding for animation production in Portugal, but there's an inequality with female-led projects receiving proportionally much less

formal support, limiting production scale, distribution and sustainability although it is slightly growing in recent years; **d)** the need of alternative sustainable structures of funding in the industry or animation markets target for female possibilities through producers; **e)** Occupational precarity and pay inequity still is evident, with filmmakers revealing short-term contracts, freelance instability and wage gaps compel women to combine multiple jobs, undermining long-term practice; **f)** care burdens with disproportionate responsibilities for childcare, maternity and eldercare interrupt career trajectories and reduce capacity for intensive production cycles is reported; **g)** Underrepresentation in creative and leadership roles (directors, head animators, writers, producers, executives), restricting decision-making power and authorship; **h)** Scarcity of female-founded production companies, mentors and senior role models reduces sponsorship and career progression, although women seem to have male peer support by key professors and mentors still in limited number; **i)** Lack of visibility and gatekeeping: curatorial, festival and commissioning practices often privilege established (male) networks, constraining exposure, awards and distribution for women's work; **j)** Data scarcity and research gaps: absence of systematic, gender-disaggregated data on participation, funding and outcomes impedes evidence-based policy; **l)** Cultural literacy deficits: a need for sustained discourse (talks, debate, publications, visibility) to promote gender-equity awareness across institutions and the next generation of practitioners.

In the Portuguese context several female authors approached feminist issues with notorious works of: Regina Pessoa, *A Noite* (1999), *História Trágica com Final Feliz* (2005), exhibiting a poetic engagement with female experience relations, vulnerability and agency; Joana Imaginário, *Mulher Sombra* (2011, 7'33"), addressing the issue of invisibility of women in society, by representing a woman fading away to become a shadow, Marta Monteiro, *Sopa Fria* (2023, 9'50), addressing the vulnerability and silence of domestic violence against women, Maria Trigo, *Amanhã Não dão Chuva* (2024, 10'), addressing the problematic of female aging, and Alice Guimarães, *Porque Hoje é Sábado* (2025, 12'24"), objectively addressing the weight and overload of maternity and child care as well as the need of self realization in individual terms; many other films exhibit relationships from a female point of views giving representativity to feminine issues and perspectives on the screen.

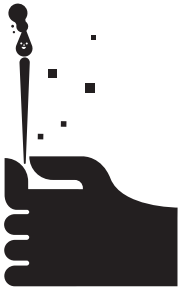
The specific contribution of this study is now the publication of this always to be improved chronological timeline and data based that helps to understand, position and analyse the path of women in Portuguese Animation. Its contribution can be used in educational contexts, classes, books, research, references and to become a starting point for further lines of research in this area which are so needed. Nonetheless, this study is provisional, its findings and datasets should be supplemented and revised as additional sources and contributions emerge. In the future the author would like to revisit some of the data and to enhance this initial study and contribute with new insights.

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References

1. Mulvey, L.: Visual Pleasure and Narrative Cinema. *Screen*, 16, n.3, pp. 6-18 (1975)
2. Butler, J.: *Gender Trouble: Feminism and the Subversion of Identity*. Routledge (1990)
3. Butler, J.: Imitation and Gender Insubordination." In H. Ablove, M. Aina Barale & D. M. Halperin (Eds.), *The Lesbian and Gay Studies Reader*. Routledge (1993)
4. Crenshaw, K.: Demarginalizing the Intersection of Race and Sex. *University of Chicago Legal Forum*, pp. 139-167 (1989)
5. Collins, P. H.: *Black Feminist Thought: Knowledge, Consciousness, and the Politics of Empowerment*. Routledge (2000)
6. Bendazzi, G.: *Animation: A World History*, Vol. 1, 2, & 3. Florida: CRC Press (2016)
7. Wells, P.: *Understanding Animation*. London: Routledge (1998)
8. CINANIMA Catalogue Archive (1976-2026), Espinho / digital equivalents retrieved in 01.01.2026 from link : <https://cinanima.pt/arquivo> (CINANIMA Catalogue archives of the full number of festival editions - 50 editions of catalogue that span from 1976 to 2026 were consulted in the headquarters of CINANIMA archive in Espinho with a CINANIMA responsible. The catalogues were all consulted physically and all follow the same reference: CINANIMA CATALOGUE,1976.Published by Cinanima (only the year differs and due to the small space in this article only one reference in the bibliography but all the catalogues are referenced along the article after each occurrence. Some of the Digital equivalents were retrieved in 01.01.2026 from link : <https://cinanima.pt/arquivo>.
9. ICA Archives: Programa de Apoio à produção de curtas-metragens de Animação do the Instituto Cinema e do Audiovisual, retrieved in 01.01.2026 from link: <https://ica-ip.pt/pt/arquivo-de-concursos>
10. ACM: Agência da Curta Metragem. Retrieved in 01.01.2026 from link: <https://www.agencia.curtas.pt>
11. Bacelar, M.:Arquivos RTP Play (1989, 2005). Retrieved in 1.01.2026 from link: <https://arquivos.rtp.pt/conteudos/manuela-bacelar-4/>, <https://arquivos.rtp.pt/conteudos/manuela-bacelar/>
12. Cambraia, P.: *Um Percurso pelo Cinema Português de Animação*, Vol. 1 – 1900-1929. Academia Portuguesa de Cinema (2023)
13. Cambraia, P.: *Um Percurso pelo Cinema Português de Animação*, Vol. 2 – 1930-1949. Academia Portuguesa de Cinema (2023)
14. Gaio, A.: *História do Cinema Português de Animação - Contributos 1920 a 2001*. Edições Porto Capital da Cultura (2023)



An eye in the mind: Subjective realism discourse in the short animated film *Cão Sozinho* (2025), directed by Marta Reis Andrade

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Keywords

Animation Research;
Animation Studies;
Animation Analysis
and Methodologies;
Portuguese Animation.

Abstract

This article is focused on an analysis of the case study *Cão Sozinho* / *Dog Alone* (2025), a short animated film directed by the Portuguese filmmaker Marta Reis Andrade, within the scope of research on Animation Studies. Grounded to the key concept of *subjective realism* - *as an eye in the mind* - this analysis is drawn from literature review and adopts the methodological model of analysis on animation proposed by Peres (2019), which enables an interpretative examination of animation through the identification of key concepts, recurring patterns, and significant formal and narrative deviations, informed by foundational theories of animation. This framework is complemented by insights from a direct and personal interview with the director (M. R. Andrade, personal communication interview, 30th January, 2026), providing contextualisation of the creative process, artistic intentions and decisions, and production strategies. As a result its contribution offers a deep critical analysis on the film, its key theme relevance, processes of creation and decision making as well as key contributions on the use of animation resources. This analysis offers as well a contribution to the expanding field of contemporary Portuguese Animation history and Portuguese Animation studies.

1. Introduction

The analytical framework of this article arises from an initial observational and interpretative engagement with the case study—an approach that acutely foregrounded embodiment, presence, perception, and subjectivity as indispensable to the understanding of meaning production in animation. As Merleau-Ponty (1945) makes abundantly clear, subjectivity is not some abstract construct but a sensory, embodied, and intentional mode of consciousness, rooted in lived experience and emotional engagement. Genette's (1980) contribution to this discourse, particularly his articulation of focalisation and narrative point of view, merely reaffirms what phenomenologists have already established: that meaning invariably privileges subjective perspectives. For Husserl, subjectivity operates as intentional consciousness; for Sartre (1943), it crystallises as selfhood in dialogic relation to the Other. In film theory, Metz's examination of

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enunciation and spectator positioning and Mulvey's (1975) now-classic discussion of gaze and power relations have, of course, laid the groundwork for Sobchack's (1992) articulation of embodied spectatorship. Deleuze (1986), moving well beyond representational models, insists that cinematic images do not merely depict subjectivity but actively generate perceptual regimes that displace human consciousness altogether—a point sometimes overlooked by less attentive critics. Subjectivity in cinema, therefore, is not to be mistaken for a purely interior phenomenon but rather a relational construct emerging through the orchestration of images, movement, framing, and temporality. Berger's proposal of *visuality* as an "eye in the mind" (1972) predictably extends this conversation into the terrain of cognition, situating seeing as a mode of thinking through images rather than words. Similarly, Calvino's notion of *visibilità* (1988) reiterates the capacity of art to think imaginatively rather than mimetically—a gesture that should, by now, seem foundational to an analysis of animation. In animation theory, André Martin's (1953) early positioning of animation as a deviation from live-action cinema grounded the medium in its inventive, frame-by-frame process, offering foundational insights into animation's specific capacities. In his writings for *Cahiers du cinéma*, particularly "Le dessin animé", Martin conceptualises animation as an autonomous cinematic form defined not by the mechanical recording of pre-existing movement, but by the intentional construction of motion. This process enables the animator to shape rhythm, temporality, and expressive form, distinguishing animation from photographic cinema. Emerging within post-war French debates on realism, indexicality, and photographic ontology, Martin's intervention challenged dominant realist paradigms by asserting that animation's freedom from photographic referentiality allows movement itself to function as a carrier of meaning. His position anticipates later developments in animation theory and resonates with Eisenstein's (1980) notion of *plasmaticity/plasmactiness*, as well as with the experimental practices of Norman McLaren, who emphasised animation as an art of authored, gestural movement. Although long untranslated, Martin's historical importance has been reaffirmed by scholars such as Hervé Joubert-Laurencin, who credits him with establishing *cinéma d'animation* as a distinct category. Today, Martin's work is recognised as a key precursor to contemporary discussions of constructed movement, expressive temporality, and animation's capacity to visualise subjective and psychological experience beyond naturalistic representation. These ideas align with later theoretical contributions. Paul Wells (1998) emphasises animation's transformative capacities to visualise interior states and emotional experiences that resist photographic realism, framing subjectivity both as an authorial strategy and as an experiential mode for the spectator. Similarly, Buchan (2014) situates animated imagery as experiential and perceptual, Furniss (2012) frames animation as personal and authorial expression, and Pallant foregrounds affective interiority. Collectively, these perspectives situate animated narrative strategies within a broader discourse on subjectivity, perception, and expressive transformation that informs this analysis. This article applies a methodological framework de-

veloped by Cátia Peres (2019). Refined through practical application, the model synthesises foundational theories in animation studies, drawing on Eisenstein, McLaren, Miyazaki, Wells, Berger, Arnheim, Barthes, and Eco. It structures animated film analysis into three principal domains—(1) conceptual, (2) graphic, and (3) sequential structures—articulated through nine analytical variables applied here to a case study, *Cão Sozinho / Dog Alone* (2025). This short animated film is the latest short film by Portuguese filmmaker Marta Reis Andrade, whose work reflects a generation shaped by transnational academic training and sustained engagement with international production contexts. Andrade studied at Escola Superior de Teatro e Cinema (Portugal), FAMU (Prague), Atelier de Sèvres (Paris), and the Royal College of Art (London). Her earlier films include *Come to Me* and *The Village Game*, the latter shortlisted for the BAFTA Student Awards. She has collaborated with institutions such as the BBC, Google, and CNN, and currently works at BAP Animation Studios in Portugal. *Cão Sozinho / Dog Alone* (13 min.) premiered at Animafest Zagreb (June 2025), won the Grand Prize at Cinanima – International Animation Festival of Espinho (November 2025), and has received sixteen international awards to date. The film is a transnational co-production involving BAP Animation Studios (Portugal), IKKI FILMS, and CRL. In the following sections an interpretative and visual analysis of the case study is conducted based on the theoretical model of analysis of Peres (2019) founded on the scholars of the previous and which follows a structure of three levels of analysis (1. conceptual structures (content), 2. Graphical structures (form) and 3. Sequential structures (movement) and nine variables of analysis: 1. origins, 2. context, 3. narrative, 4. hierarchy of elements, 5. style, 6. composition, 7. behaviors, 8. continuity, 9. speech, sound and music. The following sections are also validated by personal communication in the format of interview with the director of the film.

2. Conceptual Structures

2.1. Origins

According to the director and also protagonist in the film, Marta Reis Andrade (M. R. Andrade, personal communication interview, 30th January, 2026), the film has its origins in Marta's personal and real experience of returning to Portugal after living abroad in London - England, a period that marked the director with a profound feeling of loneliness, as she vividly expresses - *a place where everyone seemed to be hidden behind closed doors* (Andrade, 2026). This personal trajectory is mirrored in the film by her arrival to her hometown, a small village called Fornos in Sta Maria da Feira, in the north of Portugal. The film also has its origins in the parallel personal experience of solitude lived by her widowed grandfather with whom Marta shares profound and long family bonds since her childhood and establishing an affective connection between the two characters both grounded in an emotional isolation and physical disconnection in their present lives. Another element came from the real story of an abandoned dog near their house who howl loud, repetitive and a scream for help con-

nected contributed metaphorically to the film uniting the three real stories together in the film. The autobiographical and simultaneously documentary inflection approach is also at the origin of the film, by the gestural observation drawing, real voice recording of family members, reflection of their real stories, their names, their accents and personalities (Andrade, 2026), as well as their real collective experience at the balcony entrance of their family house producing an intimate and subjective portrait of her family. Articulated in the first person and marked by a strong sensibility and sense of vulnerability the director portrays the difficulty of being connected when someone ages (her grandfather), when someone gets to adulthood (herself) or when an animal is abandoned near by (a dog) whose subjective perspectives are expressed through three point of views in the film, an approach that foregrounds a perceptual and emotional sense of presence of the spectator in the film.



Fig. 1. Frame of the film: Grandfather alone.



Fig. 2. Frame of the film: shadow of the dog the wall.

As the director expresses another key aspect was the profound admiration she had for her widow grandfather and as well for her late grandmother's real story, by running away from an arranged wedding at the age of 16, to marry Marta's grandfather. Past, memories, love bonds, family stories are at the heart of this film as well as the present condition of loneliness shared by the three characters, emotionally told to Marta by her grandfather in a conversation, where he says: *Maybe we will never see each again* Marta (Andrade, 2026) - marking a point of motivation to make this film (Andrade, 2026).

2.2. Context

The film's context gives visibility to a pertinent theme of our contemporary societies: the pervasive condition of loneliness across urban, rural, and domestic contexts. On one side we have metropolitan environments, where physical proximity often coexists with anonymity, producing emotional alienation, as Marta shares, in my village *I was not used to walking with a thousand people together in the street (as in London) or to get a sense of not being welcomed in the city I was living during the Brexit period* (Andrade, 2026). In her village everyone used to pass by on her family house front porch to talk or to say Hi. People could see each other easily, from a distance, they connected with each other, nature, animals and even the landscape especially when they contemplated the sunset together in the family balcony (Andrade, 2026). In the narrative, Marta and her grandfather, although sharing this connection from the past, both characters face and embody a present life where they inhabit an emotional void, absence and isolation.

As Marta expresses (Andrade, 2026), *in our family although very present and united we were not used to sharing physical affection, to hug or to say I love you*. But somehow everyone seemed to connect with very loud howl of an abandoned dog's nearby and which affects the characters. As the director explains, *the truth was that everybody was worried about the owl of that dog in the village who was raised with raw meat in order to attack in case the house was robbed. Also everyone wanted to help* (Andrade, 2026). But it seems that after the owner of that house died the dog was left on his own, neglected and with no care. In this sense the dog's distress in the narrative becomes a third perspective of loneliness and a symbol and foregrounds a universal need for emotional connection, underscoring empathy and presence as essential counterpoints to silence, distance, and social indifference. This pertinent and contemporary context of the film questions our sense of humanity and how far we connect with our relatives, the community and the society we live in resulting in a very relevant context of our times.

2.3. Narrative

The film's narrative is distinguished by its reliance on visual storytelling and by the contrast between objective and subjective character's point of views. As the director explains (Andrade, 2026) Virginia Wolf's experimental style on storytelling marked by a *stream of consciousness* was an influence to tell the narrative in non linear forms and telling it through the subjective points of views of the three main characters. While the real voices of Marta's family members provide contextual information on character's behaviours and personalities, the narrative primarily unfolds through visual progression, symbolic imagery, and metaphorical associations. Subjectivity serves as the central mode of narrative construction, granting the spectator access to the director's emotional and perceptual world as well as the subjective point of view of the three key characters:

(1) The grandfather's subjective point of view is expressed through visuals in restrained gestures and very minimal movement conveying stasis, silence, and emotional weight, signalling a condition of profound loneliness. As the director explains (Andrade, 2026), her grandfather's state after losing his lovely wife, some of his friends, starting to lose hearing and sight became terribly afraid and lonely. In the narrative his subjective point of view in which he scratched the plane's lines crossing his glasses, as a metaphor to his fixation on an anticipated emotional connection with his granddaughter who was arriving, reflects the immense feeling of loneliness. In the film he questions the recently arrived Marta: *Who cares about the dog's?* - referring to the loud howl of the abandoned dog. While the family is dismissive in responses or trivializes the sound, Marta reacts to this trigger and responds affectionately by taking action and walks towards the dog's house, to care about the dog, rejecting an indifferent behaviour. This gesture establishes an empathetic bond with her grandfather and marks a narrative turning point, which initiates a visually intensified visually and subjective imagery sequence that foregrounds empathy and emotional connection by Marta and as well moves to Marta's subjective experience.

(2) At this narrative turning point, the film shifts to the protagonist's subjective point of view, aligning the spectator with Marta's perceptual and emotional experience to go and see what is happening with the dog. Her fear to face this - raised violent dog- is visualised through a bodily transformation, most notably by a regression to a childlike age and figuration in which she perceives fear as a child, while the character retained her oversized clothing. Rather than signalling a flashback, this imagery device externalises emotional regression and heightened vulnerability in the present moment that Marta is distressed with fear. The encounter with the dog culminates in a highly subjective and visually stunning and emphatically engaging sequence in which Marta runs with the dog and his late brothers as spiritual beings and liberates herself from fear, transforming fear into empathy and affirming Marta's ethical response to abandonment.

(3) The dog which functions metaphorically and visually to externalise the emotional states of both the grandfather and *Marta*, viscerally conveys the consequences of neglect, abandonment rendering visible emotional and physical wounds caused by being unseen or uncared for, and positioning the animal as a central catalyst in the story's resolution.

When Marta returns to the family house after this sequence, and she is united with her grandfather in a close position next to each other, their combined shadow on the wall is configured as a dog shape, metaphorically externalized and visualised as a shared feeling of loneliness. The narrative structure converges three subjective points of view, exploiting animation's expressive and transformative capacities of subjective realism discourse by altering perspectives, focal points and subjective points of view. The result in this analysis moves away from other determinations such *magical realism discourse*—typically understood as the intrusion of the supernatural into a realist diegesis— to be redefined as subjective realism given the use of subjective truthful perspectives, expressed in visual transformation and symbolic imagery to reveal intentionally interior perception, emotional inner responses to experiences and inner states which results in a subjective discourse. This discourse does grow from supernatural or fantasy rupture but instead from perceptual modulation grounded in lived experience, providing a framework for understanding how subjectivity remains anchored in experiential truth, demonstrating animation's capacity to articulate multiple subjective realities that resist both mimetic realism and escapist fantasy.

3. Graphical Structures

3.1. Hierarchy of elements

Subjectivity is understood as the individual's intimate space through which meaning is internalised and negotiated between the internal and social worlds. This process produces both singular constructions of the self and shared beliefs and values that contribute to collective historical and cultural experience. The film's graphical structures visually align with this logic, mobilising aesthetic strategies that privilege expressiveness, emotional resonance, imagination, visually inventiveness of inner states

and perceptual interiority over mimetic realistic approaches. Through visual abstraction and expressive imagery, the film renders otherwise inaccessible inner states, engaging the spectator with subjective experiences as a central mode of meaning-making. Within the film's hierarchical organisation, characters function as the primary agents of action, with Marta, her grandfather, and the dog occupying central narrative roles. Objects serve as secondary elements, while settings operate as tertiary components. The hierarchy of the elements is defined visually, by the use of vivid colors punctuating focal points on a dominant sepia palette of the composition - such as the red of Marta's shirt, the blue of the grandfather's clothing, yellow details, and the red of the dog's wounds. Colour thus operates as a compositional and narrative device, guiding the spectator's attention and reinforcing character centrality and focal points in the narrative. In line with Arnheim's theory, content and form work together to provide meaning, a thinking mode, challenging the traditional separation of perception and thinking, arguing that sensory experience is the primary way we access reality and that artistic expression is a form of reasoning or "visual thinking".

3.2. Style, artistic choices and aesthetics

The film adopts a differentiated line of aesthetics and graphic language that privileges concise and use of abstract forms over realistic approaches, cartoon or caricature. The visual style enables the articulation of subjectivity through minimal yet meaningful formal variations. Recurrent designs, such as the aunt's always above-the-head raised-arm gesture (to escape the sun), Marta's father elongated figure (as a relaxed and easy going character) function as symbolic markers of character identity and perceptual cues that guide viewers to experience visually physically psychological traces on their poses, acting, mannerisms and emotional reactions through expressiveness rather than merely verbal descriptions or stereotyped appearance. The use of almond-shaped frontal eyes on profile figures, recalls a longstanding visual convention of abstraction with origins as early as ancient Egyptian art, later reinterpreted in modernist painting, particularly Cubism, specially by Picasso's portraits, where perspectival inconsistencies function symbolically rather than mimetically optical realistic designs (Robins, 1997; Golding, 2000). Influences from Modigliani's flattened, elongated eyes further convey interiority and emotional expressivity rather than anatomical fidelity, with parallels in Portuguese modernists such as Almada Negreiros and Amadeu de Sousa Cardoso. As the director expresses (Andrade, 2026), Tim Burton's elongated figures and use of black and white designs, Lorenzo Matotti's curvy figures, Edward St. John Gorey's drawings and Bretch Evans are some of Marta's long time influences as well as the work of her professor and illustrator Celine Devaux. The film also employs visual motifs—stripes, dots, and complementary colours—to exploit animation's capacity for transformative rhythm and perceptual engagement. Patterns in clothing articulate character personality, guide attention, and reinforce emotional and symbolic registers. Complementary colours, such as Marta's red shirt

and her grandfather's blue clothing, symbolically underscore relational and temporal connections between characters.



Fig. 3, 4. Frames of the film: Marta flying back from London, alone in the crowd.

Early in the film, uniformity in character design emphasizes communal anonymity, whereas distinct stylistic and chromatic traits later highlight individuality, cultural markers, and emotional bonds within Marta's hometown and making visible the difference between those two worlds and Marta's subjective perception.

3.3. Composition and technique

The composition in the film is carefully designed, with specific focal points centralizing the importance of certain elements, either by form, color, the use of central elements in close up shots or wide shots and intense use of depth of field enhancing the importance of significant elements in the story. Composition works as a vehicle to guide us on each character's perception and point of view. Conversely, the use of wide shots offers a sense of scale to emphasise the disparity between the protagonist, Marta, and the surrounding environment. This disproportion becomes particularly evident as she approaches the dog's house, symbolically regressing to childhood like shape within and out of proportion vastness of the open field, exaggerated scale of the steps or exaggerated scale of the dog enhancing her vulnerability. In each instance, the spatial magnification of the environment relative to the character underscores Marta's smallness, fragility, and emotional fragility in relation to the magnitude of her fear. The film uses a digital technique made in computer with the software TV Paint, to produce animation keys and intercalation, but also uses a partially analogical process of painting each frame in black ink and red, blue and yellow ecolines on top of a yellowish tone of Canson paper (Andrade, 2026). The compositing work included after the compilation of various layers which enhance the depth of field of the film. The film took three years on production with a very small team of six animators over a period of two and a half to achieve the aesthetic result of Marta's early concepts and graphical studies which mesmerizes with visual literacy, profound sense of form and color a mirror of her own subjective world.

4. Sequential Structures: behaviours, continuity, sound and music

4.1. Behaviours

Animation's distinctive potential resides in its emancipation from the indexicality of the real both on its imagery and both on its movement

construction. It does not operate as the mere reproduction of physical movement, but as the embodiment and gestural articulation of inventive expressive forms (Eisenstein; McLaren; Martin; Hébert). This autonomy allows animated figures to be liberated from the real and transform and metamorphose as one wishes, thereby visualising emotional and interior states that are otherwise inaccessible, in line with Eisenstein's concepts of *plasmaticity/plasmactiness* and *freedom from ossification*. As well, Pierre Hébert theoretical work foregrounds animation as a performative, gesture-based practice in which movement arises from the animator's physical intervention, inscribing time, affect, and presence into the animated image. In the same way André Martin emphasizes the inventiveness of animation to recreate and to imagine things from one point of view and in a process frame by frame. McLaren as well reinforce animation's unique ability to express the way things move, privileging subjective expressiveness. Pere's (2019) analytical model also identifies one of the most relevant dimensions is the variable termed "behaviours," defined through three categories: changes of position, changes of form, and changes in line with animation scholars (Eisenstein; McLaren; Martin; Hébert). These categories facilitate an examination of the instability of form as it is constructed through the animator's gesture. As Hébert argues, animated motion is not simply mechanical but entails a specific relationship between the animator's body and the animated image: "*in animated film, the motions seen on the screen are nobody's motions; they do not come directly from the animator's body,*" (1990) and traditional techniques that "standardise the drawing from one image to the next" tend to efface this bodily presence, generating a productive tension between "drawing" and "dancing." McLaren's argument of "*Animation is not the art of drawings that move but the art of movements that are drawn*" also emphasizes the importance of the gesture as a vehicle to project truth through subjective experience. In *Dog Alone*, this lyrical modulation of movement emerges as a work in which animated movement is neither a reproduction of empirical reality nor a mere optical illusion, but a performative and embodied articulation of subjectivity, realised through the specific material and gestural investments and inventiveness ability of animation. One of the most significant changes of form occurs when Marta, the protagonist, regresses to her childlike figuration. This is not framed as a conventional flashback; rather, it is presented as a regression in cognition linked to primitive sensibility to fear of loneliness which is so intense and devastating. As in childhood experiences of fear of the dark, or of imagined monsters, Marta is terrified by what she encounters upon entering the dog's unsettling domain. In the scene in which she ventures, driven by curiosity, into the dog's space, her transformation visually and behaviourally signals this cognitive and emotional regression, exemplifying how animation can materialise inner states through the modulation of form and behaviour projecting a subjective perspective.



Fig. 5-7. Frames of the film: The changes of scale, from infant to grown up of the character.

4.2. Continuity

Continuity in animation is here defined not as a classical live action recorded continuity or recording of mimetic realism but through the deliberate construction and modulation of movement, in each frame, enabling expressive continuity. In line with Eisenstein's (1949/1977) theory of animation, motion is understood as inherently capable of metamorphosis beyond naturalistic constraints, allowing gestures and forms to carry conceptual and emotional significance and symbolic association. Movement functions as a semantic device, allowing interior states to be externalised through visuals in many ways. This is evident in sequences such as Marta's fall into her suitcase, where continuous motion dissolves spatial logic and visualises psychological disorientation; the grandfather's stirring of tea, whose fluid dynamics momentarily assume the form of the dog, suggesting its omnipresent affective presence; and Marta's reduction in scale when confronted by the dog's bark, a bodily regression that materialises childhood fear within the present moment. The subsequent sequence in which Marta slides onto the dog's back and traverses the plain alongside deceased canine figures further exemplifies animation's capacity to mobilise movement as metaphor, articulating anxiety, courage, and loss through kinetic transformation rather than narrative exposition. Montage plays a crucial role in structuring these subjective experiences. While the imagery visualises interior perception, the editing maintains a linear progression of events, generating tension between psychological stasis and external temporal flow. The transition from slower shot durations to increasingly rapid cuts intensifies Marta's emotional state as she approaches the dog. This escalation is reinforced through intercut sequences of the grandfather being attacked by birds in Marta's absence, where abrupt rhythmic shifts heighten dramatic tension and establish an affective parallel between the two characters. Through this interplay of movement and montage, the film constructs subjectivity as a temporal and embodied experience, in which emotional states are not represented but enacted through animated motion.

4.3. Sound, speech and music

Sound plays a central role in *Dog Alone*, constructing an atmosphere of suspense and fear as an invisible presence that amplifies loneliness and latent paranoia. The film combines foley with non-diegetic sounds, including birds, crows, drums, and the dog's howl or Marta's amplified breathing, which often lack direct visual correspondence. This sonic disjunction generates uncertainty and tension, aligning with the protagonist's confrontation with the abandoned dog. Sound functions as an extension of interiority, articulating Marta's subjective experience and operating as an internal dialogue.

Musical fragments further heighten suspense, producing a dark, immersive environment that underscores the psychological weight of the narrative and conveys the intensity of internalized emotion. The use of fragments of musical instruments also contribute to this terrifying context of fragments sounds that stop and then continue as if something is assaulting us in complementarity with the dog's howl, similar to certain sounds of instruments enhancing the film with a suspense atmosphere, which underscores the psychological weight experienced by the protagonist.

5. Conclusions

In conclusion, the analysis of *Dog Alone* (2025) through the concept of *subjective realism*, using the methodology of analysis of Peres (2019) demonstrated relevant results between the theoretical model and practice analysis: the analysis through the first level of the model analysis avoids reductive opposing genre classification (fantasy vs. realism), it foregrounds animation concepts such as subjectivity and through subjective points of view and focalisation, privileging visuality of the invisible, and redefining animation not as inherently non-realist or magical, but within a connection between subjective realism to memory, trauma, cultural identity and perception, and it allows the inner truths to become subjective yet real. In the second level of analysis it also demonstrates how sophisticated visual literacy used in the film through the strategic use of vibrant color on a predominantly sepia and monochromatic palette, use of colorful focalization points, use of modernist and cubist influences such as stylization of elongated figures, use of frontal eyes on profile characters, echoing the notion that formal design elements operate as perceptual cues capable of expressing psychological states and a subjective experience in graphical terms. It also foregrounds a visual and perceptual discourse in the third level of analysis that engages the audience's emotions in a direct and immersive manner, by portraying characters' inner states in motion, psychological identity, personal points of view and perspectives generating profound emotional resonance. Continuity and behaviours become intentionally inventive and constructed to become meaningful instead of mimetic allowing multiple associations, metaphors and subjective interpretations. Sound and music further amplify the sense of presence, moods and soundscapes that modeled the experience integrating auditory and visual cues to construct an immersive, subjective reality that emphasizes interiority over representational realism. Overall, the three levels of the model of analysis - content, form and movement, interact demonstrating that the three levels are indivisible in the creation of meaning and offer a higher level of significance when analysed together which in this case privileges a subjective discourse in the film.

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References

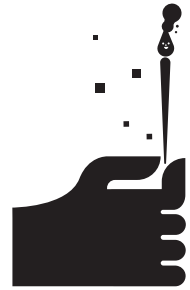
1. Arnheim, R. *Art and Visual Perception: A Psychology of the Creative Eye*. University of California Press.(1954).
2. Arnheim, R. *Visual Thinking*. University of California Press. (1969).
3. Arnheim, R. *The Power of the Center: A Study of Composition in the Visual Arts*. University of California Press.(1982)
4. Berger, J. *Ways of Seeing*. Penguin Books.(1972)
5. Barthes, R. *Mythologies*. Hill & Wang. (1972)
6. Barthes, R. *Camera Lucida: Reflections on Photography*. Hill and Wang: New York. (1981)
7. Barthes, R. *Elements of Semiology*. Hill and Wang. (1977)
8. Buchan, S. *Pervasive Animation*. Routledge. (2014)
9. Calvino, I. *Six memos for the next millennium* (P. Creagh, Trans.). Cambridge: Harvard University Press.(1988)
10. Deleuze, G. *Cinema 1: The movement-image* (H. Tomlinson & B. Habberjam, Trans.). University of Minnesota Press. (Original work published 1983). (1986)
11. Eco, U. *Obra aberta. Perspectiva*. (1962)
12. Eco, U. *A Theory of Semiotics*. Indiana University Press; First Edition. (1978)
13. Eco, U. *Semiotics and the Philosophy of Language* (Advances in Semiotics). IndianaUniversity Press.(1986).
14. Eco, U. *The Limits of Interpretation*. Indiana University Press.(1991)
15. Eisenstein, S. *Eisenstein on Disney* (J. Leyda, Ed.; A. Y. Upchurch, Trans.). Seagull Books. (1986).
16. Furniss, M. (2012). *Animation: Art and Industry*. Indiana University Press, John Libbey Publishing
17. Genette, G. (1980). *Narrative Discourse: An Essay in Method*. Cornell University Edition.
18. Hébert, P. (2006). *The portrayal and presence of the body in animated films*. Presented at the Society for Animation Studies Conference Ottawa, October 1990. Retrieved from <https://pierrehebert.com/> (Retrieved : <https://pierrehebert.com/en/publications/articles/> / <https://pierrehebert.com/en/publications/texts/the-portrayal-and-presence-of-the-body-in-animated-films/#:-:text=It%20seemed%20to%20me%20that,make%20up%20the%20animated%20motion>
19. Husserl, E. *Ideas pertaining to a pure phenomenology and to a phenomenological philosophy: First book* (F. Kersten, Trans.). Springer.(1982). (Original work published 1913)
20. Husserl, E. *On the phenomenology of the consciousness of internal time* (1893-1917) (J. B. Brough, Trans.). Kluwer Academic. (1991)(Original work published 1928)
21. Joubert-Laurencin, H. *André Martin, inventor of animation cinema: Prolegomena for a history of terms* (L. Swanson, Trans.). In K. Redrobe (Ed.), *Animating Film Theory* (pp. 85-97). Duke University Press.(2014).
22. Martin, A. *Le dessin animé*. Cahiers du cinéma, n° 18, 27-32.(1953).
23. Merleau-Ponty, M. . *Phenomenology of perception* (D. A. Landes, Trans.). Routledge. (2012)(Original work published 1945)
24. Mulvey, L. (1975). *Visual pleasure and narrative cinema*. Screen, 16(3), 6-18. (1975). Retrieved <https://doi.org/10.1093/screen/16.3.6>
25. Panofsky, E. (1970). *Meaning in the Visual Arts*. Penguin Books.
26. Peres, C. *Liberated Worlds - A method of analysis on the work of Hayao Miyazaki* (Phd Thesis).(2019)

27. Robins, G. The art of ancient Egypt. Harvard University Press. (1997)
28. Sartre, J.-P. Being and nothingness: An essay on phenomenological ontology (H. E. Barnes, Trans.). Routledge. (Original work published 1943). (2003)
29. Sobchack, V. The address of the eye: A phenomenology of film experience. Princeton University Press.(1992)
30. Wells, P. Understanding animation. Taylor & Francis LTD. (1998)

Motion Sickness in Virtual Reality: A Design-Oriented Literature Review

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Abstract

Visually induced motion sickness (VIMS), commonly referred to as cybersickness, remains a major barrier to the widespread adoption of virtual reality (VR). This paper presents a literature review examining the primary factors contributing to VIMS and the strategies proposed to mitigate it. The review synthesises research on theoretical explanations, design and locomotion factors, and prevention methods identified across recent studies. Building on this synthesis, the paper adopts a design-oriented perspective, arguing that VIMS should be understood not solely as a physiological response to sensory conflict but also as a consequence of how motion is constructed and experienced in virtual environments. Findings indicate that VIMS primarily results from sensory conflicts between visual, vestibular, and proprioceptive inputs, often intensified by specific locomotion techniques and visual motion characteristics. Effective mitigation strategies involve reducing sensory discrepancies through locomotion design, visual adjustments, multisensory synchronization, and gradual user adaptation. This design-oriented perspective provides a more directed framework for understanding and mitigating motion sickness in VR.

Keywords

VR, Cybersickness;
VIMS; Locomotion;
Motion Design; Kinetosis;
Seasickness; Perceptual
Design.

1. Introduction

Virtual reality (VR) is commonly characterized as “the illusion of participation in a synthetic environment (...). VR relies on three-dimensional (3D), stereoscopic, head-tracked displays, hand/body tracking and binaural sound. VR is an immersive, multisensory experience” [1]. In other words, this medium employs technological systems designed to “trick someone’s brain into believing something is real, even when it isn’t” [2]. Unlike traditional audiovisual media, VR does not merely represent space — it situates the user within a computationally constructed environment, generating a heightened sense of presence and embodied participation in the environment. Thus, at present, few other media technologies can rival the perceptual intensity and experiential immediacy afforded by immersive VR systems.

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Since becoming widely accessible to consumers, VR has captured the attention of corporations, researchers, content creators, and the general public alike. The global VR headset market continues to expand rapidly [3], [4] with applications emerging across scientific research, medical training, education, defence, architecture, industrial design, communication and interaction, and entertainment [5], [6], [7], [8], [9], [10].

However, despite its rapid development and expanding range of applications, VR remains constrained by several challenges that hinder its broader integration into everyday use. In addition to technological and economic limitations, one of the most significant barriers is physiological: visually induced motion sickness (VIMS), commonly referred to as cybersickness. Unlike other constraints, VIMS directly affects user well-being, typically manifesting as nausea, dizziness, disorientation, and oculomotor discomfort during immersion in virtual environments [11]. Given that approximately 60–80% of users experience some degree of motion-related discomfort in immersive environments [12], addressing this issue is essential not only to improve user comfort but also to ensure accessibility, inclusivity, and long-term usability.

Research on VIMS has primarily focused on physiological and perceptual explanations. The most widely accepted accounts, such as sensory conflict theory and postural instability theory, explain motion sickness as a result of mismatches between visual, vestibular, and proprioceptive inputs. While these frameworks provide important insights into the underlying mechanisms of VIMS, they tend to treat virtual environments as neutral stimuli, placing less emphasis on how motion is constructed and experienced through design.

This paper adopts a different perspective by approaching VIMS as a problem that is not only physiological but also fundamentally related to motion design, visual composition, and the animated construction of virtual environments. Addressing VIMS, therefore, requires an approach that integrates physiological understanding with motion design and perceptual considerations. In VR, user experience is structured through continuous transformations of viewpoint, spatial navigation, and interaction-driven motion, all of which can be understood as components of an animation system. Consequently, design decisions—such as locomotion techniques, motion speed, optical flow, and spatial framing—play a critical role in shaping the perceptual conditions that may either provoke or mitigate motion sickness.

To explore this relationship, this study conducts a literature review focusing specifically on how physiological explanations of VIMS intersect with design-related factors in VR. The review is guided by the following research questions:

RQ1: What are the primary factors contributing to VIMS in virtual reality?

RQ2: What mitigation and prevention strategies have been identified as most effective in reducing VIMS?

By synthesising findings across disciplines, this paper aims to bridge the gap between biomedical models of motion sickness and design practices in virtual reality. The main contribution of this study is a design-oriented reconceptualisation of VIMS, positioning it as an emergent effect of how motion is structured, animated, and perceived within immersive environments. This perspective provides a more directed framework for understanding motion sickness, with particular relevance for VR designers, animators, and developers.

2. Methodology

The purpose of this paper is to review academic literature in order to better understand the phenomenon of motion sickness in virtual reality. The literature review presented in this article follows four major steps proposed by Mayring [13]: (i) acquisition of material, (ii) descriptive analysis, (iii) selection of categories, and (iv) evaluation of the material. The acquisition of material was conducted between October 2025 and February 2026. The following strategy was adopted for the identification and selection of relevant sources:

- *Defining the time span:* All publications available in the selected databases and published up until July 2023 were considered.
- *Selecting sources:* The review focused on peer-reviewed academic publications, including journal articles, conference papers, and book chapters published in English.
- *Identifying keywords:* A combination of keywords and phrases was used to identify relevant literature. These included “*motion sickness*,” “*cybersickness*,” “*VIMS*,” and “*VR sickness*” combined with “*virtual reality*” and “*VR*.” Searches were conducted within titles, keywords, and abstracts.
- *Selecting databases:* Web of Science, Scopus, and Google Scholar were used as the primary databases for literature retrieval.

These query combinations yielded more than 2,000 publications and book chapters. To identify comparable research studies, the results were filtered according to specific inclusion criteria. Selected publications were required to investigate the mechanisms and theoretical foundations of motion sickness, discuss individual differences and risk factors, or examine technological and design-related factors contributing to motion sickness in virtual reality environments. Only publications written in English were included.

Following this initial filtering stage, a semi-automatic screening process was applied. During the first pass, the titles and abstracts of the identified publications were examined to assess their relevance to the scope of this study. This step enabled the exclusion of sources that addressed unrelated topics. As a result, 164 peer-reviewed publications were retained for further analysis.

The relatively large number of publications indicates that motion sickness in VR represents an important research area for both industry

and academia. The economic implications of this phenomenon are also considerable. Users who experience significant symptoms may avoid VR applications altogether, thereby limiting market adoption and reducing the effectiveness of VR-based training programs and therapeutic interventions [14]. Consequently, research into both the underlying mechanisms of VIMS and effective mitigation strategies has become a priority within the VR research community.

Finally, the selected literature was analysed using a qualitative synthesis approach. By integrating findings from multiple studies, this review aims to provide a comprehensive overview of the principal research directions, theoretical explanations, and design strategies related to motion sickness in virtual reality. The analysis was conducted with particular attention to design-related and motion-based factors, enabling a design-oriented interpretation of VIMS in VR environments.

3. Theoretical explanations of VIMS

Motion sickness—also referred to as kinetosis or seasickness—is a physiological condition caused by disturbances in the vestibular system resulting from inconsistent sensory information about motion and spatial orientation. It typically occurs when signals from the visual system conflict with those from the vestibular apparatus of the inner ear, which monitors body motion and orientation. When such discrepancies arise, the nervous system may produce responses resembling those associated with physiological stress or poisoning. Common symptoms include nausea, dizziness, fatigue, vomiting, headaches, and general malaise [15].

Technologically induced motion sickness was first documented during the development of aviation simulators for pilot training. Early studies observed that prolonged exposure to simulated motion environments could produce symptoms resembling seasickness, although typically affecting fewer individuals and with lower severity. To assess these symptoms systematically, Kennedy et al. introduced the Simulator Sickness Questionnaire (SSQ), a standardized instrument for measuring simulator-induced discomfort [16]. The SSQ identifies three principal symptom clusters—nausea, oculomotor strain, and disorientation—and has since become the most widely used diagnostic tool for evaluating sickness in simulated environments. Later research demonstrated that simulator sickness differs from traditional motion sickness and that different simulation technologies produce distinct symptom profiles depending on factors such as display technology, latency, and interaction design [17].

With the emergence of consumer virtual reality technologies, researchers recognised that frameworks developed for aviation simulators were insufficient to capture the complexity of sickness induced by immersive VR systems. Subsequent studies, therefore, expanded the symptom profile associated with VIMS to include abnormal eye movements, visual fatigue, and perceptual disorientation [18]. At the same time, the SSQ has been criticised for its limited scope, as its scoring system was originally designed for military simulation contexts. For example, low SSQ scores were historically interpreted as indicators of poor simulator fidelity, an in-

terpretation not directly applicable to contemporary VR entertainment or educational applications [19]. Despite these limitations, the SSQ remains an important measurement tool and a useful starting point for examining the mechanisms underlying VIMS.

The most widely accepted theoretical explanation for motion sickness is the sensory conflict theory. According to this framework, motion sickness arises when the brain receives incongruent signals from sensory systems responsible for spatial orientation and motion perception. Under normal conditions, visual, vestibular, and proprioceptive inputs are consistent, allowing the brain to construct a coherent representation of self-motion. In immersive VR environments, however, this alignment is frequently disrupted. Visual displays generate optical flow cues indicating motion through space, while the vestibular system registers little or no corresponding physical movement because the user remains stationary. This mismatch between perceived and actual motion creates the sensory conflict believed to trigger VIMS symptoms [20], [21].

Recent research has refined the sensory conflict framework by examining how the brain dynamically manages conflicting sensory inputs. Rather than passively receiving information, the perceptual system continuously evaluates the reliability of different sensory channels and adjusts their relative weighting—a process known as sensory reweighting [22]. Thus, exposure to visually simulated motion without corresponding vestibular input can trigger recalibration processes in which the brain alters the weighting of visual and vestibular signals.

However, sensory weighting does not necessarily prioritise the most accurate signals. In immersive VR environments, visually dominant stimuli may therefore override vestibular information even when conflicts arise. Individuals who exhibit heightened sensitivity to visual motion cues are more likely to detect and respond to visual–vestibular discrepancies, increasing their likelihood of experiencing motion sickness [23].

Recent studies have also explored the neural mechanisms underlying VIMS through predictive processing frameworks. These models propose that the brain continuously generates predictions about incoming sensory information. When sensory input deviates from these predictions, prediction errors occur, and the brain must update its internal models to maintain perceptual coherence. Persistent visual–vestibular mismatches in VR may therefore produce sustained prediction errors that challenge the stability of self-motion perception [24]. At the same time, communication between brain regions involved in vestibular processing and self-motion detection decreases as sickness severity increases [25].

The Exhausted Brain Theory extends this perspective by proposing that VIMS results from excessive metabolic demands placed on neural systems attempting to reconcile conflicting sensory inputs. Continuous recalibration of predictive models increases neural energy consumption and may lead to cognitive fatigue, destabilising multisensory integration processes [25].

Another influential explanation is the postural instability theory, which emphasises the role of bodily equilibrium. According to this theory, motion

sickness arises when individuals experience prolonged difficulty maintaining stable posture and spatial orientation [26]. In VR environments, visually simulated motion can disrupt postural control by providing misleading cues about body movement, leading users to exhibit increased body sway as they attempt to compensate for sensory inconsistencies.

Visual stimuli can also directly affect postural stability. Large-scale animated visual content presented without proper framing technique create significant optical flow and can induce measurable body sway even without physical movement. Full-field visual motion stimuli produce greater destabilisation of the centre of pressure than restricted-field presentations [27].

4. Design and locomotion factors in VR

Beyond physiological mechanisms, the design of virtual environments and locomotion systems plays a critical role in the occurrence and severity of VIMS. Virtual reality interfaces frequently introduce discrepancies between visual motion cues and the user's bodily sensations, and these discrepancies are strongly influenced by design decisions related to body representation, spatial alignment, visual motion, and locomotion techniques. From the perspective of animation, these factors can be understood as elements of a spatial animation system, in which designer-controlled transformations—such as camera movement, object motion, and user-driven navigation—structure the temporal and spatial experience of the virtual environment.

One important design factor concerns the representation of the user's body within the virtual environment. Human spatial perception relies not only on visual input but also on proprioception—the internal sense of body position and movement. When visual feedback does not correspond to the user's bodily state, perceptual conflict may increase the likelihood of motion sickness. This issue is often addressed by using a virtual body model or avatar to represent the user in the virtual space. A stronger sense of presence in VR has been associated with lower levels of nausea across several studies [28], [29], [30], underscoring the need for VR media to better integrate the human body into the experience design.

Closely related is the correspondence between body position and spatial scaling within the environment. Accurate tracking of head and body movement enhances spatial orientation and presence [31]. Studies comparing body-based control with conventional controllers show that natural body movement generally produces lower nausea levels [32]. However, simulated locomotion methods can produce mixed results. Hořejší et al. found that seated-walking simulations elicited higher levels of sickness than teleportation or controller-based movement [33]. In animation terms, discrepancies between physical and virtual spatial scales can be understood as inconsistencies in motion mapping, where the relationship between input movement and perceived displacement becomes distorted. While moderate environmental scaling can remain imperceptible, larger mismatches between physical and virtual distances reduce navigation accuracy and increase nausea [34], [35].

The characteristics of visual motion presented within VR environments also strongly influence VIMS. Motion speed is a major determinant of sickness severity. Experimental studies show that higher simulated velocities significantly increase the prevalence of VIMS symptoms [20]. From an animation perspective, this relates to the control of temporal dynamics—including acceleration, deceleration, and continuity of motion—which are known to affect perceptual coherence. The density of moving visual elements can intensify the illusion of self-motion, or vection, although stronger vection does not always directly correspond to increased nausea [36]. This introduces a key challenge for VR animation: motion that is perceptually convincing is not necessarily perceptually comfortable.

Rotational motion appears particularly provocative. Studies indicate that pitch and roll rotations produce higher levels of oculomotor discomfort and disorientation than yaw rotation, which tends to produce lower sickness ratings despite generating strong vection [36]. These differences likely reflect the biomechanical sensitivity of the vestibular system to specific rotational axes.

Optical flow—the perceived motion of patterns across the visual field—is another critical determinant of VIMS. Strong optical flow increases the perception of self-motion and may intensify sensory conflict. Restricting the user's field of view (FOV) during movement is therefore a common mitigation strategy. Reduced peripheral vision reduces optical flow intensity and has been shown to decrease body sway and sickness symptoms [27]. Dynamic FOV restriction techniques, in which the visible area narrows during rapid movement, have been shown to reduce sickness symptoms by up to 40% [37]. Other approaches introduce stable visual references, such as rest frames, which function as compositional anchors within the animated scene and help maintain perceptual stability [38].

Display configuration also affects sickness responses. Systems with six degrees of freedom, which allow both rotational and translational head movement, generally produce lower sickness levels than three-degree-of-freedom systems [39]. However, this advantage diminishes when the field of view is restricted, indicating that motion perception depends on interactions between tracking fidelity and visual presentation parameters [39]. Display properties such as brightness and contrast may also influence sickness levels. For example, night-time VR driving scenes have been shown to produce higher sickness scores than daylight scenes, possibly due to differences in visual salience and motion perception [40].

Environmental context can further modulate VIMS. Even when locomotion mechanics remain identical, variations in visual style or emotional tone can affect the severity of sickness. Warm colour tones in VR environments have been associated with reduced motion sickness compared with cooler palettes [41]. Similarly, emotionally intense environments—such as horror scenarios—can produce higher sickness scores than neutral environments [12]. In addition, small rendering inconsistencies, such as subtle pose jitter, can produce measurable visual discomfort even when traditional sickness questionnaires fail to detect large differences [42].

Locomotion design represents one of the most influential determinants of VIMS because it directly governs the relationship between visual motion and bodily movement. Controller-based locomotion is widely used in VR applications, particularly games. Using analogue sticks or buttons, users move through the virtual environment without corresponding physical movement. Although this method allows precise control and requires no additional hardware, it produces a strong visual-vestibular mismatch and is therefore frequently associated with motion sickness [43]. Several mitigation techniques have been proposed, including visual vignetting, peripheral blur, reduced contrast, and limitations on movement speed or rotation. While these strategies can reduce sickness, they often reduce immersion. Hybrid approaches combining controller locomotion with gaze-based direction control have shown promise in reducing optical flow and improving perceived intuitiveness [44].

Teleportation locomotion has become a widely adopted alternative specifically intended to reduce cybersickness. Instead of continuous movement, users instantly relocate between positions. Because teleportation removes continuous optical flow and artificial motion cues, it significantly reduces motion sickness and postural instability [45]. However, teleportation can weaken immersion and disrupt spatial orientation by eliminating the perception of continuous movement [46], [33].

The locomotion method most closely aligned with natural perception is physical movement, in which the user's real-world body movements are directly translated into movement within the virtual environment. Natural walking produces the lowest levels of motion sickness because visual, vestibular, and proprioceptive cues remain aligned [47], [48]. This also represents a direct motion-mapping condition, in which no artificial transformation is applied to the user's movement. However, implementing physical locomotion introduces practical challenges, including the need for large tracking spaces, additional hardware, and safety considerations.

5. Mitigation and Prevention Strategies

Building on the design and locomotion considerations discussed in the previous section, numerous strategies have been proposed to mitigate VIMS. One of the most effective approaches involves synchronising multisensory signals to reduce discrepancies among visual, auditory, and bodily cues. Systems that align these inputs can significantly decrease sensory conflict. For example, the SYNC-VR system synchronizes visual, auditory, and haptic feedback while providing proprioceptive input through electrical muscle stimulation, resulting in reduced motion sickness and increased presence in VR environments [49]. Similarly, synchronized audiovisual cues have been shown to reduce cybersickness. In a VR cycling simulation, participants exposed to synchronized sound and motion reported significantly lower VIMS scores than those experiencing sound-only, motion-only, or no supplementary stimuli [50].

Active user engagement can further mitigate VIMS. Studies show that interactive tasks performed during motion-heavy VR experiences reduce symptoms of sickness. For example, participants performing a

shooting task during a virtual roller-coaster simulation reported significantly lower levels of sickness than passive users [51]. Another research direction focuses on direct vestibular stimulation. Galvanic vestibular stimulation (GVS), which applies weak electrical currents near the mastoid processes, has been shown to reduce simulator sickness when synchronized with visual stimuli in VR flight simulations. Participants exposed to GVS reported lower sickness scores and improved task performance [52].

Limiting the motion present in the experience can be a viable mitigation strategy. Intentional design of experience to ensure stable visual references—known as rest frames—can help maintain spatial orientation during motion.

Research indicates that positioning such references near the motion singularity point of the visual field reduces sickness more effectively than artificial references such as the commonly used “virtual nose” technique [53]. Other approaches aim to modify optical flow directly. For instance, inverse optical-flow compensation techniques move elements of the visual display in the opposite direction to the dominant motion within the scene, reducing VIMS while maintaining spatial presence [54], [55]. Design decisions to include said techniques in the virtual experience design and animation could allow for lesser sickness scores outright.

Movement-based interventions also contribute to mitigation. Allowing users to adjust their posture or perform interactive movements during VR experiences can provide additional proprioceptive feedback and reduce symptoms of sickness. More recent approaches emphasise personalisation. Adaptive locomotion systems that adjust movement parameters based on physiological feedback or user characteristics have demonstrated improved comfort across different users [56].

Another important mitigation strategy involves adaptation and training. Repeated exposure to VR environments can reduce susceptibility to VIMS through habituation. Vestibular and balance training programs combining proprioceptive and vestibular exercises have been shown to improve tolerance to VR exposure while reducing sickness questionnaire scores [57]. Similarly, studies examining repeated VR sessions indicate that sufficient recovery time between exposures is essential for effective adaptation. Intervals of approximately one hour between sessions have been shown to reduce sickness in subsequent exposures, whereas shorter intervals often produce persistent symptoms [58].

Recent research has also explored emerging mitigation techniques based on additional sensory cues and computational models. Predictive auditory cues that precede directional changes have been shown to reduce VIMS symptoms compared with conditions lacking anticipatory signals [59]. Computational approaches using the Subjective Vertical Conflict model can also generate optimised visual stimuli designed to minimise predicted motion-sickness responses [60]. Furthermore, studies have shown that pleasant odors congruent with the visual environment can reduce motion sickness compared with incongruent sensory combinations [61].

Overall, the focus of motion sickness mitigation should be to align with user expectation where possible, adding user control and interactivity into experiences, cues and feedback to scenes with increased motion and rest frames or oppositional motion to the animated visuals in the scene. Mitigation and prevention strategies gain increased importance in experiences that create increased difficulty in designing for VR, such as intense emotional environments or experiences with generally significant amounts of motion, such as vehicle use.

6. Conclusion

This literature review examined the primary factors contributing to VIMS in VR and the strategies proposed to mitigate it. The findings confirm that VIMS arises mainly from mismatches between visually perceived motion and vestibular or proprioceptive feedback. However, rather than treating VIMS solely as a physiological constraint, this study emphasises its strong dependence on how motion is constructed, structured, and experienced within virtual environments.

By synthesising research across physiological, perceptual, and technological domains, this paper argues that VIMS can be more productively understood as a problem of animation, visual composition, and perceptual design. The severity of VIMS is strongly influenced by visual motion characteristics—motion speed, optical flow, camera rotation, and field-of-view modulation—as well as by interaction design choices.

The main contribution of this study is a design-oriented reconceptualisation of VIMS, positioning it at the intersection of physiological response and the construction of animated motion. This perspective highlights that reducing motion sickness is not only a technical or biomedical challenge but also a design problem grounded in how motion is structured and perceived. By bridging these domains, the paper provides a more directed framework for VR designers, animators, and developers, and suggests that future research should further explore animation-based approaches to improving perceptual comfort in immersive environments.

Finally, based on the reviewed literature, several design guidelines emerge. Careful control of motion, avoiding abrupt acceleration and excessive speed. Minimising camera or user perspective rotation, especially in pitch and roll axes, to reduce disorientation. Managing optical flow and visual density can help limit sensory conflict, and adaptive framing techniques, such as dynamic field-of-view restriction, can further improve comfort. Additional benefits can be achieved through interactive engagement, adaptive locomotion settings, and gradual user adaptation through repeated exposure. Overall, the literature suggests that reducing VIMS requires an integrated design approach that balances immersion with perceptual stability and user comfort.

References

1. Gigante, M. A.: *Virtual Reality: Definitions, History and Applications*, in *Virtual Reality Systems*, pp. 3—14. Academic Press (1993)
2. Virtual Reality Society, <https://www.vrs.org.uk/virtual-reality/history.html>

3. Wangfred, https://inairspace.com/blogs/learn-with-inair/vr-headset-market-growth-2025-a-deep-dive-into-the-future-of-immersive-technology?srltid=AfmBOopq57mz5L6YJWUq3QENzZ6huF9-MdoVd-cod68Nw5_RMALT5PD
4. IDC, <https://www.idc.com/promo/arvr/>
5. Halbig, A., Latoschik, M. E.: A Systematic Review of Physiological Measurements, Factors, Methods, and Applications in Virtual Reality, *Frontiers in Virtual Reality*. 2, 1--32 (2021)
6. Krauß, V., Boden, A., Oppermann, L., Reiners, R.: Current Practices, Challenges, and Design Implications for Collaborative AR/VR Application Development. *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*. 1--15 (2021)
7. Horváth, C. S., Lampert, B. L., Pongrácz, A.: Opportunities of VR for Teaching History. *Acta Polytechnica Hungarica*, 21(3), 143--162 (2024)
8. Gatto, C., Chiarello, S., Faggiano, F., Nuzzo, B. L., Panaro, I. R., Summerano, G., de Paolis, L. T.: Enhancing Accessibility of Cultural Heritage: Extended Reality and Tactile Prints for an Inclusive Experience of the Madonna Dell'Itri Church in Nociglia, *Extended Reality, International Conference, XR Salento 2023. Part II*. 146--159 (2023)
9. Obradović, M., Vasiljević, I., Đurić, I., Kićanović, J., Stojaković, V., Obradović, R.: Virtual Reality Models Based on Photogrammetric Surveys—A Case Study of the Iconostasis of the Serbian Orthodox Cathedral Church of Saint Nicholas in Sremski Karlovci (Serbia). *Applied Sciences*, 10(8), 2743 (2020)
10. Pande P., Thit, A., Sørensen, A.E., Mojsoska, B., Moeller, M.E., Jepsen, P. M.: Long-term effectiveness of immersive VR simulations in undergraduate science learning: Lessons from a media-comparison study. *Research in Learning Technology*, 29: 1--24. 2021
11. Dopsaj, M., Tan, W., Perovic, V., Stajic, Z., Milosavljevic, N., Paessler, S., Makishima, T.: Novel neurodigital interface reduces motion sickness in virtual reality. *Neuroscience Letters*. 825, 1--8 (2024)
12. Smith, E., LaLiberty, M., Ray, M.: Motion Sickness in Virtual Reality Environments. *Journal of Student Research*. 13(3), 1-8 (2024)
13. Mayring, P.: Quality Standards for Qualitative Evaluation Research. *Zeitschrift Fur Evaluation*. 17(1), 11--24 (2018)
14. Wen, E., Gupta, C., Sasikumar, P., Billinghamurst, M., Wilmott, J., Skow, E., Dey, A., Nanayakkara, S.: VR.net: A real-world Dataset for Virtual Reality Motion Sickness Research. *IEEE Transactions on Visualization and Computer Graphics*. 1--19 (2023)
15. Takov, V., Tadi, P.: Motion Sickness. In: *StatPearls. Treasure Island (FL): StatPearls Publishing* (2025)
16. Kennedy, R. S., Lane, N. E., Berbaum, K. S., Lilienthal, M. G.: Simulator Sickness Questionnaire: An Enhanced Method for Quantifying Simulator Sickness. *The International Journal of Aviation Psychology*. 3(3), 203--220 (1993)
17. Stanney, M., Kennedy, R. S.: Simulation Sickness, in: *Human Factors in Simulation and Training*. Vincenzi, D. ., Wise, J. A., Mouloua, M., Hancock, P. CRC Press (2010)
18. Kim, H., Kim, D. J., Chung, W. H., Park, K. A., Kim, J. D. K., Kim, D., Kim, K., Jeon, H. J.: Clinical predictors of cybersickness in virtual reality (VR) among highly stressed people. *Scientific Reports*, 11(1). 1--11 (2021)
19. Bimberg, P., Weissker, T., Kulik, A.: On the Usage of the Simulator Sickness Questionnaire for Virtual Reality Research. *Proceedings - 2020 IEEE Conference on Virtual Reality and 3D User Interfaces. VRW 2020*. 464--467 (2020)

20. Hughes, B., Naeem, H. N., Davidenko, N.: Factors affecting vection and motion sickness in a passive virtual reality driving simulation. *Scientific Reports*. 14, 30214 (2024)
21. Dopsaj, M., Tan, W., Perovic, V., Stajic, Z., Milosavljevi, N., Paessler, S., Makishima, T.: Novel neurodigital interface reduces motion sickness in virtual reality. *Neuroscience Letters*. 825, 137692 (2024)
22. Bonnard, T., Doat, E., Cazalets, J., Guehl, D., Guillaud, E.: Visual and vestibular reweighting after cyber and spacesickness. *bioRxiv*. 240--256 (2025)
23. Fulvio, J. M., Ji, M., Rokers, B.: Variations in visual sensitivity predict motion sickness in virtual reality. *Entertainment Computing*. 38, 1--11 (2021)
24. Nrnberger, M., Klingner, C., Witte, O., & Brodoehl, S. Mismatch of Visual-Vestibular Information in Virtual Reality: Is Motion Sickness Part of the Brains Attempt to Reduce the Prediction Error? *Frontiers in Human Neuroscience*. 15, 1--11 (2021)
25. Monteiro, D., Liang, H.-N. The Exhausted Brain Theory: An Energy-Based Framework for Understanding Visually Induced Motion Sickness. *VISIGRAPP*. 1, 627--638 (2025)
26. Ng, A. K. T., Chan, L. K. Y., Lau, H. Y. K.: Integrating visual-vestibular mismatch and posture instability in Virtual Reality: A cyber-sickness study. *Association for Research in Vision and Ophthalmology*. 20(11), 205 (2020)
27. Otake, Y., Kanaoka, A., Aoki, S., Osumi, M., Yonezawa, T., Sumitani, M.: Optical flow visual stimuli induce body sway and visually-induced motion sickness in virtual reality system: A preliminary study. *Digital Health*. 12, 1--10 (2026)
28. Maneuvrier, A., Nguyen, N. D. T., Renaud, P. Predicting VR cybersickness and its impact on visuomotor performance using head rotations and field (in)dependence. *Frontiers in Virtual Reality*. 4, 1--14 (2023)
29. Mostajeran, F., Fischer, M., Steinicke, F., Kühn, S.: Effects of exposure to immersive computer-generated virtual nature and control environments on affect and cognition. *Scientific Reports*, 13(1). 220 (2023)
30. Makani, A., Saryazdi, R., Givetash, S., Keshavarz, B.: The presence of an avatar can reduce cybersickness in Virtual Reality. *Virtual Reality*, 28(4), 163 (2024).
31. Kim, A., Lee, J. E., Lee, K. M.: Exploring the Relative Effects of Body Position and Locomotion Method on Presence and Cybersickness when Navigating a Virtual Environment. *ACM Transactions on Applied Perception*, 21(1), 1--11 (2023)
32. Llorach, G., Evans, A., Blat, J.: Simulator sickness and presence using HMDs: Comparing use of a game controller and a position estimation system. *Proceedings of the ACM Symposium on Virtual Reality Software and Technology*. VRST. 137--140 (2014)
33. Hořejší, P., Lochmannová, A., Jezl, V., Dvořák, M.: Virtual reality locomotion methods differentially affect spatial orientation and cybersickness during maze navigation. *Scientific Reports*, 15(1). 1--14 (2025)
34. Reimer, D., Langbehn, E., Kaufmann, H., Scherzer, D.: The Influence of Full-Body Representation on Translation and Curvature Gain. 2020 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW). 154--159 (2020)
35. Wilson, G., McGill, M., Jamieson, M., Williamson, J. R., Brewster, S. A.: Object Manipulation in Virtual Reality Under Increasing Levels of Translational Gain. *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*. 1--13 (2018)

36. Keshavarz, B., Philipp-Muller, A., Hemmerich, W., Riecke, B., Campos, J. L.: The effect of visual motion stimulus characteristics on vection and visually induced motion sickness. *Displays* (Guildford). (2018)
37. Jin, Y.-S., Son, J., Kim, T., Kim, H., Bang, S., Kim, H.: Modulation of In-Vehicle Display Parameters to Reduce Motion Sickness. *Electronics*. 14, 1--18 (2025)
38. Cao, Z., Kopper, R.: Real-Time Viewport-Aware Optical Flow Estimation in 360-degree Videos for Visually-Induced Motion Sickness Mitigation. *Symposium on Virtual and Augmented Reality*. 210--218 (2023)
39. Lim, C., Lee, S.: The Effects of Degrees of Freedom and Field of View on Motion Sickness in a Virtual Reality Context. *International Journal of Human Computer Interactions*. 40(19), 5884--5896 (2023)
40. Uur, E., Konukseven, B. O., Ergen, M., Aksoy, M., Yoner, S. I.: Is the brightness-contrast level of virtual reality videos significant for visually induced motion sickness? Experimental real-time biosensor and self-report analysis. *Frontiers Virtual Real.* 5, 1--11 (2024)
41. Wardani, K. K., Artana, K., Zulaikha, E., & Prastyasari, F. I. Effect of Head-Mounted Display Virtual Reality with Visual Intervention on Motion Sickness Symptoms. *Nae More*. 71(2), 1--9 (2024)
42. Levulis, S. J., Rio, K. W., Wilmott, J., Soria, P. R., Burlingham, C., Guan, P.: Sub-threshold jitter in VR Can Induce Visual Discomfort. *ACM Symposium on User Interface Software and Technology*. 1--10 (2025).
43. Zhao, G., Orlosky, J., Feiner, S., Ratsamee, P., Uranishi, Y.: Mitigation of VR Sickness During Locomotion With a Motion-Based Dynamic Vision Modulator. *IEEE Transactions on Visualization and Computer Graphics*. 29(10), 4089--4103 (2023)
44. Lee, J., Kim, H., Yang, Y., & Kim, G. J.: RPG: Rotation Technique in VR Locomotion using Peripheral Gaze. *Proceedings of the ACM on Human-Computer Interaction*, 8(ETRA), 1--19 (2024)
45. Kumar, N., Lim, C. H., Sardar, S. K., Park, S. H., Lee, S. C.: Effects of Posture and Locomotion Methods on Postural Stability, Cybersickness, and Presence in a Virtual Environment. *International Journal of Human-Computer Interaction*. 40(20), 6314--6326 (2024)
46. Caputo, A., Zancanaro, M., & Giachetti, A. Eyes on Teleporting: Comparing Locomotion Techniques in Virtual Reality with Respect to Presence, Sickness and Spatial Orientation (pp. 547--566) (2023)
47. Mayor, J., Raya, L., Sanchez, A.: A Comparative Study of Virtual Reality Methods of Interaction and Locomotion Based on Presence, Cybersickness, and Usability. *IEEE Transactions on Emerging Topics in Computing*, 9(3), 1542--1553 (2021)
48. Homami, H., Quigley, A., & Barrera Machuca, M. D.: Omnidirectional VR Treadmills Walking Techniques: Comparing Walking-in-Place and Sliding vs Natural Walking. 2025 *IEEE Conference Virtual Reality and 3D User Interfaces (VR)*, 634--644 (2025)
49. Elsharkawy, A., Ataya, A., Yeo, D., An, E., Hwang, S., Kim, S.: SYNC-VR: Synchronizing Your Senses to Conquer Motion Sickness for Enriching In-Vehicle Virtual Reality. *International Conference on Human Factors in Computing Systems*. 1--18 (2024).
50. Yeo, S., Kwon, J., Park, S.: EEG-based analysis of various sensory stimulation effects to reduce visually induced motion sickness in virtual reality. *Scientific Reports*. 12, 1--10 (2022)

51. Hua, C., Tao, J.-C., Chai, L., Zhou, Z.: The effect of additional shooting task on alleviating virtual reality motion sickness. *International Conference on Robotics and Control Engineering*. 172--177 (2023)
52. Pradhan, G., Galvan-Garza, R., Perez, A. M., Stepnek, J., Cevette, M.: Visual Vestibular Conflict Mitigation in Virtual Reality Using Galvanic Vestibular Stimulation. *Aerospace Medicine and Human Performance*. 93(5), 406--414 (2022)
53. Park, M., Yun, K., Kim, G.: Reducing VR Sickness by Directing User Gaze to Motion Singularity Point/Region as Effective Rest Frame. *IEEE Access*. 11, 1--11 (2023)
54. Hayakawa, K., & Nakajima, T.: Optical-Flow-Compensated Virtual Screens: Mitigating Visually Induced Motion Sickness in Mixed Reality Video Viewing. *Virtual Reality Software and Technology*. 150, 1--2 (2025)
55. Park, S. H., Han, B., Kim, G. J.: Mixing in Reverse Optical Flow to Mitigate Vection and Simulation Sickness in Virtual Reality. *CHI '22: Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems*. 1--11 (2022)
56. Baharum, A., Xin, T., Ismail, R., Arabi, A., Noor, N. A. M., Rahim, N. A.: User Adaptive Locomotion Adjustments to Mitigate Motion Sickness in Virtual Reality. 2025 2nd International Conference on Digital Media, Communication and Information Systems (DMCIS). 142--145 (2025)
57. Ramazan, K., Devran, A. Y., Muhammed, O. N.: An old approach to a novel problem: effect of combined balance therapy on virtual reality induced motion sickness: a randomized, placebo controlled, double-blinded study. *BMC Medical Education*. 24, 1--9 (2024)
58. Kasegawa, C., Itaguchi, Y., Yamawaki, Y., Miki, M., Hayashi, M., Miyazaki, M.: Effects of within-day intervals on adaptation to visually induced motion sickness in a virtual-reality motorcycling simulator. *Scientific Reports*. 14, 21302 (2024)
59. Xin, X., Chen, X., & Liu, W.: Effects of Auditory Anticipatory Cues and Lead Time on Visually Induced Motion Sickness. *Human Factors*. 67(8), 809--822 (2025)
60. Takahiro, W., Tamura, Y., Allal, Y., Liu, H., Dang, V.T.: Exploring motion sickness reduction using incongruent vestibular and visual stimuli based on a computational model. *European Journal of Translational Myology*. 35(1) (2025)
61. Reichl, L., Kocur, M.: Investigating the Impact of Odors and Visual Congruence on Motion Sickness in Virtual Reality. *Virtual Reality Software and Technology*. (25), 1--12 (2024)

LGBTQIA+ Representation: An Analysis in Mainstream Animated Series From 2000 to 2025

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Abstract

This study examines the representation of LGBTQIA+ characters and narratives in mainstream animated series released between 2000 and 2025. While earlier media often relegated such characters to stereotypical roles, associated with comedy or villainy, contemporary animation has increasingly portrayed them in ways that resonate with viewers' identity formation and social acceptance. The article analyzes five series: *Steven Universe*, *She-Ra and the Princesses of Power*, *The Owl House*, *Arcane* and *Hazbin Hotel*, selected precisely because they are frequently cited by fans and reviewers as significant and positive examples of LGBTQIA+ representation. The aim is to identify the narrative strategies that contribute to this positive reception. The series were selected based on audience and critical reception within fan communities and streaming platforms. Through content analysis, the study examines how LGBTQIA+ characters are developed and integrated into the main narrative, focusing on elements that distinguish these representations from earlier stereotypical portrayals. By identifying what makes these representations resonate positively with audiences, this research contributes to a growing understanding of how animated media can meaningfully support the LGBTQIA+ community and inform future creative practices.

1. Introduction

This paper is part of an ongoing master's research project examining LGBTQIA+ representation in recent mainstream animated series. Focusing on works released between 2000 and 2025, this study investigates how representation has been used during the years, whether to help and defend the community, to harm it, or even as a means of profit. Through historical contextualization and content analysis of audience reactions on streaming platforms, this research identified positive forms of representation in mainstream animated series. These are representations that avoid niche narratives, stories where a character's sexuality or gender identity is not the main plot point, but rather an integrated aspect of their development. Mainstream animated series have gained more visibility, especially among adult audiences, and have consequently become a vehicle for transmitting and normalizing relevant social concepts. Given its high

Keywords

LGBTQIA+;
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Series; Mainstream
Animation; Inclusion.

cultural and social reach, animation can be considered a good tool for representing characters and stories that allow different social groups to identify with them, particularly marginalized groups such as the LGBTQIA+ community, thus leading to their normalization within the media and, consequently, outside it. The first part of this paper reviews the history of the LGBTQIA+ community and provides a brief introduction to the group. The second part analyzes the types of representation that have existed over the last few decades, as well as presenting some of their motives. The third part analyzes some examples of representation, considered positive by the public, present in the series *Steven Universe*, *She-Ra and the Princesses of Power*, *The Owl House*, *Arcane*, and *Hazbin Hotel*.

After exploring how a sapphic relationship can be represented without sexualization, how allegory can be used to circumvent censorship, and how different narratives address the same type of representation, the paper concludes by reflecting on the importance of representation both for the public and for creators.

2. LGBTQIA+ Community in History

The LGBTQIA+ community has been present since the beginning of human history, with official records of its members dating back to 12,000 BC [1]. In the last century, the community has begun to create identification nomenclatures, increasingly including different identities. Today, the community includes lesbians, gays, bisexuals, transgender, queer, intersex, asexual, agender, gender-fluid and non-binary people, among other forms of identity involving gender and sexuality. The end of the acronym is the symbol + to represent that the acronym does not end and will continue to evolve. [2][3][4][5]

But despite their significant presence in history and their relevance, persecution of the community has existed for centuries, mainly due to religious and social issues, lack of information, and prejudices generated by media propaganda. In recent decades, with greater media representation of this group, the struggle for equal rights and freedom to exist has made considerable progress. [6]

One of the main events that created misinformation about this group was the spread of the HIV virus, which in the 1980s created a fear in society towards infected people, who at the time were mostly people who participated in homosexual relationships. [6]

At the time, a group of women, mostly lesbians, decided to help the victims of the epidemic. This community spirit and willingness to help led to the letter L, which stands for lesbian, being used as a tribute by placing it first in the acronym LGBT. [7]

In this context, the International Lesbian and Gay Association (ILGA) continued to fight globally against the persecution of people in the community. One of the actions of this group was the development of the *Pink Book* (1985), aimed at creating an annual report on the rights of the community, thus enabling the sharing of more detailed information on the status of LGBT people around the world. [6]

This report and the help of international conferences were indispensable tools for the group to acquire some rights in different countries. In many countries, homosexuals were still being arrested and abused by their countries' security services, so in the early 1990s, ILGA launched an educational campaign in the public media to combat these laws, showing copies of the BBC documentary *Amnesty and Homosexuals* (BBC, 1965), an advertising campaign profiling gay and lesbian prisoners, and a training booklet called *Convincing AI*.³ [6]

Over the years, some of these victories have been undermined by politicians and groups spreading false news about the community and non-governmental groups seeking to advance the rights of the community, making this fight for rights a constant and necessary one. [6]

Over the last decade, we have seen significant improvements in LGBTQIA+ rights in many countries around the world, with Europe and America being the continents with the highest number of countries where being LGBTQIA+ is not considered a crime [8]. However, rights such as same-sex marriage are still denied in 50% of countries in the world, and the right to legally change gender is only permitted in 16% [8], thus the community still feel a strong need to fight for equal rights and acceptance across the globe.

3. LGBTQIA+ Representation

Since the beginning of cinema and television, LGBTQIA+ viewers have tendency to see themselves in characters who, in some way, seek to identify and understand who they are within the different contexts in which they find themselves, due to a connection with a feeling of difference, search for belonging and self-discovery. In recent years, this trend has changed due to the emergence of characters who truly represent the community, especially with the appearance of openly LGBTQIA+ heroes and protagonists.

In 1934, the *Hays Code* was created, imposed by the Motion Picture Association of America and written by a Catholic man and a Jesuit priest⁴, to respond to what the right wing considered the scandal of the 1920s, caused by the enormous presence of sexual crimes and illicit substance use, both in the real lives of celebrities and on screen. This code served to promote self-censorship of content considered immoral. Some of the prohibitions in this code included provocative dancing, white slavery, and sexual perversion. This code led to the disappearance of positive representations of LGBTQIA+ characters, and any character who displayed characteristics associated with the community was associated with villains. Although the code was abandoned in 1968, its influence remained, being visible in numerous animated characters such as Gaston and Lefou (*Beauty and the Beast*), Scar (*The Lion King*), Jafar (*Aladdin*), and Ursula (*The Little Mermaid*). [9]

³ In this name, the acronym refers to *Amnesty International*.

⁴ The Catholic man is Martin J. Quigley (1897–1964) and the Jesuit priest is Fr. Daniel A. Lord, S.J. (1888–1955).

Many of these villainous characters who display stereotypical gestures and behaviors were developed by a gay animator, Andreas Deja. [10]

The American activist, film historian, and author Vito Russo, best known as the author of *The Celluloid Closet* (Russo, 1987), believed that this negative portrayal of the community was at the root of homophobia, as people were being taught behaviors and facts about the community that were untrue, and films played a significant role in this indoctrination. He argued that cinema, and especially Hollywood, was homophobic and instilled this hatred for the community through its productions. [11] [12]

Rebecca Sugar, when talking about these characters in an interview with *Insider*, states: “If your only representation is being a villain or a joke, man, that’s really heavy for a kid to grow up absorbing.” [3] Various filmmakers and creators of film and television, such as Barry Sandler and Rock Hudson, share this view and have spoken about their own experiences growing up as queer individuals without representation that portrayed the community as worthy and good people. [12]

Many of the characters who in some way represented or could be considered representatives of the community were developed to generate ridicule from members. An example would be the character Bugs Bunny, later considered the first drag queen in animation, even sharing kisses with other male characters, yet the character was not designed to be identified as part of the community. This discussion only came up with the release of the movie *Space Jam* (Joe Pytko, 1997), but despite the comical tone of this performance, some of these characters had a positive impact, inspiring and encouraging viewers to express themselves in unconventional ways. [13]

However, not all representation exists with the intention of truly welcoming the community. In 2002, Israel invited LGBT groups to participate in a film that served to promote the state as a progressive tourist destination, one of the first state campaigns to promote LGBT tourism. Pro-Palestinian activists and critics argue that the main objective of this campaign was to distance Israel from its neighbors, namely Palestine, by presenting itself as progressive, while also diverting attention from the state’s military occupation of the West Bank, the blockade of Gaza, and the violation of Palestinians’ human rights. Critics argue that Israel uses LGBT rights not as a genuine commitment, but as a political tool, calling this action *pinkwashing*. They also point out that the community still faced prejudice, namely the ban on same-sex marriage, which remains in place today, and the influence of conservative religious political parties, which do not approve pro-LGBTQIA+ laws. [14]

The term *pinkwashing* was coined to describe the behavior of organizations that claimed to support people with breast cancer but produced or were associated with products linked to the disease. The term was later redirected to the LGBTQIA+ community, describing organizations that claim to defend the rights of the community without actually promoting any truly useful action for the community. In other words, organizations use the community as a marketing strategy to obtain profit, political power, or other types of benefits, without actually aligning themselves with the rights of the community. [15] [16]

This term is directly related to the term *pink money*. “Pink money is LGBTQIA+ money, but this term began to be used in an almost pejorative way, to denounce brands and companies that benefit from LGBTQIA+ consumer money without actually supporting the cause,” explains Raquel Virginia, CEO of the Nhái! agency. [17]

Over the past decade, there has also been an increase in representation in animated stories aimed at children and families, such as the film *ParaNorman* (Chris Butler and Sam Fell, 2012), from Laika Studios, which introduced an openly gay character named Mitch, who is part of the main group of characters. [18]

Many series have emerged, with representation that is considered positive by the public. Among these, series such as *Star Trek: Lower Decks* (Mike McMahan, 2020-2024) stand out, as part of a major franchise, representing a strong point in the market, thus bringing LGBTQIA+ characters into a universe already cherished by fans. *Harley Quinn* (Justin Halpern, Patrick Schumacker, and Dean Lorey, 2019-2025) is a very relevant series because it belongs to one of the most striking superhero universes of today, not only exploring the protagonist’s bisexuality but also allowing her to detach herself from her origins as a villain. However, one of the series that deserves the most credit is *Steven Universe* (Rebecca Sugar, 2013-2019). In this story, we not only see countless characters who are members of the community, but we also see one of the first LGBTQIA+ marriages in mainstream animation between the characters Ruby and Sapphire, whose love is represented by their fusion as Garnet.

Between 2013 and 2023, specifically, there has been a noticeable increase in characters representing the LGBTQIA+ community, and greater care has been taken in the type of representation, with harmful representations being increasingly avoided as seen in GLAAD’s (Gay & Lesbian Alliance Against Defamation) *Studio Responsibility Index (SRI)*. In 2021, there was a fifty percent increase in representation, as demonstrated by the SRI. GLAAD is one of the organizations that encouraged this growth, producing annual reports to point out harmful representation and promote an increase in positive representation. This growth is visible at Disney Studios, which introduced the first openly gay superhero into the Marvel Cinematic Universe (MCU) in 2021. Although LGBTQIA+ characters already exist in the brand’s comics, they have only recently been seen represented on screen. In *Lightyear* (Angus MacLane, 2022) and *Strange World* (Don Hall, 2022), more central LGBTQIA+ characters were introduced into the story, even though they are not niche narratives, thus setting an example for other stories. [18]

When asked about the relevance of LGBTQIA+ cinema, professor and drag queen Rita von Hunty said that the different arts happen because human beings are finding ways to express something that is hard to do in any other way. The purpose of LGBT cinema is to show that there is a power and a kind of narrative that cannot be created by any other group [19]

Foucault’s extensive work leads us to the idea that perhaps a body considered peripheral also has something to offer, and that it offers it through art, which is an infinitely more democratic and accessible me-

dium. This line of thinking, which we find developed in works such as *Discipline and Punish*, suggests that bodies are constantly shaped by devices of power, but it is precisely there that art, as Rancière reminds us in *The Politics of Aesthetics*, can operate a redistribution: making visible what was invisible, giving voice to what was silent. Peripheral bodies find in art not only expression, but a means of re-existence. [20][21][22]

According to GLAAD's report *Accelerating Acceptance 2025*, when non-LGBTQIA+ people see members of the community represented in various media, their familiarity with the community increases by up to 34%, thereby promoting greater acceptance among these individuals and raising awareness of the community among cisgender and heterosexual viewers. As a result, these individuals' comfort levels when interacting with members of the community increases by 23%. [23]

However, in recent years we have seen an attack on the community by news channels, particularly in the US, where members are treated as a problem by countless politicians. Therefore, stories with positive representation are vital for the normalization of LGBTQIA+ people and their struggle. However, the 2025 *SRI* shows that this is the second consecutive year in which the representation of LGBTQIA+ characters in the media in general has declined, and existing characters no longer have relevant roles in narratives. [24] These results may be influenced by political pressure, largely caused by the power that the right wing has gained globally, and more conservative studios putting pressure on artists.

Netflix recently announced that some series, namely *She-Ra and the Princesses of Power* (ND Stevenson, 2018-2020), will be leaving the catalog. This series is a milestone in representation in animation, as it is a reboot of a 1985 series with greater exploration of LGBTQIA+ themes, and a work of representation considered by the public to be one of the best examples. By leaving the catalog of the streaming platform that produced this series, this production will have nowhere to be seen, ultimately becoming a lost medium. This is not the first time this has happened; there are cases of other series being removed from the catalogs of the platforms that produce them, and because there are no physical copies of them, they end up falling into oblivion. This has been evident in LGBTQIA+ productions such as *Kipo* (Radford Sechrist and Bill Wolkoff, 2020-2020), *Vultron* (Lauren Montgomery and Joaquim Dos Santos, 2016-2018), and *Willow* (Jonathan Kasdan, 2022-2022).

4. Representation Analysis

Based on review sites such as *IMDb*, which features critic ratings, and series rating sites such as *Rotten Tomatoes*, which features fan ratings, and ratings from organizations such as GLAAD, we concluded that some of the animated series with representation that are most well-received by the LGBTQIA+ audience are, for younger audiences, *Steven Universe*, *She-Ra and the Princesses of Power*, and *The Owl House* (Dana Terrace, 2020-2023), and for a more adult audience, *Arcane* (Christian Linke and Alex Yee, 2021-2024) and *Hazbin Hotel* (Vivienne Medrano, 2019-present). [25][26][27]

In *Steven Universe*, created by Rebecca Sugar, we see a young boy named Steven, half human, half gem, who lives with three gems who fought in a war with his mother. The gems are alien stones with powers, and they are all female. This series portrays different LGBTQIA+ roles, among the main characters. We point out Pearl and her relationship with Rose Quartz (Steven's mother), Pearl being a lesbian and Rose bisexual, it is noticeable the importance of this romance in Pearl's narrative and in her characters' development. One of the most striking moments in this romance is in the song *It's Over Isn't It* sung by Pearl, and in a scene where the two dance intimately. This scene was censored, with the footage of the two together being reduced in several countries, including Portugal. Another example is Ruby and Sapphire, who get married during the series. The latter couple was introduced as the character Garnet, a fusion of the characters mentioned above. This fusion was used as a tactic by the creator to circumvent censorship of this type of relationship, making the character so beloved by the public and essential to the story that it would be impossible to discard it. This couple ended up being the reason for the series' cancellation, but due to its success, the story received a movie and a new series, and a new production is currently being developed within this world. [28][26]

She-Ra and the Princesses of Power brought a new approach to the existing world, offering representation and new, more inclusive character designs. The sapphic relationship that drives the story between the protagonist Adora and the antagonist Catra, despite only being made official at the end, was evident throughout the narrative. At first, their closeness led to disagreements between them, but eventually this relationship helped Adora save her world. There were other same-sex couples and non-cisgender characters, namely Double Trouble, which features a non-binary shapeshifter played by Jacob Tobia, a genderqueer actor, bringing representation beyond the screen, giving the audience new characters with whom they can relate. Although LGBTQIA+ themes are not the focus of the narrative, they are always present and an integral part of it.

The Owl House, created by Dana Terrace, was one of Disney's first inclusive productions, but it ended up being canceled due to the presence of a lesbian relationship as the protagonist of the story, leading to a hasty conclusion of the narrative. In this series, we are introduced to a young girl, Luz Noceda, who dreams of becoming a witch. The story unfolds when, by accident, the main character goes to the world of demons and decides to learn new forms of magic from Eda. In one scene, we see the young woman come out as bisexual to her mother, showing that in this universe it is something that, as in our world, is common for LGBTQIA+ people to do, but without detracting from the main narrative, one of the most significant moments involving this character and her girlfriend is the dance they share at the school dance, where the viewer is given confirmation of Amity's feelings for Luz. We can also see Raine Whispers, a non-binary character who gains more prominence as the story progresses, using neutral pronouns. Dana Terrace, like Rebecca Sugar, has been instrumental in creating animations that explore LGBTQIA+ themes and in the fight for representation against major studios. [26]

Arcane, created by Christian Linke and Alex Yee, was developed based on the game *League of Legends*. In this universe, as in previous ones, we see LGBTQIA+ protagonists, but we can also see the exploration of intimate moments between them. It is important to highlight the relationship between Catelin and Vi, who share an intimate moment developed without the fetishism of a lesbian relationship, the narrative also depicts other moments of this kind involving other queer couples. [27]

In *Hazbin Hotel*, created by Vivienne Medrano, we follow Lucifer's daughter Charlie and her girlfriend Vaggi as they develop a hotel with the aim of rehabilitating sinners from hell. In addition to the main couple, the main circle also includes Angel Dust, a sinner who, besides being an adult film star, also performs drag shows. Within this universe, we also see several other LGBTQIA+ characters, but we also meet homophobic demons, demonstrating that belonging to the LGBTQIA+ community is not a sin and is not the reason that led the characters to hell.

Fig. 1. Garnet and Rhodonite (characters) in *Steven Universe* by Rebecca Sugar, 2013.



Fig. 2. Adora and Catra (characters) in *She-Ra and the Princesses of Power* by ND Steven-son, 2018.



Fig. 3. Luz Noceda coming out in *The Owl House* by Dana Terrace, 2020.

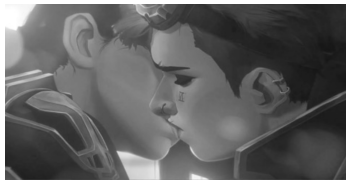


Fig. 4. Raine Whispers and Eda Clawthorne (characters) in *The Owl House* by Dana Terrace, 2020.

Fig. 5. Caitlyn Kiramman and Vi (characters) in *Arcane* by Christian Linke and Alex Yee, 2021.

These series were well received by the community, demonstrating a representation considered positive, without LGBTQIA+ characters remaining predominantly in supporting, comic, or niche roles.

5. Conclusion

Within existing series that feature representation, without containing narratives primarily focused on identity issues, it has been understood that there is greater exploration, within the main characters, of couples composed of two female characters. This explicit portrayal of the non-heterosexual sexuality of main characters has emerged mainly after 2010, having previously existed in a more veiled form, or focusing on secondary

Fig. 6. Angel Dust (characters) in *Hazbin Hotel* by Vivienne Medrano, 2019.

characters of lesser relevance to the narrative. Within niche narratives, focusing on the difficulties caused by society's reaction to the characters' sexuality, we see a greater presence of non-heteronormative male characters, but these narratives tend to follow a similar formula, whether animation or live action.

The portrayal of sapphic characters is often associated with their sexualization, which was avoided in the examples studied, even with the presence of intimate moments between couples. We can see a moment in *Hazbin Hotel*, in which the protagonist couple shares an intimate moment that was explored through a musical moment and a dance, which transformed the bed covers and towel into dresses for both of them. *Ar-cane* has a more explicit intimate moment between Vi and Catlin, without falling into tendencies that could be seen as fetishistic, and finally, *Steven Universe* explores fusion as the most intimate form of connection between two people, thus presenting the intimacy of the relationship in a metaphorical way.

In gender representation, there is still a low representation of non-cisgender characters, with rare cases of trans and non-binary characters in series in general, and even fewer in animated series. The representations of these types of characters tend to follow a design found in non-human characters, often associated with shape-shifting powers. This trend has not, so far, been viewed as problematic, but the preference for animal-like characters, often reptilian, to represent non-cisgender people could be perceived as creating a stereotype of this community, giving rise to a trend that, if it becomes the norm, could be considered derogatory.

The presence of drag characters is also reduced and often portrayed in a pejorative manner. We can observe that the case present in the series analyzed, Angel Dust from *Hazbin Hotel*, despite having had little screen time in the series so far, has a strong impact on the narrative and was extremely well received by the public. However, as mentioned in relation to non-conforming gender characters, Angel is not a human character, the character is presented as a demon with superhuman characteristics, such as fur and multiple pairs of arms. These characteristics do not invalidate the representation that this character provides but follow the trend of non-human characters that tend to represent the trans and gender non-conforming community.

The only case among those studied that deviates from this trend is Rain Whispers, who, despite being a witch, which in the world of the series are beings distinct from humans, has a similar design, making this character one of the few characters in the trans community who does not have a design that creates an association with animals.

Together, these narratives and characters present a new trend in LGBTQIA+ representation, focusing not on their identities, but exploring people in the community as complex and encompassing other characteristics beyond sexuality or gender outside of society's cis-heteronormative standards, thus giving voice to socially discriminated people.

Furthermore, considering the perspectives of Rebeca Shugar and Vito Russo, as well as the analyses conducted by GLAAD, we can

conclude that productions like these may benefit not only queer viewers on a personal level, but are also effective ways of representation of the different groups in society.

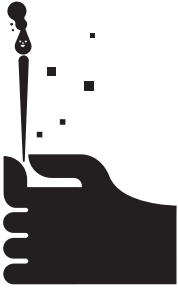
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References

1. M. García Díez & J. Angulo Cuesta. (2012, July 26). Diversity and meaning of Palaeolithic phallic male representations in Western Europe. <https://web.archive.org/web/20120726163724/http://www.actasurologicas.info/v30/no3/ENG/30o3OR02.htm>
2. Katherine Timpf. (2018, February 9). Alguns ativistas querem transformar LGBT em LGBTQICAPF2K+. Gazeta do Povo. <https://www.gazetadopovo.com.br/ideias/ativistas-querem-transformar-lgbt-em-lgbtqqicapf2k--7a6v2zozoj3tirsy8w53ah8bn/>
3. Rebecca Sugar & Melanie Kohnen. (2021, June 29). The evolution of queer characters in children's animation [Interview]. <https://www.businessinsider.com/the-evolution-of-queer-characters-in-kids-animated-tv-shows-2021-6>
4. Rita Von Hunty. (2018, November 20). Rita em 5 Minutos: LGBTQIA+ [Video recording]. Tempero Drag. <https://www.youtube.com/watch?v=EREoc4OJBr8>
5. Rita von Hunty. (2021, July 9). LGBTQIA+: PARTE II [Video recording]. Tempero Drag. <https://www.youtube.com/watch?v=jl3BQD1KmlU>
6. Belmonte, L. A. (2020). The International LGBT Rights Movement: A History. The International LGBT Rights Movement.
7. Marcus, E. (2002). Making Gay History: The Half Century Fight for Lesbian and Gay Equal Rights. Harper Perennial.
8. LGBT Rights by Country & Travel Guide. (2026, fevereiro 23). Equaldex. https://www.equaldex.com/?gad_source=1&gad_campaignid=14555128726&gclid=CjoKC-QiAtfXMBhDzARIsAJoip3DsCpEU6YcafmiYmm4gUiAcN_cjGNK3UCR8poWTjO-zkGTpSLhV7EBUaAhZ6EALw_wcB
9. Lang, J. (2022, June 29). The History of Queer Animation. <https://www.cartoonbrew.com/video-essay/queer-representation-in-animation-video-essay-218328.html>
10. Henderson, T. (2022, March 10). Not Just Queer Coded, These Disney Villains Were Designed by a Gay Man. <https://www.pride.com/movies/2022/3/10/not-just-queer-coded-these-disney-villains-were-designed-gay-man>
11. Russo, V. (1987). The Celluloid Closet: Homosexuality in the Movies.
12. Marcus, E. (2002). Making Gay History: The Half Century Fight for Lesbian and Gay Equal Rights. Harper Perennial.
13. Tongal. (2022, June 28). The History of Queer Animation [Video recording]. <https://www.youtube.com/watch?v=BvbJ7SzSSEo>
14. Schulman, S. (2011, November 23). Opinion | Israel and 'Pinkwashing.' The New York Times. <https://www.nytimes.com/2011/11/23/opinion/pinkwashing-and-israels-use-of-gays-as-a-messaging-tool.html>
15. Andreoli, T. P., & Batista, L. L. (2023). WASHING? Influência dos falsos discursos mercadológicos.
16. Lubitow, A., & Davis, M. (2011). Pastel Injustice: The Corporate Use of Pinkwashing

- for Profit. Environmental Justice, 4. <https://doi.org/10.1089/env.2010.0026>
17. Pink money ou pinkwashing? Como saber se marca apoia mesmo a causa LGBTQIA+. (2025, September 16). UOL. <https://www.uol.com.br/universa/noticias/redacao/2025/09/16/pink-money-vs-pinkwashing-como-saber-se-uma-marca-apoia-a-causa-lgbtqia.htm>
18. GLAAD (Ed.). (2024). Studio-Responsibility-Index-One-Decade. GLAAD. <https://assets.glaad.org/m/46c4677e65357b62/original/Studio-Responsibility-Index-One-Decade.pdf>
19. Canal Brasil. (2021, June 9). Rita Von Hunty analisa os documentários “Bixa Travesty” e “Divinas Divas” [Video recording]. <https://www.youtube.com/watch?v=bA-DUFwn6aWY>
20. Foucault, M. (1975). Discipline and punish: The birth of the prison. Vintage Books.
21. Foucault, M. (1976). The history of sexuality, volume 1: An introduction. Pantheon Books.
22. Rancière, J. (2004). The politics of aesthetics: The distribution of the sensible. Continuum.
23. Producer, H. S., Web. (2025, June 4). Accelerating Acceptance 2025 Report | GLAAD. <https://glaad.org/accelerating-acceptance-2025/>
24. Ellis, S. (2025). From the Office of the President & CEO, Sarah Kate Ellis – SRI 2025 | GLAAD. <https://glaad.org/sri/2025/president-letter/>
25. Hanrahan, C. (2024, April 12). The “Bad” Representation of Queer Characters in Hazbin Hotel Is Actually Perfect. Medium. <https://medium.com/@hanrahan8976/the-bad-representation-of-queer-characters-in-hazbin-hotel-is-actually-perfect-3512d4cb17a9>
26. Raffy Ermac, Terra Necessary, & Andrew J. Stillman. (2024, September 17). 25 cartoon shows with awesome LGBTQ+ characters. <https://www.pride.com/geek/gay-cartoons>
27. Ruby Zenteno. (2025, January 27). How Arcane Beautifully Represented (Then Fumbled) Its Diverse Women—Women’s Media Center. <https://womensmediacenter.com/fbomb/how-arcane-beautifully-represented-then-fumbled-its-diverse-women>
28. Chris McDonnell. (2020). Steven Universe—End of an era. ABRAMS.



High contrast in black and white illustration: technique and materiality in the visual representation of anxiety

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Duality; Anxiety;
Illustration; High Contrast;
Visual Expression.

Abstract

Visual perception plays a fundamental role in the observer's interpretive process, especially when the image employs ambiguity, incompleteness, and contrast as expressive strategies. In these contexts, the use of high contrast between black and white has been widely associated with the creation of visual tension and drama, demonstrating a strong potential for evoking more complex psychological states, such as anxiety. Beyond this chromatic duality, the materiality and graphic technique of the drawing also play a decisive role in how this type of contrast can be perceived and emotionally experienced. This article analyses the role of high black-and-white contrast in illustration, investigating how materiality and technique may influence the emotional perception of anxiety. This study represents an initial phase of a master's research project, developed through a practice-based research methodology, seeking to frame the subject within a theoretical field of the psychology of perception and semiotics. In a subsequent phase, the research explores different materials and techniques, highlighting their potential contribution as expressive agents in the construction of the observer's visual and emotional experience.

1. Introduction

In the field of illustration, the emotions evoked by an image can be understood as a structuring element of the visual project. When the objective is to translate complex psychological states, the choice of formal and material strategies that organize the composition becomes particularly relevant. These decisions contribute directly to how the observer interprets the image and participates in the construction of its meaning. From this perspective, illustration is not limited to representing emotions in a descriptive way; rather, it functions as a perceptual device capable of suggesting or evoking affective responses in the observer. By provoking this type of involvement, the image invites the viewer to actively participate in the construction of meaning. Visual perception therefore assumes a central role in activating interpretative mechanisms, in which the observer is called upon to complete what is ambiguous, incomplete, or merely suggested within the visual space. Among the various formal

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resources available, high black-and-white contrast stands out for its ability to generate tension, conflict, and a dramatic intensity, approaching experiences of unease and instability that may be associated with anxiety. However, the experience of contrast does not reside exclusively in chromatic opposition, but also in the interaction between the support, the gesture, and the materials. In this context, the following research question emerges: is high contrast intrinsically associated with anxiety, or does its emotional charge depend on the materials and techniques employed? Materials with distinct physical characteristics, such as the fluidity of the ink or the resistance of wood, introduce variations in density and visual noise that may intensify or soften the psychological impact of the image. Woodcut printing, for example, begins with carving into wood, a hard material that offers both physical resistance and technical difficulty. Because the cuts follow the grain of the wood, greater force is required, resulting in a rougher, more rigid, and rustic line. Its natural texture tends to remain visible in the print, introducing irregularities and a certain visual noise into the image. These characteristics make woodcut particularly suitable for the creation of intense contrasts, strong silhouettes, and dense atmospheres, which may in turn be associated with emotional states such as tension, anguish, or inner conflict. It is therefore no coincidence that woodcut was widely used by movements such as German Expressionism, where formal distortion and high contrast were employed as means of emotional externalization.

In this sense, this article proposes a reflection on how different materials and high-contrast drawing techniques influence the observer's emotional perception, taking anxiety as its object of study, particularly in its manifestation as a state of oscillation between fear and courage. The research articulates contributions from perception psychology, particularly Rudolf Arnheim, and references from visual semiotics, such as Donis A. Dondis, with an experimental approach centred on the comparison of different black-and-white graphic techniques. Through this analysis, the article aims to demonstrate how the materiality of drawing can enhance high contrast as an expressive tool in the visual representation of this specific form of anxiety.

2. Perception and Emotion: high contrast in illustration

From the perspective of art psychology, visual perception is not a passive process, but rather an organized activity in which the observer actively participates in the construction of meaning. Rudolf Arnheim, in *Art and Visual Perception: A Psychology of the Creative Eye* (2005), argues that perception results from the organization of forms within the visual field, with contrast being one of the main factors responsible for generating tension, balance, or instability. The absence of color eliminates accessory elements and forces the observer to concentrate on the relationships between figure and ground, visual weight, rhythm, and direction. [1]

From a historical and symbolic perspective, Michel Pastoureau, in *Black: The History of a Colour* (2014), analyses black as a color loaded with cultural and emotional meanings, ranging from negation and au-

thority to fear and introspection. The author suggests that darkness, represented by black, acts simultaneously as a vital force and as a symbol of fear and death in various mythologies. For thousands of years, darkness signified vulnerability through its association with predators, nightmares, and the unknown, which culturally conditioned the perception of black as a threatening color. [2] Aaron Fine, in *Color Theory: A Critical Introduction* (2022), complements this perspective by positioning black not as a simple absence of light, but as an active principle capable of structuring narratives and evoking profound emotional states. White, in turn, does not emerge merely as the chromatic opposite of black, but as emptiness, suspension, and potential. White functions as a visual interval that interrupts the dominant presence of black, allowing moments of clarity and emotional relief. [3]

This idea is reinforced by Ernst Gombrich in *Art and Illusion: A Study in the Psychology of Pictorial Representation* (2002), where he emphasizes that the eye seeks patterns and completes gaps based on expectations, visual habits, and previous experiences. [4] An image is never received as a neutral object, but rather interpreted in light of pre-existing assumptions that the observer projects onto what is seen. Images that rely on silhouettes, cut-outs, or strong shadow areas therefore demand a more active reading: the eye must infer contours, imagine textures, and reconstruct hidden parts. In the context of high contrast, where tonal gradation is reduced to its essentials, this needs to complete the image becomes intensified, increasing both cognitive and affective involvement with the illustration. This expressive potential remains highly relevant in contemporary illustration practices, where the use of black-and-white contrast continues to be explored as a means of conveying psychological intensity and emotional complexity. However, it is important to clarify that anxiety is not approached here as a homogeneous clinical entity, but rather as a subjective experience characterized by dynamics of tension, anticipation, and emotional oscillation. More specifically, this article focuses on a form of anxiety understood as the result of the interaction between fear and courage, not as isolated opposing states, but as dual forces in constant “negotiation”. Authors such as Nuno Mendes Duarte, in *Overcoming Anxiety* (2021), describe anxiety as a state of alarm in the face of anticipated threats, marked by a constant oscillation between the impulse to avoid and the necessity to confront reality. This dynamic conceptually approximates the relationship between fear and courage, making its transposition to the visual plane possible through the duality of black and white. In this context, high contrast proves particularly effective as an expressive resource precisely because it operates through the extreme opposition between presence and absence, light and shadow, visible and hidden. Large black areas can materialize fear as an oppressive and dominant force, while white elements suggest moments of resistance, clarity, or the possibility of confrontation. The absence of intermediate gradations reinforces a more abrupt and tense perception, bringing the visual experience closer to states of vigilance, restlessness, and emotional instability. Studies in the field of art psychology and visual perception reinforce this relation-

ship. In *Effects of Colour and Emotion in Illustration* (Chen et al., 2013), it is demonstrated that the presence or absence of colour significantly alters the emotional response to illustration, with chromatic reduction tending to intensify emotional focus and favour the affective reading of visual narratives. In this sense, the absence of colour does not impoverish visual communication, but rather intensifies the relationship between form, contrast, and emotion, reinforcing the expressive potential of the duality between black and white as a visual metaphor for the oscillation between fear and courage.

2.1. The influence of materiality on the perception of high contrast

Donis A. Dondis emphasizes that contrast constitutes one of the main mechanisms for controlling visual effects and, consequently, meaning in visual communication, defining it as a relationship of opposition “being against” that leads to clarity of content (*A Primer of Visual Literacy*, 1973). In this sense, contrast does not operate only at a formal level, but structures the reading of the image and guides the observer’s emotional response. [5]

This principle can be observed in the work of Edward Gorey, whose systematic use of black and white contributes to the creation of dense and ambiguous atmospheres. In illustrations such as *The Object-Lesson* (1958), chromatic contrast does not merely establish a visual hierarchy, but also suggests psychological differences between the represented figures. The ambiguity resulting from the economy of detail and the extensive use of shadow demands an active reading, inviting the observer to project meanings and emotions onto the image. [6]

This type of strategy confirms that high contrast functions as a perceptual device capable of provoking tension, unease, and emotional involvement without resorting to the literal representation of emotion. However, the emotional experience generated by contrast does not depend exclusively on chromatic opposition, but also on the way contrast is materialized whether through line, stain, texture, or surface. These elements play a decisive role

in the intensity and nature of the emotional response evoked. It is within this context that the analysis of materials and drawing techniques becomes essential for understanding how high contrast can be modulated as an expressive tool in the representation



Fig. 1. Illustrations from the book *God's Man* by Lynd Ward (1929).

of more complex emotions, such as anxiety, fear, or death. The influence of material and technique in the construction of meaning also becomes evident in works such as *God's Man* (1929) by Lynd Ward (Fig. 1). [7]

The author uses woodcut printing to explore the expressive possibilities of extreme contrast between black and white, employing stain, texture, and the hardness of the cut as narrative elements. The nature of woodcut once again favors compositions marked by strong silhouettes, intense visual rhythms, and a constant atmosphere of tension, reinforcing themes such as anguish, fear, loss, and inner conflict. These examples demonstrate that the absence of color does not impoverish visual communication, but intensifies the relationship between form, contrast, and emotion, reinforcing the expressive potential of the duality between black and white as a visual metaphor for fear and courage. The ambiguity resulting from these choices allows the viewer to play an active role in the construction of meaning, projecting their own emotions and experiences onto the image. Even without textual elements or additional narrative complements, images are able to construct meaning through the use of high contrast. This relationship between materiality, technique, and emotional expression also persists in contemporary illustration practices. Artists such as Thomas Ott and Nina Bunjevac employ high-contrast black-and-white imagery to construct psychologically intense visual narratives. Ott's use of scratchboard creates dense and unsettling atmospheres, while Bunjevac's detailed ink drawings explore themes of memory and trauma. These examples reinforce the idea that high contrast, combined with specific techniques and materials, functions as an active expressive tool in the representation of complex emotional states.

3. Experimental explorations of materiality and technique in high contrast

The materiality of drawing alters not only the stroke itself, but also the way the image is organized and perceived. As Donis A. Dondis points out, contrast is not merely an aesthetic resource, but a relationship of opposition capable of generating meaning [5]. Similarly, Arnheim argues that visual tension plays a determining role in perceptual organization and, consequently, in aesthetic experience. [1] This perspective is reinforced by James Elkins, in *What Painting Is* (2000), who highlights that different materials condition the way images are experienced on a sensory and emotional level. [8] Complementarily, Tim Ingold, particularly in *Making: Anthropology, Archaeology, Art and Architecture* (2013), argues that materials should not be understood as passive supports, but as active elements that participate in the creative process itself. For the author, drawing does not simply mean representing a previously defined idea, but thinking through making, in a continuous relationship between gesture, tool, and matter. The stroke therefore results from the dialogue between the artist's intention and the resistance of the material. [9] In this context, technique can be understood as a mediator between form and emotion, ceasing to be a neutral element in the visual construction process. The present experimental phase, exploratory in nature and based on practice-based research, seeks to understand how materiality and technique contribute to the modulation of high contrast perception in the context of representing anxiety as a state of prolonged tension. Linda Candy, in *Practice Based*

Research: A Guide (2006), argues that artistic practice should not function merely as a final result, but as a research method capable of generating critical reflection and specific knowledge about the creative process. [10] In this context, material experimentation becomes a fundamental part of the analysis, allowing observation of how technical decisions directly influence the construction of visual and emotional meaning.

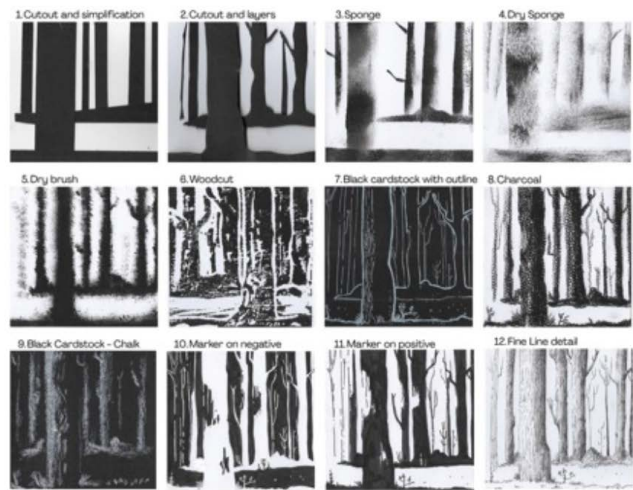
To test the theoretical hypotheses raised, an experimental exercise of thematic replication was developed. The decision to repeat the same visual composition using different materials made it possible to control the formal variables of the image, focusing the analysis on the specific influence of technique and materiality. By maintaining constant elements such as compositional structure, represented subject, and spatial organization, it became possible to observe more rigorously how changes in support, gesture, and tool modify the emotional perception of the image. The choice of the forest as the base image is related to its formal and symbolic ambiguity. The absence of explicit facial or narrative elements avoids an overly direct emotional reading, creating a space more open to the observer's subjective projection. As an image, the forest also carries recurring associations with the unknown, fear, depth, and disorientation, making it particularly suitable for the visual exploration of anxiety and psychological tension.

The choice of these materials was not random, but guided by their physical and expressive differences. The marker allows direct and controlled contrast, with defined silhouettes and uniform filling; the sponge introduces irregularity, tonal gradations, and loss of sharpness; woodcut adds physical resistance, texture, and formal aggressiveness through the act of cutting into wood; and acrylic paint enables a more gestural and organic stain. The selection of these techniques aimed to encompass different ways of constructing black and white, allowing the observation of how distinct materialities influence the perception of tension, ambiguity, and anxiety in the image.

This method made it possible to isolate the variable of materiality and analyse its potential impact on the construction of visual atmosphere, built mainly through formal elements such as contrast, texture, stroke density, and the relationship between figure and ground. The comparison between the different results was carried out based on the observation of these variables, allowing the identification of how different techniques may suggest different perceptual and expressive qualities. This analysis was guided by formal and perceptual criteria, namely: the degree of contrast between black and white; contour definition; the presence of texture or visual noise; the stability or ambiguity of forms; and the type of reading required from the observer (immediate or prolonged). The use of these criteria allowed a more consistent comparison of the variations introduced by each material. A predominantly qualitative and observational analysis was adopted, centered on artistic practice and the formal reading of images, rather than on the direct collection of data from external observers, since this research corresponds to an initial and exploratory phase of the investigation. The main objective of this stage was not to measure

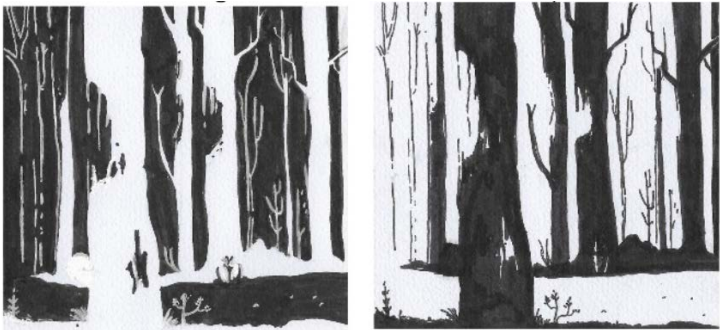
emotional responses quantitatively, but to understand how specific visual and material variables may suggest distinct perceptual atmospheres and potentially influence the observer’s emotional experience. This approach made it possible to establish a solid theoretical and experimental basis for future stages of the research, in which a reception analysis involving participants may be incorporated.

Fig. 2. Experimental trials of the same image across various techniques and materials.



In the exercises carried out, as shown in Figure 2, the image was in some cases constructed in positive and in others in negative. This variation made it possible to observe how the inversion of contrast alters the visual weight of forms and, consequently, the atmosphere. When black becomes dominant, the composition tends to acquire a denser and more immersive quality, approaching an atmosphere of enclosure or oppression. In contrast, when white occupies most of the visual field, the image presents a greater sense of openness and visual breathing. Thus, the distribution between light and dark alters not only the formal reading of the image, but also the way the observer experiences its environment.

Fig. 3. Forest with markers.



In the images produced with marker (Fig. 3), contrast appears in a direct and uniform way, through opaque and continuous filling that clearly defines the limits between black and white. The absence of tonal variation contributes to the construction of stable and easily identifiable silhouettes, promoting an immediate reading of the image. In this context, the forest appears as a more compact visual block, reinforcing a sense of rigidity and spatial enclosure. The absence of intermediate gradations intensifies the opposition between figure and ground, producing a more abrupt visual tension that may be interpreted as being associated with states of alertness or unease. From a perceptual point of view, this formal clarity tends to reduce ambiguity, guiding the gaze in a more controlled way and limiting the observer's need for interpretation. In this sense, the image may be perceived as more structured and less ambiguous, resulting in a more direct reading. However, this may also reduce interpretative openness when compared to images with lower contrast or greater tonal variation, in which the observer is led to participate more actively in the construction of meaning.

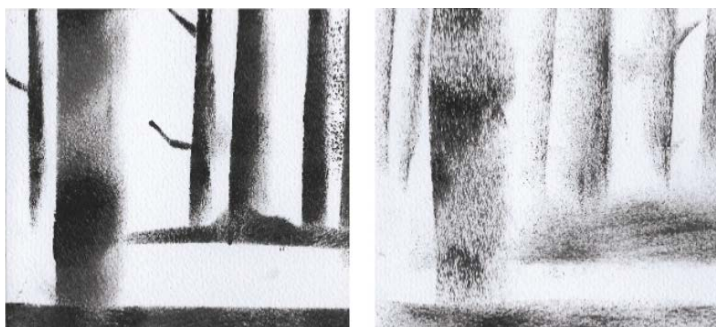
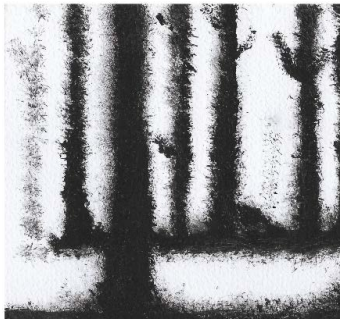


Fig. 4. Forest with sponge.

When the same drawing is executed using a dry sponge (Fig. 4), the presence of a more granular texture and the introduction of tonal variations result in a less defined and more unstable image. The trees cease to assert themselves as fully stable and visible silhouettes and instead present diffuse contours and transition zones, where black dissolves into intermediate grey values. This reduction in formal sharpness contributes to a decrease in direct contrast between figure and ground, resulting in a slower and more attentive reading, inviting the observer to mentally complete the forms. The more abstract the configuration becomes, the more space opens for the projection of personal experiences. In this context, the image tends to suggest a more unstable and indeterminate atmosphere, which may be associated with states of diffuse anxiety, characterized by difficulty in clearly defining the source of tension. The use of woodcut (Fig. 5) introduces a more evident material dimension, marked by the resistance of the support and the irregularity of the cut.

The technical process, conditioned by the natural grain of the wood, results in more rigid, irregular, and less controlled strokes. The texture of the material remains visible in the print, introducing visual noise and

Fig. 5. Woodcut forest.**Fig. 6.** Acrylic-painted forest.

a sense of weight resulting from the resistance of the wood. This material presence accentuates the contrast between black and white areas, resulting in denser and more dominant visual masses. This formal aggressiveness may contribute to the construction of atmospheres of tension, conflict, and oppression, characteristics frequently associated with the visual representation of anguish and fear. In contrast, softer techniques such as acrylic painting (Fig. 6) allow a more gestural and organic approach to the stroke. The brush mark assumes an expressive character that reveals the artist's gesture and introduces greater fluidity in the construction of the image. Although contrast remains present, its application becomes less rigid when compared to woodcut. This formal instability may suggest an

oscillation between tension and relief, contributing to a more ambiguous and emotionally complex reading of the image.

On the other hand, the paper cut-out technique introduces a distinct approach to high contrast, based on formal simplification and the precise definition of shapes. Unlike more gestural or textured techniques, cut-out presents sharp edges, flat surfaces, and an immediate graphic separation between figure and ground. This visual clarity reduces tonal ambiguity, but may intensify the symbolic weight of the composition through formal rigidity and the absence of intermediate transitions. The image becomes quieter and more restrained, suggesting an atmosphere of suspension and seriousness. In this context, cut-out does not necessarily produce tension through visual aggressiveness, but through containment, absence, and economy of elements, allowing a subtler yet equally dense emotional reading.

4. Conclusion

The comparative analysis of these exercises demonstrates that high contrast between black and white does not act in isolation in emotional evocation. On the contrary, it is deeply conditioned by the materiality and the technique that give it form. Each material introduces specific variations of texture, density, gesture, and resistance, which influence the way the observer organizes the image and responds to it emotionally.

Thus, the expression of anxiety is not constructed solely through chromatic opposition, but through the interaction between contrast,

material, and active perception. The forest drawn with marker produces a rigid and immediate sense of enclosure; the dry sponge creates a field of uncertainty and dissolution; woodcut generates an atmosphere of oppression and conflict; and acrylic paint suggests instability and oscillation. In all cases, technique emerges as a decisive expressive agent in the visual construction of anxiety as an ambiguous and unstable psychological state.

The comparison between techniques makes it possible to observe that materiality changes not only the stroke itself, but also the way the observer perceptually structures the image. The following table summarizes some of the relationships observed between the formal characteristics of each material and the perceptual atmosphere suggested.

Technique	Formal Characteristics	Observer Perception
Marker	Opaque and continuous filling; defined silhouettes; direct contrast.	Immediate reading; rigidity; enclosure.
Dry Sponge	Granular texture; tonal gradation; less defined contours.	Visual ambiguity; slower reading; uncertainty; diffusion.
Woodcut	Irregular stroke; less control; abrupt contrast; visible texture.	Tension; conflict; oppression; aggressiveness.
Acrylic Paint	Gestural stroke; organic variation; greater fluidity.	Instability; oscillation; sense of movement.
Cutout	Sharp edges; flat shapes; direct graphic contrast.	Ambiguity; restraint; seriousness.

Table. 1. Comparative table of the various techniques used.

Although exploratory in nature, this brief study demonstrates that the materiality of drawing plays a determining role in the intensification, modulation, and transformation of the emotional experience evoked by high contrast. Anxiety, understood here as a state of tension and oscillation between fear and courage, is not constructed only through the opposition between black and white, but through the way this opposition is materially produced. In the field of illustration, this approach reinforces the importance of understanding materials not merely as means of execution, but as active participants in the production of meaning and in the observer’s emotional experience. Thus, it can be concluded that high contrast is not intrinsically associated with the visual representation of anxiety. Its capacity to evoke emotional tension depends on the way it is materially constructed, that is, on the relationship between technique, support, gesture, and perception. It is this combination that transforms chromatic contrast into a truly expressive device.

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References

1. Arnheim, R. (2005) [1980]. *Arte e percepção visual: Uma psicologia da visão criadora* (I. T. Faria, Trad.; V. di Grado, Supervisão Ed.; E. Sooma, Participação; 12a ed.). Livraria Pioneira Editora.
2. Pastoreau, M. (2014). *Preto: História de uma cor*. Orfeu Negro.
3. Fine, A. (2022). *Color theory: A critical introduction*. Bloomsbury Visual Arts.
4. Gombrich, E. H. (2002). *Art and illusion: A study in the psychology of pictorial representation* (6th ed.). Phaidon.
5. Dondis, A. (1973). *A Primer of Visual Literacy*. MIT Press.
6. Gorey, E. (2002). *The Object-Lesson*. Harper.
7. Ward, L. (2004). *Gods' man*. Dover Publications.
8. Elkins, J. (2005) *What Painting Is*. Taylor & Francis.
9. Ingold, T. (2013) *Making: Anthropology, Archaeology, Art and Architecture*. Taylor & Francis.
10. Candy, L. (2006) *Practice Based Research: A Guide*. CCS Report: 2006-V1.0. University of Technology, Sydney: Creativity & Cognition Studios. Retrieved from <http://www.creativityandcognition.com>

Time Manipulation in Animation The Plasticity of the Animated Body

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Abstract

This research aims to explore and formalize the concept of the plasticity of time and the body in animation, as well as the role of the animator as a manipulator of movement, temporality, and form. It addresses the manipulation of time in animation, the strategies through which animators shape temporal experience, and the ways in which the animated body is transformed in order to render time plastic and expressive. To examine these questions, this study undertakes an analysis of the 12 principles of animation developed by Walt Disney Productions as a historical formalization of animated movement, while also considering broader animation practices that have expanded and redefined these principles. In parallel, it engages in philosophies from different scholars who have focused on the plasticity of time, such as Catherine Malabou, Gilles Deleuze, and Henri Bergson, in order to think of animation as an autonomous audiovisual medium with its own temporal logic.

1. Introduction

Animation is one of the most singular artistic media, distinguished by its capacity to construct movement, time, and embodiment frame by frame. Encompassing traditional hand-drawn practices, stop-motion, digital two-dimensional animation, and three-dimensional computer-generated imagery, animation exists in multiple forms; however, this study focuses primarily on two-dimensional animation and its unique relationship to time and bodily transformation. Unlike live-action cinema, where movement is captured from reality, animation produces movement artificially, assembling life from stillness through the deliberate succession of images. In this sense, the animator is not merely an observer of motion, but its architect.

The animator occupies a unique creative position: there are no autonomous actors, no spontaneous gestures, and no movement independent of intervention. Every action, expression, pause, acceleration, and transformation is consciously constructed. More significantly, animation

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Animation; Time;
Manipulation; Plasticity;
Body.

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grants the creator direct control over temporality itself. Time in animation is not simply represented; it is manipulated, stretched, compressed, fragmented, and reorganized according to expressive, narrative, and rhythmic needs. Through this temporal plasticity, animation establishes a mode of experience fundamentally distinct from other audiovisual media.

This manipulation of time is inseparable from the transformation of the animated body. Freed from biological, physical, and anatomical constraints, animated figures can deform, expand, collapse, fragment, or metamorphose entirely, generating movements impossible in lived reality. These distortions are not merely stylistic exaggerations, but mechanisms through which animation reconfigures temporal experience itself, rendering duration elastic, rhythm unstable, and becoming visibly material. In this sense, the animated body becomes a site where time is made plastic.

To explore these concepts and notions, we will first examine Disney's animation principles and their formalization of time and bodily movement, as well as their influence on the broader and more experimental world of animation.

By placing these formal developments in dialogue with the philosophies of Catherine Malabou, Gilles Deleuze, Aristotle, and Henri Bergson, this study argues that animation should be understood as an autonomous medium, one that does not merely depict movement in time, but constructs its own temporality through plastic transformation.

2. The Formalization of Time Manipulation in Animation

We can consider that animators' manipulation of time and the body began to be formalized when Walt Disney Productions identified and named the 12 principles of animation in the book *The Illusion of Life: Disney Animation*, authored by its former animators Frank Thomas and Ollie Johnston and published in 1981[1]. Some of these principles are more closely linked to the audiovisual aspects of cinema, while others form the foundation for the transformation of time and the body in animation.

Squash and stretch is used to elongate and compress a body or parts of it. As the first principle, it is also one of the most important, as it provides malleability and flexibility to animated objects, as we can see in fig. 1, where the body of Mickey Mouse is completely



Fig. 1. *Steamboat Willie*, 1928, Walt Disney Studios.

stretched and distorted [3]. Anticipation reinforces movement by introducing preparatory action, while exaggeration pushes motion beyond natural limits in order to intensify expression. Together with timing—the control of duration, rhythm, and speed—these principles reveal how animation constructs movement not through imitation of reality, but through the plastic manipulation of body and time.

Principles such as follow through, arcs, and timing further develop this relationship between bodily movement and temporal construction. Follow through refers to the continuation of motion in secondary parts of the body, such as hair, clothing, or limbs, which often persist after the main action has stopped, as seen in the animation of one of the dwarfs in *Snow White and the Seven Dwarfs* (fig. 2), animated by Fred Moore [4]. This persistence of motion produces a sense of continuity that extends beyond the primary action,



Fig. 2. *The Illusion of Life*, p. 61; *Snow White and the Seven Dwarfs*, Fred Moore, 1936.

reinforcing the perception of lifelike movement. Arcs, in turn, organize motion along curved trajectories, contributing to its fluidity. Among these principles, timing is particularly fundamental, as it determines the duration, rhythm, and structure of movement across frames, making it central to animation's manipulation of time. Closely related are slow in and slow out, which describe the acceleration and deceleration of movement, emphasizing how actions tend to gather and release energy gradually, much like a pendulum.

Other principles, such as staging and secondary action, are more closely connected to cinematic composition and narrative clarity, while concepts like solid drawing and appeal ensure coherence, volume, and expressive design. Finally, the distinction between straight ahead and pose-to-pose animation reflects two different approaches to temporal construction: one prioritizing spontaneity and fluidity, the other prioritizing control through pre-established keyframes.

Taken together, these principles articulate a systematic framework through which animation achieves precise control over time and the plastic transformation of the body. Although they were formally codified in the 1980s, Walt Disney Productions had already been developing these principles since its earliest animations. Through films such as *Snow White and the Seven Dwarfs* (1937) [3] and *Fantasia* (1940) [5], and even earlier in the short film *Steamboat Willie* (1928) [3], Disney animators began developing the concept of an animatable body. The foundational principles of their animations focused on exaggerating and metamorphosing a character's body to create movement that went beyond reality, capable of conveying life to the viewer.

One might argue that the practice of animation closely resembles that of a scientist or physicist: it is grounded in the observation, manipulation, and reconfiguration of time and bodily movement. Its aim is not merely to reproduce reality, but to construct the illusion of reality, and, through that illusion, to animate matter with the semblance of life.

Fig. 3. *The Illusion of Life*, p. 137; *Snow White and the Seven Dwarfs*, Bill Tytla, 1936.



Frank Thomas and Ollie Johnston reveal that, in their view, every still image in an animation should be “flooded” with life. In other words, a static image should convey movement and, above all, life. It should not attempt to imitate reality as closely as possible, but rather communicate to the viewer that the character, body, or form is animatable. Noses, ears, clothing, and hair seem to change material; they become more malleable, more animatable, and, to the viewer, alive. Individually, these drawings may appear grotesque; however, when placed along the timeline, they fit together, creating dynamic movement, as we can observe in fig. 3.

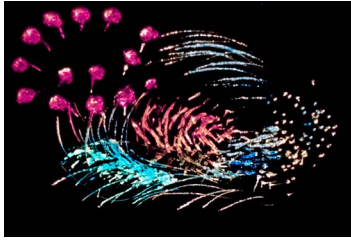
“Our main search was for an ‘animatable’ shape, one that had volume but was still flexible, possessed strength without rigidity, and gave us opportunities for the movements that put over our ideas. We needed a shape that was a living form, ready to move - in contrast with the static form. We used the term ‘plastic,’ and just the definition of the word seemed to convey the feeling of potential activity in the drawing.” [6]

To this day, the influence of Walt Disney Productions on animation worldwide remains undeniable. After the release of *Steamboat Willie* (1928), the studio established aesthetic and technical conventions that would shape the development of the medium for decades. Many animation studios, some founded by former Disney animators, adopted and adapted these stylistic principles, particularly the emphasis on expressive movement, character performance, and the plastic manipulation of the animated body.

In the United States, this influence can be seen in productions such as *Looney Tunes* (1930–1969), created by Warner Bros., where Disney’s concern with character animation was reinterpreted through a more exaggerated and comedic lens. In these cartoons, characters frequently stretch, flatten, explode, and recombine, pushing the plastic potential of animation to its limits in service of physical humor and rapid visual transformation. Other American studios, such as Hanna-Barbera and United

Productions of America (UPA), further expanded the possibilities of the medium, either by adapting Disney's principles to television production or by exploring more graphic and stylized visual approaches.

Beyond the United States, Disney's legacy of movement and bodily transformation also resonated strongly within experimental and art



animation traditions, though often in radically different ways. While Disney employed plasticity to reinforce character, weight, and the illusion of life, Norman McLaren's *Blinkity Blank* (1955) (see fig. 4) [7], produced at the National Film Board of Canada, transformed movement itself into the subject of animation. Scratched directly

Fig. 4. *Blinkity Blank*, Norman McLaren, 1955.

onto film, its flickering lines and constantly mutating figures reject bodily stability, presenting animation as pure rhythm, transformation, and temporal flux rather than as the coherent simulation of physical life. In this sense, where Disney sought to animate bodies, McLaren animated movement itself.

Similarly, Soviet and Eastern European stop-motion animation developed its own distinctive interpretations of character plasticity, most notably in the work of Yuri Norstein, in films such as *Hedgehog in the Fog* (1975) and *Tale of Tales* (1979) [8] [9], which combine poetic imagery with subtle transformations of form and movement, and Jan Švankmajer, in works such as *Dimensions of Dialogue* (1983) and *Darkness, Light, Darkness* (1989) [10] [11], where he uses clay to deform the human body to its limits.

Whether employed for physical comedy, visual exaggeration, abstract rhythmic motion, or poetic metamorphosis, the plasticity of the animated body, or of animated form itself, became one of animation's defining global characteristics.

3. Le voir venir on animation

Ollie Johnston and Frank Thomas claimed that by making each drawing malleable and alive, the animator was working in the "fourth dimension." Cassandra Guan also engaged with this idea and, together with the philosophical theories of Catherine Malabou, deeply reflected on the passage of time in animation in her article *What is the Work of Animation? The Plasticity of Time in the Fourth-Dimensional Image*. Inspired by *The Illusion of Life: Disney Animation* [12], Guan argues that time in animation is highly malleable, since "(...) animation creates its own temporality when it allows the spectator to perceive the future as active potential and history as affective residual, making it apparent that time is not always simultaneously, successively and substantially the same as itself." [13]. Guan explains that, thanks to the life-filled drawings described by Thomas and Johnston, the viewer is able to experience what Malabou termed *le voir venir*⁴,

⁴ *Le voir venir*, meaning "see what is to come," a term coined by Catherine Malabou in her 1996 book *L'avenir de Hegel: Plasticité, temporalité, dialectique*, translated into English as *The Future of Hegel: Plasticity, Temporality and Dialectic* in 2004. [14]

that is, seeing what is to come [10]. Thus, a static frame in animation opens up infinite possibilities, both of the past and of the future. According to Guan, this *le voir venir* is a phenomenon that exists only in animation.

“Following Malabou’s critique of time in classical ontology as “a sequence of nows” (1996/2004, p. 15), we can say the mechanical time of the cinematographic apparatus has no history and no future. It is blinded by the endless procession of present instants.” [13]

Here, we can trace a clear distinction between cinematic time and animated time. Cinema unfolds as a sequence of “nows,” whereas in animation, the animator chooses what to place within the 24 frames that make up a second and how to divide them so that the distorted body gives rise to the illusion of life. Thus, we may argue that the manipulation of time and the body is intrinsically linked to animation rather than to audiovisual cinema.

Guan’s theory, through Malabou’s perspective, opens a new way of reflecting on the passage of time in animation as a unique phenomenon tied to this technique of creating movement through images arranged in a temporal sequence that the animator can alter.

In *The Multidisciplinary Journal of Science and Technology*, Vol. 5, No. 4, Sardor Kurbonov argues in his article *Time and Movement: The Concept of Time in Animation* that the theories of time proposed by Aristotle and Henri Bergson can be distinctly observed in animation.

“According to Bergson, time isn’t just external - it’s also a personal experience. Animation enables us to stretch time, slow down motion to deepen emotion, or depict how time feels based on a character’s internal state. Animation brings together both Aristotle’s and Bergson’s views on time.” [15].

This observation reflects the contrast between two philosophical conceptions of time. Aristotle defines time as the “number of movement according to before and after,” [16] meaning that time functions as a measurable order of change. Animation reflects this structure through the segmentation of motion into frames and intervals, allowing movement to be organized and controlled. By contrast, Bergson’s notion of duration, describes time as a continuous and qualitative flow of lived experience [17]. Psychological time expands or contracts according to emotional intensity rather than measurable units.

Kurbonov, however, separates the technical dimension from the narrative and subjective aspects of animation. While Bergson’s thinking aligns with the emphasis on plasticity explored by Catherine Malabou, Kurbonov does not fully account for what Disney animators achieved: the formalization of techniques capable of expressing subjective time. Rather than separating the technical from the emotional, the principles of animation use measurable timing and movement, in an Aristotelian sense, to convey Bergsonian duration and guide the viewer toward the intended emotional experience.

4. The Dysfiguration of the Character

The theme of the image that carries the notion of temporal passage was addressed by Filipe Costa da Luz during his participation in the 7th SOPCOM Congress⁵ in 2011 [18]. Luz examines a predecessor of Malabou, Gilles Deleuze, and his work *Cinema 1: The Movement-Image* (1983) [19], relating it to Japanese animation, *anime*. Here, beyond dissecting the frames of Disney's animatable bodies, imperceptible at normal projection speed, the author directs attention to the anime industry and its extensive use of static frames [20].

He contrasts two types of animation in temporal terms: full animation, that involves almost total frame-by-frame movement, rarely allowing a complete "freeze." This includes works by Norman McLaren [7] and even Disney animators, who, although exploring temporal rhythm, seldom freeze the entire image. On the opposite end lies multiplane animation⁶, commonly found in Japanese animation. Luz describes it as a total fragmentation of movement, where still images appear before and after any motion. Often used to intensify suspense or emotion, these frames are frequently rich in detail and dynamic composition despite their static state.

According to Luz, this type of animation is as powerful as full animation. Drawing on Deleuze's movement-image, these still images are filled with virtual movement. Anime frames present themselves as mobile cuts rather than immobile ones; they represent movement and live suspended within it. The animator, as their manipulator, "must visualize real movement within the drawing" [21].

"These non-movements enhance motion virtually through the viewer who has time to observe the details of the projected moment. In this way, the director can manipulate the viewer by creating emotional tensions through pauses in the action, but reveals the drawing technique used due to the lack of movement in the projected images?" [22]

With time, Japanese animation has begun to evolve, while still maintaining multiplane techniques. Notably, director Masaaki Yuasa has produced anime series over the years with a highly distinctive style. Works such as *Ping Pong the Animation* (2014), *Devilman Crybaby* (2018), and more recently the feature film *Inu-Oh* (2021) have marked a new era of experimental animation that is gradually entering the commercial sphere [23] [24] [25].

5 7th SOPCOM — Digital Media and Creative Industries, at the University of Porto, from December 15th to 17th, 2011. Held every two years, rotating between Portuguese universities, this congress aims to bring together the national scientific community and promote the development of Communication Sciences in the country. The theme of this edition was "Digital Media and Creative Industries - the effects and challenges of Globalization", around which plenary sessions and working sessions were organized within the specific Thematic Groups of the association. [18]

6 Multiplane animation is a type of animation that combines multiple still images with small artificial movements in order to create illusions of movement with little effort and without creating multiple frames. This type of animation is found in low-budget productions and is very popular in Japanese animation, *anime*.

7 Original text in portuguese: "Esses não-movimentos potenciam moção virtualmente através do espectador que usufrui de tempo para observar os detalhes do momento projectado. Deste modo, o realizador pode manipular o espectador criando tensões emotivas através de pausas na acção, mas revela a técnica do desenho utilizada devido à falta de movimento das imagens projectadas." [22]

Fig. 5. *Ping Pong: The Animation*, Masaaki Yuasa, 2014.



Fig. 6. *Devilman Cry-baby*, Masaaki Yuasa, 2018.



Yuasa pushes to the extreme the teachings of *The Illusion of Life: Disney Animation* [1] and, contrary to what Thomas and Johnston suggest, does not conceal them. His animations, characterized by a more realistic and anatomically correct appearance, tend to stretch and deform at emotional peaks or during intense movements (see fig. 5 and fig. 6). The final result evokes a sense of *the uncanny valley*. This deformation is not hidden but openly displayed. Frames cease to be animated at the typical 24 or 12 per second, and the viewer is confronted with only four to six drawings per second, featuring a character completely distorted and unlike what had been presented before.

5. Conclusion

This study has examined animation not simply as a technique of representing movement, but as a medium that constructs its own temporal and corporeal logic. While Disney's codification of animated motion remains a crucial historical benchmark, particularly in its formalization of weight, elasticity, and expressive bodily transformation, it represents only one moment in a much broader and continually evolving field of animation practice. Experimental animation, independent productions, and contemporary digital works have expanded these principles far beyond character realism, exploring distortion, abstraction, fragmentation, and temporal discontinuity as central aesthetic strategies.

From Norman McLaren's radical transformations of drawn movement to the fluid corporeal instability of Masaaki Yuasa's animation, where bodies stretch, collapse, dissolve, and recompose themselves according to emotional and rhythmic intensity, animation reveals itself not as a medium defined by fidelity to life, but by its capacity to invent new forms of movement, new temporalities, and new configurations of embodiment. In this context, Catherine Malabou's concept of *le voir venir* becomes particularly relevant, allowing us to understand animation as a plastic medium in which form is never fixed, but constantly emerges through transformation, rupture, and becoming.

Animation should therefore be understood not through the historical lens of Disney alone, but as an autonomous medium whose defining force lies in its unique capacity to manipulate time, reshape the body, and make transformation itself visible.

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6. References

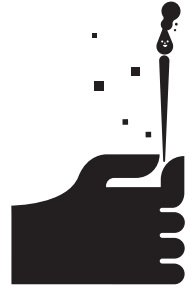
1. Thomas, F., Johnston, O.: *The Illusion of Life: Disney Animation*. Hyperion, New York (1995) (Original work published 1981)
2. Thomas, F., Johnston, O.: *The Illusion of Life: Disney Animation*. Hyperion, New York (1995) (Original work published 1981). Pg. 10.
3. Walt Disney Studios: *Steamboat Willie* (1928)
4. Walt Disney Studios: *Snow White and the Seven Dwarfs* (1937)
5. Walt Disney Studios: *Fantasia* (1940)
6. Thomas, F., Johnston, O.: *The Illusion of Life: Disney Animation*. Hyperion, New York (1995) (Original work published 1981). pp.35-36.
7. McLaren, N.: *Blinkity Blank*. National Film Board of Canada (1955)
8. Norstein, Y.: *Hedgehog in the Fog*. Sojusmultfilm (1975)
9. Norstein, Y.: *Tale of Tales*. Sojusmultfilm (1979)
10. Švankmajer, J.: *Dimensions of Dialogue*. Krátký Film Praha (1983)
11. Švankmajer, J.: *Darkness, Light, Darkness*. Krátký Film Praha (1989)
12. Guan, C.: What is the Work of Animation? The Plasticity of Time in the Fourth-Dimensional Image. *Film-Philosophy* 28(3), 477--503 (2024). <https://doi.org/10.3366/film.2024.0281>
13. Guan, C.: What is the Work of Animation? The Plasticity of Time in the Fourth-Dimensional Image. *Film-Philosophy* 28(3), 477--503 (2024). <https://doi.org/10.3366/film.2024.0281>. Pg. 491.
14. Malabou, C.: *The Future of Hegel: Plasticity, Temporality and Dialectic*. Routledge, London (2004)
15. Kurbonov, S.: Time and Movement: The Concept of Time in Animation. *The Multi-disciplinary Journal of Science and Technology* 5(4), 434--436 (2025). Pg. 436.
16. Aristotle: *Physics*. Translated by R. P. Hardie and R. K. Gaye. In *The Complete Works of Aristotle*, edited by Jonathan Barnes. Princeton: Princeton University Press, (1984). IV, 219b1-2.

17. Bergson, H.: *Time and Free Will: An Essay on the Immediate Data of Consciousness*. Translated by F. L. Pogson. New York: Humanities Press (1910)
18. Universidade do Porto: 7.º SOPCOM: Meios Digitais e Indústrias Criativas — Os Efeitos e os Desafios da Globalização. Available at: [https://sopcom2011.up.pt/\(2011\)](https://sopcom2011.up.pt/(2011))
19. Deleuze, G.: *Cinema 1: The Movement-Image*. The Athlone Press, London & New York (1983)
20. Luz, F.C.: *O Movimento Desfragmentado da Animação Japonesa: A Ilusão Animé*. In: VII
21. Luz, F.C.: *O Movimento Desfragmentado da Animação Japonesa: A Ilusão Animé*. In: VII. Pg. 602
22. Luz, F.C.: *O Movimento Desfragmentado da Animação Japonesa: A Ilusão Animé*. In: VII. Pg. 609
23. Masaaki Yuasa, M. (Dir.): *Ping Pong the Animation*. Tatsunoko Productions (2014)
24. Masaaki Yuasa, M. (Dir.): *Devilman Crybaby*. Science SARU (2018)
25. Masaaki Yuasa, M. (Dir.): *Inu-Oh*. Science SARU (2021)

Error as a creative possibility in animation

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Abstract

This article explores the relationship between error and time in animation as a creative possibility. In this sense, it understands animated time as a construct that emerges from the relationship between frames, interstices and their perception.

From this perspective, error ceases to be understood exclusively as a technical fault and is instead approached as a contextual phenomenon. It can manifest itself both at a specific level—in a particular frame—and at a structural level, affecting the organisation of rhythm, duration and the perceptual experience. Thus, error is presented as a dissonance that not only alters, but can also intensify the viewer's temporal experience.

Within this framework, we explore how the recontextualisation of discarded images, derived from various animation processes, transforms our understanding of error, shifting it from waste to productive material. This allows us to rethink its definition and understand it as an operator that reveals the construction of animated time.

The article is based on the practice-based artistic research project entitled *El tiempo del error*, carried out with the support of the Pontificia Universidad Javeriana, the Universidad Nacional Autónoma de México (UNAM) and Moebius Animación.

1. Introduction

This article argues that error in animation opens up creative possibilities by intervening in the construction of time: it can alter its perception, reveal how it is constructed, and allow other forms of temporality to emerge, even though for most people it is merely a flaw. In this context, our main interest is to share this exploration of the relationship between error and time as a creative possibility in animation.

This stems from the interdisciplinary practice-based artistic research project entitled *El tiempo del error*. At the heart of this project is a collection of discarded animation frames and sequences from various films and filmmakers that were donated to us; with these, we have built up a huge archive of errors. Using this material, we have developed creative experiments from which our theoretical reflections derive.

Keywords

Error; Experimental animation; Practice-Based Artistic Research.

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We began with two questions which, far from having a single answer, ended up triggering several more questions. How does error in animation affect the perception of time? Does error reveal the construction of animated time?

In the search for possible answers, we engaged in dialogue with various authors whose research broadened our framework for reflection on time and error in the audiovisual media. Marie Anne Doane, in her text *La emergencia del tiempo cinematográfico: la modernidad, la contingencia y el archivo* (*The Emergence of Cinematic Time: Modernity, Contingency and the Archive*) [1], examines how cinema, in the late 19th century, emerged as a response to the modern need to manage contingency, chance and the fleeting nature of time—a central theme in our research. In turn, Clément Chéroux's book, *Breve historia del error fotográfico* (*A Brief History of Photographic Error*) [2], enabled us to understand its nature beyond mere technical failure, opening up the possibility of considering it in relation to its creative and critical potential. Along the same lines, the reflections proposed by Alejandro Schianchi in the essay *El Error en los aparatos audiovisuales como posibilidad estética* (*Error in Audiovisual Apparatus as an Aesthetic Possibility*) [3] offered insights into considering machine-induced faults not as anomalies, but as forms capable of being re-signified within the creative process. Additionally, exchanges with colleagues provided situated perspectives on the ways in which error and uncertainty are addressed in different creative processes, thereby enriching the field of reflection in which this work is situated.

This framework is articulated through an artistic research approach in which error is not only the object of analysis but also the material of the work: through experimentation with one's own and others' errors. Their potential for transformation and their impact on the construction of another animated time are explored, an aspect that will be developed in detail later.

This article sets out the reflections we consider most significant, in dialogue with one of the practical outcomes emerging from the process. The structure we propose moves, firstly, towards an understanding of animation as a temporal construct; subsequently, it focuses on error within animation, from its technical, perceptual and contextual dimensions, as well as from its aesthetic potential. Finally, the project *El tiempo del error* is presented alongside *El Erroroscopio*, a machine designed to view errors, created within the framework of this project.

Why is error in animation such a critical issue? What concerns does this concept raise? To what extent can we draw the boundaries between error and success in an artistic field characterised by its fluidity? Can we really clearly define what constitutes success and what constitutes error in animation? These questions invite us to consider error not as an imperfection, but as an essential component of the creative process.

Before continuing, it is worth clarifying that the errors in animation to which we refer are primarily linked to analogue techniques, such as animated drawing, object animation and stop motion, amongst others. And the type of works that interest us are linked to animation understood from the perspective of the arts or experimental animation.

2. Animation as a temporal construction

Error in audiovisual creation has always led us to think about time. When moving images are created, these—even if unsuccessful—are images that form part of a temporal flow, of a time. Temporal construction is most evident in animation, as duration is built frame by frame. In this way, our reflection will oscillate between the concepts of time and error.

We start from the idea that making animation consists of building time from frames or still images. Each frame is linked with other frames to create a temporal chain, which allows movement to be perceived in a ‘credible’ way. In other words, it is the sensation of movement that constructs the credibility of the image’s temporality. In analogue animation techniques, this process is more explicit; each image is worked on independently. Time in animation is produced in an artificial and controlled manner.

In early animations, it is clear that this construction of time is not entirely standardised. The appearance of the creator’s ghostly hand in some frames, his body intruding into the image, or certain abrupt movements, disrupt the flow of motion. At times, it is unclear whether these discontinuities are due to the copying process, a change of film reel, or simply a lack of attention to ensuring that the movement remained fluid at all times. An example of this can be seen in James Stuart Blackton’s *Humorous Phases of Funny Faces* (1906) [4]; at approximately 2 minutes and 25 seconds, fragments of the creator’s arm moving the cut-outs can be seen. The intrusions in this example allow us to see the animation process itself. At that time, perhaps the notion of error did not cross their minds, or at least it did not trouble those creators in the same way it does today.

In contemporary practice, the stability of animated time is highly valued. Consequently, in animation practice—regardless of the technique used—when one of the links in the temporal chain (frames) is altered, that moment is perceived as an ‘error’. This almost certainly means discarding the image and repeating it, to achieve the desired fluidity. This act of discarding is something every animator faces. In most processes of creating animated images, especially in an industrial context, if the image falters in any way, it is discarded, deleted.

However, the error in animation reveals the artifice; it becomes a point of entry into the technical process, a gateway to understanding the secrets of animation, as we saw in the example of Stuart Blackton above. It is in the interruptions, in the errors, that animated time can take on a different character, particularly in the field of experimental animation. Practices that stem from this approach uncover fissures that trigger creative processes. In the work of animators such as Cristóbal León, Joaquín Cociña and Niles Atallah, this logic shifts towards a conception of the work as something alive, closer to a body than to a closed object. From this perspective, imperfection emerges as an inherent quality. The irregular, the crooked, or even the ‘ugly’ highlight the work’s singularity, keeping it in an unstable state that resists standardisation and reveals its process [5]. It is clear that error—or what others might call error—diverts the course of the work. Georges Sifianos in *L’écrivain aveugle* [6], and

Nikita Diakur in *Ugly* [7], also construct an animated temporality from discontinuities, instabilities and deviations that, from a conventional perspective, might be called errors.

3. Error in animation

Error is often understood as a misguided action: to be mistaken is to take one meaning for another. But the Spanish verb *errar* carries a double sense. It means to err, to be wrong, and at the same time to wander, to stray, to move without a fixed direction. In that overlap, error is not only deviation, but also drift. It is in this movement that another possibility appears—not just failure, but the opening of an unforeseen path. As Clément Chéroux writes, “to err is the way serendipity wanders” (2009, p. 135). It is in this sense that our reflection unfolds.

We also agree with Chéroux when he argues that “Every error generates problems. But perhaps that is precisely where its interest lies” (13). We understand error as an alternative path, and also as a creative potential that poses problems for its creator. We do not seek to make a defence of error, but rather to follow the traces that these images may reveal to us in their relationship with time and their capacity for transformation.

Every artistic practice sets limits, codes that establish correct ways of doing things and what lies outside that field. This is why, when a discrepancy arises between what the artist expects from the work and its outcome, it causes the exhaustive framework they have constructed for its realisation to collapse. For example, when the material being worked with resists and breaks from its usual behaviour, it causes all the pre-established expectations to collapse. It is then that the concept of error emerges as the opposite of what one seeks to achieve: “Error reveals just how highly codified images are; in many contexts, creation strives to shield itself from the unexpected, to remain faithful to authorship, to the creator’s intention and will, to the nature of the medium, and to other external factors, such as pleasing someone of influence within an art institution, or being deemed worthy of exhibition in certain circles. Consequently, creation is surrounded by so many parameters and norms that, in the end, it shuns the accident, for it ‘tarnishes’ what is already clear—the repetition of a process that is already known,” argues Juan Carlos Arias [8].

However, if there is one field that tolerates the introduction of error, viewing it as creative potential, it is art. But this demands openness, taking risks to allow new forms to emerge. Art constitutes itself as “a language that establishes a particular and dangerous relationship with the rule. It always faces the need to transgress the norm in order to express the new, that which is yet to be, beyond what the codes dictate” (Schianchi, 11).

Error evokes deviation, that which strays from the straight path and distracts us. It is no coincidence that Schianchi reflects on the strong legacy we have inherited from philosophy and the classical sciences regarding madness—everything that deviates from established social norms and is singular. That is why our first reaction upon discovering that something is not working in the artistic process is rejection. And although, as we have previously suggested, art has established itself as a

space permeable to failure, one that allows for the estrangement of the familiar. Nevertheless, the classical idea of beauty through the perfect use of techniques still persists.

The artistic context is also marked by the need to turn art into a productive practice. Productivity will always entail the establishment of homogeneous forms of production, of codes that allow the utility of a 'product' or content to be easily recognised. This homogenisation establishes criteria created by artistic institutions regarding what functions 'correctly'; these indicate what will be well received by audiences. Considering the place of error within contemporary animation is a possible way to reverse and rethink these established logics, to rethink the way in which we have incorporated these codes, even in experimental practices.

It is essential to emphasise that the perception of what constitutes an error in animation can vary significantly. Errors in animation are often associated with unrealistic or unintended movements of characters or elements in the film. Among other things, an error in animation can range from a failure in a drawn frame or a poorly executed and confusing movement, to the inappropriate use of materials such as ink, charcoal or cut-outs. Furthermore, in the case of under-camera or stop-motion techniques, it may manifest as the inadvertent inclusion of a hand or other element in the shot, or inaccuracies in the lighting; a 'good' animation that fails to meet the director's expectations, glitches or bugs in the software used, and even problems with the camera or scanner can also be considered errors.

The moment a frame is removed from the timeline of an animated production because of an error leads us to ask the following question: what would happen if that frame were not changed and the sequence were allowed to 'limp' on? Most likely, the rejection would occur in two ways: on the one hand, the complaint about the incorrect movement; and if it is removed and not replaced, it would cause a slight alteration in the allocated timing of the action.

In the project *El tiempo del error*, which we will explain below, we started from the premise that these frames had been expelled from a timeline. They thus became errant frames. They had left a void in the montage, which would later be filled by the 'correct' one. However, they retained a trace of time. Their temporal nature did not disappear.

Our task was to find a temporality that would allow them to express their new condition. We were interested in exploring ways of inhabiting the error, generating unique readings of animated time based on the associations suggested by the images themselves.

4. Project: El tiempo del error

4.1. Project Description

The project *El tiempo del error* falls within the field of artistic practice-based research and explores the composition of animated time, through the use of frames discarded in other creative processes, initially understood as errors and donated by various animators. These images formed

the raw material for a collective experiment guided by the notion of image-time and by the question of what it means to conceive of animation from the perspective of error as a space for exploration. This process yielded various outcomes, including a website that serves as a repository of processes and a space for collaborative creation, as well as an essay-style film that explores, through fiction, the potentials and tensions of the image-time. However, in this article we will focus on *El Erroroscopio*, a machine designed to view errors, in which the reflections developed around error and its relationship with the construction of time in animation are most clearly condensed.

In this archive of images depicting people, animals, objects, hybrid beings, geographical features, landscapes and blurs—things photographed, drawn or constructed using various techniques and materials—the question arises: how can we detect or assign a sense of time to them? As long as these frames remain isolated, frozen images, they are nothing more than images. But when placed on a timeline, movement emerges. As Esther Leslie points out, “Things that once moved, but over time are stilled into stoniness, become petrified. In animation, the process is reversed: things that never moved by themselves are mobilized into movement. An originary petrification is jiggled into unrest.” [8](Pg. 76).

Although the images that made up our archive had been left outside of time, we wanted to free them from their petrification by trusting in their temporal secret. Thus, our archive would make sense precisely at the moment the frames were activated through the exercises and workshops we proposed; each would belong to different timelines depending on the use each person made of them. This led us to consider that, being digital in nature, the archive of frames remains unaffected, as it is possible to download the same image as many times as one wishes, transform it, incorporate it into different timelines, and thus expand the archive until it becomes infinite.

In the same way that the frames opened up infinite paths for creation—through the visual information they contained and through free association, metamorphosis, cycles, and more—they also expanded the spectrum of temporal construction. In this way, errors came to form different timelines and different durations.

To this exercise we added the physical, the analogue, we printed the series of errors on paper and then filmed them on 16mm film. Our intention was to enable the errors to find a new timeline from which to draw their power. It was not enough to carry out the exercises in which we saw errors parade through different organisations, revealing their random and indeterminate nature. We chose to create a machine in which these frames would dictate the rhythm and temporal speed. It was the best way for them to assert their disruptive nature through this device.

4.2. El Erroroscopio

Our intention was also to build bridges between technologies, to bring into play the computer-controlled analogue device that interacts with the light emerging from the filmed frames. Based on this information, the

machine moves at different speeds, either forwards or backwards. It can also decide when to remain still; this is how we arrived at the idea of *El Erroroscopio*, a machine for viewing errors. *El Erroroscopio* is a projector that obeys different logics of time; it proposes rhythms that do not correspond to the speed of a traditional projector, but rather it is the light emerging from the frames that makes it function.

The machine uses the translucent nature of the film and measures the amount of light that allows it to pass through a random frame from the erratic archive, converting that variable into a unique luminous imprint. This data activates the mechanism that drives the reels; their direction and speed are governed exclusively by the luminous nature of the error. This flow of movement is projected onto a screen positioned in front of the viewer. Anchored at the centre of the machine is a balloon that expands and contracts at a constant rhythm—a measure of time, but not linear time, rather organic time, obeying the body's impulses.

El Erroroscopio also functions as a slot machine, alluding to the Liberty Bell, or 'poker machines' as they were known in the late 19th century; as the reels spun, the symbols would come to rest in different positions on the wheel. If three matching icons landed on the payline, the player would win coins in return. The use of coins in our case is a nod to the famous phrase 'Time is money'. In our case, once the action is performed, *El Erroroscopio* stops and restarts its disordered cycle when another coin is inserted.

Two additional prototypes of *El Erroroscopio* were developed. In one of them, a heart rate sensor was incorporated into the projector. In this way, the machine is activated by the observer's heartbeat when they place their right finger on the sensor. In the second prototype, the observer wears glasses connected to the machine via a sensor. Every time they blink, the projector stops.

To see *El Erroroscopio* in action, please visit the following link: <https://eltiempodelerror.moebiusanimacion.com/web/#/maquina>



Fig. 1. *El Erroroscopio*. In the background are the printed stills that were later filmed on 16mm film. Photo by Cecilia Traslaviña, 2023.

Fig. 2. The frames are published on our website, <https://eltiempodelerror.moebiusanimacion.com>, where they are organized into categories for easy visualization, all of them can be downloaded and freely used for experimentation.



4.3. Researchers and participating organisations

The project *El Tiempo del Error* was carried out by an interdisciplinary team comprising Cecilia Traslaviña (direction, research, animation and coordination), Alejandro Forero (research, web development and co-creation of *El Erroroscopio*), Tania de León Yong (research and animation), Diego Araque (creation of *El Erroroscopio*), Bibiana Rojas (camerawork, direction and editing), Carolina Lucio (sound engineering and sound design), Sol Molina (research, camerawork, animation and assistance) and Santiago Ordóñez (original concept and animation). The frames were donated by: Diego Cortés, Carla Melo, Bibi Rojas, Simón Gerbaud, Joaquín Cociña, Cristóbal León, Tania de León, Sheila Sofian, Ana Caro, Laura Benavides, Santiago Ordóñez, Tatiana Vaca, Catalina Giraldo, Isabel Herguera, José Ángel García Moreno, Juan Camilo Fonnegra, Julián Arias, María Lorenzo, Paul Bush, María Cristina Pérez, Amanda Woolrich, Antonia Bello, Emilce Ávalos, Mariana Dicker, Pablo Ballarín, Sol Molina, Aspasia Kazeli, María Angélica Chalela, Juliette Pons, Laura “pollo” Avila, Martina Scarpelli, Sophia Bazalgette, Jaime Cleeland, Ana María Vallejo, Cecilia Traslaviña.

Fig. 3. Creative process, material intervention: an animator directly altering a printed frame as part of the experimental workflow.



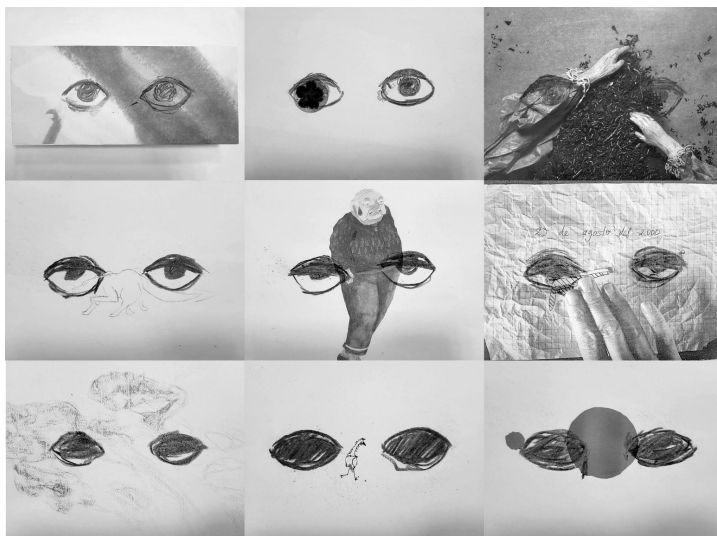


Fig. 4. Sequence of intervened frames.



Fig. 5. Frames displayed on the wall, allowing participants to move around and select the ones they wish to work on.

The project was supported by the Pontificia Universidad Javeriana (Colombia) and the Universidad Nacional Autónoma de México. It was carried out between 2022 and 2024. The project website is <https://eltiem-podelerror.moebiusanimacion.com/web/>

5. Conclusions

What led us to reflect on the constitution of animated time in our project was that fleeting and seemingly insignificant moment in which the missing frame was needed to complete the sequence's temporality. It took us back to the moment when it was decided that twenty-four frames would equal one second. 24, 25, 30, 60, but always a fixed number that has to do with the device that projects. It is designed to function in that way. We have taken this convention for granted when making a film, forgetting that we can open that black box containing the secrets of filmmaking and

reveal them, alter them, and also find creative potential there, as we can see in experimental animation. We are interested in dismantling these codes and creating a sense of estrangement from what we already know.

In addressing the complexity of error in creation, we have encountered various interpretations of this concept, which vary depending on the type of animation we analyse. It can be viewed as an imperfection or as a window through which to gain a deeper understanding of the technical and creative processes we undertake. For us, understanding its causes is not as important as recognising the power it holds to stimulate the imagination and the creative process. Working from error provides a starting point, a destination, or the possibility of navigating within a new temporal construction. It is an excuse to question standards and rules that have previously been established regarding the 'correct' production of an animation.

Working with images discarded by others led us to begin our repertoire, which opened up new paths, allowed us to find new meanings in the errors, and rethink the idea of individual authorship to promote collective creation. Time will remain a major question and a place to which we will undoubtedly return. The field of animation is fertile ground for thinking about and altering established temporalities.

This exercise remains open for future research and creation.

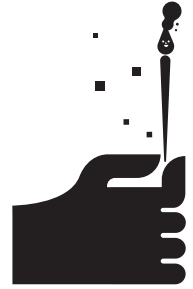
References

1. Doane, M. A.: La emergencia del tiempo cinematográfico. La modernidad, la contingencia y el archivo. CENDEAC. Centro de documentación y estudios avanzados de arte contemporáneo, Murcia (2012)
2. Cheroux, C.: Breve historia del error. Ve S.A. de C.V. Oaxaca de Juárez (2009).
3. Schianchi, A.: El error en los aparatos audiovisuales como posibilidad estética. El Aleph. Buenos Aires (2014).
4. Stuart Blackton, J.: Humorous Phases of Funny Faces. United States of America (1906)
5. Atallah, N., Cociña, J., León, C.: Manifiesto Diluvio. In: Revista Cinemateca, 7. Alcaldía Mayor de Bogotá, Bogotá (2019)
6. Sifianos, G.: L'écrivain aveugle, France, Greece (2021)
7. Diakur, N.: Ugly, Germany, Russia (2017)
8. Arias, J.C.: Interview for the project El tiempo del error (2022).
9. Leslie, E.: Animation's Petrified Unrest. In: Buchan, S., Pervasive Animation. Routledge. London (2014).

Animation as a critical pedagogy: Exploring body image through a student film

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Abstract

The Brazilian educator Paulo Freire's idea of a pedagogy that empowers students, positioning them as active participants rather than passive observers, has been crucial to shaping the present article. The internet and media have moulded a new generation of learners who not only observe cultural changes but also express themselves in various radical creative forms, such as making reels, creating short-form content, and engaging with visual storytelling. In this article, we present a case study of creating an animation film, *Have You Met Blob (HYMB)*, that addresses body image and diet culture, specifically targeting adolescent and young adult females. The animation is part of a classroom project spanning a year-long timeline at the Department of Design, IIT Delhi. The literature on toxic diet culture and the role of media is first analysed to narrow down the story idea. The workflow and pipeline are established according to the narrative plot points, followed by production. The animation is created in five parts, each lasting five minutes, and each episode addresses a connected narrative featuring the protagonist, a blobfish. The appearance of the blobfish serves as a metaphor for body image, as it struggles to find its place in a world shaped by slimness and diet-driven culture. Each episode is made using a mix of animation techniques, including stop-motion, digital collage, hand-drawing, and compositing. The final part of this article discusses the importance of the film and its approach in the current educational system, supporting the Freirean critical pedagogy.

Keywords

Body Shaming; Diet Culture; Animation; Critical Pedagogy; Social Media; Student Film.

1. Introduction

This article positions a student-made animated short film as an instance of critical pedagogy within a higher education design programme, created as a capstone classroom project. The film was made by Ayushi, and my role as an academic supervisor was to bring the critical discourse required to guide the project. The film was made as part of a university's studio-based undergraduate design project that ran for a year, and became a site for critical analysis and student engagement. The film supports and builds on Freire's logic of transforming passive students into active co-creators of knowledge [1]. Freire's ideas about the radical transformation of pedagogy as a critical tool remain significant today, amid a growing authoritar-

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ian media that seeks to suppress voices. In this context, the student film becomes a collective voice of resistance [2]. Thus, Freire's pedagogy was most suitable as a central theory around which the film was conceived and made, since the film was conceptualised as a form of social dialogue.

The film conveys the story of a blobfish as a symbol of distorted body image and how it is affected by the propagation of internet beauty standards. As social media content becomes increasingly popular, animated micro-interventions have been shown to have immediate, positive emotional effects on young viewers [3]. Short animated content addressing topics such as discrimination and marginalisation has also been found to be effective across different user groups affected due to emotional and political reasons [4] [5]. These interventions are also the very forms of pedagogy that actively stimulate a social dialogue in accordance with Freire's methodology. The article initiates the discussion by presenting the prevalent toxic culture of body consciousness and dieting portrayed in social media. With the rise of social media platforms like Facebook and Instagram, they have become a major source for advertising products targeted at youth, selling false body images, negatively affecting their body perception and self-esteem [6] [7]. Thus, this article discusses the toxic social media culture that has led to the development of the animated short film, while situating the film as an example of critical pedagogy in the classroom.

2. Body in the Media

Since the 1980s, the relationship between media and body image has remained a subject of theorisation. Specifically, Naomi Wolf's foundational critique of beauty and culture helped bring this direction to light. Wolf argued that the modern beauty standard is not a universal agreement, but rather a social tactic to control and undermine women's progress [8]. While multiple factors shape perceptions of beauty, eating habits and dieting practices associated with achieving a slim body ideal are prevalent among youth [9]. Through media, it has been established that long-term exposure to the idealised representation of body image can lead to negative body image, disordered eating habits and low self-worth, particularly among young women and girls [10]. Additionally, with the rise of social media platforms, the problem has intensified, creating a complex dynamic that early theorists could not anticipate. In this context, the algorithmic nature of social media platforms like Instagram, Facebook, and TikTok promotes a streamlined reinforcement of body-related norms, in contrast to television or print media, which primarily utilise unidirectional promotional methods [11].

The notion of ideal thinness has deep roots in Western media, gradually spreading across multiple platforms ranging from celebrity gossip channels to lifestyle journalism and curated wellness content. In this context, diet culture operates as a broader ideological framework that assigns moral value to both the ideal body type and eating practices. It functions as a belief system that promotes thinness as a currency of health, discipline, and social worth, and demonises body types that do not align with

its values [12]. More studies support that diet culture, while promoting a billion-dollar industry, still propagates damaging ideological formations that target the bodies, particularly of women and marginalised groups, and puts them into a state of chronic self-surveillance [13].

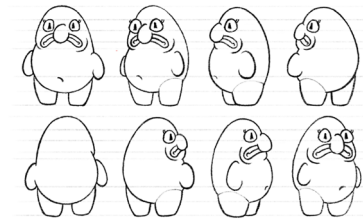
To address issues of diet culture and body image, various media forms, such as films, To address issues of diet culture and body image, various media forms, such as films, novels, comic books, and animated movies, have emerged. However, animation holds particular significance in creative expression due to its visual and imaginative qualities, which bring images to life and create experiences not possible in print or live-action films. Nevertheless, even animated films like those produced by Disney have propagated certain stereotypes, featuring slender, wide-eyed princesses and broad-shouldered male heroes that have penetrated the imaginations of younger audiences [14][15]. Although there have been improvements through the last few decades with examples of female characters like *Raya and the Last Dragon*, *Moana* and *Frozen*, Disney is still largely persistent with its stereotypical representation of women's bodies [16]. The stereotypes are also evident on platforms like TikTok, influencing adult spaces while emphasising negative messages about body types and related anxieties. Other research findings have proved that idealised body image online correlates to lower self-esteem and increased body dissatisfaction [17]. Similar observations have been made by other researchers, who found that body comparison in online mode creates more distress than in offline mode [11]. Media, thus, not only shares the body image idea but also becomes an active co-producer of this content, popularised by algorithms, the internet, likes, shares, subscriptions, and so on.

For addressing body image issues, animation offers immense potential. In a literal sense, the characters are not bound by flesh, making them more fluid and adaptable to the story [18]. This quality of the form is specifically used in the project to experiment with the protagonist and its narrative. The nature of the animated movie also helps challenge the usual studio-style visuals, which are mostly targeted at a wider audience and follow conventions of body type. In this way, our movie challenges the conventional physicality embedded in visual culture and raises important questions for classroom discussion.

3. Blob as the Protagonist

The project began with discussions about what the central character would look like. Choosing human characters can be tricky, as maintaining gender neutrality can be difficult. Although the project centres on diet culture and its effects on women, we wanted a character who could resonate equally with male viewers. Additionally, we needed to thoroughly discuss the technical aspects of animating a body. Being a student-made film posed challenges, such as the size of the production team, technical requirements, and the decision to adhere to the pipeline. Informal discussions with peers also confirmed that audiences might frequently associate their body image with a protagonist that resembles a human form,

Fig. 1. Character design of Blob for the movie *Have You Met Blob?*



which we wanted to avoid to create a fluid character design. During these discussions, it was noted that the character needed to convey a sense of emotional safety while maintaining genuine engagement with viewers. At this stage, we considered various animal and bird characters before finalising the blobfish as the central character.

The blobfish was chosen for its amorphous nature and for how it is often portrayed in the media as ugly. Interestingly, in its natural habitat, which is the deep sea, it looks quite different. There, it inflates its muscles and swims naturally. However, when taken out of the water, the pressure difference causes its

jelly-like muscles to sag, giving it its unique appearance. The blobfish is an effective element of the story because it lacks gender markers and racial identifiers and has an amorphous shape outside of water. As a result, the blobfish serves as a blank canvas onto which viewers can project their own imaginations and empathise with the narrative. The blob's body becomes a monstrous form that serves as a site for cultural anxiety [19]. To gather insights for the story, open-ended conversations were conducted with women aged 18 to 26 who were free to share their lived experiences of body image and of following diet culture. The open-ended format created a safe space for participants, allowing them to share at their own comfort levels and understanding. The discussions were simultaneously supported by the literature on body image and diet culture, which also reflected the participants' lived experiences. By articulating the insights from the participants and the literature, we crafted the story.

The film is divided into five short episodes, each up to five minutes long. The reason for this production logistics approach was partly due to constraints in following an academic timeline. The project lasted a year, during which there were multiple academic reviews outlining the process of making the movie. Therefore, in some reviews, it became necessary to showcase completed portions of the film, leading to the decision to present it in five parts. Part one introduces the Blob as it gets ready to go out. It applies makeup and takes selfies. The Blob then encounters the outside world and observes the mass culture that promotes thinness. Part two depicts the Blob walking down the street and entering a cafeteria to order food. Here, it encounters people obsessing over calories and diet plans while laughing at the Blob's appearance. Part three shows the Blob opening a social media account and feeling anxious after seeing numerous diet club cultures and their false promises of achieving thinness. Part four illustrates the Blob listening to its peers discuss diet and trying to follow their advice, which leads to a distorted self-image. In the final part, the Blob faces public humiliation and takes a drastic step toward ending its life. However, it eventually finds itself back in the safe space from which it came. The Blob does not provide a heroic conclusion to the story;

it confirms that unusual norms can provoke an individual to take drastic steps that could change their lives forever. In this case, Blob takes the final step to end its life while finding itself again in the safe space where it shines and appears normal.



Fig. 2. Storyboarding for episode 2 of Blob for the movie Have You Met Blob?

4. The Animation Process

The movie was created entirely by Ayushi, with assistance from peers during sound recording and a few technical tasks of post-production. The capstone project requires that student must complete their projects individually. Therefore, the film's planning had to be optimised for smoother execution. The movie is made using traditional 2D frame-by-frame animation mixed with digital colouring and compositing. Each episode draws from a philosophical quote from Nietzsche, Vonnegut, Oscar Wilde, Kafka and Sartre. Hand-drawn characters provide an indexical relation to the hand that makes them, and thus, carry an embodied quality. Through the short episodes, animation serves as a critical pedagogical tool for observing, understanding, and gaining insights into societal patterns of subversion. It is therefore within the tradition of critical pedagogy that HYMB is situated and presents itself to the audience. Drawing on Freire's critical pedagogy, this film is situated as a practice of freedom in which the student engages with social realities rather than passively consuming knowledge. This movie thus becomes a student-led inquiry of creative expression to address a social subject. The freedom is enhanced by ani-

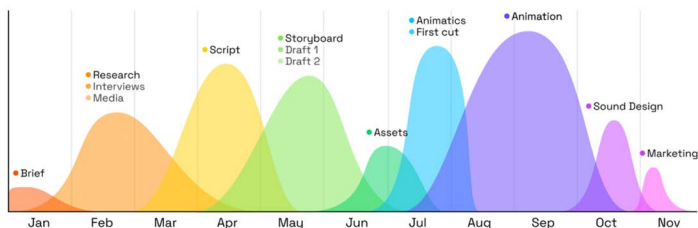


Fig. 3. Timeline for the movie Have You Met Blob?

mation’s attributes, which allow the student to interrogate complex body image and identity topics in a nuanced way [18]. The quality of animation, in expressing the *unseen*, makes it a critical medium that challenges realism and destabilises original representations [20].

As a student film, it was developed on modified versions of a standard pre-production to post-production workflow, keeping in view the constraints of budget, timeline, and resources. The pre-production phase lasted approximately 8-12 weeks and involved script development, character design, storyboarding, sound research, and more. Figure 1 shows the project pipeline over a year. Regarding animation style, it was decided to proceed with a mixed style featuring paper cutouts, hand-drawn elements, and digital compositing. The paper cut and hand-drawn environments contribute to the distorted and unsettling world of Blob. The characters, such as the public and bystanders, are drawn as stick figures with mostly sinister smiles and laughs. The ghostly stick figures are taller than Blob, giving them a sense of towering presence and dominance through their thinness.

5. Film Production and Public Screening

Over approximately 18 weeks, the movie was produced. As a student film, there were budget and technical resource constraints. While the entire film, including the story, script, character design, backgrounds, and direction, was handled by Ayushi, assistance with sound design and editing was provided by a few more peers. Many peers were valuable as viewers, offering feedback during the making, since they had also been affected by body image issues and could provide honest critiques. This aspect of collaboration made this film a form of critical pedagogy, as it occupies a distinctive position within the wider literary critique. The collaboration also functions as both a productive and precarious condition in which the act of making can be either supported or undermined [21]. In this student film, the collaboration meant the creative process functioned in a way that supported the act of making, thereby establishing the student film as a critical pedagogical example.

Fig. 4. Plotlines and scenes from the movie HYMB.

VIDEO 1

Plot Summary: Blobfish is getting ready to go out, outfit and makeup, looks self in the mirror. Happy, comes out, thinks people are disgusted, laughing, revealed how blob is seen by people.

SCENE 1

INT. Inside of a teen girl's room. Morning time.

BLOBFISH'S ROOM

(teen girl voice, humming a song - pretty little baby)

(near the mirror and dressing table)

"Just a little bit pink lipol... and tada! All ready for school!"

(packs up her bag and leaves, takes a last look in the mirror)

UNDERWATER

(teen girl voice, still humming)

(swims to the surface of the water)

END SCENE 1

SCENE 2

EXT. Inside of a teen girl's room. Morning time.

HUMAN WORLD

(comes across people walking on the streets)

(confused with the way people are reacting to her)

"Look at this disgusting creature!"

(People's activities become more absurd as she walks further)

(people holding up boards with Orwellian phrases)

"Obsession is Balance"

"Emptiness is Energy"

"Hunger is Healing"

"Less is Fulfillment"

CAMERA TURNS AROUND

(revealed how blobfish is actually seen by people)

(walks around self-conscious)

END SCENE 2

During the production phase of the movie, regular collective review sessions were held, during which rough cuts and test techniques were screened. These sessions helped the students improve their technical execution and strengthen the story's overall narrative. In this context, the student became a reflexive practitioner [22], where making and thinking were positioned as simultaneous, supportive activities. The film was screened twice after it was completed. The primary screening took place within the host institution, IIT Delhi, in a seminar room attended by approximately 40 people, including faculty and students from various disciplines such as Humanities, Social Sciences, Health Communication, and Visual Culture Studies.



Fig. 5. Screening of the movie at the Department of Design IIT Delhi.

The second screening was part of an open student display, a requirement for academic credit, and was open to the public outside the host institute. Each screening was followed by a 15-20-minute critical discussion of different aspects of the movie and animation as a form of critical pedagogy. This part of the discussion emphasised that the post-screening talk did not merely serve as a student explanation of the film; rather, it became a shared space in which the film became an object of collaborative inquiry by the filmmaker and the audience [1]. Consequently, this process led to new meanings and interpretations of the movie, underscoring the importance of using animation as a critical pedagogy.

The audience's responses were varied but substantive, with a significant portion engaging directly with social media and its impact on body image and mental health among young adults. Several audience members recalled their lived experiences of following diet culture and expressed feelings of depression as they struggled to fit in. These remarks were crucial, as the film directly addressed these issues, serving as a dialogue starter and a tool for critical thinking and debate. There were also insightful comments about the character Blob and how its non-human nature made it more relatable for the audience, allowing them to project their own experiences onto it. A few audience members initially felt discomfort upon seeing Blob due to its unconventional form, which they found challenging to reconcile with cultural norms. However, through discussions, it was resolved that these preconceived notions are embedded within us, and even the presence of a

character like Blob can evoke ideas of misfit and non-conventional forms in society. The second screening, open to the broader public, provided further comments on the film's emotional impact. Viewers specifically noted episodes 4 and 5 and how the techniques were used to showcase the character Blob becoming isolated, leading to the final conclusion. They appreciated the exploratory nature of the visuals, which included paper cuts and hand-drawn imagery, evoking a sense of childlike wonder. All the discussions were recorded through notes, viewers' comments and reflective observations. Through a concise thematic analysis, the responses were categorised under recurring themes such as social pressure, self-image anxiety and media influence. These emergent themes lead to a conclusion regarding the project's pedagogical aim.

5. Conclusion

The student film serves as an example of animation as a critical pedagogy by effectively addressing the important cultural issues of body image and diet culture. The emergent themes were based on qualitative evidence, including audience engagement, critical reflections on body shaming, personal testimonies, and dialogue that questioned beauty standards. From a qualitative validation standpoint, these indicators are chosen as interpretive evidence of the film's capacity to stimulate critical awareness in line with Freirean pedagogy. The film thus positions itself within the critical and pedagogical arguments for animation as a practice capable of raising questions about society. Both the form and the philosophical constructs of the film are inseparable, working together to establish animation as a critical pedagogy in academia. The integration of practical skills with conceptual and critical narratives, as the literature on critical pedagogy argues, constitutes transformative education, enabling students to position themselves as active agents capable of shaping futures and reshaping cultural conditions [1] [24]. In this context, animation provides a unique opportunity for critical pedagogy that should be highlighted. As a constructed creative form, animation involves reflection on the processes through which visuals and their meanings are produced. This reflection is particularly important in the context of body image issues, as most social media representations present a conventional standard of beauty. Animation thus offers a critical lens for analysing these existing conventions and engaging in discussions about broader cultural norms. Additionally, through student-created animated films, these realities are constructed in a way that demonstrates that the norms we accept and live by can also transform our bodies into mere objects of scrutiny, rather than celebrating their uniqueness and intrinsic beauty.

Being an academic project, the movie serves as an example of student-led creative practice that can evoke crucial questions beyond the classroom. In this regard, the public screenings provided substantial evidence of how animation is perceived and how it is needed more than ever today. Social media and celeb culture have amplified the toxic effects of the self, leading to a constant self-monitoring and body comparison specifically for adolescent and young adults [11] [17]. As digital screens

have increasingly permeated our lives, it is becoming important to present students with creative expressions that serve as reminders to remain aware of the false narratives surrounding cultural norms. Animation should thus be positioned as a critical tool within the broader discussion of educational policies, so that more students can learn and create meaningful films. Only then can animation act as a site of cultural production rather than merely being regarded as a vocational subject [24] [25].

The student film, created on a limited budget and under academic constraints, serves as an example of how animation can be utilised in academia for critical pedagogy. Since the movie is reflective, the philosophical elements of the story take precedence over the technical aspects typical of larger-studio films. This approach allowed students greater freedom to choose narrative devices, tropes, and execution styles to connect with the audience, while still navigating the limitations imposed by their resources. However, the limitations affected production quality in ways that, in a professional setting, would have been managed by a larger team. In this case, the film was primarily made by a single person, which presents its own challenges when creating an animated movie and should be acknowledged. Furthermore, the constraints of academic review, timelines, and other requirements also impacted the movie's production in minor ways. The audience feedback was mostly qualitative, which may require a more rigorous quantitative underpinning to fully understand the emotional implications of these films. However, this was beyond the project's scope and was not accounted for.

With this movie, we aim to propose to educators who teach animation and to students who would like to pursue animation that it be used as a critical pedagogy tool rather than simply a means of creative expression. By doing so, animation has the potential to become a domain in which the theorisation of critical issues in our culture can be made visible and informed by creators' choices. In the current design education landscape in India, such approaches are increasingly relevant, especially with the growing awareness about body image. In this context, animation can inform, influence, and promote critical thinking among viewers. In particular, short-form animated content that aligns with social media algorithms, combined with high-quality artwork and an underlying social message, can lead to gradual changes in viewers' mindsets.

Here is the link to the movie: https://youtu.be/-AQU8Drl_2A

References

1. Freire, P. (2005). *Pedagogy of the oppressed* (M. B. Ramos, Trans.). Continuum. (Original work published 1970)
2. Giroux, H. A. (2025). Paulo Freire's legacy and critical pedagogy in dark times. *Policy and Practice: A Development Education Review*, 40.
3. Matheson, E. L., Lewis-Smith, H., & Diedrichs, P. C. (2020). The effectiveness of brief animated films as a scalable micro-intervention to improve children's body image: a randomised controlled trial. *Body Image*, 35, 142-153.
4. Mukherjee, D., (2020) "Animated Documentary as a Social Tool", *Animation Studies Journal* 15(1).

5. Pattinson, T. J., & Shaw, J. (2026). Queer Representations in Motion: Documenting Identity through Animation. *Animation*, 21(1), 62-83.
6. Glaser, H. C., Jansma, S. R., & Scholten, H. (2024). A diary study investigating the differential impacts of Instagram content on youths' body image. *Humanities and Social Sciences Communications*, 11(1), 1-13.
7. Zhang, Y., Xiong, S., Yao, N., & Chen, J. (2025). Social media and body image in young women: A meta-analysis of experimental studies on video-versus image-based platforms. *Body image*, 55, 101991.
8. Wolf, N.: *The Beauty Myth: How Images of Beauty Are Used Against Women*. HarperCollins, New York (1990)
9. Bodega, P., de Cos-Gandoy, A., Fernandez-Alvira, J. M., Fernandez-Jimenez, R., Moreno, L. A., & Santos-Beneit, G. (2024). Body image and dietary habits in adolescents: a systematic review. *Nutrition reviews*, 82(1), 104-127
10. Grabe, S., Ward, L. M., Hyde, J. S.: The role of the media in body image concerns among women: A meta-analysis of experimental and correlational studies. *Psychol. Bull.* 134(3), 460-476 (2008)
11. Fardouly, J., Vartanian, L. R.: Social media and body image concerns: Current research and future directions. *Curr. Opin. Psychol.* 9, 1-5 (2016)
12. Harrison, C.: *Anti-diet: Reclaim your time, money, well-being, and happiness through intuitive eating*. Little, Brown Spark, New York (2019)
13. Bordo, S.: *Unbearable weight: Feminism, Western culture, and the body*. University of California Press, Berkeley (1993)
14. Herbozo, S., Tantleff-Dunn, S., Gokee-Larose, J., Thompson, J. K.: Beauty and thinness messages in children's media: A content analysis. *Eat. Disord.* 12(1), 21-34 (2004)
15. Northup, T., Liebler, C. M.: The good, the bad, and the beautiful: Beauty ideals in children's animated films. *J. Child. Media* 4(3), 265-282 (2010)
16. Clarke, L. L., Hine, B., et al.: The gendered behaviors displayed by Disney protagonists. *Frontiers in Sociology* (2024)
17. Vogel, E. A., Rose, J. P., Okdie, B. M., Eckles, K., Franz, B.: Who compares and despairs? The effect of social comparison orientation on social media use and its outcomes. *Pers. Individ. Differ.* 86, 249-256 (2014)
18. Wells, P.: *Understanding animation*. Routledge, London (1998)
19. Shildrick, M.: *Embodying the monster: Encounters with the vulnerable self*. SAGE, London (2002)
20. Honess Roe, A.: *Animated documentary*. Palgrave Macmillan, London (2013)
21. Pratt, A. C.: A world turned upside down: The creative economy, cities, and the new urban cultural policy. In: Derudder, B., Hoyler, M., Taylor, P. J., Witlox, F. (eds.) *International handbook of globalization and world cities*, pp. 398-407. Edward Elgar (2012)
22. Schön, D. A.: *The reflective practitioner: How professionals think in action*. Basic Books, New York (1983)
23. Giroux, H. A.: *Border crossings: Cultural workers and the politics of education*. Routledge, New York (1992)
24. Buckingham, D.: *Media education: Literacy, learning and contemporary culture*. Polity Press, Cambridge (2003)
25. McLaren, P.: *Life in schools: An introduction to critical pedagogy in the foundations of education*, 5th edn. Allyn & Bacon, Boston (2007)

Where Sound Meets Image: Picturebooks for Early Childhood from the Inside of Edicare Publisher

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Abstract

This study reflects on the role of illustration in the construction of sensory experiences within sound picturebooks for early childhood, based on the development of an editorial collection grounded in excerpts of classical music. The research shows that, in this context, illustration does not function merely as a visual accompaniment to sound, but as an active element in the articulation between listening, gesture, touch, and reading. The analysis of the process made it possible to understand how rhythm, composition, and tactile melodic lines [8] contribute to transforming music into visual language. The study also highlights the importance of materiality, visual coherence within the collection, and editorial constraints in the development of the project within an internship context at a publishing house. Thus, the sound picturebook emerges as a sensory editorial object, capable of expanding the reading experience and reinforcing the role of illustration as a mediator between sound, image, and body in the early years of life.

1. Introdução

O presente artigo analisa o desenvolvimento de uma coleção de álbuns ilustrados sonoros no contexto de um estágio curricular realizado na editora Edicare, no âmbito do Mestrado em Ilustração, Edição e Impressão (MIEI). Destinada à primeira infância, esta coleção articula imagem, som, texto e linha melódica [8] tátil, explorando o potencial deste formato enquanto objeto editorial sensorial. O projeto teve como ponto de partida um briefing centrado na criação de álbuns ilustrados para crianças, com base em excertos de música clássica. Perante este desafio, procurou-se traduzir visualmente musicalidade, ritmo, atmosfera e movimento, através de uma linguagem gráfica acessível e expressiva. Ancorado num estudo de caso e na investigação projetual, onde a própria prática da ilustração atua como método de conhecimento, o artigo cruza reflexão teórica e processo criativo para responder à seguinte questão: de que modo contribui a ilustração para a construção de uma experiência sensorial no álbum ilustrado sonoro para a primeira infância?

Keywords

Illustration; Picturebook; Sound Picturebook; Classical Music; Multisensory Experience; Early Childhood.

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1. Do Estágio ao Projeto

1.1. Estágio na Edicare

O estágio na editora Edicare, especializada em conteúdos didático-pedagógicos e objetos editoriais para a infância, permitiu o contacto direto com um processo real de criação e desenvolvimento de álbuns ilustrados sonoros, marcado por critérios de coerência editorial, adequação ao público-alvo e cruzamento entre conceito, ilustração, formato e produção.

A coleção surgiu da intenção de dar continuidade a uma linha de álbuns ilustrados que reproduziam onomatopeias associadas a animais, que a editora já tinha desenvolvido para crianças a partir dos doze meses, nomeadamente os títulos *Animais Domésticos*, *Animais da Quinta*, *Natureza e Cidade*. A escolha da música clássica como ponto de partida para esta nova proposta não foi de forma aleatória. Segundo a editora, já tinha existido uma coleção com este repertório que teve um bom desempenho comercial, o que contribuiu para a decisão de voltar a trabalhar este universo musical.

Desta vez, porém, a intenção era aproximar essa aposta da linha de animais já existente no catálogo, criando uma proposta visualmente coerente com a identidade da editora. Não se procurou, por isso, representar os compositores, mas criar universos centrados em animais. O desenvolvimento do projeto implicou, assim, adaptar a linguagem ilustrativa a um contexto editorial com identidade gráfica própria, procurando um equilíbrio entre expressão

Fig. 1. Livros *O Meu Pequeno Beethoven* e *Animais Domésticos*, respectivamente, Edicare.



autoral, coerência de coleção e adequação à primeira infância.

1.2. A Importância da Música na Primeira Infância

Nos primeiros anos de vida, a relação com a música constrói-se sobretudo através da escuta, repetição, movimento e mediação do adulto. Mais do que um conteúdo formal a aprender, a música proporciona uma experiência sensorial e afetiva, capaz de mobilizar atenção, prazer, imaginação e vínculo. A criança manifesta o gosto pela música desde muito cedo e, quanto mais pequena for, maiores poderão ser as possibilidades de desenvolvimento da sua aptidão musical, o que reforça a importância de um contacto precoce com o universo sonoro [1].

Em contexto de infância, a música pode prolongar emoções e afetos

anteriormente vividos, contribuindo para o bem-estar da criança. A escuta de obras musicais coloca-a em contacto com diferentes estilos, formas e atmosferas sonoras, alargando progressivamente a sua cultura musical e a sua disponibilidade para ouvir. Neste sentido, a música pode ser entendida não apenas como recurso pedagógico, mas também como uma via de estimulação sensorial e emocional [1].

Para além da escuta, a música envolve ritmo, gesto e corpo. A expressão musical na infância passa pela exploração de sons e ritmos que a criança produz e reconhece [1]. As atividades musicais podem ainda favorecer a expressão, comunicação e equilíbrio emocional, ao mesmo tempo que estimulam o sentido de ordem, harmonia, organização e compreensão [1]. Esta componente é particularmente relevante no contexto do presente projeto, uma vez que a coleção procura trabalhar a música como forma de expressão capaz de provocar movimento, atmosfera e relação entre som, palavra e imagem, bem como de favorecer diferentes estados, como relaxamento ou estimulação do movimento.

No caso desta coleção, a música clássica surge como ponto de partida do *briefing* editorial. A diversidade dos excertos fornecidos, incluindo peças mais suaves, contemplativas, dançantes ou dramáticas, revelou-se um campo fértil para pensar contrastes de andamento, intensidade e atmosfera. Essa variedade foi importante para a construção da coleção, permitindo associar diferentes qualidades sonoras a universos distintos e reforçando a ligação entre escuta, imaginação e experiência editorial.

1.3. O Álbum Ilustrado, o Livro-Objeto e o Livro-Brinquedo

No contexto do design editorial infantil, o álbum ilustrado distingue-se pela interdependência entre texto e imagem. Quando o formato físico ganha protagonismo, o álbum ilustrado aproxima-se do conceito de livro-objeto, valorizando a sua dimensão material, gráfica e tátil. É nesta união que o conceito de livro-brinquedo se torna particularmente relevante no contexto deste projeto. Como refere Martins, importa compreender os “recursos estéticos/gráficos que singularizam estes objetos” [2]. Neste caso, o interesse não reside apenas na presença do som, mas também na forma como imagem, botão, texto e linha melódica [8] tátil participam em conjunto na experiência de leitura.

Para compreender o livro-brinquedo, importa também referir a sua proximidade ao conceito de livro-objeto, que se distingue do livro convencional pela forma como envolve o corpo do leitor e valoriza a dimensão física do livro. Mais do que um simples suporte de texto e imagem, apresenta-se como um objeto de exploração, manipulação e até de performance. Neste sentido, o livro-brinquedo caracteriza-se por uma estrutura gráfica e material com uma notória essência lúdica [2].

Este aspeto torna-se particularmente relevante no caso da primeira infância, uma vez que é precisamente o seu carácter físico e manipulável que aproxima os leitores mais pequenos deste tipo de livro. Nesta fase do desenvolvimento infantil, a relação com o livro passa, em grande medida, pela ação corporal e pelo contacto direto com o objeto. O livro-brinquedo favorece, por isso, um maior grau de espontaneidade e de ação física do que de domínio da leitura, aproximando-a de uma experiência sensorial

que implica a participação do leitor [2]. A sua natureza interativa, muitas vezes associada ao toque, manipulação e descoberta, torna-o especialmente adequado a leitores muito pequenos, para quem a exploração é uma forma de conhecimento e aprendizagem [3].

Neste sentido, o livro-brinquedo não deve ser entendido como um livro que apenas convida à brincadeira, mas como um objeto editorial que responde a necessidades específicas de exploração sensorial, atenção e envolvimento do leitor [2]. Na coleção aqui analisada, o formato cartonado, a integração de botões sonoros, a relação entre música, texto e ilustração, e a linha melódica [8] tátil aproximam estes livros desse universo híbrido entre leitura, jogo e experiência multissensorial, favorecendo toque, gesto, repetição e descoberta.

1.4. O Álbum Ilustrado Sonoro

O álbum ilustrado sonoro acrescenta à leitura a possibilidade de escuta ativada pelo toque, criando uma relação direta entre gesto, som e imagem. Segundo Martins, este tipo de publicação caracteriza-se pela integração de pequenos dispositivos eletrónicos, colocados na margem do livro ou nas próprias páginas, que são acionados pelo leitor e produzem diferentes sons, como melodias, onomatopeias associadas a animais ou outros efeitos sonoros. A possibilidade de repetir o gesto e ouvir o som sempre que quiser reforça o caráter lúdico da leitura e contribui para afastar o leitor de uma posição passiva [2]. Esta definição aproxima-se da coleção aqui analisada, em que o som não surge isolado, mas articulado com os restantes elementos da página.

Para além do som, a leitura destes livros envolve também a forma como imagem, texto e objeto se relacionam. Cordeiro, Moreira, Henriques e Silva referem que os álbuns ilustrados implicam diferentes modos de leitura, podendo desenvolver-se tanto ao longo da narrativa como nas relações entre palavra, imagem, texto, composição e características materiais, exigindo um leitor ativo [4]. Nestas edições sonoras, esta articulação torna-se ainda mais evidente, uma vez que a escuta interfere no ritmo da leitura e na forma como a criança explora cada página.

No caso desta coleção, o som foi pensado como parte central do projeto e não apenas como um complemento. Cada dupla página corresponde a um excerto musical, o que implicou articular a posição dos botões com a imagem, o texto e a organização gráfica. As soluções técnicas disponíveis, nomeadamente o tipo de módulo sonoro e o número de botões, influenciaram também o formato e a estrutura dos livros. O álbum ilustrado sonoro surge, assim, como resultado de um equilíbrio entre conceito editorial, ilustração e condicionantes técnicas, em que o som participa ativamente na construção da experiência de leitura.

2. Dar Corpo ao Som: A Coleção

2.1. Pesquisa e Primeiros Passos

Numa fase inicial, o projeto foi orientado pelo *briefing* editorial, que previa a criação de uma coleção de álbuns ilustrados sonoros em que cada

volume pudesse responder a um objetivo distinto, como adormecer ou acordar a criança. Deu-se, por isso, prioridade à análise de coleções já existentes no mercado nacional e internacional, à observação de soluções editoriais semelhantes e ao levantamento de referências visuais que pudessem orientar as primeiras respostas.

Embora o projeto desse continuidade à linha de álbuns ilustrados já presente no catálogo da editora, procurou-se manter algumas das suas características principais, como o formato cartonado, cantos redondos, módulo sonoro integrado e o mesmo número de páginas, deixando em aberto a possibilidade de seguir uma nova direção visual e temática.

Desde cedo se percebeu que o projeto fazia mais sentido como coleção do que como título isolado. Do ponto de vista da editora, no caso destas edições dirigidas à primeira infância, o seu valor editorial e comercial tende a reforçar-se quando os volumes são apresentados em conjunto, como uma linha reconhecível e colecionável. Esta lógica tornou-se evidente tanto na observação do catálogo da Edicare como no levantamento de propostas semelhantes em livrarias e catálogos de outras editoras. Além disso, a apresentação simultânea de vários títulos aumenta a visibilidade no ponto de venda, sobretudo nos espaços de novidade, onde os lançamentos recentes costumam ter maior destaque.

O desenvolvimento em simultâneo dos livros revelou-se igualmente importante para garantir coerência visual e concetual. Em condições desta natureza, a coerência não depende apenas do conteúdo, mas também de elementos como formato, composição, paleta cromática, tipografia, tratamento dos fundos e a relação entre capa e miolo. Trabalhar em mais do que um título ao mesmo tempo permitiu, assim, testar soluções em paralelo e consolidar uma identidade comum.

O número de páginas foi igualmente definido a partir de critérios editoriais concretos. Segundo a editora, a experiência de comercialização internacional mostrava que um formato demasiado reduzido ou, em contrapartida, extenso, podia perder competitividade em alguns mercados. Embora muitos álbuns ilustrados cartonados funcionem com cinco duplas páginas, entendeu-se que esse número poderia ser insuficiente do ponto de vista comercial. A opção por seis duplas páginas resultou, assim, de um compromisso entre custos de produção, consistência do objeto e maior eficácia editorial.

Outra etapa decisiva foi o contacto com o catálogo musical fornecido pela gráfica, que reunia excertos com características muito distintas. Esta diversidade exigiu uma primeira fase de escuta, pesquisa e organização, com o objetivo de identificar atmosferas, ritmos, contrastes e possíveis associações visuais a diferentes estados, como relaxamento ou estimulação. Foi nesse momento que ganhou força a questão de como a ilustração poderia prolongar ou traduzir os efeitos da música. Esta reflexão abriu espaço para pensar o álbum ilustrado não apenas como suporte visual da música, mas como uma experiência sensorial mais ampla.

2.2. Do Brainstorming à Ideia Final

Numa primeira fase, o trabalho centrou-se na procura de estratégias visuais que permitissem, através da ilustração, prolongar o efeito da música.

A questão era simples de formular, mas difícil de resolver na prática: de que modo pode uma imagem sugerir ritmo, intensidade, leveza, tensão ou fluidez sem se limitar a ilustrar literalmente o que se ouve? A observação de vários álbuns ilustrados ajudou a abrir esse caminho. Obras como *The Four Seasons by Vivaldi* (2026), da Usborne, e *O Jogo dos Olhos Fechados* (2012), de Hervé Tullet, evidenciaram o uso de formas gráficas e acabamentos texturizados para convidar a uma leitura corporal e tátil da página. Paralelamente, o filme de animação *Fantasia* [9] clarificou a possibilidade de traduzir a música clássica através de contrastes, espirais e ondas capazes de criar sensação de sequência e acompanhar visualmente o ritmo, a melodia e a intensidade sonora.

A participação numa aula aberta do Doutorado em Artes Plásticas da FBAUP, orientada pelo professor Sérgio R. Basbaum, foi importante sobretudo por abrir novas pistas de pesquisa. Durante a sessão foram abordadas relações entre música e imagem associadas à sinestesia e à visualização do som, e foi analisada a obra *Synchromy No. 4: Escape* [6], construída sobre a *Toccata e Fuga em Ré Menor*, de Bach. Trata-se de um filme abstrato em que formas geométricas, linhas e planos de cor ganham movimento em articulação com a música, sugerindo tensão, ritmo e contraste sem recorrer à representação figurativa. Embora a aula não tenha oferecido uma resposta direta ao problema do projeto, foi importante por reforçar a pertinência da questão e por conduzir ao contacto com o trabalho de Lawrence Marks, sugerido no final da sessão.

Marks explica que a sinestesia não resulta de associações ao acaso, mas de relações entre som e imagem [7]. Este princípio funcionou como uma primeira validação teórica, confirmando a existência de uma base lógica para ilustrar o som. Apesar disso, continuava a faltar perceber como concretizar esta tradução visual no desenvolvimento dessas linhas melódicas [8].

A resposta tornou-se mais precisa com o apoio de Catarina Sá Ribeiro, compositora e pianista, que ajudou a orientar a interpretação visual a partir da compreensão das partituras. Este acompanhamento permitiu decodificar melhor a estrutura dos excertos musicais. O método inicial consistiu na marcação de pontos e linhas para mapear as notas, a sua duração e intensidade. Este método encontrou validação teórica na obra de Kandinsky [8], demonstrando que o processo desenvolvido partilhava não só princípios visuais, mas também metodológicos com o campo da arte abstrata. Curiosamente, tal como ocorreu neste projeto, o próprio Kandinsky recorreu à colaboração de um especialista musical, o maestro Franz V. Hoesslin, para conseguir realizar as suas transposições gráficas. Aliás, na sua obra, a tradução da 5.^a Sinfonia de Beethoven é exemplificada inicialmente através de pontos (Fig. 2), exatamente como o método de mapeamento inicial explorado nesta pesquisa: quando Kandinsky analisa a transposição da música para o desenho, afirma que “o volume de som (...) corresponde ao aumento de espessura da linha” e que “tanto em música como em pintura, [a linha] afirma-se pelo volume e pela duração” [8]. Estas palavras descrevem com exatidão o princípio que estava a ser aplicado na prática. Contudo, importa sublinhar que

Kandinsky defende que esta criação é ditada por uma “necessidade interior” [8]. Este conceito revelou-se crucial para justificar a subjetividade inerente ao processo desenvolvido: a ilustração não procura ser uma transcrição exata da partitura, mas sim uma interpretação sensível e pessoal. A linha gráfica desenhada reflete a forma como a música é interiorizada por quem a escuta e a traduz. Assim, a obra de Kandinsky forneceu o modelo concetual que ancorou o processo, demonstrando que as escolhas visuais, embora sustentadas por uma lógica estruturada,



Fig. 2. Tradução gráfica da linha melódica da 5.^a Sinfonia de Beethoven [8] e exemplo de tradução gráfica da linha melódica com Catarina Sá Ribeiro, respetivamente.

não dispensam a sensibilidade da interpretação.

Ao mesmo tempo, o projeto foi-se afastando de uma abordagem demasiado literal ou decorativa, partindo da ideia de que a música e a dança já existem na natureza. Este princípio tornou-se orientador do processo e permitiu contrariar a tendência frequente de representar este tipo de livros através da antropomorfização dos animais, com adereços ou instrumentos musicais. Ao invés disso, procurou-se explorar movimentos, posturas e comportamentos observáveis no habitat natural, como forma de estabelecer uma ligação poética entre música e natureza. A intenção não passou por ilustrar a música de forma descritiva, mas por sugerir ritmo, leveza ou tensão a partir de gestos presentes no mundo animal, como o desdobrar das asas de um cisne, o balanço da cauda de um peixe ou o salto de um sapo. Esta opção permitiu construir um equilíbrio entre o figurativo e o simbólico, reforçando a legibilidade das formas, expressividade do movimento e reconhecimento das figuras.

Foi também nesta fase que se consolidou a organização da coleção em torno do verbo “Para...”, reforçando a coerência entre os quatro títulos e a sua função orientadora: *Para Acalmar*, *Para Despertar*, *Para Explorar* e *Para Encorajar*. A seleção dos excertos musicais foi então reorganizada por grupos, de acordo com o seu caráter e efeito predominante. O primeiro livro reuniu peças muito suaves e contemplativas; o segundo, músicas mais rítmicas, alegres e dançantes; o terceiro concentrou-se em *As Quatro Estações* de Vivaldi; e o quarto agrupou excertos mais dramáticos, tensos e heroicos. Esta estrutura permitiu transformar um conjunto disperso de músicas numa proposta editorial coerente, com identidade própria e objetivos distintos.

Ao mesmo tempo, foi desenvolvido um conceito evolutivo para a coleção, pensado para acompanhar gradualmente o crescimento da criança, à semelhança da coleção anterior. Nos primeiros volumes, privilegiam-se

fundos mais simples, paleta cromática reduzida, poucas personagens e formas arredondadas e amigáveis. À medida que a coleção avançava, previa-se uma maior complexidade visual e narrativa, com mais elementos, personagens, variedade cromática e uma paisagem progressivamente mais dinâmica. Também o texto acompanharia essa evolução, passando de frases curtas para estruturas mais ritmadas, com perguntas e sugestões de imitação. Esta lógica permitia manter a coerência da coleção, ao mesmo tempo que introduzia níveis progressivos de estímulo visual e verbal.

Neste processo surgiram também algumas propostas concretas que vieram a ser aprovadas pela editora. Uma delas foi a integração dos botões sonoros na própria ilustração, em vez de os manter separados do universo visual como acontecia na coleção anterior. Outra foi a introdução, na última dupla página, de um pequeno exercício relacionado com o objetivo do livro, como um exercício de respiração no caso do título *Para Acalmar*. Estas soluções reforçaram a articulação entre conceito, forma de leitura e experiência sensorial.

A gestão do tempo imposta pelo estágio e o próprio plano editorial levaram a concentrar o desenvolvimento nos dois primeiros títulos. A decisão fazia sentido tanto do ponto de vista prático como editorial, já que a editora tem como estratégia comercial lançar primeiro apenas os dois primeiros títulos das suas coleções, como forma de testar a aderência do público-alvo.

Foi, assim, entre referências visuais, escuta musical, observação de livros, diálogo com especialistas e sucessivas reorganizações das músicas que o projeto passou do *brainstorming* a uma direção mais definida. A música deixou de ser apenas ponto de partida temático para se tornar estrutura, atmosfera e critério de decisão visual. Por sua vez, a ilustração deixou de ser pensada apenas como imagem que acompanha o som para passar a participar ativamente numa experiência sensorial mais ampla. Neste processo, tornou-se mais claro que as escolhas materiais e táteis não funcionam apenas como complemento, podendo também contribuir para a construção visual do livro e intensificar a experiência de leitura [5].

2.3. O Processo Criativo

A definição do estilo de ilustração partiu igualmente da análise detalhada da coleção anterior da Edicare e procurou-se identificar, dentro do trabalho autoral, soluções que pudessem dialogar com essa linguagem sem a imitar diretamente. Ao longo desta fase foram ainda produzidos *moodboards* e rascunhos das capas para os quatro livros, de modo a pensar a coleção de forma global.

O desenvolvimento das linhas melódicas [8] foi-se tornando progressivamente mais sensível e intuitivo. No primeiro livro, estas acompanham a ilustração surgindo abaixo da imagem, de forma mais autónoma e destacada. Já em *Para Despertar*, começam a integrar-se mais diretamente na própria ilustração, acompanhando o caráter mais agitado e imprevisível das músicas. Ainda assim, manteve-se a preocupação de lhes dar contraste suficiente para que não se perdessem no conjunto e continuassem a convidar à exploração tátil.

A materialização da coleção teve início com o desenvolvimento de

storyboards e com a distribuição dos excertos musicais por dupla página. Esta fase permitiu testar a relação entre sequência, composição, texto, botão sonoro e ritmo visual, ajustando o encadeamento das ilustrações e a ordem das músicas. No caso de *Para Acalmar*, por exemplo, a ordem inicial foi alterada para evitar que a imagem da capa se repetisse logo na primeira dupla página. Esta decisão mostrou que a construção do livro exigia um pensamento simultaneamente narrativo, visual e editorial.

A paleta cromática foi também sendo ajustada ao longo do processo. Existia a preocupação de não exagerar nas cores frias ou demasiado escuras, não só pela atmosfera pretendida em cada título, mas também porque, segundo a editora, livros com cores mais vivas e temas mais apelativos tendem a ter melhor recepção comercial. Em *Para Acalmar* privilegiaram-se tons associados à tranquilidade e ao relaxamento, como lilás ou azul. Em *Para Despertar* optou-se por cores mais vivas e luminosas, como amarelo e laranja, para transmitir energia e movimento. Foram também realizados testes de impressão e maquetes simples, de modo a verificar a legibilidade do texto, proporção das personagens e contraste das cores.

O desenvolvimento das ilustrações procurou manter a simplicidade e expressividade adequadas à primeira infância, com o desafio de ajustar a linguagem autoral à da editora. Ao longo do processo, foram sendo adaptados fundos, escala das personagens, forma dos olhos e as proporções gerais, de modo a tornar as figuras mais amigáveis e coerentes entre si. As ilustrações foram desenvolvidas digitalmente, sobretudo por razões de rapidez, uma vez que o contexto editorial assim o exigia. Ainda assim, foram testadas várias texturas digitais para enriquecer a imagem, mas percebeu-se que estas não substituíam a riqueza do gesto manual. Por isso, introduziram-se pequenos apontamentos feitos à mão, de modo a dar maior densidade plástica ao conjunto.

Os exercícios inicialmente pensados para as últimas duplas páginas acabaram por ser retirados. Percebeu-se que terminar o livro com uma página sem música quebrava a lógica da estrutura inicial, gerando alguma confusão. Assim, optou-se por manter nas páginas finais o mesmo princípio das restantes, integrando novos excertos musicais dentro do tema de cada título.

No segundo título, *Para Despertar*, ao contrário do primeiro, em que predominam duas personagens, optou-se pela presença de três, como forma de intensificar o dinamismo da composição e reforçar o seu carácter mais ritmado. Também o texto foi desenvolvido, neste caso, para criar maior cadência e incentivar a participação do leitor, através de perguntas e onomatopeias repetidas três vezes. O texto, escrito depois das ilustrações, procurou que não se limitasse a descrever a imagem, mas que mantivesse clareza suficiente para que o leitor pudesse identificar a relação entre o que lê e vê.

A escolha das imagens partiu da pesquisa sobre os contextos e inspirações das próprias peças musicais. Em *Valse du Petit Chien*, de Chopin, por exemplo, surgiu a imagem de um cão a rodopiar sobre si mesmo, tentando apanhar a cauda, em diálogo com a inspiração associada à peça e com a sua sonoridade rápida e ritmada. Noutros casos a relação foi

menos literal. Em *Marcha Nupcial*, de Mendelssohn, o início da música sugeriu o som de elefantes numa imagem também ligada ao seu comportamento natural. Assim, a construção visual oscilou entre momentos mais próximos da sugestão narrativa da peça e outros mais livres, orientados

Fig. 3. Exemplos de ilustrações dos livros *Para Acalmar* e *Para Despertar*, respetivamente.



por ritmo, atmosfera ou energia musical.

Os títulos foram desenhados manualmente, com formas arredondadas, procurando manter coerência com a coleção anterior, mas introduzindo paralelamente uma imagem própria. Foi também criado um logótipo para a capa, com o objetivo de destacar que se trata de álbuns ilustrados sonoros com música clássica. Segundo a editora, este elemento é importante para a visibilidade do produto nas estantes. Por isso, o seu tamanho, contraste e legibilidade foram pensados com atenção, tendo em conta a distância visual entre o livro e o leitor no espaço de venda. Também a escolha das personagens para as capas foi pensada procurando figuras com maior impacto visual e capazes de transmitir o ambiente de cada livro.

O protótipo digital dos dois primeiros títulos foi apresentado a profissionais na Feira Internacional do Livro de Bologna (BCBF). O *feedback* recolhido validou as opções metodológicas: um editor com formação musical corroborou que a subjetividade das linhas melódicas [8] é a abordagem adequada, sublinhando que os livros atuam como uma introdução sensorial à música clássica para a primeira infância e não como um

Fig. 4. Capas dos títulos *Para Acalmar* e *Para Despertar*.



Fig. 5. Logótipo música clássica.



“manual técnico”.

Conclusão

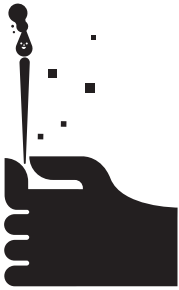
A análise do projeto desenvolvido permitiu compreender o álbum ilustrado sonoro como um objeto editorial multissensorial, no qual a ilustração não acompanha apenas o som de forma decorativa, mas participa ativamente na construção da experiência de leitura. Ao articular imagem, música, texto, tato e gesto, a proposta reforça o papel da ilustração na tradução de ritmo, atmosfera e movimento.

Mais do que responder a um desafio editorial específico, esta investigação pretende demonstrar que o álbum ilustrado sonoro para a primeira infância tem potencial para ir além de um mero “brinquedo com botões”, assumindo-se como um álbum ilustrado complexo. Para os profissionais do design editorial e da ilustração, os resultados deste trabalho poderão abrir novas perspetivas metodológicas, provando que a ancoragem em conceitos teóricos, como a tradução visual da música e a sinestesia, permite criar objetos potencialmente mais ricos e envolventes. Ao propor uma leitura que mobiliza escuta, repetição, toque e participação corporal, a ilustração e o design consolidam os seus papéis enquanto mediadores fundamentais entre som, imagem e desenvolvimento cognitivo e sensorial nos primeiros anos de vida.

Neste sentido, a proposta constitui não apenas o resultado de um processo projetual em contexto editorial real, mas também um ponto de partida para o aprofundamento da investigação no relatório de estágio e para a continuação da coleção, tendo a editora demonstrado interesse em desenvolver os restantes títulos.

Referências

1. Medeiros, L. da C. F.: A influência da música em contexto pré-escolar. Relatório final de prática de ensino supervisionada, Mestrado em Educação Pré-Escolar, Instituto Politécnico de Viana do Castelo, pp. iv--31 (2011)
2. Martins, D. M. F.: O lugar do livro-brinquedo na infância e na literatura: Arquitetura, (inter)texturas e outros desafios. Tese de Doutoramento em Estudos para a Infância, Universidade do Minho, pp. vii--398 (2019)
3. Cores, M., Landin, M.: Um antes e um depois no álbum multissensorial destinado à primeira infância leitora. Em: CONFIA XII BOOK 2025 - 12th International Conference on Illustration and Animation, pp. 660 (2025)
4. Cordeiro, L., Moreira, L., Henriques, F., e Silva S.: Aspectos comunicativos dos livros ilustrados sob a perspectiva da inclusão visual. Em: CONFIA XII BOOK 2025 - 12th International Conference on Illustration and Animation, pp. 618 (2025)
5. Dong, Y.: Book, Body and Mind. Em: CONFIA XII BOOK 2025 - 12th International Conference on Illustration and Animation, pp. 42 (2025)
6. Bute, M. E., Nemeth, T.: Synchromy No. 4: Escape. Curta-metragem experimental (1937-1938)
7. Marks, L.E.: On Colored-Hearing Synesthesia: Cross-Modal Translations of Sensory Dimensions. *Psychological Bulletin* 82(3), pp. 303--308 (1975)
8. Kandinsky, W.: Ponto, Linha, Plano (J. E. Rodil, Trans.). Edições 70, Lisboa (Original publicado em 1970), pp. 11--97 (2006)
9. Fantasia. Walt Disney Productions (1940)



Repositioning the Hanuman Chalisa for a Younger Audience through Claymation

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Keywords

Animation for children;
Claymation; Hanuman
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Abstract

Designing animated mythological narratives for children presents challenges due to their inherent complexity and the prevalence of visually dense media that may overstimulate young audiences. This paper presents the design and production of a claymation adaptation of the *Hanuman Chalisa*, a sacred Hindu hymn, repositioned for children aged 3–8 years. The study explores how a traditionally layered and symbolic text can be translated into an accessible and engaging visual narrative while maintaining its cultural and devotional authenticity.

Adopting a creative production methodology, the research integrates design practice with qualitative analysis of existing animated adaptations. It identifies a gap in approaches that effectively communicate mythological content through visually simple, tactile, and child-friendly forms. In response, the project employs claymation as a medium to reduce visual density and introduce material expressiveness.

The paper examines key visualisation strategies, including minimalism, controlled rhythm, symbolic metaphors, morphing through material transformation, and the use of scale, lighting, and transitions. It also discusses the design of a child-centric representation of Hanuman to foster relatability and emotional engagement. These approaches collectively support the communication of complex themes and emotions in a manner appropriate for young viewers.

The resulting film, *Chalisa* (2024), demonstrates how tactile animation and thoughtful design strategies can make intricate mythological narratives accessible without oversimplification. The paper documents this process as a design-led inquiry, offering practical insights for translating culturally embedded content into engaging visual forms for children.

1. Rationale for choosing Hanuman Chalisa

In India and its diaspora, there are several religious hymns, epic poems, and texts that are recited in the belief of evoking the blessings and power of the supreme energy. Philip Lutgendorf describes how worship places special focus on chanting and singing hymns, which are a résumé of the deity, and highlight their deeds and qualities [1].

Hanuman, revered as a Hindu monkey god, is known for his strong devotion towards Rama, a quality well-expressed in the Hanuman Chalisa. It is a hymn of forty *chaupais* (four-line verses) and three *dohas* (two-line rhyming couplets), two in the beginning and one at the end, composed by the Hindu Saint Tulsidas during the Bhakti movement in the 16th century. The hymn was composed in the Awadhi language rather than Sanskrit, enabling it to be sung and understood by common people and not just learned scholars; as a result, it has become one of the most recited hymns in India [2]. Due to its accessibility, simplicity, and musical nature, it naturally attracts everyone's attention, notably children.

From an animation perspective, this hymn has already established lyrics. Structurally, the opening verses of the Hanuman Chalisa introduce Hanuman and his parents and detail his physical appearance and virtues like strength, speed, knowledge, and devotion. The central portion of the hymn describes the tasks he undertook, encompassing the stories from the Ramayana. The concluding section describes the powerful impact of singing this hymn on the devotee. It focuses on the inner transformations one undergoes after reciting Hanuman Chalisa. The blessings and boons one receives finally lead to meeting Rama, the divine self and the hero of the sacred Hindu epic Ramayana. Multiple significant characters are referred to throughout the text, such as Rama, Lakshman, Sita, Anjani, Kesari, Narad, Saraswati, Vibheeshan, Sugreeva, Brahma, Rishi Sanak's son, Kuber, and Tulsidas. This multiplicity of characters and associated stories, assisted in brainstorming the visualisation of the hymn. At times directly and at times symbolically.

Hanuman's stories of saving Rama's brother Lakshman, helping Sita (Rama's wife) reunite with Rama, and many others are spread across South Asia, Southeast Asia, and beyond [2]. As described by Bhogal [3], he embodies essential virtues such as self-belief, knowledge, humility, and inner strength, making him an ideal role model for children. Such qualities are especially important in early childhood, as they help to shape physical and mental well-being.

A vast range of visual media related to Hanuman already exists, as discussed later in this section, making him an accessible figure for today's generation. Retelling a familiar, musical narrative in a visually rich yet minimal and tactile manner became the central motivation for creating Chalisa, with a focus on enhancing accessibility for children.

2. Mythological Narratives for Children: Identifying the Gap

Animation for children transports them into a world of fantasy. It immerses them in a world full of colours, characters, and unfamiliar environments. It is a powerful instrument that also supports learning during early childhood. As Jean Piaget [4] emphasizes, children learn cognitively through symbolic representations and imagination; animation aligns with these principles. However, recent discourse indicates that the modern generation faces overexposure to media featuring high-speed visuals. Prolonged exposure to such media can negatively affect a child's attention span and sustained engagement [5]. This trend has led to a growing need

for more meaningful, slower, and accessible forms of storytelling that allow children to process information without excessive cognitive load. A key question that arises is, how can emotions like fear or anger be communicated without relying on overpowering visuals?

This task is even more challenging when translating mythological content due to its inherent complexity, with multiple layers of meaning, including symbolic and metaphysical [6]. Its representation in a visual form requires careful simplification without losing the essence. The Hanuman Chalisa is one such text that embodies these complexities. While multiple adaptations of this hymn already exist, they rely on 2D, 3D, or, more recently, AI-generated techniques and often use visually dense forms of representation.

In contrast, stop motion, specifically claymation, provides a unique aesthetic and narrative approach. As Purves [7] notes, stop-motion stands out due to its emphasis on texture, space, depth, physicality, and lighting. Claymation is a type of stop motion where clay is used as the primary material to animate. The term ‘claymation,’ coined by Will Vinton, conveys a more grounded, tactile feel, which distinguishes it from digital techniques. Some well-known children’s content using this technique, such as Wallace and Gromit, Gumby, Shaun the Sheep, and Pingu, demonstrates its effectiveness in creating character-based emotional narratives that appeal to children. When it comes to telling mythological stories in stop motion, Ray Harryhausen, the American-British animator, created several mythical creatures for films like *Jason and the Argonauts* (1963) or *Clash of the Titans* (1981). Due to its creatures, gods, and larger-than-life heroes and adventures, Harryhausen considered Greek mythology “a rich source for fantasy projects and, therefore, stop-motion animation.” Similarly, the Japanese animator Kihachirō Kawamoto animated several films based on Japanese myths. Most of his animation consists of characters led heavily by strong gestures rather than dialogue. Another animator from Germany, Lotte Reiniger, uses minimal visual language to depict mythical, fantasy characters in a cut-out silhouette style. Her film *The Adventures of Prince Achmed* (1926) is an example of that. In India, several mythical animations are created based on characters like Ganesha, Rama, Krishna, and Arjun, but mostly follow the technique of 2D or 3D animation. While some of the independent animators and studios have explored stop-motion animation, it remains underexplored for retelling mythological content in a minimalistic and visually less overwhelming manner for children.

2.1. Other Animated depictions of Hanuman

Hanuman has been the most frequently animated mythological character in India. The first animated feature film on Hanuman (Samant, 2005), which broke many records, was a 2D animation where his entire life journey was depicted from childhood to adulthood. Mitra [8] states that this success inspired other filmmakers to turn mythological stories into animated films, series, and games. Films like ‘Hanuman Returns,’ ‘The Legends of Hanuman,’ and ‘Hanuman vs. Mahiravana,’ and the console game ‘Hanuman-Boy Warrior’ are a few examples.

The hymn, Hanuman Chalisa, too received special attention from animators and has been retold multiple times in different formats. YouTube has hundreds of these hymns specifically designed for children. Most of them use either 2D, 3D, or AI-generated animation techniques. Some versions, such as those by Bhajan Babies on YouTube [9], use contemporary elements to connect with the younger children. These versions feature Hanuman using maps on his phone to locate Sanjeevani and Rama using a submarine to cross the ocean. The famous Indian singer Kailash Kher [10] portrays Hanuman as an adult in another rendition. The video emphasises faith-driven interpretations. For instance, the verse “*Durgam kaaj jagat ke jete*” (all difficult worldly tasks become simple) is depicted by a soldier praying to Lord Hanuman before the battle, whereas another verse, “*Tum rakshak kahu ko darna*” (*Why should I be scared when you are the protector?*), is represented by a truck driver carrying his picture on his dashboard while driving on hilly terrain.

From a design perspective, several of these early animated adaptations prioritise visually dense compositions and digital aesthetics. This reinforces the identified gap—lack of claymation-based tactile and less visually overloaded ways to convey intricate mythological texts to children. This gap motivated the creation of Chalisa.

3. Design Process and Methodology

The undertaking was a self-initiated endeavour by the author. It took nine months to accomplish, with a team of six people: four designers/animators, one musician, and the director (first author). It started with composing initial music for Chalisa. The goal was to create a melody that was both soulful and playful, encouraging sing-along engagement and evoking a spiritual and joyful mood. Music composition, study, storyboarding, animatics, clay background designs, animation, and video compositions were carried out in an organised, parallel process. Working within a limited budget provided by the Industrial Research and Consultancy Centre (IRCC), IIT Bombay, the project aimed to adopt a creative problem-solving route to utilise the resources efficiently. The film won several national and international accolades, was shown in a few schools, and is publicly available on YouTube. [Link to the film \[11\]](#).

Material and Design Process—Why Clay? Animators worldwide have used different materials to tell their stories, evoking different meanings and emotions. Occasionally, it’s the demand of the context, and at other times it’s the emotional requirement of the film that dictates the use of a particular material. Maselli [12] states that material evokes a sense of nostalgia, especially fabric, which symbolises warmth and human connection. As Purves [7] states, the muscle memory evoked by animating a puppet is difficult to achieve through digital media.

Among the various materials, clay holds a special value due to its malleability and tactile qualities. The decision to use plasticine clay (oil-based modelling clay) in Chalisa aligns with both conceptual and aesthetic intentions. Its ductility and malleability allowed for exaggerated and dynamic movements, matching the energy of Hanuman. As Frierson

[14] notes, clay can be manipulated in numerous ways—it can be rolled, carved, folded, twisted, smeared, and flattened, enabling multiple expressive possibilities. Beyond its physical properties, clay carries an aesthetic appeal. Its pure joy and rawness adds tactile warmth and make the visual more engaging and memorable to the young viewers.

The visuals are inspired by the ancient Indian architecture with a textured, relief, handcrafted aesthetic carved by artisans. Clay became the best medium to translate a similar feel to the film. Dark sand was mixed into the clay to enhance its resemblance to the rough stone surfaces of Indian temple walls. As a medium for the film, it worked best for the children, as Bartel [15] observes that clay helps children make discoveries, imagine, solve problems, and express diverse and virtually unlimited ideas.

Character Design—Bal Hanuman (child) for Young Audiences.

The primary audience for the film was kids of all ages; this guided our decision to depict the character as a kid (Bal Hanuman). Childhood is full of innocence and curiosity. Hanuman embodies these qualities, making him a true role model for them. When Hanuman was a kid, he faced multiple challenges. He was often tested and always had to prove his devotion and powers. These experiences made him humble, confident, and powerful with a sense of purpose, emphasising that age is no barrier to greatness. In addition, children form an emotional connection with others in similar age groups or those who exhibit behaviour that is novel to them.

From the perspective of character design, it was challenging to maintain the cultural identity of Hanuman. He is a well-known monkey god with a tail, primarily represented by orange and red colours, symbolising energy and divine love. In traditional iconography, he carries elaborate jewellery and weapons like a gada (mace, a traditional weapon), signifying his divinity and bravery. To meet the pragmatic necessities of stop motion, a conscious decision was made to adopt a minimalist character design. Initially, the design included many ornaments and flowy hair, which brings visual richness but increases animation complexity. To manage these difficulties, the design was simplified without losing its core. In actual texts, it is mentioned that he wears a red loincloth around his waist. The ornaments were reduced to a single element—Kundal, an ear ornament referencing the verse '*Kanan Kundal kunchit kesa*' from Hanuman Chalisa. This minimalistic approach assisted in smooth and speedy animation without compromising Hanuman's traditional visual identity.

The choice of a child singer was another key element that helped gain the attention of the younger ones. Instead of a professional adult singer, an eight-year-old child was selected for the final composition, lending natural innocence to the film. The rawness of a child singer complemented the tactile, imperfect clay visuals and enhanced the emotional impact. The following section describes the visualisation approaches that further support the repositioning of the film for a younger audience.

4. Visualisation for Children

This section describes how this adaptation of Hanuman Chalisa differs from other versions, particularly in its focus on younger audiences. It

identifies the essential visualisation approaches that help in repositioning the film for children by making it more accessible and engaging.

Minimalism and controlled rhythm. The film frames were kept simple with limited elements moving making it easy for children to follow without overstimulating their brains. Most backgrounds remain static, with primarily the character animating in the foreground. This aligns with Christakis [5], who emphasises that focus remains essential for decision-making capability and deep thinking. Accordingly, the film adopts a slower rhythm, helping reduce the cognitive overload and helping sustain attention.

Morphing through Clay. Building on the material justification discussed previously, the inherent malleability of clay was used to morph the character from one position to another. These fluid transformations make the animation enjoyable without compromising the devotional theme, along with showcasing Hanuman's inner joy and active being.

Symbolic and Visual Metaphors. The film opens with a visually poetic scene where a branch grows, giving rise to tender buds that bloom into butterflies and swans. (Fig. 1) These slow motifs unfold into butterflies and swans. Kids are naturally attracted to butterflies due to their playful nature. Furthermore, symbolically, they represent lightness. Swans, on the other hand, portray clarity with their calm and graceful form. The goal is to convey the essence of the hymn without requiring cultural or textual knowledge.



Fig. 1. A visual from the film, opening verse.

In one of the stories of Ramayan, Hanuman went to meet Sita, who was abducted by Ravan in Lanka (Ravan's kingdom) and was kept in Ashoka Vatika (a garden in Lanka). In the film *Chalisa*, this event is depicted through Hanuman riding on a single big leaf and meeting Sita. Here, the leaf serves as an abstraction of the vastness of Ashoka Vatika, conveying the idea of a larger environment in a simplified visual manner. In the concluding verses, the flames passing through *jalīs* (lattice structure) and light create dynamic visual movement that captures the attention of children; along with it, they also function as a symbolic metaphor for spiritual awakening. Through these metaphoric representations, the film engages with children without requiring them to have prior cultural knowledge.

Playfulness with authenticity. The adaptation tries to balance the playfulness with devotional authenticity, repositioning it for children. Some child-centric, innocent gestures have been introduced to fulfil this purpose.

In one of the verses, Hanuman is shown full of energy, friendly, and accommodating as he greets another monkey before leaping into the comforting arms of his mother, Anjana. (Fig. 2). Being the lord of monkeys, his greeting to another monkey with a high-five is designed to establish a direct connection with children.

Fig. 2. A visual from the film, Hanuman in his mother Anjana's lap.



Along with the visual engagement, key traditional elements are maintained. His big earrings, Kanan Kundal, are emphasised by close-up framing and interaction with the *gada* (mace), hitting the kundal and drawing attention to them. This way, the visuals help in a clear depiction of the text and enable the young viewers to connect to the character well.

Similarly, there are other moments of playfulness within an otherwise intense scene. When Hanuman gets the Sanjeevani herb to save Ram's brother, Lakshman's life, he uses his tail to deliver the herb directly into Lakshman's mouth. (fig. 3) The shot not only conveys the urgency and care of the helping nature of Hanuman but also introduces a sense of play, making it delightful for children.

Fig. 3. Visual from the film. Hanuman lifts the Sanjeevani hill and saves Lakshman.



Scaling, Lighting, and Transitions. The adaptation uses scaling, lighting, and transitions as important techniques to improve the visual experience by guiding attention and maintaining narrative continuity.

In his visit to Lanka, secretly meeting Sita and then burning Lanka, Hanuman's ability to shapeshift between *sukshma* (small), *vikat* (large), and *bheema* (fierce) forms is depicted through some dramatic scale changes. He is first shown in a *sukshma* roop riding on a large leaf as a prop and flying across Sita. For the *Vikat* and *Bhima* roop, he is visually depicted as larger than the kingdom itself, burning Lanka and killing the *rakshasas* (fig. 4).

As a wonderful cinematic experience, the extension of the tail acts as a bridge from one chaupai to the other, creating a smooth visual flow and comprehension, revealing the next katha (story).

Lighting further contributes to Chalisa's repositioning. An underlit technique has been applied to render certain sections of the film, which

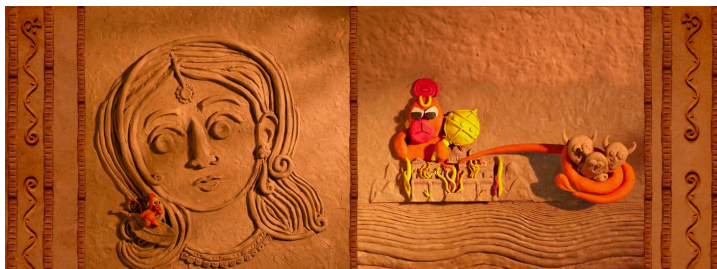


Fig. 4. Visual from the film. Hanuman is the Sukshma form crossing Sita and Vikat, the Bheema form burning Lanka.

breaks the visual monotony, sustaining audience curiosity about the next scene. In one of the stories, baby Hanuman mistakenly eats the sun, thinking it to be a fruit. The sun's disappearance resulted in the abrupt darkness, which then shifted to illuminated scenes symbolically indicating Hanuman's innocent curiosity and hunger for light and knowledge.

The entire last scene was transitioned from underlit to completely lit. The flame in the passage passing through the jalis ultimately lit up Tulsidas. Overall, the play of light increases interest and adds depthful meaning to the visual representation of the writing. These components made an otherwise complex literature accessible and engaging for a younger audience.

Representation of Fear-Inducing Scenes. The adaptation depicts the often भय (fear)-inducing episodes in a way that lowers intensity and avoids overstimulation for children. Hanuman willingly entered Surasa's (sea demoness's) big mouth while crossing the ocean. This visualisation does not directly depict the inside of her mouth as a literal anatomical space. Multiple arches represent the layers and depth of the problem. Hanuman moves through them courageously, portraying him as someone proactive, taking the initiative, and a problem-solver. There was an attempt to design the frightening elements engagingly rather than overwhelming the young viewers. The scene further includes Hanuman playing hide-and-seek in those arches with the ghosts, transforming fear into a manageable and even playful thing.

This not only aligns with the emotional needs of children but also establishes the fearless, confident nature of Hanuman. Overall, it contributes to making complex emotions reach the children gently and in a manageable way.

5. Conclusion

This paper presents the design and production of a claymation adaptation of the *Hanuman Chalisa*, demonstrating how a traditionally dense and layered mythological text can be repositioned into a child-accessible

form. By employing the tactile medium of clay, the film establishes a strong sensory and emotional connection, enhancing expressive qualities through rhythm, movement, and materiality.

The study highlights how design strategies such as minimalism, symbolic representation, the use of scale, light and transitions, and the careful treatment of complex emotions enable the translation of intricate narrative content into a form that is accessible, engaging, and developmentally appropriate for children. These approaches collectively contribute to reducing visual overload while maintaining narrative depth and authenticity.

The film was well-received across screenings and film festivals, and its online release on YouTube on October 18, 2025, garnered substantial viewer engagement, reflected in audience responses and repeat viewership. Future work may include a more structured evaluation of the film's impact on children aged 3–8 years to assess its effectiveness in supporting engagement and comprehension. Overall, the study offers practical insights into translating layered cultural content into meaningful visual narratives through claymation, with implications for children's media and design pedagogy.

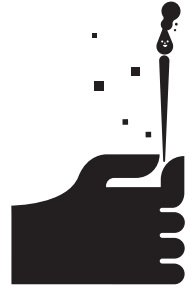
References

1. P. Lutgendorf, *Hanuman's Tale: The Messages of a Divine Monkey*. Oxford University Press, 2007. doi: 10.1093/acprof:oso/9780195309225.001.0001.
2. D. Bushey, "Hanuman and the_ "Hanuman_Chalisa," University of Missouri, Kansas, 2001.
3. N. K. Bhogal, *The Hanuman Code: A Blueprint for Career Excellence*. Authors Click Publishing, 2025.
4. J. Piaget, "Development and learning: 35piaget-child-development," 1964.
5. D. A. Christakis, "The effects of fast-paced cartoons," 2011, *American Academy of Paediatrics*. doi: 10.1542/peds. 2011-2071.
6. J. Campbell, *The Hero with a Thousand Faces*, vol. 17. New World Library, 2008.
7. B. Purves, *Stop motion: passion, process, and performance*, 1st Edition. New York: Routledge, 2012.
8. M. Mitra, "Religion Commons, and the Sociology of Religion Commons Recommended Citation Mitra," 2019.
9. "(530) Hanuman Chalisa | Animated Cartoon For Kids | Sri Ganapathy Sachchidananda Swamiji - YouTube." Accessed: Apr. 01, 2026. [Online]. Available: <https://www.youtube.com/watch?v=8AhgmklKFQs>
10. "(530) Hanuman Chalisa Full By Kailash Kher | Jai Hanuman Gyan Gun Sagar | Hanuman Chalisa With Lyrics - YouTube." Accessed: Apr. 01, 2026. [Online]. Available: https://www.youtube.com/watch?v=tN92_qwdHzc
11. S. Agarwal, "CHALISA - YouTube." Accessed: Dec. 22, 2025. [Online]. Available: <https://www.youtube.com/watch?v=byaszEoAOYY>
12. [V. Maselli, "Narrating Fabrics: Nostalgia in Animated Puppets' Skin," *Animation*, vol. 19, no. 1, pp. 27–42, Mar. 2024, doi: 10.1177/17468477241233249.
13. M. Frierson, *Clay Animation: American Highlights 1908 to the Present*. New York : Twayne ; Toronto : Maxwell Macmillan Canada ; New York : Maxwell Macmillan International, 1994.
14. M. Bartel, "Clay and Kids: the natural way to learn," Studio Potter, Jun. 2022.

Therapsids in the Wild: Paleo-animation at the Karoo Origins Centre

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Abstract

Academic inquiry into non-fiction animation has predominantly focused on filmic narrative, with animated documentary acting as its fulcrum. Little attention has been paid to how this form operates in site-specific works and curated spaces like museums and other exhibition spaces. Paleoart – the scientific or naturalistic rendering of paleontological subject matter – a staple of paleontological exhibitions in Natural History museums and operating at the interface between empirical science and artistic practice, serves as a natural point of entry for this new direction of inquiry. This paper documents the creative process behind the creation of the watering hole diorama animation at South Africa's Karoo Origins Centre and analyses it in relation to theories of animated documentary, using the framework of 'useful animation'. The diorama, depicting fauna and flora in the Permian-era Karoo, and recent winner of the prestigious 2025 Lanzendorf National Geographic Paleontological Art award, presents a highly relevant contemporary case study for interrogating how theories of animated documentary and non-fiction animation can be understood in the context of paleoart and museum spaces.

Keywords

Paleoart; Non-Fiction Animation; Useful Animation; Animated Documentary.

1. Introduction

The Karoo Basin, situated in South Africa's south-eastern quadrant, is home to the Karoo Supergroup, a stratum of rocks that contain the world's most complete record of the evolutionary development of tortoises, mammals and dinosaurs from the Late Carboniferous to the Early Jurassic periods (300-180 million years ago) [1]. The Karoo Origins Fossil Centre, located in the town of Graaff Reinet, South Africa, houses the Rubidge Fossil Collection, comprising fossils discovered in the Karoo Basin by farmer Sidney Rubidge, assisted mainly by paleontologists Dr Robert Broom, Mr Cornelius (Croonie) Kitching and his son Professor James Kitching, in the 1930s. The centre's layout and displays, which include multiple sculptures, animations, illustrations, and infographics, were designed by animation company Fancy Horse Studios in collaboration with Professor Bruce Rubidge (grandson of Sidney Rubidge) and in consultation with paleontologists from Russia, the USA, South America and South

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Africa. The centrepiece of the museum is an animated diorama depicting several types of therapsids (mammal-like reptiles) gathered around a Karoo watering hole in the Permian period. The diorama is a significant contribution to paleoart in general and paleo-animation specifically, having won the prestigious 2025 Lanzendorf-National Geographic Paleo Art Award for Digital Modelling and Animation and considered to be the most accurate extant visualisation of therapsids from the Permian period.

This paper analyses the watering hole diorama at the Karoo Origins Fossil Centre as a case study for non-fiction animation in a museum context, outside the format of filmic narrative, using theories of animated documentary. The analysis is structured using the framework of ‘useful animation’ developed by Cook et al. – denoting “all uses of animation for research, education and communication” [2]. The framework proposes three categories for analysis: *iconography* (how the animation builds on existing graphic traditions), *infrastructure* (the institutional context for the animation) and *impact* (the influence or effects that the animation has had on its field) [2]. Primary data collection was done through a site visit to the museum, with extensive documentation of the museum displays and the watering hole diorama, as well as an in-depth interview with Colin Payne and Dianne Makings, director and producer at Fancy Horse Studios.

2. Iconography: Paleoart Meets Paleo-animation

Paleoart, defined by The Society of Vertebrate Paleontology as “the scientific or naturalistic rendering of paleontological subject matter” [3] is a distinct area of creative production that exists by virtue of the collaboration between science and art, an interface between hard evidence and speculative reconstruction. Its origins go back to Leonardo Da Vinci’s 15th century renderings of fossil traces and 16th century illustrations of fossil collections in what were prototypes of modern museums [4]. Parallel to these ‘documentary’ renderings of fossil specimens, there developed a parallel branch of paleoart that extrapolated fossil evidence to visualize what these extinct creatures might have looked like wholly reconstituted, sometimes placed within their natural environment. This branch of scientific/artistic visualization, by virtue of its interpretative modality, constituted a subjectivity that engendered debate and laid the foundation for the contemporary role of paleoart as “reflecting the principles, the limits and perspective or even anticipatory visions” of paleontological knowledge [4]. In the 1800s, paleoart became more firmly established as a distinct field of practice, with an expanding corpus of illustrations accompanying technical treatises on prehistoric life, as well as the first life-size sculptural reconstructions of dinosaurs and other prehistoric creatures [4]. In the 20th century, these reconstructions and visualisations of the prehistoric world expanded still further into the realm of animation, both as paleoart *proper* (falling under the broader category of ‘paleoimagery’ and what can now be categorized as ‘useful animation’) in documentaries and educational films and its more fantastical derivatives in popular cinema. Based on the work of paleo-artists like Charles Knight [4], the paleoimagery in popular cinema held the leading edge in not just

reconstituting the ancient world, but quite literally re-animating it – bringing it back to life. From its genesis with Windsor McCay introducing audiences to an animated Brontosaurus and Woolly Mammoth in his *Gertie the Dinosaur* stage show and theatrical film in 1914 and Willis O’Brien’s early attempts at stop-motion animation in *The Lost World* (1925) and *King Kong* (1934), popular cinema’s visualizations of dinosaurs and other prehistoric life steadily grew in scope and paleontological veracity (with many deviations into overt fantasy) over the course of the century. In 1993, a new standard of photorealism was achieved with Steven Spielberg’s *Jurassic Park*. Based in large part on the illustrations of paleo-artist Gregory Paul [4], the film combined animatronic puppets with CGI to create never-before-seen, incredibly life-like images of dinosaurs. The success of the film led to the development of documentaries that used similar photoreal CGI to recreate prehistoric life (most notably the BBC’s *Walking with...* franchise (1999-)... and its recent Apple TV *Prehistoric Planet* series (2022-)) and greatly impacted the further development of paleoart, with CGI to a large extent replacing other traditional media and methodologies as the standard medium for reconstruction [4].

Where paleoart and ‘paleo-animation’ follow a process of reconstruction based on available evidence, they include an “entirely hypothetical component” that is “essential and unavoidable”, merging “aesthetic and scientific knowledge” [4] that fits comfortably within the theories of animated documentary and non-fiction animation, focused as they are on the interrogation of the tension between fact and fantasy, the constructed and the indexical, science and speculation. Even though there is some academic writing on paleo-animation in the context of animated documentary [5][6], it has focused on filmic forms and narratives and has omitted an interrogation of how paleo-animation can be understood within the context of museum displays, where the ‘institutional context’ [2] plays a crucial role in granting the animation legitimacy and authority.

3. Animating the Permian-era Karoo

3.1. Infrastructure and Paleo-animation’s Marks of Authenticity

A central theme of academic inquiry into animated documentary and animated non-fiction has been the concern over how animation can function legitimately as a non-fiction medium, given that it lacks the indexical bind between events in the real world and their representation on screen that is the hallmark of live-action photographic media [5][7][8]. Honess Roe addresses this question by appealing to the pragmatic affordances that animation offers in contributing to documentary discourse that are beyond the scope of live action, namely *mimetic substitution*, *non-mimetic substitution* and *evocation* [5]. Of these *mimetic substitution*, where “the animation illustrates something that would be very hard, or impossible, to show with the conventional live-action alternative and often...directly standing in for live-action footage” [5], most closely reflects how animation functions in the Karoo Centre’s watering hole diorama specifically and in paleoart and paleo-animation as a whole. In discussing this func-

tion, Honess Roe presents an analysis of two seasons of the BBC's *Walking With...* series, the original 1999 *Walking With Dinosaurs* and one of its sequels, 2012's *Planet Dinosaur*. In both the watering hole diorama and the *Walking With...* series the credibility of the animated reconstructions - what Formenti refers to as non-fiction animation's 'veridictive mark' [8] - rest on an appeal to authority and the use of visual cues, but each differs in how they achieve this.

In his *Introduction to Documentary*, Nichols refers to the 'institutional framework' as a key factor in giving credibility to documentary film and in determining how the public will receive it [9]. The BBCs imprimatur on the *Walking With...* series both officially categorises it as 'actuality' programming and grants it that institution's reputation for quality and truthfulness. Its second appeal is via photorealism, where the dinosaurs are made to "look, move and sound as science would expect them to" and where not only is "the animation designed to look like reality as we experience it, but more importantly to mimic reality as it is re-represented on film" [5], using narrative frameworks and filming styles that evoke live-action nature documentaries. Honess Roe points out that while the original 1999s *Walking With Dinosaurs* uses a classic, David Attenborough-style nature documentary format, one of its follow-ups, the 2012 *Planet Dinosaur*, differentiates itself with a faster editing style, simulated hand-held camera movements and 'night vision' filters to imply the presence of a live camera crew filming the dinosaurs [5]. Finally, the series uses what Nichols terms 'Voice of God' style of narration, a hallmark of 'expository'-style documentaries [9], where an authoritative, disembodied voice carries both "information and authentication" [5]. This use of familiar visual and auditory cues triggers audiences' past associations with the nature documentary format and reassures them that what they are seeing is credible.

In contrast with the *Walking With...* series, the watering hole diorama draws its authority primarily through its placement within the context of a museum which, while functioning similarly to a broadcaster like the BBC in its capacity as an authority-bestowing institutional framework, arguably carries an even greater aura of authentication through its cultural legacy [10]. The Karoo Origins Centre's floorplan is arranged so that visitors pass through several rooms before arriving at the watering hole animation. The first of these displays a large print with skeletal reconstructions of several therapsid types. In the lexicon of paleoart, 'reconstructions' differ from 'restorations' in that they require the least amount of extrapolation and though they can range between varying levels of

Fig. 1. A chart showing skeletal reconstructions of various therapsid types (left) and a map and historical photographs showing fossil sites in the Karoo Basin (right), both located in the first room visitors enter at the Karoo Origins Centre.



probability, are “deeply rooted in scientific thought” [4]. The room also contains a detailed map and photographs of the various fossil sites in the Karoo Basin, as well as the biographies of and correspondence between the key figures in the Rubidge Collection’s history – Sidney Rubidge, Robert Broom and Cornelius and James Kitching.



Fig. 2. Display cabinets containing fossils from the Rubidge Collection, situated in the third room/hall of the Karoo Origins Centre.

The second room gives contextual information for where the collection fits in the geologic timeline of Earth’s history with the formation of the Karoo, as well as an animation rendered in a ‘story book’ style explaining how fossils are formed. The third room, or hall (Figs. 2-4), contains the bulk of the fossil collection *proper*, as well as a freestanding ‘island’ diorama showing sculptures of the gorgonopsian *Rubidgea atrox* – a saber-toothed predator – attacking a smaller dicynodont *Aulacephaloden bainii*, with a larger *Pareiasaurus serripens* standing nearby and much the smaller dicynodonts *Diictodon feliceps* scurrying about and tending to their eggs in an underground burrow.



Fig. 3. A wider view of the third room/hall at the Karoo Origins Centre, showing the island diorama with *Pareiasaurus serripens* on the left and the gorgonopsian *Rubidgea atrox* on the right. Display cabinets containing fossils can be seen in the background.

This room then leads directly to the Watering Hole diorama viewing room. The arrangement of these rooms presents visitors with a causal chain of authentication, beginning with physical fossil data and the docu-

Fig. 4. A close-up of the island diorama, showing the gorgonopsian *Rubidgea atrox* attacking the dicynodont *Aulacephalodon bainii*, with the smaller dicynodonts *Diictodon feliceps* beneath them.



mentation and history of its collection, to scientific skeletal reconstructions, progressing to the scientifically-grounded but nonetheless speculative three-dimensional sculptural restorations of various therapsid types in their environment, finally culminating in the fully animated restoration of the various therapsid types and their environment in the watering hole diorama. This chain of causation constitutes a ‘narrative space’ [11] of paleontological rhetoric, describing the evolution from artifactual empirical evidence to theoretical extrapolation. The museum also contains what Achiam, May and Marradino have termed a collection of ‘cognitive affordances’ [12], allowing visitors to compare and make connections between the various artifacts on display, tracing the evolution from fossils to the fully reconstituted and animated therapsids.

3.2. The Permian-era Karoo Watering Hole

The watering hole diorama – in some respects the centrepiece of the museum – is a six-meter-wide digital projection, depicting various therapsids congregating and interacting around a watering hole in the late Permian period (around 250 million years Ma). According to Makings and Payne the idea, originating with Prof Bruce Rubidge, was to transport viewers back in time “but in a familiar setting”, mirroring an experience familiar to visitors of contemporary wild game parks, viewing animals gathered at a watering hole [13]. This concept naturally lent itself to the format of a diorama (also in part influenced by Payne’s experience of seeing the Boonstra² displays as a boy in the Cape Town Natural History museum), a form dating back to late 19th Century Europe and North America and still a feature of many contemporary natural history museums around the world. It traditionally combines taxidermied and sculpted animals, models and illusionistic background painting to reconstruct an amalgamation of the fauna and flora of particular geographical regions or environments [15][16] to create the illusion of a real habitat, one that “contributes to a sense of place, inspires memories and connections to places, real or imag-

² The Boonstra Diorama, formerly at the Iziko Museum, Cape Town, opened in 1959 and was the first exhibition in South Africa to display 270 million-year-old fossils from the Karoo, together with reconstituted sculptures of creatures based on these fossils [14]

ined” [15]. Approximating the format of a physical diorama, the watering hole animation shows a single, locked-off shot running on a continuous loop, restarting seamlessly every six minutes and eighteen seconds, featuring the group of therapsid types introduced to visitors in the island diorama and in various other graphics and paintings in the preceding rooms. The looping narrative means that the animation is ever-present in the space, allowing viewers to begin watching at any point and never be ‘taken out’ of the experience by having the projection fade to black.



Fig. 5. Two images from the looping narrative of the watering hole diorama. The top image shows the gorgonopsian *Rubidgea atrox* in the foreground, with the *Pareiasaurus serridens* to the right, in the distance. The bottom image has a herd of *Kitchinganomodon crassus* dicynodonts crossing the water, with the gorgonopsian having moved off the right side of the composition.

This format of a continuously looping single locked-off shot presented several technical challenges for the animators. Unlike the documentary style of the *Walking With...* series, there were no opportunities to use camera movement and editing to create breaks in the animation, which meant animating what Makings refers to as “a six-minute crowd scene” [13] with the coordination of the creatures’ movements requiring careful choreography and a degree of artifice that is not

at odds with that of traditional dioramas [17]. The lack of cinematic techniques also meant differences in pacing and dramatic action to those used in documentary narratives. While the diorama does have one moment that is mildly dramatic – the predatory gorgonopsian chases off a herd the dicynodont *Aulacephaloden bainii* drinking at the watering hole – it’s devoid of the kind of cinematic action one associates with contemporary nature documentaries and instead focuses on showing more naturalistic interactions between the various creatures. These differences between the cinematic format of the *Walking With...* series and the Karoo Watering Hole diorama mirror some of the differences between nature photography and traditional dioramas. As Morris notes, dioramas predated and were then to some extent replaced first by photography and later television, and while traditional dioramas may be critiqued for appearing static and artificial when compared to photography and the televisual image’s immediacy, each medium has its own successes and failings [17]. While the digital diorama lacks some of the key features traditional dioramas (such as physical three-dimensionality), it retains many of the virtues of its traditional counterparts, communicating information about the appearance and behaviour of multiple creatures in a single scene through careful staging and coordination [17]. The visitor is presented with a vista inhabited by restorations of the complete taxonomy of therapsids from the Permian period in the Rubidge collection, though this grouping is never made to look artificial by virtue of the framing device of the watering hole tableau. Where *Planet Dinosaur* simulates cinematic techniques like hand-held camera movement and night-vision filters to evoke the co-presence of a camera crew in the documentary’s diegetic space – thereby authenticat-

ing the animation through a simulation of ‘liveness’ – the visitor’s sense of co-presence within the projected habitat of the watering hole is sustained through the deployment of various *tromp l’oeil* effects. These include the composition of the scene approximating the viewer’s eye-level, presented at life-size (receding into the distance using diminishing scale and atmospheric perspective) with foreground elements in shadow and silhouette framing the scene (a common device in traditional dioramas (17)), facilitating the illusion of the darkened room’s floor merging with the ground plane of the animation. There is no narration that accompanies the projection of the diorama and the only sounds heard are those emanating from the diegesis, as made by the creatures and occurring within the environment.

3.3. Empiricism, Extrapolation and Impact in Paleo-animation

Concomitant with the immersive design of the diorama is the realism of the modelling and rendering of the environment and the creatures in it. As noted by Manucci and Romano, the success of Spielberg’s *Jurassic Park* saw CGI almost entirely replace other media in paleontological restoration, becoming the new standard in generating paleoimagery [4]. The modelling and animation of the creatures in the Watering Hole diorama continues this trend and was influenced in part by the *Walking With...* series, itself a result of the *Jurassic Park* phenomenon [13][5]. Designed in collaboration with the international team of palaeontological experts, the Watering Hole diorama’s aesthetic (including both creatures and their environment) can be categorised as ‘theoretical photorealism’ which Ehrlich defines as animation that “is used to depict data, to re-enact events...or to simulate scientific theories” that is “based on accurate data and calculations but involves unobserved occurrences...” [7], which aligns closely with Honess Roe’s notion of mimetic substitution. The reconstruction of each creature began with the scanning of skull fossils and other body parts, which were then digitally ‘inflated’ (as fossils are often distorted through compression over millennia) to create base models which were ‘filled-in’ with muscle, fat and skin in CGI modelling software. Work then began with a concept artist to develop a look and feel for each of the animals, including colour schemes (with the intent of each creature being easily recognisable as visitors walked through the exhibit) before developing more detailed anatomical models. During this process, consolidated feedback was provided by the international team of palaeontologists. Due to the relatively small research interest in this specific area of palaeontology, most researchers studying therapsids have lacked funding to commission models and so the collaboration with Fancy Horse effectively served as a kind of “R&D” into how these creatures would look and move [13], giving the animators the opportunity to develop never-before-seen prototypes and enacting what Manucci and Romano identify as paleoart’s function of “enter[ing] decisively and strongly into the [palaeontological] debate, generating...questions and major interpretative problems to be solved” [4]. It also meant that the animators had a greater degree of freedom of speculation than paleoartists are usually afforded, as observed by Payne:

“If you’re working on a reconstruction of Cro-Magnon man, you’re going to have some pushback. You start trying to change what T-Rex looks like, everyone has an opinion. [But if] you’re working on *Rubidgea Atrox*, most people say, “What’s that?” [13].

3D software was used to test the researchers’ theories pertaining to the forms and mobility of the various creatures, with the final designs arrived at through an iterative process. While choices were made based on the available scientific evidence, a certain degree of extrapolation was inevitable, particularly with regard to details like the creatures’ skin, movement – which were in part based on contemporary Gila monsters and Komodo dragons – and the sounds that each creature would make, using references of contemporary reptiles and animals with similarly shaped mouths. Animators were given free rein to imbue personality into the motion and performance of each creature, which were then appropriately ‘dialed back’ for a greater degree of naturalism and believability in the final CGI models that appear in the diorama [13].

Gurevitch considers the use of CGI in non-fiction animation as creating simulations that are both “attractions and visual signifiers of expertise”, positing that non-fiction animation is primarily a form of spectacle (a ‘special effect’ – as is the case with all forms of animation) and that “photo-real simulation has gradually come to be the spectacular expression of empirical mathematical calculation made visible” [18]. In his view, the very fabric of CGI animation leads to a perception in the viewer that it carries with it an authority resting on assumptions of scientific rigour, lending it automatic credibility, with “data, simulation and expertise explicitly deployed as specific forms of spectacle to support the rhetorical aims of documentary filmmakers” [18]. Gurevitch’s argument is valid in explaining some of the authority that is seemingly embedded in CGI paleoart reconstructions. However, his claim that

“data and the spectacle of data generally underlie a simulation’s claim to veracity but are often only implicit, in the sense that the viewer has no real way of knowing how much data is being drawn upon or of what quality the data are” [18]

while possibly true in the context of documentary, does not necessarily hold in a museum setting, where the cognitive affordances of the curated museum narrative reveal the causal chain from raw fossil data to fully fleshed-out CGI simulation. The animation’s veridictive mark is present not just in the simulation but is distributed across the museum space as a whole, with the simulation one part of a larger evidence-based narrative. While museum visitors will likely not have detailed knowledge of the reconstruction process and therefore not be aware of the degree of extrapolation that goes into the creation of CGI simulations, this is a critique that can be applied equally to all paleoart, as non-experts and non-enthusiasts are seldom aware of the degree of extrapolation that goes

into these reconstructions and the differences that may exist in interpretation of the fossil evidence among paleontologists.

The design process behind the animation of the watering hole diorama shows how the use of CGI in paleo-animation goes beyond mere spectacle and functions as a legitimate speculative research tool, embodying what Manucci and Romano refer to as paleoart's "actualistic logic...in which what is visible today becomes the interpretative key to interpreting the past" [13]. In the context of the useful animation framework, it demonstrates the impact that non-fiction animation has had and continues to have on professional fields, affording "new ways of seeing" that has "not only help[ed] to visualize existing disciplinary knowledge, but also contributed to the evolution of that knowledge" [2].

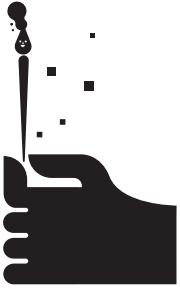
4. Conclusion

The Karoo Origins Centre's watering hole diorama presents a highly relevant case study for exploring the points of convergence between non-fiction animation and paleoart, where the empirical and the hypothetical operate in tandem and art can be used to reflect on and deepen our collective understanding of history and actuality. In becoming exposed to the processes of reconstruction and restoration used by animators working in the sphere of paleoart, creatives working in non-fiction animation and animated documentary more broadly can draw lessons from the specificities, constraints and rigour of these practices. The diorama also illustrates how non-fiction animation can function outside of documentary film modalities, what affordances and modes of authentication are granted it in a museum setting and how animators can exploit formats and spaces to create narratives that are not limited to a single-screen linear narrative. Both these topics remain rich sites for further research and the further development of theories of animated documentary and non-fiction animation, which up until now have been predominantly focused on animation in the context of filmic narrative and have mostly omitted site-specific works and curated spaces.

References

1. Rubidge, B.: The Karoo, a Geological and Paleontological Superlative: Economic Potential of Deep History. Karoo Development Foundation. <https://karoofoundation.co.za>
2. Cook, M., Cowan, M., Curtis, S.: Useful Animation: Iconography, Infrastructure and Impact. *Animation: An Interdisciplinary Journal*. 18:3, 196-226 (2023)
3. Society of Vertebrate Paleontology, <https://vertpaleo.org>
4. Manucci, F., Romano, M.: Reviewing the Iconography and the Central Role of 'Paleoart': Four Centuries of Geo-Paleontological Art. *Historical Biology*. 35:1, 1-48 (2023)
5. Honess Roe, A.: *Animated Documentary*. Palgrave Macmillan, United Kingdom (2013)
6. Honess Roe, A.: Playing God: Film Stars as Documentary Narrators. In: Honess Roe, A., Prammagiore, M. (eds.). *Vocal Projections: Voices in Documentary*. Bloomsbury Academic, New York (2018).

7. Ehrlich, N.: *Animating Truth: Documentary and Visual Culture in the 21st Century*. Edinburgh University Press, Edinburgh (2021)
8. Formenti, C.: *The Classical Animated Documentary and Its Contemporary Evolution*. Bloomsburg Academic, London (2023)
9. Nichols, B.: *Introduction to Documentary*, 3rd Edition. Indiana University Press, Bloomington (2017)
10. Cain, V.: Exhibitionary Complexity: Reconsidering Museums' Cultural Authority. *American Quarterly*. 60:4, 1143-1151 (2008)
11. Macleod, S., Hourston Hanks, L., Hale, J.: Introduction: Museum Making. The Place of Narrative. In: Macleod, S., Hourston Hanks, L., Hale, J. (eds.). *Museum Making: Narratives, Architectures, Exhibitions*. Routledge, New York (2012)
12. Achaim, M., May, M., Marandino, M.: Affordances and Distributed Cognition in Museum Exhibitions. *Museum Management and Curatorship*. 29:5, 461-481 (2014)
13. Makings, P., Payne, C. Transcript of Interview with Dr Łukasz Pater. 2026/03/03. 09:58 SAST.
14. Iziko Museums of South Africa, <https://iziko.org.za>
15. Tunnicliffe, S.D., Scheersoi, A.: Introduction. In: in S. D. Tunnicliffe and A. Scheersoi (eds.) *Natural History of Dioramas: History, Construction and Educational Role*. Springer, London and Bonn, 1-4 (2015)
16. Kamcke, C and Hutterer, R.: History of Dioramas. In S. D. Tunnicliffe and A. Scheersoi (eds.) *Natural History of Dioramas: History, Construction and Educational Role*. Springer, London and Bonn: Springer, 7-20 (2015)
17. Morris, P.: Dioramas as Constructs of Reality. In S. D. Tunnicliffe and A. Scheersoi (eds.) *Natural History of Dioramas: History, Construction and Educational Role*. Springer, London and Bonn: Springer, 7-20 (2015)
18. Gurevitch, L.: The Documentary Attraction: Animation, Simulation and the Rhetoric of Expertise. In: Ehrlich, N., Murray, J. (eds.). *Drawn from Life: Issues and Themes in Animated Documentary Cinema*. Edinburgh University Press, Edinburgh, 84-105 (2019)



Reframing Rotoscoping: A Systematic Literature Review

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Keywords

Roto; 2D Animation;
Stylisation; Tracing;
Aesthetics.

Abstract

Rotoscoping, as an animating method, is not only over one hundred years old but also as popular now as it was in the early days of professional animation. Yet rotoscoping has a severe public image problem – today, it is perceived as fundamentally grotesque, low-quality, and even somewhat unethical. This situation is quite unexpected since the method itself is well analysed. Thus, the rotoscoping presents a significant theory-practice gap that needs to be addressed to resolve two key challenges regarding the method – how to employ it effectively in industry (i.e., balancing efficiency with aesthetic quality) and how to avoid its main drawbacks. The findings indicate that resolving this gap requires adopting the right mindset when approaching the method. In other words, when the method is used thoughtfully, rotoscoping not only enhances the realism and emotional resonance of animated narratives but also retains its potential as a subtle, almost imperceptible tool in the animator’s repertoire.

1. Introduction

In 1915, Max Fleischer submitted a patent application to the United States Patent and Trademark Office for a technical innovation he called the Rotoscope [1]. Max Fleischer’s proposed technological approach created a means for an animator to trace over live-action motion picture footage frame by frame. While at that point in time, it would be correct to refer to rotoscoping as a technology, today, more than a hundred years later, the term has transcended the technological apparatus and become a word that characterises the employment of live-action footage to create animated content². In other words, it is no longer a technology but a method (or technique³) to approach animation content production.

The enormous popularity that Max Fleischer’s ‘Out of the Inkwell’ series (1918-1929) received [1], [4] proved beyond any doubt that his invention – *the rotoscope* – could elevate animation content into previously unseen levels of mastery. As Fleischer [4] aptly noticed, in 1915,

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² It is necessary to note that in the 21st century, the term rotoscoping is also employed to refer to the VFX process of creating mattes [2], [3]. However, within the scope of this article, the term rotoscoping will refer only to the animation production process.

³ While this article uses the terms “method” and “technique” interchangeably, the author of this article prefers “method” as it implies that there is a more established and systematic approach to the use of live-action material in animation production.

animated cartoons were nothing much to look at – “they were called animated merely because they moved, and they did that in a crude, herky-jerky manner”. Thus, the ability of this technological innovation to demonstrate the qualitative results that animation art can achieve should not be underestimated.

However, the benefits of a rotoscope don’t end with the ability to create animated characters that move with remarkably lifelike fluidity; another significant benefit of the method was that it helped considerably reduce the time required to produce high-quality, detailed character animation. Even though, at the very start, creating rotoscoped films was perceived as a “slow, precise, [and] painstaking” process that Max Fleischer himself viewed as “an interesting, but not practical” [1]. Luckily, on that account, Max Fleischer was proved wrong, and soon the industry began to actively experiment with employing live-action references to improve animation quality (and, at the same time, reduce production costs).

In contemporary usage, the term “rotoscope” denotes animated content that is derived, to some extent, from live-action material, without specifying the exact procedure used or the extent of the animator’s reliance on the source footage. As Ortiz [5] notes, the animator ultimately decides how reality will be interpreted and what will be added to, or subtracted from, the movements of the live-action character. Similarly, Manzanera [6] argues that rotoscoping is a method of working with previously filmed material, which the animator may either interpret creatively or trace more directly. In this sense, rotoscoping seeks to render a subjective impression with particular vividness, not only by drawing frame by frame from live-action footage, but also by reshaping the figure itself to reflect the animator’s interpretation of reality. Furthermore, as Carfantan [7] argues, rotoscoping is often misunderstood by commentators who describe it merely as a “realistic” technique that “copies” cinema or reality, whereas it is better understood as an interpretive rather than a purely tracing-based practice.

Thus, rotoscoping – as a method – quickly became a popular approach to animation production. What is vital in the context of this article is that the method never falls out of fashion. Thus, unsurprisingly, the writings about the method in animation-related literature are extensive. Insights about the rotoscoping process can be found as early as Bob Thomas’ “The Art of Animation” [8] book, where he explains how this method helped Disney studio animators to create more convincing and fluid actions, especially in scenes that required complex human movements or naturalistic behaviour. Indeed, as Ortiz [5] notes, by the late 1930s Disney had surpassed the Fleischers by employing rotoscoping in a subtler and more sophisticated manner. Other books that are worth mentioning would be “Animation: The Mechanics of Motion” by Chris Webster [9], “The Illusion of Life: Disney Animation” by Frank Thomas and Ollie Johnston [10], and “Animation Art: From Pencil to Pixel, the History of Cartoon, Comic, and Graphic Art” by Jerry Beck [11].

These books not only emphasise how vital rotoscoping was to the development of animation art but also provide clear instructions for

avoiding the method's pitfalls. In other words, there is no shortage of theoretical and methodological literature that instructs how best to employ this 2D animation production method. Yet, rotoscoping has a severe public image problem – today, the result of this approach is perceived as fundamentally grotesque, low-quality, and even uncanny. Furthermore, the animators employing this method are often accused of being lazy and unskilled. This unflattering perception determines the article's actuality.

The following research questions are addressed in order to bridge the practical-knowledge gap that currently exists in the industry:

RQ1: How does the animation community perceive the rotoscoping method?

RQ2: Why has rotoscoping gained such a particular reputation?

RQ3: How can the rotoscoping method be used effectively and appropriately?

This article's main contribution is a comprehensive analysis of a dataset drawn from three types of literature: research papers on the method, literature on animation practice, and publicly available texts presenting personal positions or insights on rotoscoping. The outcome of this study is a conceptual framework that proposes the best approach to the rotoscoping method for practitioners.

2. The Rotoscoping and the Elephant in the Room

At first glance, it would be hard to believe that the rotoscoping method of animation production is so controversial and polarising today. Beginning with early animated films such as *Snow White and the Seven Dwarfs* (1937; see Fig. 1 and 2) and *Gulliver's Travels* (1939), produced in the 1930s, and continuing through to more recent works like *I Lost My Body* (2019), *The*

Spine of Night (2021), and *The Peasants* (2023), one would notice that there has not been a decade without the release of feature-length animated films. Furthermore, many of the rotoscoped movies today are regarded as cult classics. Thus, it raises the question of how rotoscoping came to be such a controversial creative approach. Therefore, before embarking on a systematic literature review of the method, it is vital to identify how the rotoscoping method is referenced explicitly in



Fig. 1. Still from the documentary *Still the Fairest of Them All: The Making of Snow White* (1994), showing actor Don Brodie, who served as the live-action performance model for the Witch. The image illustrates the extent to which live-action footage was prepared and used as a reference for Disney studio animators. Fair use.

the animation community. In addition, it establishes not only the actuality of this study but also the existing practice-knowledge gap.

On two separate occasions on his YouTube channel, Toniko Pantoja addresses the distinction between “using reference” in animation production and “cheating” when employing the rotoscoping method [12],

[13]. He argues that the animation community should stop stigmatising rotoscoping itself (or, as Pantoja refers to in his video essays – “using reference”) and instead focus on discouraging the unethical practice of “stealing” by using live-action or animated material not owned by the production team. This notion is supported by animator Olof Storm [14]. In the opening of his video essay, “The Art of Rotoscoping,” Storm addresses the so-called “elephant in the room” by noting that “a lot of people will tell you that it is a form of cheat or a fraudulent way of animating”. According to Storm, this misconception arises primarily because people assume that rotoscoping involves using material not originally owned by the animator.

Animator and YouTuber Howard Wimshurst also addresses the ethical dilemma surrounding the rotoscoping of others’ content. He succinctly summarises his stance with the phrase, “Don’t do it” [15]. However, what is particularly noteworthy in the context of this article is his need to publicly defend his reputation regarding previously uploaded rotoscoped animated content he created. While the central message of Wimshurst’s video is that it is “not okay to rotoscope other people’s animations,” his 13-minute discussion of the nuances of an acceptable approach to rotoscoping highlights a strong negative bias against the technique.



Fig. 2. Still from the documentary *Still the Fairest of Them All: The Making of Snow White* (1994), illustrating how physical sets were constructed and used as design references for background artwork in order “to ensure realism”. Fair use.

Another YouTuber succinctly captures the prevailing sentiment surrounding the term, noting that rotoscoping (or tracing in general) is a word every artist learns to fear because of the belief that “it’s wrong, it limits your skills, it’s lazy” [16]. In other words, rotoscoping is often viewed as a shameful practice that should be discouraged. For instance, animator Ralph Bakshi, in one of the interviews, recalls that “Everybody put me down for using [rotoscope] for some reason. They thought I was cheating.” [17]. This notion is also supported by animator Richard Swarbrick, who recalls that his animation tutor adhered to two strict rules: “no butterflies and no rotoscope,” further asserting that “rotoscoped animation always looks terrible. It’s never looked good, and it never will” [18]. Reflecting on this experience, Swarbrick observes that there are animation purists within the community who regard rotoscoping as a “less pure or authentic” method of animation production.

It is crucial to note that while the ethical use of live-action material is not, in itself, central to a study focused on the effective employment of the rotoscoping method (i.e., the success of the technique should not depend

on whether the footage is self-produced or sourced otherwise), examining this issue helps to illustrate the multifaceted complexity inherent in rotoscoping. Moreover, such considerations can easily divert attention from the primary inquiry—how to use rotoscoping effectively—thereby detracting from the established theoretical framework.

Prominent animators such as Richard Williams [19], [20], Shamus Culhane [21], Tony White [22] and John Kricfalusi [23] have publicly expressed their disdain for the rotoscoping technique. These (and other) animators perceive rotoscoped animation as a lifeless and inferior substitute for traditional character animation. Thus, many of them discourage the practice of using the rotoscoping method. Consequently, it is not surprising that within the animation community, we frequently encounter articles, forum posts or discussion trends with titles like “Rotoscoping ≠ Cheating” [24], “Rotoscoping Needs to Die” [25], “When Rotoscoping Goes Very, Very Right” [26], “Rotoscoping: A Promising Art” [27], or simply “Why Does Rotoscoping Get a Bad Rap?” [28], all of which aim either to defend or condemn the technique. Even research papers address this notion that people see animated films with rotoscoping as a form of cheating [29], [30]. Thus, there is overwhelming evidence that the term is “something of a dirty word in some animation circles” [31] and, often, in the animation community, is used in a disdainful manner. Furthermore, even as an accusation, after which the animator often feels obliged to defend himself.

This overview reveals a disconnection between established theoretical frameworks and practical approaches to employing live-action referencing in traditional animation production. Moreover, pervasive negative perceptions of the method within the animation community exacerbate this gap. Consequently, there is a pressing need to bridge this practical divide by providing theoretical insights that can refine the application of the rotoscoping method and mitigate factors that undermine its effectiveness.

3. Methodology

As established in the introduction to this article, this study aims to bridge the practical-knowledge gap that currently exists in the animation community at large. Specifically, there is currently a disconnect between existing theoretical knowledge on successfully implementing the rotoscoping method in an animation project and the modern animation community, which holds strong negative views of the method. To achieve this aim, a systematic literature review was chosen.

A systematic review is a method that is designed to identify all studies related to a specific subject in order to synthesise the literature in a field, and as a result, to provide a solid starting point for all members of the community interested in a particular area or topic [32], [33], [34]. In other words, systematic literature review methods provide a means to present a general overview of the existing state of knowledge on a subject and, in turn, help identify problems of flow in existing research [35]. A successfully executed systematic review can provide evidence of effect that can inform policy and practice [36]. Furthermore, a review article

can provide a tremendous service to one's academic community [37], [38]. A secondary aim of this article is to provide a holistic overview of the rotoscoping method and its place in animation history.

To conduct the systematic literature review, the author of this article focuses on three types of literature: research papers, literature on animation practice (textbooks, historical reflections, and scholarly works), and internet publications presenting personal positions or insights. The inclusion criteria for the literature are as follows: a) provides insights into the rotoscoping method that are gained from personal practical experience, b) provides insights into the rotoscoping method that are gained from a detailed critical analysis of the animated work, and c) is in English. Thus, it excludes any literature that provides a superficial or purely subjective assessment of the rotoscoping method (and is not written in English). This broader-range-of-sources approach allows the author of this article to minimise selection, publication, and data-extraction bias [32], [35], and to summarise and evaluate the state of knowledge much more precisely.

To synthesise the findings, the author of this article employed a qualitative synthesis approach. The body of literature that addresses the rotoscoping method in detail is relatively small and discontinuous. All literature that met the inclusion criteria can be divided into three categories. One is personal memories from animators who worked intensively with this method at the dawn of the animation industry (i.e. from the mid-1920s). This group can also be characterised by the fact that, for them, rotoscoping was a primary means of gaining professional skills. The second group consists of animators who joined the industry later, and for them, the method was more of a choice than a necessity. The third group consists of critics, reviewers, and scholars who set out to analyse various elements of rotoscoping (e.g., aesthetics, ethics, approaches).

Lastly, it is essential to note that very few authors set themselves the goal of recognising and discussing in their texts under what conditions the rotoscoping method leads to the often-mentioned aesthetically unpleasant results. Furthermore, the vast majority of the analysed literature presents a negative view of the method's use. Thus, while the topic of rotoscoping is somewhat popular in animation-specific literature, literature discussing causality is limited. This suggests that the existing gap between practice and theory exists precisely because the literature is dominated by the motive of condemnation rather than an understanding of the phenomenon.

4. Understanding the Theory and Practice Gap

In this section, we begin by examining why rotoscoping often yields aesthetically unappealing results—so much so that commentators frequently describe the outcome as uncanny and jarring [39]. The animation literature consistently indicates that simply tracing live-action footage does not produce satisfactory results. Some authors, such as Williams [19], do not delve deeply into the causality, merely stating that “When we trace off a live action walk (...), it doesn't work very well,” and adding, “Nobody really knows why.” Williams's remark encapsulates

the fundamental issue: It is not a deficiency in technical knowledge or skill that hinders effective rotoscoping, but rather a pervasive lax and even antagonistic attitude toward the method.

These perspectives are especially compelling given that other experienced animators offer insights that directly contradict Williams' stance. For example, Thomas and Johnston [10] provide an in-depth analysis of the risks associated with adhering too closely to photostats and directly replicating human movement. They argue that although such an approach may yield movements that appear realistic, it ultimately undermines the illusion of life in the animated figure, necessitating a reinterpretation of the actor's movements. In a similar vein, Barrier [40] contends that effective rotoscoping requires the animator to distinguish between essential and non-essential elements. He further argues that the primary challenge of rotoscoping stems from its nature as a two-dimensional overlay on a three-dimensional space, which inherently produces an eerie quality by emphasising the absence of live-action detail rather than its presence.

Building on Barrier's insights, Pierson [41] argues that the primary distinction between Bakshi's rotoscoped films—such as *Wizards* (1977), *The Lord of the Rings* (1978), and *Fire & Ice* (1983)—and those produced by Disney lies in their respective approaches. While Disney's method involved *blending* live action with cartooning, Bakshi's approach was to merge the two. In other words, as Carfantan [7] argues, Disney's studio did not treat rotoscoping as mere frame-by-frame copying, and the footage was not meant to be traced exactly, but to suggest ideas, before transforming the movement into animation. This comparison underscores Pierson's assertion that a crucial factor in achieving aesthetically successful rotoscoping is the mental approach taken towards live-action material.

At this point, it is worthwhile to briefly analyse why Bakshi's animated films have become almost synonymous with poor rotoscoping. Arthur [42] argues that many of the issues in *The Lord of the Rings* (1978) stem from budget constraints, fast-approaching deadlines, and a relative lack of experience with the technique (especially when employed to portray crowds; [17]). Challenges that Bakshi himself was open about in numerous interviews [17], [43], [44]. In addition, Arthur identifies a key stylistic flaw: when all characters are rotoscoped, any moment of stillness instantly creates an uncanny effect. Similarly, Pierson [41] points out that a significant drawback arises when the voice acting does not match the characters' body language. However, while *The Lord of the Rings* provides numerous examples of how improperly applied rotoscoping can produce unsettling effects for viewers, these issues ultimately suggest that Bakshi, at the time of production, did not fully grasp the principles that made the technology successful at Disney Studios.

This organically leads to another critical question: Why are Disney's rotoscoped films—such as *Snow White and the Seven Dwarfs* (1937), *Cinderella* (1950), and *Peter Pan* (1953)—not regarded as poorly executed? Pierson [41] argues that this can be attributed to Disney animators being discouraged from simply tracing live-action imagery; instead, they employed such material only to develop a rough sense of proportions, stag-

ing, and timing. This perspective is supported by Thomas and Johnston [10] and Blush [45], who note that at the Disney studio, live-action footage was primarily used to understand movement before it was adapted into character animation. Similarly, Friedman [46] claims that animators who adhered too closely to live-action material were disfavoured by directors—and even by Walt Disney himself.

Thus, there is ample literature demonstrating that animation practitioners have not only investigated the rotoscoping method in depth but also offered solutions to achieve optimal aesthetic outcomes. In other words, quite a few texts provide detailed theoretical insights into how to successfully implement the rotoscoping method. Moreover, much of this literature features prominently among the most recommended books for animation practitioners. This raises an intriguing question: if these theoretical insights are frequently cited in influential animation texts, why do they seem to be neglected in modern discussions about the rotoscoping method? Unfortunately, this study can not provide an answer to that question.

However, it is necessary to revisit Bakshi's animated films and note that his works are now regarded as cult classics despite the criticism he received for his use of the rotoscope. This raises an essential question of whether the method can yield positive aesthetic results when animators do not adhere strictly to the Disney studio approach. Bakshi contends that his films have endured because rotoscoping enabled him "to get realism in a picture" that is essential for telling mature stories [17]. Moreover, he argues that rotoscoping allows animators to capture dynamic energy—another critical element for conveying mature narratives in animation [43]. Interestingly, this notion is supported by Swarbrick [18], who claims that the rotoscoping method helped him to enhance realism and convey relatable human emotion. These claims suggest that rotoscoping can facilitate the creation of grounded, emotionally resonant animated works—even within fantastical narratives.

This premise is somewhat supported by a study on animated documentary aesthetics [47], which argues that when audiences perceive animated content as conveying truth, they no longer hold it to the same quality standards applied to fictional animated works. In this context, visual characteristics such as jittery lines, unstable shapes, and proximity to the uncanny valley are not viewed as detracting from the cinematic experience; rather, they are appreciated as elements that enhance the documentary's aesthetic. Although Bakshi's films cannot be classified as documentaries (or non-fiction), his choice to tell mature stories through animation may contribute to the enduring appeal of his rotoscoped works. Nonetheless, further research is required to confirm this hypothesis.

At this point, it is helpful to step back from Bakshi's films and consider the broader context. The aesthetic shortcomings observed in a substantial portion of rotoscoped content strongly suggest that the method is frequently employed without a full grasp of its key principles. However, overwhelming evidence indicates that this lack of understanding is not, in itself, a sufficient reason for animated content creators to avoid using the method on a large scale. This raises another question that warrants

investigation in this article: What other motivations might encourage animators to use this method?

The literature review indicates two overlapping motivations for employing the rotoscoping method. First, there is a persistent perception that rotoscoping offers a cheaper and faster means of producing animated content [22], [30], [48], [49]. Second, the method is viewed as a means of compensating for unrefined animation skills [18], [24], [50]. While the latter does need a more holistic investigation, the former is more straightforward to answer—*yeah, sort of*.

There is substantial evidence that the rotoscoping method can enable faster and more cost-effective production of animated content. Bakshi has mentioned that rotoscoping is one of the best ways to ensure that “600 people draw one character alike” [43]. However, this efficiency comes with caveats. If the method is used solely to reduce time and labour, the resulting animation is likely to suffer from diminished quality and an uncanny appearance. As White [22] aptly observes, rotoscoping does not yield high-quality animation unless live-action references are skillfully caricatured and re-timed by experienced animators. This principle is exemplified in Disney studio projects, where rotoscoping is employed primarily to understand motion, timing, and acting rather than merely as a cost-saving measure.

Secondly, Bakshi repeatedly emphasised his preference for shooting the entire film in live action to serve as “a visual template reference” [17], [43]. Similarly, Disney animator Aaron Blaise notes that *Pocahontas* (1995) directors Mike Gabriel and Eric Goldberg sought “a lot of control” during the project and thus shot the entire film before starting animation production [51]. Therefore, while using live-action material as a reference does not necessarily mean a reduction in production costs, this approach allows directors to experiment with staging, acting, and editing (i.e., overall pacing) before committing substantial funds to the animation process.

The literature review supports the notion that when live-action material is used purposefully and judiciously, it can help content creators plan animation projects more effectively, potentially resulting in financial savings. However, it must be emphasised that incorporating live-action material does not automatically lower production costs. In fact, Bakshi noted in several interviews that many challenges encountered during the production of *The Lord of the Rings* arose from unresolved live-action issues—such as synchronising actors with voice talent, composing shots with extras, and editing the live-action footage—prior to beginning the animation process [17], [43]. Thus, an uncritical reliance on the rotoscoping method may not only fail to yield positive results but could also inflict tangible harm on the overall project.

Using rotoscoping to compensate for a lack of animation skills is a complex topic. While simple tracing of live-action footage allows individuals without formal animation training to create somewhat animated content, this approach rarely yields aesthetically pleasing results. On the contrary, one could even argue that it is precisely because of the fundamentally mistaken view of inexperienced animators that the rotoscoping

method will allow them to achieve significantly better results in a significantly shorter period of time that there is a reason why so many experienced animators publicly dislike this method.

Nonetheless, even the most sceptical animators of the method acknowledge that live-action references serve as invaluable tools for developing an understanding of character movement and performance [8], [9], [10], [11], [45]. In other words, there is substantial evidence that rotoscoping can be an effective instrument for training and skill development, enhancing an animator's ability to capture naturalistic motion. However, as already mentioned, this method also poses significant risks for less experienced practitioners. As Blush [45] cautions, "I have seen many animators become so mesmerised by the action (...) that they forget to caricature it. The result is immediately disappointing. It is bland and lifeless." Consequently, animators must approach the method with a critical mindset and a clear understanding of its limitations to ensure it is genuinely beneficial.

Thus, the literature review clearly demonstrates that the rotoscoping method can support beginners or less experienced animators, but only if they approach live-action material with a purposeful attitude geared toward learning from it. Furthermore, these animators must critically interpret and adapt all live-action content to produce aesthetically pleasing, high-quality animation. Failure to adopt this reflective mindset invariably leads to unsatisfactory aesthetic outcomes. Consequently, rotoscoping has never been—and will never be—a substitute for genuine skill (or, as Bakshi once referred to it in an interview, a "secret technique that Disney used"; [17]). Rather, it can serve as a valuable asset for diligent animation students committed to acquiring professional expertise through sustained effort and thoughtful analysis. In this context, rotoscoping should be regarded not as a shortcut but as a rigorous training process that reinforces the fundamentals of movement, composition, and character expression, ultimately fostering a deeper mastery of the art form.

Lastly, it is important to note that rotoscoping—and specifically its capacity to evoke an uncanny, eerie atmosphere—can be employed deliberately. For example, the Japanese anime *Aku no Hana* (2013) utilises this uncanny aesthetic to narrate a story of perversion, postmodern malaise, and economic and social decay [52]. As Sehnnng [53] argues, the technique is masterfully applied to evoke feelings of "fear and disgust" in the audience. In *Aku no Hana*, the characters' uncanny physical features combined with their remarkably realistic movements effectively sustain an atmosphere of continuous eerie discomfort. Furthermore, Byrne [54] contends that this deliberate use of ostensibly subpar animation quality demonstrates how rotoscoping can be strategically employed to evoke specific emotional responses in viewers.

5. Final Thoughts

When assessing the overall state of knowledge, it is necessary to note that although there is ample theoretical guidance on successfully implementing the rotoscoping method, a discernible gap remains between theory

and practice. Notably, among the analysed literature, there are no conflicting positions regarding the optimal approach to rotoscoping. In other words, while the method itself suffers from a strong negative reputation, the theoretical consensus on the determinants of successful versus unsuccessful outcomes is remarkably uniform. This result was likely achieved because the most detailed insights were provided by animators with many years of rotoscoping experience. Furthermore, the consistency in these findings underscores the importance of practical expertise in interpreting live-action material effectively. Bridging the gap between theoretical knowledge and practical application is essential for improving the overall quality of rotoscoped animation and for reshaping its public perception.

This leads to the main problem of this study, and in this regard, the authors of the biweekly newsletter *Animation Obsessive* [26] encapsulate the central challenge of rotoscoping more effectively than any other scholar, critic, or practitioner discussed in this article, asking: “Is it your tool as an artist? Or are you its tool—a human copy machine?”. The literature review strongly suggests that rotoscoping leads to aesthetic shortcomings when animators approach the method with the intent to copy the live-action material rather than interpret it. In other words, rotoscoping should serve as the basis for animation production rather than a cost-cutting shortcut to achieving lifelike character animation.

This article thoroughly examined the dual nature of the rotoscoping method. On the one hand, when employed with the right approach—as in Disney’s classic films, where live-action references inform movement, staging, and timing—rotoscoping can enhance animation quality and serve as an effective training tool for less experienced animators. On the other hand, when rotoscoping is used solely to compensate for a lack of skill or to reduce production costs, the method risks producing subpar results. Thus, it is evident that if an animator approaches live-action material with the intent merely to trace it without critical analysis, the outcome is likely to be overly frenetic and eerie, resulting in an uncanny aesthetic. Furthermore, when the method is misused, the aesthetic shortcomings of rotoscoping overshadow all other creative decisions. Thus, this uncanny quality is the primary reason for the method’s poor reputation. Conversely, when the method is used correctly, the final result conveys fluid animation and is nearly imperceptible to the viewer.

Based on the data collected and the insights gained from this study, the author offers the following recommendations. Firstly, rather than discouraging students from using the rotoscoping method, educational institutions should integrate a comprehensive historical overview of the method into their curricula. This approach should detail the evolution of rotoscoping, its theoretical underpinnings, and practical applications, thereby enabling students to understand how to employ the method to develop essential animation skills effectively. Furthermore, it is crucial to clearly explain the potential pitfalls and negative outcomes that can arise when the fundamental principles of rotoscoping are not adhered to.

Secondly, it is very important to raise public discussions about the ethical approach to rotoscoping. The literature review clearly demon-

strated that this is a highly sensitive issue within today's animation community, where there is widespread consensus that animators should never use live-action material not produced by themselves—or their studio—for commercial work. An even greater social taboo exists against rotoscoping another animator's work, which is seen as a serious infringement on creative integrity and intellectual property. Expanding on this, it is essential for industry leaders, academic institutions, scholars, and professional organisations to engage in ongoing dialogue and develop clear ethical guidelines that address these concerns.

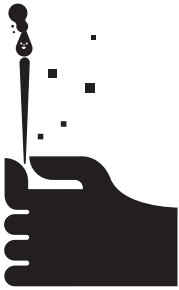
Third, both animation content creators and animation media scholars should pay close attention to the currently under-researched aspect of rotoscoping as a stylistic approach to telling stories for adult audiences. Findings suggest that the fluidity of motion achieved through this method can create a grounded, realistic aesthetic that is particularly beneficial for conveying mature narratives. In addition to its technical advantages, rotoscoping offers a distinctive visual language that can enhance the emotional and thematic depth of animated works, making it a compelling medium for nuanced storytelling. Thus, the rotoscoping method may prove uniquely suited for the articulation of complex, adult-oriented stories, warranting further academic inquiry and practical innovation in the field.

References

1. Fleischer Studios, <https://www.fleischerstudios.com/mrotoscope.html>
2. Bratt, B.: *Rotoscoping: Techniques and Tools for the Aspiring Artist*. Routledge (2011)
3. Aggarwal, V. *Creative Motion Mastery with Adobe After Effects: Learn the ins and outs of motion graphics, post-production, rotoscoping, and VFX*. Packt Publishing (2024)
4. Fleischer, R.: *Out of the Inkwell: Max Fleischer and the Animation Revolution*. The University Press of Kentucky (2005)
5. Ortiz, I.: Rolling Boil: A Geopolitical Labor History of the Rotoscope, *Animation*, 21:1, 9--27. (2026)
6. Manzanera, B.: *Rotoscoping and Other Animation Techniques: Audiovisual Hybrids for Storytelling*, in: *The Screen is the Message*. Peter Lang (2026)
7. Carfantan, E.: *La rotoscopie ou le cinéma retrace*. Université Rennes. (2025)
8. Thomas, B.: *Walt Disney The Art Of Animation: The Story Of The Disney Studio Contribution to A New Art*. Simon and Schuster (1958)
9. Webster, C.: *Animation: The Mechanics of Motion*. Focal Press. (1987)
10. Thomas, F, Johnston, O.: *The Illusion of Life: Disney Animation*. Disney Editions. (1981)
11. Beck, J.: *Animation Art: From Pencil to Pixel, the History of Cartoon, Comic, and Graphic Art*. Focal Press (1999)
12. Pantoja, T., https://www.youtube.com/watch?v=LVkzaXJGmhQ&list=PLIH-gQ5JP-8cO2cZpaCMHYWR44SKoQX_cg&index=3
13. Pantoja, T., https://www.youtube.com/watch?v=rs27ibhI8qg&list=PLIH-gQ5JP8cO-2cZpaCMHYWR44SKoQX_cg&index=2
14. Storm, O., https://www.youtube.com/watch?v=iQwI_y6GGKo

15. Wimshurst, H., https://www.youtube.com/watch?v=nDsYkkujwnc&list=PLIH-gQ-5JP8cO2cZpaCMHYWR44SKoQX_cg&index=8
16. AniguiseArt, <https://www.youtube.com/watch?v=52MLOJfHbZI>
17. Weiner, D. <https://itcamefromblog.com/2018/11/15/interview-ralph-bakshis-epic-battle-over-the-lord-of-the-rings/>
18. Swarbrick, R., <https://shots.net/news/view/rotolescope-the-dark-art-of-animation>.
19. Williams, R.: *The Animator's Survival Kit*. Farrar, Straus, and Giroux (2001)
20. Williams, R., <https://x.com/RWAnimator/status/981500662293975040>
21. Culhane, S.: *Animation: From Script to Screen*. St. Martin's Press (1988)
22. White, T.: *Animation from Pencils to Pixels*. Focal Press (2006)
23. Brown, P., <https://thatsshelf.com/interview-john-kricfalusi/>
24. Costi, A., <https://medium.com/@anacosti/rotoescaping-cheating-d72389cb6f58>
25. RoG, <http://www.i-mockery.com/blasber/2008/02/15/rotoescaping-needs-to-die/>
26. Animation Obsessive, <https://animationobsessive.substack.com/p/when-rotoescaping-goes-very-very-right>
27. Brennan, D., <https://ceasefiremagazine.co.uk/rotoescaping-promising-art/>
28. The Escapist, <https://forums.escapistmagazine.com/threads/why-does-rotoescaping-get-a-bad-rap.117118/>
29. Lukmanto, C. M., Is Rotoscope True Animation? *Ultimart: J. Komunikasi* 10:1, 12--18. (2017)
30. Boulic, R., Pai, D. K., Animating with Advanced Observation. *Eurographics/ACM SIGGRAPH Symposium on Computer Animation*, 1--10 (2004)
31. Scaife, S. N., <https://www.polygon.com/2019/9/23/20876266/undone-animation-style-movies-tv-shows-games-rotolescope>
32. Nightingale, A., A guide to systematic literature reviews. *Surgery*, 27:9, 381--384 (2009)
33. Mulrow, C. D., The medical review article: state of the science. *Annals of Internal Medicine*. 106:3, 485--488 (1987)
34. Green, B. N., Johnson, C. D., Adams, A. Writing narrative literature reviews for peer-reviewed journals: secrets of the trade. *Journal of Chiropractic Medicine*. 5:3, 101--117 (2006)
35. Knopf, J. W. Doing a Literature Review, *Political Science & Politics*. 1: 127--132 (2006)
36. Snyder, H. Literature reviews as a research methodology: An overview and guidelines, *Journal of Business Research*. 104: 333--339 (2019)
37. Paré, G., Trudel, M-C., Jaana, M., Kitsiou, S. Synthesizing information systems knowledge: A typology of literature reviews. *Information & Management*. 52:2, 183--199 (2015)
38. Petticrew, M., Roberts, H.: *Systematic reviews in the social sciences: A practical guide*. Blackwell Publishing Co. (2006)
39. Bouldin, J., The body, animation and the real: Race, reality and the rotolescope in Betty Boop. *Conference proceedings for affective encounters: rethinking embodiment in feminist media studies*, 48--54 (2001)
40. Barrier, M.: *Funnyworld #20.- Mark Lilien* (1979)
41. Pierson, R.: *Figure and Force in Animation Aesthetics*. Oxford University Press (2019)
42. Arthur, <https://fakegeekboy.wordpress.com/2010/01/30/rotoescaping-rotoescaping-in-the-deep/>
43. Korkis, J., <https://cartoonresearch.com/index.php/in-his-own-words-ralph-bakshi-talks-about-the-lord-of-the-rings/>

44. Gilsdorf, E., <https://www.ethangilsdorf.com/ethanfreak-blog/2014/3/22/a-2006-interview-with-ralph-bakshi.html>
45. Bluth, D.: *Don Bluth's Art of Animation Drawing*. Dark Horse. (2005)
46. Friedman, J. S.: *The Disney Revolt: The Greatest Labor War of Animation's Golden Age*. Chicago Review Press Incorporated (2022)
47. Mitkus, T., *Aesthetics in Adult Animation: Animated Documentary, CONFIA. International Conference on Illustration & Animation*, 373--383 (2021)
48. Tidemand, S. C. O., <https://medium.com/@scotidemand/ralph-bakshi-when-cartoons-arent-just-for-kids-c6bb3af3632>
49. Ward, Paul. *Independent Animation, Rotoshop and Communities of Practice: As Seen Through A Scanner Darkly*, *Animation: An Interdisciplinary Journal*. 7:1, 59--72 (2011)
50. Persing, S., <https://stephenpersing.wordpress.com/2018/09/29/liking-but-not-lovin-g-loving-vincent/>
51. Blaise, A., <https://www.youtube.com/watch?v=xm7BwEsdVbQ&t=284s>
52. Gottesman, Z. S., *The Rotoscopic Uncanny: Aku no Hana and the Aesthetic of Japanese Postmodernity*. *Animation: An Interdisciplinary Journal*, 13:3, 192--206 (2018)
53. Sehnng, <https://altairandvega.wordpress.com/author/catchercatch/>
54. Byrne, E., <https://www.cbr.com/series-prove-rotoscoping-can-be-done-anime/>



The Calligrapher and Draughtsman Manuel Andrade de Figueiredo and His Liberal Cursive Handwriting in the Context of the Editorial Artifact New School for Learning to Read, Write and Count

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Keywords

Portuguese calligraphy;
Calligraphic Drawing;
Didactic Publication;
Editorial.

Abstract

This article presents an investigation on the calligraphic design of the Portuguese Manuel Andrade de Figueiredo. In 1722 his paradigmatic book is published in Portugal, the *Nova Escola para Aprender a Ler, Escrever e Contar*, which includes the *Cursiva Liberal* calligraphy, constituting the author's most important invention. Regarding the problematic, this article refers directly to the calligraphic style, called *Cursiva Liberal*, which is stated as an intentionally Portuguese calligraphy, at a time when English and French calligraphy were used in our country. The *Cursiva Liberal*, however, presents white interiors, generous, assimilating the clear and open tone of Portuguese phonetics, being a practical calligraphy, such as the direct phonetics that characterizes the Portuguese language. This analysis highlights a very relevant problematic and makes a major contribution to Portugal and the Portuguese language. Thus, in the **objectives**, we intend to understand the design of each letter of the alphabet, in its constructive, singular and plural detail. The author's approach refers to different calligraphic sizes. Analyzing the boards, we have on the initial boards letters of larger scale and on the later boards letters of smaller scale. Regarding the **methodology**, we start for a sequential mapping of the construction, where the main postulate of the author lies in the dissimilarity between the various letters in the *Cursiva Liberal*, considering that one of its characteristics concerns the fact that the letters are not confused with each other, and we find a difference in the tracing of the calligraphic nib. The **results** obtained allow verifying a direct and immediate relationship with the student. By anticipating the sampling of the alphabet and its main construction elements, only then by offering the disciple a sequential structure where the repetitive practice of the constituent elements of calligraphy is performed. We further verified in its didactic method the use of staves, parallel lines, to which overlaps the alphabet, for a perfect drawing of the letter, width of the letters, distance between letters and between words.

1. Introdução

Em 1722 Manuel Andrade de Figueiredo edita o seu manual caligráfico, *Nova Escola para Aprender a Ler, Escrever e Contar*, *Oferecida à Augus-*

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ta Magestade do Senhor D. João V, Rey de Portugal. Prymeira parte. Por Manoel de Andrade de Figueyredo, Mestre desta Arte nas cidades de Lisboa, Ocidental & Oriental^[1]. Mais de cem anos depois do trabalho iniciático do calígrafo português Manuel Barata surge uma peça caligráfica que continua a ser referenciada e divulgada em compilações e obras sobre tipografia e caligrafia, como seja a enciclopédia *Typo*^[2] na qual é situada na época barroca^[3].

Para além da sua originalidade caligráfica e de forte desenho decorativo, é uma obra de *ligação* entre os seus antecessores e os autores posteriores: Andrade de Figueiredo absorve de forma muito pessoal a herança do Renascimento caligráfico italiano, assim como o testemunho deixado pelo calígrafo espanhol Pedro Dias Morante, chegando mesmo a ser denominado o *Morante Português*; por outro lado, a expressão *ligação* torna-se mais evidente quando olhamos a obra dos seus sucessores de maior vulto: Jacinto de Araújo e Ventura da Silva, que respectivamente, sessenta e oitenta anos mais tarde, produziram os seus tratados caligráficos. Podemos afirmar que Andrade de Figueiredo é um autor de transição entre Manuel Barata e os dois autores referidos: Jacinto de Araújo e Ventura da Silva.

1. Andrade de Figueiredo e a sua época

O século XVIII é por excelência o século da caligrafia. Em Portugal esta atividade artística e instrumental constitui uma forma de exibir a grandiosidade do reinado de D. João V (1707-1750) face aos outros reinos europeus, somando a isto o facto de a corte portuguesa ter meios para o fazer graças ao ouro que vinha do Brasil.

De toda a Europa chegavam luxuriantes exemplares caligráficos: a caligrafia flamenga de Jan van den Velde, os vários calígrafos espanhóis entre eles Pedro Dias Morante ou as esplendorosas obras dos mestres da caligrafia francesa e inglesa.

Ainda durante este século, antecedendo Andrade de Figueiredo, convém referir a presença de um calígrafo espanhol na corte D. João V: Marcos de las Roelas Y Paz, que foi mestre de caligrafia de D. Miguel e D. José, irmão de D. João V, realizando para este último, em 1718, o manuscrito *Práctica de el Noble y primoroso Arte de Escribir varios caracteres y distintas Formas de Letras*^[4], exemplar que pode ser observado na Biblioteca Nacional de Portugal. O sucesso que o calígrafo espanhol obtém na corte portuguesa deve-se ao facto de o Rei ter ficado maravilhado com algumas estampas que teriam chegado às suas mãos, apresentando “espectaculares cenas religiosas nas quais mistura desenho e traço caligráfico, combinando cores e completando o quadro com textos escritos em diferentes letras, desenhos de um extremado barroquismo e perfeição técnica”^[5]. Martínez Pereira refere que “num certo sentido esta obra [de Roelas Y Paz] pode considerar-se um livro para a educação do príncipe ou, sem chegar a tanto neste caso, um manual de bons costumes” incidindo sobre as virtudes que devem caracterizar um bom governante. Na verdade, “é isto que faz Roelas nesta arte de escrever, aconselhando os seus pupilos não só sobre os géneros de letras mas também nos textos teóricos cujo conteúdo didático se vê interrompido por digressões moralizantes

narradas a partir da própria experiência. A Monarquia e a religião são exaltadas com a letra e com o desenho, recorrendo a textos históricos e à própria opinião”^[6].

Portugal produziu durante o século XVIII dois manuais de caligrafia fundamentais e outras duas obras de carácter mais instrumental e didáctico onde a caligrafia também está incluída. No primeiro conjunto inserem-se a obra de Andrade de Figueiredo e a *Nova Arte de Escrever*^[7] de António Jacinto de Araújo, de 1793. No segundo, não especificamente sobre caligrafia, estão a *Nova Escola de Meninos*^[8] de Manuel Dias de Sousa e a *Escola Popular das Primeiras Letras*^[9] de Jerónimo Soares Barbosa.

2. As diferentes influências europeias

Andrade de Figueiredo afirma sobre os calígrafos estrangeiros que teve oportunidade de observar que, por muito que algumas caligrafias desses autores estejam conforme a arte de caligrafia, muitas delas “são de pouco proveito à percepção dos meninos”. Com isto o calígrafo revela uma preocupação de cariz didáctico e crítico, tendo em conta que muitas dessas letras surgem aos seus olhos “diminutas” ou “confusas”^[10].

Andrade mostra um conhecimento abrangente do desenvolvimento da caligrafia na Europa, referindo autores como “Yciar, Francisco Lucas, Saraiva, Morante, Casanova, Irmão Lourenço Ortiz da Companhia de Jesu, Juan Claudio [todos espanhóis]; Velde [calígrafo Flamengo]; Senault e Seddon [respectivamente francês e inglês]; Fanti, o cônego Amphiareo da Ordem dos menores, Curione, Ruinetos, Melanese [todos italianos; indicando ainda os genoveses] Fanciscus Pisanus e Joseph Segaro”^[11].

É o próprio Andrade de Figueiredo que refere a influência que a obra de Senault terá tido sobre o seu trabalho caligráfico. Uma das edições deste calígrafo francês que o autor conheceria – *Les rares escritures financières et italiennes bastardes nouvellement à la mode* – data de 1650 e sobre ela escreve que “toda a letra pequena é de imitação de mestre Senault, mas não as duas letras capitais”^[12]. Contudo, as referências principais no seu trabalho são as do calígrafo holandês Van den Velde e do espanhol Morante.

3. Análise da Nova Escola de Andrade de Figueiredo e a sua caligrafia Cursiva Liberal

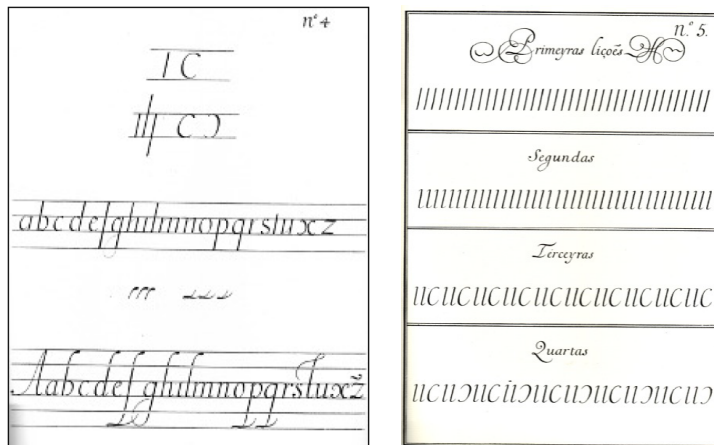
A *Nova Escola para Aprender a Ler, Escrever e Contar*, de que podemos observar a capa e o frontispício, está dividida em quatro manuais. O primeiro dedicado à leitura; o segundo à caligrafia; o terceiro à ortografia e o último à aritmética. Interessa-nos particularmente o segundo destes quatro manuais.

O método caligráfico de Andrade de Figueiredo caracteriza-se pela mudança de escala. Assim, as primeiras estampas apresentam letras de grande formato para a mão se habituar a um movimento largo, só depois sendo possível passar aos formatos caligráficos mais pequenos. É com este primeiro postulado que se passa à interpretação de letras e estampas seleccionadas.

4. A dimensão didáctica da caligrafia *Cursiva Liberal*

Na estampa 4 da caligrafia *Cursiva Liberal* podemos observar uma figura com as linhas diretrizes principais e uma amostragem completa de ‘a’ a ‘z’ do alfabeto em causa. Partir de um conceito didático de concentração de energias em dois elementos formais constantes (linha e curva) que funcionam como esqueleto da caligrafia surge hoje como uma questão de grande atualidade, principalmente no campo da pedagogia caligráfica e tipográfica. Em autores tão diversos como Jan Tschichold em *The New Typography*^[16] e *Asymmetric Typography*^[17], ou Emil Ruder na obra *Typo-graphy*^[18], encontramos um desejo de racionalidade e simplicidade que vai ao encontro de uma comunicação mais direta, uma intencionalidade análoga à de Andrade de Figueiredo, onde a racionalidade, numa primeira instância, permite a criação de condições para a inserção de elementos diferenciadores entre as letras.

Fig. 3 e 4. Andrade de Figueiredo. Estampas 4 e 5.



O desejo de Andrade de Figueiredo no contexto da caligrafia *Cursiva Liberal* é criar uma relação mais direta e imediata com o seu interlocutor, aquele que usa o seu manual. Esta ideia fica bem patente no facto do calígrafo antecipar a amostragem do alfabeto e dos seus elementos de construção principal, observáveis na estampa 4. Só depois oferece ao aluno uma estrutura de carácter sequencial onde se realiza a prática repetitiva dos elementos constituintes da caligrafia: rectas, hastes e curvas, que se podem observar na estampa 5.

Há intencionalmente uma fundamentação teórico-prática na relação entre as duas estampas da caligrafia *Cursiva Liberal* onde, desde o início, o aprendiz apreende a relação existente entre a prática de um conjunto de regras que pretendem treinar a mão e a finalidade objectiva e gráfica desse labor que vai ao encontro de um conjunto de competências a adquirir, para serem aplicadas num determinado estilo caligráfico.

A sua metodologia permite a construção de um *menu* de preceitos caligráficos para a feitura da caligrafia *Cursiva Liberal*:

1. As hastes com cabeças e pés terão três espaços de altura, se as hastes forem sem cabeça ocuparão dois espaços.
2. O espaço primitivo corresponde a uma só zona, central, onde as letras sem haste, como as vogais, estão delimitadas.
3. A largura da letra é sempre a mesma com exceção das letras 'm', 'x', 'z' que serão maiores em dobro, as finas 'f', 'i', 'j', 'l', 't' serão filiformes.
4. O espaço entre as letras deve ser igual à largura das mesmas.
5. Entre palavras dão-se dois espaços (duas letras) de separação.
6. As letras maiúsculas têm a mesma altura das hastes com cabeças.
7. A entrelinha deverá ser de dois espaços e meio.
8. A inclinação entre as letras deve ter sempre o mesmo ângulo.

Este conjunto de regras caligráficas sintetiza vinte e seis anos de experiência de Andrade de Figueiredo e pretende que os alunos sigam as regras, mas também que os mestres adiram com rigor aos seus preceitos. O desenvolvimento pedagógico deste estilo caligráfico tem como preocupação a saúde do aluno. Tendo isto em conta, Andrade de Figueiredo traça alguns dados que o mestre deve acautelar, particularmente questões relativas à posição de caligrafar, como sejam o corpo que deve estar direito, os cotovelos afastados do corpo sem ser em demasia e não escrever com os olhos muito baixos. Com esta desenvoltura poderão os alunos dedicar-se à feitura da estampa 5 onde estão representados os traços principais das letras.

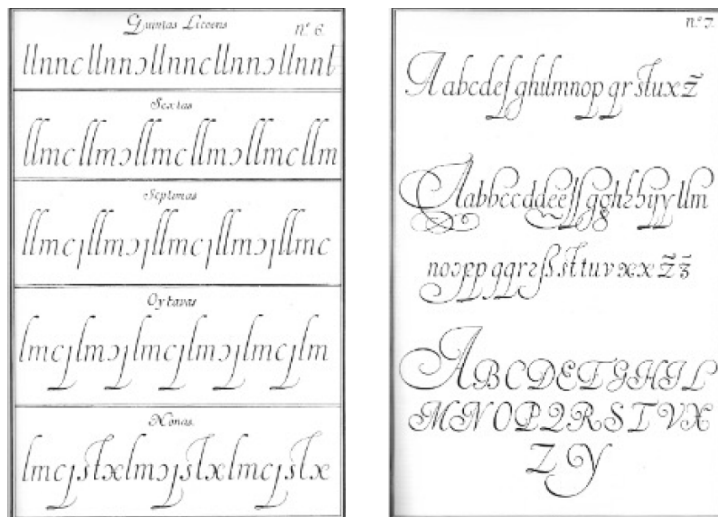


Fig. 5 e 6. Andrade de Figueiredo. Estampas 6 e 7.

As estampas 6 e 7 dão continuidade à explicação deste estilo caligráfico, passando o aprendiz a produzir hastes isoladas, com e sem cabeças ou pés¹⁹. A forma como se organizam espacialmente os fragmentos gráficos

explicativos e a maneira como esses elementos respeitam a integridade de cada letra estão presentes nestas duas estampas.

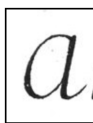
O autor opta por iniciar a aprendizagem do aluno com as letras ‘m’ e ‘l’, sendo a haste do ‘l’ dividida em três terços, um terço em cima com a cabeça e dois terços em baixo em linha recta. Contudo o aluno deverá realizar em primeiro lugar a haste e só depois a cabeça em curva. Conhecendo as hastes superiores deverá o aluno reconhecer as hastes inferiores, que tem a letra ‘j’ como diretriz: “por se dividir nos mesmos três terços, sendo os dois primeiros em linha recta, voltando brandamente sobre a linha da pauta na parte esquerda nella fará o pé, para o que carregará na penna, e sairá brandamente á parte direita a acabar no ar, o que tudo melhor se alcançará (...)”^[20].

5. A individualidade da letra presente na caligrafia Cursiva Liberal

A prática da *Cursiva Liberal* caracteriza-se por um grande pormenor construtivo, patente em *receitas* para a sua realização. Nas explicações deste estilo caligráfico, por vezes extensas descrições, encontramos os alicerces da caligrafia mediante três tipos de opções gráficas para cada letra: em primeiro lugar, a construção da letra através de um desenho nuclear estabelecido; em segundo lugar, a construção da letra através de dois desenhos nucleares, ou um desenho nuclear, ao qual se soma um ou dois traços suplementares; finalmente, a letra pode ser constituída por um traço ou fragmento retirado de outra letra designada à partida.

As letras apresentam inclinações variáveis, apesar de todas se aproximarem dos 10 graus com o plano vertical, que é a norma que Andrade de Figueiredo estabelece para a escrita. Estas ligeiras variações e a falta de paralelismo conferem à caligrafia um forte carácter manual e formalista.

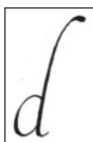
Por outro lado, a proporcionalidade entre as letras nem sempre se verifica, tendo em conta a sua diversidade de tamanhos e a grossura dos traços que é muito variável, entre o muito fino e o muito grosso.



A **letra ‘a’** inicia-se com uma linha curva que se desenvolve para a esquerda tendo à sua direita uma linha recta que no final segue para a direita, terminando num pequeno traço curvo filiforme.



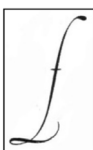
A **letra ‘b’** resulta da composição com outras letras, método adoptado por vários autores, sendo, contudo, Andrade de Figueiredo dos mais claros: primeiro desenha-se a letra ‘l’; na zona inferior deve a pena subir no papel curvando para a direita até encontrar a haste do ‘l’, podendo também fazer-se esta curva no sentido inverso.



As **letras ‘c’ e ‘d’** correspondem a uma linha que curva para a esquerda, tendo a segunda destas letras somado um ‘l’, tudo feito na mesma penada.



A **letra ‘e’** inicia-se com a pena a meio da sua altura, curvando para a direita, subindo, contornando depois para a esquerda e descendo. O sentido de construção da letra ‘e’ é idêntico ao da letra ‘c’, contrário ao movimento dos ponteiros do relógio.



A **letra ‘f’** será um ‘l’ que junta na parte inferior e um ‘j’, sendo, no final, cortado a meio por um traço horizontal.



A **letra ‘g’** é uma das mais particulares pois após a linha curva mais pequena que se encontra no espaço primitivo, a construção vai buscar um fragmento da haste do ‘j’ que no final curvará para a esquerda e subirá até se aproximar da curva inicial.



A **letra ‘h’** é também constituída por um ‘l’ ao que se soma uma curva que foge às duas formas (linha de ‘l’ e curva de ‘c’) que, em Andrade de Figueiredo, construíam todas as letras. Neste sentido, trata-se de uma curva de exceção.



A **letra ‘i’** é constituída por um traço oblíquo, com duas farpas, realizadas no sentido inverso.



A **letra ‘l’** que Andrade de Figueiredo refere proficuamente enquanto letra de desenho nuclear, que está presente na construção de muitas outras, tem uma cabeça no início e uma farpa no fim.



Na **letra ‘m’** o autor desenha três rectas com a altura do espaço primitivo, ligadas na parte superior por curvas finas e apresentando uma “farpa no princípio, e fim, tudo feito de hum vez”^[21].



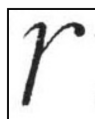
A **letra ‘n’** é constituída por um fragmento retirado do desenho nuclear da letra ‘m’. Podemos ainda considerar que o seu desenho é metade da letra ‘m’.



A **letra ‘o’** é constituída por dois elementos gráficos. Não é desenhada recorrendo a uma circunferência ou elipse inclinada, mas sim apelando à construção de duas curvas: uma à esquerda e outra à direita feitas de uma só vez.



As **letras ‘p’** e ‘**q**’ são constituídas por uma letra ‘j’, à qual se soma, no espaço primitivo, a curva da letra ‘a’ que na letra ‘p’ se apresenta invertida.



A **letra ‘r’** é iniciada com o traço da esquerda da letra ‘n’, adicionando-se na zona superior uma gota ligada por uma curva fina.



A **letra ‘s’** é constituída por duas pequenas curvas. Inicia-se com a curva superior, no sentido contrário ao dos ponteiros do relógio e finaliza com a curva inferior que termina em gota.



A **letra ‘t’** é constituída por uma linha recta que é cortada por duas farpas, sendo a farpa superior trabalhada em termos decorativos.



A **letra ‘u’** é formada por duas rectas, unidas em baixo, tendo uma farpa no princípio e no fim. Andrade de Figueiredo inclui a explicação da letra ‘v’ no texto da letra ‘u’ tendo em conta a lexicografia da época; sendo ‘v’ feita com uma só recta que se desenvolve em curva para a direita terminando em gota.



A **letra ‘x’** é constituída por duas curvas feitas separadamente ou unidas de uma só penada: “fará hum linha curva á parte direita, outra á esquerda unidas no meyo; tambem se faz de hum vez, pondo a penna no regrado de cima, puxan-

do-a á parte direita a cahir no debaixo, voltando para cima a cahir em cruz acabará como, s”^[22].



A letra ‘y’ inicia-se com um fragmento curvilíneo da letra ‘z’, seguindo a pena para a direita, em inclinação descendente quase perpendicular à linha de escrita. A recta da direita vai descendo obliquamente no espaço primitivo até se juntar depois ao traço de um ‘j’ com uma farpa grossa para o lado direito.



A letra ‘z’ é aquela que mais escapa às estruturas modulares de Andrade de Figueiredo. Da letra ‘z’ diz o calígrafo que o aluno deverá colocar a pena a meio do espaço primitivo “voltando-a acima sahirá á parte direita em linha recta”, fazendo depois uma linha filiforme oblíqua que atravessa todo o espaço, até que em baixo “em frente da que principiou continuando em linha recta á parte direita a acabará”^[23] voltando ao centro do espaço primitivo através de uma curva ascendente.

Tendo em conta que as letras minúsculas se usam mais que as letras maiúsculas, Andrade de Figueiredo refere apenas que as maiúsculas se formam através da soma de traços vindos das letras minúsculas, referência sintética, contudo, capaz de ajudar o aprendiz, que pode ser explicada por motivos de uma coerência editorial no seu manual.

6. Desenvolvimento do treino prolongado da Cursiva Liberal

As estampas 8 e 9 do manual de caligrafia de Andrade de Figueiredo dão continuidade ao método didático da caligrafia *Cursiva Liberal*. A estampa 8 tem um fundo de linhas paralelas ao qual se sobrepõe o alfabeto de ‘a’ a ‘z’. Esta estrutura de *background* tem dois objectivos: em primeiro lugar uma perfeita noção da largura das letras; em segundo lugar a observação da distância que existe entre letras e entre palavras, respectivamente um e dois espaços (cada espaço correspondendo à largura de uma letra como seja o ‘a’ ou o ‘e’). No caso da estampa 9 Andrade de Figueiredo apresenta textos *corridos* para o escrevente copiar.

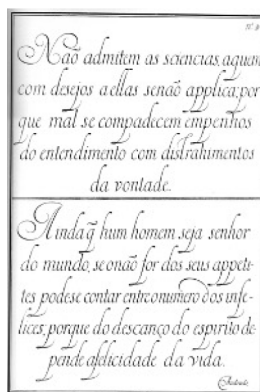
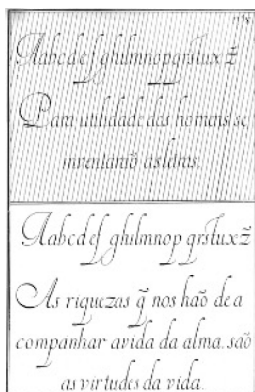


Fig. 7 e 8. Andrade de Figueiredo. Estampas 8 e 9.

As estampas 10, 11 e 12 dão continuidade à estampa anterior, apenas constituída por um texto caligrafado em *Cursiva Liberal*. Nestas estampas pode-se verificar um outro aspecto fundamental, que reside na herança de Velde e Morante, e que diz respeito aos improvisos decorativos – traços mais prolongados, com curvas mais acentuadas quase em espiral. No caso da última destas três estampas, um traço de uma letra pode dar lugar a um artefacto ornamental de grande complexidade que só o aprendiz mais avançado consegue imitar. As maiúsculas por seu turno são de grande dificuldade tendo em conta a sobreposição de traços e a enorme disparidade gráfica que se pode detectar entre os três alfabetos maiúsculos apresentados em cada uma das estampas. No caso da letra ‘A’ da terceira estampa, a sua execução é de tal forma entrelaçada que só um calígrafo de grande destreza e com um enorme controlo do movimento da pena pode lançar-se à sua feitura. Com estas maiúsculas pretendia o autor mostrar exemplares de letras que permitissem ao aluno mais interessado nesta arte desenvolver a sua caligrafia até um nível superior de decoração.

Fig. 9 - 11. Andrade de Figueiredo. Estampas

10, 11 e 12.



No seu ideário pedagógico em torno deste estilo caligráfico, Andrade de Figueiredo refere-se à “velocidade” da caligrafia: escrever depressa é contraproducente tendo em conta que o objectivo de um manual desta disciplina é a produção de uma letra bem desenhada através das metodologias didáticas e dos grafismos representados:

(...) faz grande confusão na escrita, se sorte que para se ler, he necessário adivinhar, também procede esta confusão da demasiada pressa com que se escreve, de que muitos tem presunção. Não presuma o escrivão na velocidade, com que o uso se alcança, mas em que a letra fique perfeita, e agradável à vista: não sendo tão vagaroso como principiante, nem tão apressado que estrope a letra confundindo os caracteres, porém escrevendo liberal attendendo sempre á perfeição da escrita; porque esta não se louva pela pressa com que foy feita, sim pelo bem cortado della, e finalmente tudo obrado com demasiada pressa, fica menos perfeito^[24].

Conclusão

Andrade de Figueiredo edita em 1722 a sua obra maior: *Nova Escola para Aprender a Ler, Escrever e Contar*, cem anos depois do manual do português Manuel Barata. No tempo do nosso autor surgiram manuais muito relevantes, de calígrafos como seja Jan van den Velde ou Pedro Dias Morante, os quais influenciaram Andrade de Figueiredo, num tempo de caligrafia luxuriante, também de mestres da caligrafia francesa e inglesa. Uma sua influência importante é a obra de Senault, particularmente na edição *Les rares écritures financières et italiennes bastardes nouvellement à la mode*, de 1650.

Na obra de Andrade de Figueiredo podemos observar a alteração de escala, tendo em conta que as estampas iniciais revelam letras maiores, para uma habituação da mão, mais tarde temos letras mais pequenas, sendo esta uma estratégia metodológica relevante.

Damos primazia à criação do estilo caligráfico *Cursiva Liberal*, a criação deste autor mais importante, tendo em conta que constitui uma caligrafia portuguesa, alicerçada na fonética desta língua, a qual foi aqui analisada em detalhe. Refira-se que a caligrafia Francesa e Inglesa, também utilizadas em Portugal, não detinham a sonoridade portuguesa que Andrade de Figueiredo pretendia. O calígrafo tirou partido de um estilo de brancos interiores largos, numa escrita clara, aludindo à fonética portuguesa.

A boa legibilidade desta caligrafia está presente na dissemelhança das várias letras, permitindo diferenciar as letras e atingir a certeza de diferenciação, graças também ao traçar da pena e na função das patilhas.

Desenvolvendo a linha e a curva enquanto elementos analíticos específicos e estruturais, de grande atenção, foi então possível produzir as diretrizes gerais para uma visualização total de 'a' a 'z', assim permitindo ao aluno uma abordagem informada do alfabeto e sua pedagogia.

A cursiva liberal é desenvolvida, exercitada e explicada com grande pormenor e extensão, utilizando receitas na individualidade da letra, utilizando um desenho nuclear, dois desenhos nucleares, ou então o desenho nuclear que acomoda traços secundários; mais ainda a letra pode ser realizada partindo de uma parte de outra letra.

Avançando nas derradeiras estampas de Andrade de Figueiredo podemos observar textos caligrafados de absoluto apuro formal, contendo improvisos decorativos esplendorosos. Na última das suas estampas verificamos que traços terminais de letras ligam a ornamentos de grande riqueza gráfica para o aprendiz calígrafo avançado replicar.

A edição *Nova Escola para Aprender a Ler, Escrever e Contar* de Andrade de Figueiredo alterou a caligrafia em Portugal quando instaurou um estilo caligráfico português, uma caligrafia denominada *Cursiva Liberal*, e lançou nos escaparates um manual de referência para todos aqueles que no seu tempo desejavam melhorar a caligrafia. O seu trabalho é inovador do ponto de vista gráfico e didático, permitindo uma aprendizagem consciente e rigorosa de quatro estilos diferentes, oferecendo ao escrevente uma panóplia alargada de caligrafias incontornáveis para os calígrafos posteriores.

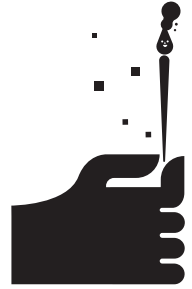
Referências

1. ANDRADE DE FIGUEIREDO, Manoel de; *Nova Escola para Aprender a Ler, Escrever e Contar, Oferecida á Augusta Magestade do Senhor D. João V, Rey de Portugal. Prymeira parte. Por Manoel de Andrade de Figueyredo, Mestre desta Arte nas cidades de Lisboa, Ocidental & Oriental*; Lisboa Occidental; Na Officina de Bernardo da Costa de Carvalho, Impressor do Serenissimo Senhor Infante; 1722. [Aliás, fac-símile, Lisboa; Livraria San Carlos, 1973].
2. FRIEDL, Friedrich; Ott, Nicolaus; Stein, Bernard (editores); *Typography, when, who, how*; Colónia; Könemann; 1998.
3. FRIEDL, Friedrich; Ott, Nicolaus; Stein, Bernard | Cit. [2] | p. 65
4. ROELAS Y PAZ, Marcos de las; *Práctica de el Nobre y primoroso Arte de Escrivir varios caracteres y distintas Formas de Letras que humildemente dedica a la magestad del Rey nuestro Señor Don Juan quinto de Portugal Don Marcos de las Roelas y Paz*; Lisboa; 1718.
5. MARTÍNEZ PEREIRA, Ana; *Un calígrafo español en la corte de D. João V: Marcos de las Roelas y Paz*; in: *Península, Revista de Estudos Ibéricos*; nº0; Porto; 2003; p. 360.
6. MARTÍNEZ PEREIRA, Ana | Cit. [5] | p. 361.
7. JACINTHO DE ARAUJO, Antonio; *Nova Arte de Escrever Oferecida ao Principe Nosso Senhor Para Instrução da Mocidade*; Lisboa; Officina de Antonio Gomes; 1794.
8. DIAS DE SOUSA, Manuel; *Nova Escola de Meninos na qual se propõe um método fácil para ensinar a ler, escrever e contar*; Coimbra; Real Oficina da Universidade; 1784.
9. SOARES BARBOSA, Jerônimo; *Escola Popular das Primeiras Letras*; 1796
10. ANDRADE DE FIGUEIREDO, Manoel | Cit. [1] | p. 39.
11. ANDRADE DE FIGUEIREDO, Manoel | Cit. [1] | p. 38 e 39.
12. ANDRADE DE FIGUEIREDO, Manoel | Cit. [1] | p. 51.
13. ANDRADE DE FIGUEIREDO, Manoel | Cit. [1] | p. 37.
14. MCLEAN, Ruari | *The Thames and Hudson, Manual of Typography*; London; Thames and Hudson; 1992. p. 44.
15. TRACY, Walter | *Letters of Credit, A View of Type Design*; Boston; David R. Godine; 1986. p. 31.
16. TSCHICHOLD, Jan; *The New Typography*; Berkley; University of California Press; 1995. Tradução inglesa da obra revolucionária da tipografia de 1928 *Die Neue Typographie*.
17. TSCHICHOLD, Jan; *Assimetric Typography*; London; Faber and Faber; 1967. Tradução inglesa da obra de 1935 *Typographische Gestaltung*.
18. Ruder, Emil; *Typography A Manual of Design*; Basileia; Verlag Niggli; 1966.
19. ANDRADE DE FIGUEIREDO, Manoel | Cit. [1] | p. 43.
20. ANDRADE DE FIGUEIREDO, Manoel | Cit. [1] | p. 44.
21. ANDRADE DE FIGUEIREDO, Manoel | Cit. [1] | p. 46.
22. ANDRADE DE FIGUEIREDO, Manoel | Cit. [1] | p. 46.
23. ANDRADE DE FIGUEIREDO, Manoel | Cit. [1] | p. 47.
24. ANDRADE DE FIGUEIREDO, Manoel | Cit. [1] | p. 47.

Exploring connections between animation and phenomenology through practice-based research

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Abstract

Can animation's elastic relationship with time, movement, and space provide unique possibilities for making sense of our lived experience of the world?

Can animation's unique relationship with time, movement, and space offer new ways to understand our lived experience of the world? This paper explores the profound connections between animation and phenomenology—defined by Smith (2018) as the “study of structures of consciousness as experienced from the first-person point of view.” Both fields contribute distinct perspectives on perception, experience, and the nature of reality. Drawing on practice-based research, this paper identifies key intersections between phenomenological ideas and animation, supported by the author's own animation practice. The discussion is further enriched by examining the work of influential artists, animators, and filmmakers such as Stan Brakhage, Robert Breer, Jonathan Hodgson, Jodie Mack, and Ainslie Henderson. The central aim of this research is to develop a working method and visual language that expresses the joy of perceiving and being in the world. The work seeks to communicate subjective experience while inviting ambiguity, participation, and interpretation from viewers. Another question emerges: can this method move beyond subjectivity to suggest narrative or evoke emotion? Insights from neuroscience may provide answers. At the 2019 Future of Storytelling conference, neuroscientist Anil Seth highlighted the interplay between experience, knowledge, and sensory stimulus in art and perception: “What we experience as engagement, perhaps as aesthetic pleasure, or being carried along by a narrative may relate to this process when prior beliefs and sensory evidence dance with each other in just the right way” (Seth, 2019). Ultimately, the solution may lie in how we make images “dance” with the viewer's knowledge, experience, and prior beliefs.

1. Introduction

Animation occupies a paradoxical space in relation to reality. While many are drawn to animation for its apparent escapism, the author's experience as an animation tutor reveals that students often arrive eager to create

Keywords

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extraordinary tales featuring godlike characters and fantastical worlds. Ironically, their first lesson is to master the physics of a simple bouncing ball. Through this process, they come to recognise that all character animation, whether fantastical or realistic, ultimately draws on our lived experience. Even exaggerated movements, such as extreme squash and stretch, are rooted in real emotions and ideas. In this paper, I argue that it is precisely animation's enigmatic interplay between realism and imagination that makes it a powerful medium for exploring philosophical questions about our subjective relationship to reality.

Norman McLaren's often-quoted maxim, "Animation is not the art of drawings that move but the art of movements that are drawn," (1) often seems counterintuitive, on first reading. The illusion of movement works because we (the viewers) fill in the gaps, and we are active in believing it. "What happens between each frame is more important than what happens on each frame." (1)

1. *Paraphrased in Chuck Jones: Life of Animated Cartoonist, Farrar, Straus and Giroux, New York, 1990, p. 180.*

Looking closely at and understanding the relationship between how we perceive the illusion of movement (Phi Phenomenon/persistence of vision) and philosophical ideas about our lived experience of the world (Phenomenology) can enable a transformative way of thinking about animation practice. Animation, being both a visual and temporal medium, engages directly and powerfully with our perception and conception of reality. As McLaren states, the drawings don't move; it's our cognition that brings the static images to life. The potential of animation and our experiential engagement with it enables the exploration of extraordinary perceptual experiences and realities. An example of the subjective experience of viewing animation transforming the 'objective reality' of materials and objects can be seen in Ainslie Henderson's short 'Stems' from 2016. In the film, Henderson, in voice-over, discusses the process of making stop-motion puppets from collections of disparate objects. First, we see objects being transformed from stuff into characters in Henderson's hand and then transformed again through animation. Though we can still see glimpses of the animator's hand in frame, the whole scene begins to change as the puppets transform from assemblages of stuff to characters that come alive and play music. Henderson's voiceover is also transformed and placed in the scene, emanating from an old tape player used by the band. The materiality of the models is important, and Henderson discusses his choices of 'things that have already had a life' being 'lovely to have in puppets' (Henderson, 2016). A nostalgic and haptic experience is evoked as the stuff of everyday life metamorphoses into 'living' characters that provoke an emotional response in the viewer. The strangeness of the scene draws us in, makes us look more closely, and ultimately helps us make a deeper, empathetic connection with the characters. It could be argued that 'Stems' is an animated documentary; it's certainly a "Creative treatment of actuality" (Grierson, 1928). Though it mutates into a narrative stop-motion character animation, it is essentially about reality and the lived experience of being an animator. Though

the practice of the animators discussed in this paper, including my own, varies greatly in style and technique, the subjective relation between reality and the illusion of life is an essential aspect of each. The author's own research-based practice seeks to discover if a more experimental approach to the form can evoke the nature of human experience without the vehicle of a conventional narrative.

This paper will explore animation's relationship with time, movement, space, and our lived experience of the world, firstly through the development of Modernism in literature, art, and cinema. Secondly, it will explore the relationships between neuroscience, perception, and cognition and animation and avant-garde cinema. Thirdly, it will discuss the relationship of lived experience and art in the works of Robert Rauschenberg and the tension between abstraction, representation and narrative in animated documentary. Finally, connections between the phenomenological experience of being in the world and the production of animation will be explored through the author's pedagogy and the development and production of a practice-based research film entitled 'After The Flood'.

2. Background. Modernism, Post Modernism, Phenomenology and the Animated Image

'Ineluctable modality of the visible: at least that if no more, thought through my eyes.' (Joyce, 1939)

The quotation is taken from the opening of 'Proteus', chapter three of James Joyce's modernist, stream of consciousness masterpiece, *Ulysses*. As Stephen Dedalus wanders aimlessly on Sandymount Strand, lost in the sights, sounds, and smells of the beach, he ponders the 'relationship of sense perception and thought, and their ability to deliver truth' (Kelly, 2019). Stephen Daedalus' beach reverie and Husserl's phenomenological 'Wonder in the face of the world' (Merleau-Ponty, 1962, p. xiii) bear many similarities to the author's experience of walking through the landscape and looking closely at the world. The relationship between sense perception and thought that Joyce so eloquently conveys in the phrase 'thought through my eyes' relates very much to phenomenological connections between creativity and cognition, neuroscience, philosophy, and art, and, in this case, has inspired the author's own animation practice.

Phenomenology shares many affinities with Modernist art, film and literature. Modernism's re-evaluation of the lived, first-person experience brought about an intense period of stylistic and formal experimentation and innovation. We can see the developing relationship between cognitive experience and creativity in the evolution of Impressionism and Post-Impressionism. Cézanne and, latterly, the Cubists deconstructed pictorial space, and the dynamic, fractured images of the Futurists were attempts to express the chaotic, physical and mental experience of life in modern cities. Postmodern artists such as Robert Rauschenberg and Sigmar Polke created multi-layered, hallucinatory paintings that mediate between the ordinary found materials of daily life and the barrage of contemporary

media imagery, or, in Polke's case, optical illusions that evoke extraordinary sensory experiences. Arguably, it is in the development of the moving image, the moving camera, through the evolution of editing and montage to the experimental cinema and animation of Stan Brakhage and Robert Breer that these connections between our subjective experience of the world and creative practice are most poetically envisioned.

3. Looking, perceiving, cognition, and animation

A key source of information for this investigation has been Paul Taberham's book *The Avant-Garde Filmmaker as Practical Psychologist*, in which he says...

"Stan Brakhage's concept of the 'untutored eye' and the constructive theory of perception marks one of the clearest convergences between the concerns of avant-garde filmmakers and cognitive scientists." (Taberham, 2018, p.87).

'one of the greatest barriers to true visual sensitivity is that people see what they think they know to be there, rather than what they actually see.' (Taberham, 2018, p.111)

The concept of the 'innocent eye' can be problematic, and as Ernst Gombrich states in his book *Art and Illusion*, it 'demands the impossible: the innocent eye is a myth'. (Gombrich 1959 quoted in Forrest 1985). However, in art education, the concept may have some value in its potential to introduce a different way of looking at the world. To promote active looking and visual sensitivity in art students, the author devised/borrowed an exercise called 'Found Animation'. The exercise intends to encourage the students to encounter 'phenomena' in the world as they appear to their consciousness 'innocently' or with an 'untutored' gaze, without recourse to theories, deductions, or assumptions beyond their immediate experience. Pedagogically, it's influenced by Sister Corita Kent's ideas about looking at the world "small pieces at a time" ¹. (Kent quoted in Aaron Rose's documentary 'Become a Microscope, 90 statements on sister Corita. 2008). Philosophically, it has some similarities with Merleau-Ponty's conception of phenomenological reduction or 'bracketing' and Roland Barthes's conception of the 'punctum', all of which will be discussed further in due course.

4. Found Animation

The concept of 'Found Animation' has been developed through the authors own practice and pedagogy and is influenced by the looking exercises devised by Sister Corita Kent. The process involves using a mobile phone camera in much the same way as Kent used her empty 35mm slide holder 'Finders'.

"[The finder] is a device, which does the same things as the camera lens or viewfinder. It helps us take things out of context, allows us to see for the sake of seeing," (Kent, 2008)

The idea also relates closely to the 'Found Object' and 'Assemblage' traditions in art, where artists incorporate objects manufactured or naturally occurring that were not originally designed for an artistic purpose, but have been repurposed in an artistic context.

In this case, the found objects are not transformed into puppets as in Henderson's 'Stems' or physically animated as in Jan Svankmajer's 1983 film *Dimensions of Dialogue*, in which he manipulates cutlery and vegetables. 'Found Animation' is closer to the experience of looking and seeing, and the images are captured photographically as a series of single images, very much like the leaves, grasses and natural elements captured between layers of film acetate that flicker as they pass through the gate in Brakhage's 'Mothlight' (1963).

As part of a module investigating connections between perception and animation, students were tasked, using stop-motion software on their mobile devices, to look closely at the world around them and allow something, a simple shape, a combination of colours or forms, to come to their attention and photograph it. The next step is to find another similar but different combination and photograph it, and so on, following a progression of shape, size, position, texture, or colour until they have created a sequence of animation.



Fig. 1. shows an example of a 'Found Animation' sequence from 'After The Flood'.

In devising this exercise and teaching students about the nature of perception and its relation to animation the author became aware of interesting tensions between Rudolph Arnheim's concept of active 'Visual thinking' – 'active exploration, selection, grasping of essentials, simplification, abstraction, analysis, and synthesis', (Arnheim, 1969) and Brakhage's concept of the 'untutored eye', an eye 'which must know each object encountered in life through an adventure of perception.' (Brakhage 2001a [1963]: 12)

Attempting to look at the world with an 'untutored eye', focusing on the experience, and discarding any prior knowledge of what the object of the gaze is, and then looking for other phenomena with similarities and differences that might create a sense of movement (animation), feels counterintuitive at first. It's not possible to do both at the same time, but it is possible to move back and forth between both states. The process has some similarities to the phenomenological reduction. As Merleau-Ponty concedes, "The most important lesson which the reduction teaches us is the impossibility of a complete reduction". (Merleau-Ponty, 1992, preface xiv) There is a tension between the objective possibilities and the subjective choice. The act of looking and then choosing is akin to Barthes' concepts of the 'Punctum' and the 'Studium' discussed in 'Camera Lucida'. In this case, the *studium* could be considered to be the context of the classroom, the building and the landscape

where the activity takes place, and the punctum, ‘this element which rises from the scene, shoots out of it like an arrow, and pierces me.’ (Barthes, 2000) This is the first image captured.

The ‘attention’ to the phenomena constitutes a ‘new object’ that’s alive with potential. The object of the gaze has something inherently ‘emerging’ that engages both the objective world and the subjective consciousness, and, in the case of the found animation exercise, emerges as a stream of visual thought. (Merleau-Ponty. 1992)

When working in this way, it’s important to try to capture the sequences in one take and start with the first thing that grabs the ‘attention’. Gradually, a theme develops and is followed until the attention is caught by something else. The ‘something else’ is another punctum, different, but connected both by a formal similarity and difference and a stream-of-consciousness logic. The process induces a trance-like or flow state in which it’s possible to lose track of time and space. The experience feels like reverting to a childlike experience of the world, that is, to quote Brakhage again, ‘alive with incomprehensible objects and shimmering with an endless variety of movement and innumerable gradations of colour’. The act of looking and noticing the similarities and differences between forms, hues, textures, and tones of light and shade is extremely enjoyable, but it’s not just a sensory experience; it’s also an intellectual experience because of the active ‘looking, selecting, analysing, and synthesising’ (Arnheim, 1969).

5. The beginning of practice based research

“The world is not an object such that I can have in my possession the law of its making; it is the natural setting of, and field for, all my thoughts and all my explicit perceptions.” (Merleau-Ponty, 1992, preface xi)

These thoughts and ideas became the basis for a practice-based research project, which led to an animation project called ‘After the Flood’. The project presents a series of ‘found’ animations edited into a four-and-a-half-minute film. Initially inspired by experiencing a familiar landscape transformed by a storm flood. Later, the piece focuses on a familiar domestic world re-experienced through a macro lens and a global pandemic. Both events occurred within a couple of weeks in early 2020.

The research was initially conducted by walking through the landscape and collecting found animations with a smartphone. A great many short animations were created by working in this way; the experience of making them was revelatory and enjoyable, but the films themselves lacked a sense of context. They were flickering abstractions, the stuff of life transformed, like Henderson’s puppets, but lacking narrative or emotional connection. The second stage of the research was to play with juxtapositions and sequences through an editing process. Gradually, loose connections and collisions of images on a timeline begin to suggest poten-

tial meaning. The potential meaning does not emerge from sequences of action but rather through a kind of “temporal gestalt.” (Merleau-Ponty, 1992, p. 54). It began to feel like a kind of thematic narrative might emerge through associative connections between images where ‘prior beliefs and sensory evidence dance with each other in just the right way.’ (Seth, 2019). Anil Seth’s contention that engagement with art and storytelling could be dependent on allowing the viewer a degree of agency in interpretation led me to research some of the artists and animators that I found most engaging and influential on the development of my practice.

6. Abstraction and representation, form and meaning in the work of Robert Breer, Jodie Mack and Robert Rauschenberg

The catalogue for Robert Breer’s solo show at the gb agency in Paris in 2013 describes how ‘Breer follows his own ideas about storytelling and abstraction, and most importantly explores the porous borders between the two’. Edwin Rostron writes in an article on Jodie Mack in *Edge of Frame*, 2015. ‘Jodie draws on the formal techniques and structures of abstract animation to explore the tension between form and meaning. Both filmmakers use simple techniques and ordinary materials in their work, ‘things that have already had a life’ to quote Henderson again. Mack uses fabrics, patterned material, found objects, and images to create abstract animations, and when discussing the use of materials, is acutely aware of the duality between what the materials are and what they become through being animated. “Because, at the end of the day, nothing is purely abstract, so any material you choose to work with will reveal its own story if you work it through in film.” (Mack, quoted in Rostron, 2015)

Art and Life.

“Painting relates to both art and life. (I try to act in the gap between the two)”. (Rauschenberg, 1959)

Rauschenberg’s thoughts on acting in the gap between art and life bear striking similarities to McLaren’s idea about the gaps between frames being more important than what is in each frame. Rauschenberg’s assemblages are puzzles; they present the stuff of life, found images and objects, often his own possessions transformed into art. His artworks play with cultural, political, and personal connections and associations. His work can ‘best be interpreted as a memory field, where personal intuition and collective memories jostled with each other on equal terms’ (Rosalind Krauss, quoted in Molesworth 2016). Ultimately, the gestalt ‘closure’ of the gap, and any interpretation of meaning, happens in the mind of the beholder. The ‘found animation’ technique presents a selective but objective reality (mediated through the camera), and the similarities and differences (the gaps) between each image create the illusion of movement. The moving sequences present the subjective experience of actively perceiving and thinking whilst moving through a landscape. When replayed, the images ‘skip around the way thoughts do’

(Breer, quoted in Mekas 1962: 16) and the experience feels very much like Brakhage's 'moving visual thinking'. How then could these phenomenological explorations move from the personal experience and begin to engage with a collective experience?

7. Animated Documentary. Commentary on the practice-based research

"Animation, in part through its material differences from live-action film, shifts and broadens the limits of what and how we can show about reality by offering new or alternative ways of seeing the world. It can present the conventional subject matter of documentary (the 'world out there' of observable events) in non-conventional ways. It also has the potential to convey visually the 'world in here' of subjective, conscious experience." (Roe, 2011 p02).

Grierson's beautifully ambiguous definition of the documentary form, 'A creative treatment of Actuality' and Annabel Honess Roe 's contention that the medium has the "potential to convey visually the 'world in here' of subjective, conscious experience" suggests an answer. Framing the work in the context of animated documentary, or at least an attempt to develop a visual language that could be used in that context provided a conceptual framework that enabled the work to move beyond the personal and connect with the collective experience.

The next question was. If the work was a documentary, then what was it about? A lot of this thinking was happening whilst cycling or walking along the River Taff on my daily commute to work. Ideas about animation mingled with the sights and sounds of the river, the play of light and shadow, mundane thoughts, memories, and emotions. Gradually, the realisation came that seeing, thinking, and moving was the subject. It was the whole embodied experience, not simply seeing.

In the passage from Joyce, Stephen Dedalus ponders the nature of perception and how it shapes our understanding of reality. He is grappling with the idea that while vision is fundamental, it may not be the only path to truth or a complete understanding of the world.

In his paper 'A Brief History and Theory of Not Looking', Martyn Woodward states that:

'The Phenomenology of Merleau-Ponty argues such, that 'looking' must be fully integrated within the Kinesthetic and tactile dimensions of experience.

Quoting Merleau-Ponty.

'Our own body is in the world as the heart is in the organism; it keeps the visible spectacle constantly alive, it breathes life into it....and with it forms a system, (Merleau-Ponty 1962,p235)

Woodward goes on to say, ‘to look is to experience with all your being’. And it’s this sense of an embodied, imagined, remembered, ‘kinaesthetic’ and ‘tactile’ sense of being in the world that I wanted to attempt to communicate in the film.

A key influence that emerged during the research was Jonathan Hodgson’s phenomenological exploration of his journey to work in ‘Feeling My Way’. Hodgson describes the film as ‘An account of a journey from home to work as seen through the filter of the conscious and subconscious mind’. (Hodgson, 1997) Hodgson’s film appears to be a one-take, point-of-view journey from his home to work through the streets of London. Filmed initially in digital video and then printed out frame by frame, animated over, and re-filmed in 35 mm film, it presents a physical and psychological journey that has a unique and ‘universal sense of subjectivity’ (Widdowson, 2013). The film presents a subjective point of view on a universal experience, the daily commute. The liminal space between home and work is where sensory experiences meld with imagination, memories, and premonitions of the day ahead.

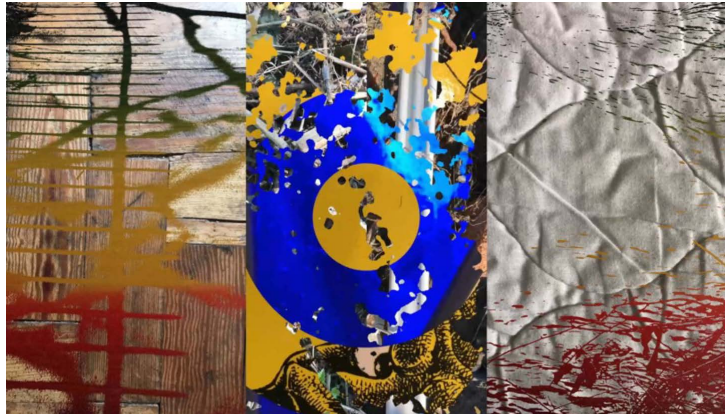
8. After the Flood / Wedi’r Dilyw

Two dramatic events informed the direction of the film: a storm flood and a pandemic, which added extra micro and macro dimensions to the project.

In February 2020, the River Taff burst its banks during a storm. The discarded detritus of life in the South Wales valleys was churned up from the riverbed and deposited across the landscape. Everyday household and industrial objects became enmeshed with the organic tangle of plants, rocks, and sand. The experience of walking through that same landscape was completely changed. Incongruous combinations of musical plastic toys and tree roots, bushes wearing t-shirts and trousers, skis, traffic barriers and hulking rusted metal water tanks sat together along the water line. The scene was both grimy and wondrous, rather like a Rauschenberg combine. The work could have developed into what Jodie Mack calls a kind of ‘Inventory documentary’ of the event, but then COVID hit the UK, and the lockdown experience intensified the surreal collision of domesticity and nature, internal psychological and biological processes juxtaposed with international events. The experience was both idyllic and tragic, revelatory and terrifying, emotional and impassive, and the work needed to reflect those contrasts.

Considering the idea of contrast and juxtaposition opened up new possibilities for exploring the ‘tension between form and meaning’. Where there are similarities and differences between each frame of the sequences (creating the illusion of movement), the juxtaposing of two frames (diptych) with different sequences began to suggest new interpretations and further potential for meaning. Breaking out of the single-screen convention also opened up the possibility of moving through different combinations of single, diptych, and triptych formats. Moving from a traditional single-screen, cinematic format to a format more usually associated with the history of painting heightened the tension between abstraction and representation, surface and depth, and the images began to feel more painterly.

Fig. 2. shows a triptych from 'After the Flood'.



While viewing edits and reflecting on the work done at that point, I decided that the visual language needed to be richer to be able to express both the mundane and extraordinary nature of the experience. A visual metaphor was needed, and the metaphor became that of the shadow.

“The Shadow is multifaceted, amorphous, and difficult to define. It is a force, a concept, a construct, an archetype, existing both externally and internally, universally and individually within the human culture and within the human psyche.” (Robinson, 2015)

Filming shadows allowed a different sense of space, time, and movement to the work, as well as alluding to memories and mortality. I had been experimenting with high-contrast luma mattes to separate the shadows from the background. These opaque and transparent mattes allow the layering of multiple images that play with figure and ground relationships. The technique allows three images to be visible at the same time: the foreground, background, and the shadow that reveals itself through its movement. Using shadows allowed the visual language to develop further, giving a painterly, almost hallucinatory feel to the images.

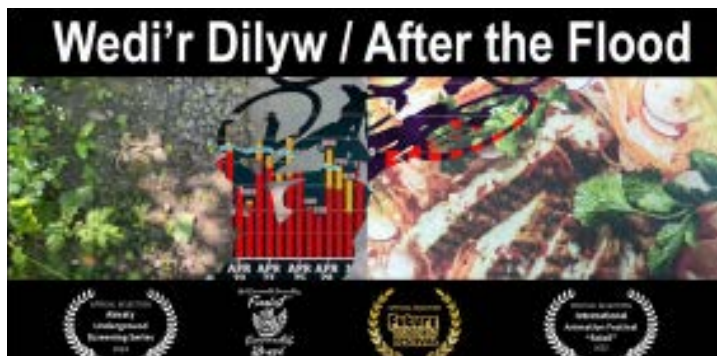
The shadow sequences are not ‘animated’ because it was important to capture real movement as opposed to creating it with animation. Since the work is inspired by the experience of time and movement through the landscape, it seemed logical to convey a sensation of physical movement to contrast with the animated movement. This technique can be seen in Breer’s 1974 film ‘Fuji’, which contrasts rotoscoped sequences with drawn graphic animation and live-action sequences. Influenced by the subjective point of view of Jonathan Hodgson’s *Feeling My Way*, I shot live-action sequences of walking and looking around. When processed into luma mattes, these enabled the further layering and contrast of surfaces with depth and animation with real movement through space and time. These images began to feel like visual equivalents to Joyce’s language collages.

“Stephen closed his eyes to hear his boots crush, crackling wrack and shells. You are walking through it, however. I am, a stride at a time. A very short space of time through very short times of space.”
(Joyce, 1939)

With his eyes closed, Stephen’s other senses enliven, and he becomes acutely aware of the auditory and kinesthetic sensations of movement. The sound of his footsteps fixes him in the moment, and he *is* “a stride at a time”. Joyce brilliantly illustrates the subjective and objective nature of time through Stephen Dedalus’s rambling flow of thought. The point of view footage captures the sound of my own footsteps and breathing as I walk and grounds these sequences in a particular time and place. The overlaid and underlaid animations imply different spatial and temporal experiences.

It’s commonly agreed that our conception of time was profoundly affected by the experience of the pandemic. Routines and rituals that marked the conventional tempo of life were lost, replaced by a strange, dreamlike flow. The latter parts of the film reflect this through the use of contrasting and overlaid imagery, diegetic and non-diegetic sound. The weather was abnormally fine, and with no traffic or planes in the sky, we did, for a short while, seem to have reverted to more halcyon days. People walked and cycled without haste along my usual commute, and parts of the river became beachside resorts for children. All of these aspects and imaginations were being absorbed into the film, and inevitably, the international crisis began to seep into the work. The visual barrage of graphs and graphics, accounting and documenting the ever-increasing death tolls, merged with my own intimate world, memories and emotions.

The film was finished in the Summer of 2023 and has been screened at several animation festivals and was a finalist at the Experimental Brazil festival in 2024.



Conclusion.

The abstract states that the work intends to communicate a subjective experience but also to invite and allow ambiguity, participation, and

interpretation from the viewer. Arguably, it does do that; the images are all from a personal perspective, and the lack of traditional narrative does invite participation from the viewer to interpret the meaning.

To refer back to the quote from Anil Seth in the abstract, the secret to engagement or aesthetic pleasure is to find the right balance between the degree to which art presents a transformation of reality and the ability of a viewer to find something familiar or true in the experience. This is the case with Henderson's characters and Hodgson's journey to work, though both present vastly different characteristics of the animated form. Animation exploits the uniquely human ability to suspend disbelief and connect empathically with what is essentially stuff moving around. By finding the universal in the specific, an everyday experience seen from a subjective point of view, animation can provide unique possibilities for making sense of our lived experience of the world.

The experience of the COVID period was both universal and personal, and 'After the Flood' seeks to communicate something of that experience. The subject may be specific to a particular time and place, but hopefully, an audience can connect and engage with it because of its relation to a universal experience.

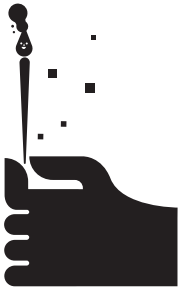
Research and practice have revealed significant connections between animation and phenomenology. Both fields provide insights into how we perceive, experience, and understand the world. Animation, through its ability to create extraordinary and engaging experiences, is a rich domain for phenomenological exploration. The transformative characteristics of animation offer a unique lens on the nature of reality and the structures of consciousness. Phenomenology can enable a transformative understanding of the experiential impact of animation. There is a great deal more to explore and future research to be done on the significance of perception, intentionality, embodiment, and temporal experience through the medium of animation.

Link to final film <https://vimeo.com/923401186?share=copy#t=0>

References

1. Animate Projects (1997) *Feeling My Way*. [Online] Animate Projects - Feeling My Way (Accessed: 12, Nov, 2023).
2. Arnheim, R (1969) *Visual Thinking*. London: (Faber and Faber Limited.)
3. Barthes, R. (2000) *Camera lucida : reflections on photography*. London: Vintage.
4. Edge of Frame (2015) *Jodie Mack* [Online] <https://www.edgeofframe.co.uk/jodie-mack/> (Accessed: 10/03/2024)
5. Exploring Animated Documentary (2013) '*Feeling My Way*' by Jonathan Hodgson' [Online] '*Feeling My Way*' by Jonathan Hodgson - ANIMATED DOCS (Accessed: 12/11/2023)
6. Forrest, Erik. "The 'Innocent Eye' and Recent Changes in Art Education." *Journal of Aesthetic Education* 19, no. 4 (1985): 103-14. <https://doi.org/10.2307/3332302>.
7. Fried, M (2005) Barthes's Punctum. Source: *Critical Inquiry*, Vol. 31, No. 3, pp. 539-574 (The University of Chicago Press).
8. gb agency (no date) Exhibitions [Online] <https://gbagency.fr/exhibitions/robert-breer#:-:text=And%20Breer%20follows%20his%20own,this%20onon%2Dli->

- near%20narrative%20form (Accessed:10, 11, 2023).
9. Kelly.2019 Decoding Dedalus, Blooms and Barnacles Available at: <https://www.bloomsandbarnacles.com/blog/2019/02/19/decoding-dedalus-ineluctable-modalities>(Accessed: 11/03/2024)
10. Honess Roe, A , (2013) Animated Documentary (Basingstoke, Hampshire: Palgrave Macmillan).
11. Langer, M.M. (1989) Merleau-Ponty's phenomenology of perception : a guide and commentary. Basingstoke: The Macmillan Press Ltd. Available at: <https://doi.org/10.1007/978-1-349-19761-3>.
12. Joyce,J (1939) Ulysses. (Penguin Modern Classics) (New Ed)
13. Merleau-Ponty, M. (1992) Phenomenology of perception. London: Routledge.
14. Merleau-Ponty, M., 1992, Sense and Non-Sense. 1st ed., Northwestern University Press, Evanston.
15. Mirzoeff, N. (2015) How to See the World (Pelican Books, Penguin Random House UK)
16. Molesworth, C. 2016, "From Collage to Combine: Rauschenberg and Visual Culture", *Salmagundi*, , no. 188, pp. 676-686,696.
17. Nowness. (2015), *Directors' Cuts: "Become Microscope" by Aaron Rose*. [Online] <https://www.nowness.com/series/directors-cuts/dc-aaron-rose> (Accessed:16, Jan, 2024).
18. R. Rauschenberg, (1959) quoted in Robert Rauschenberg, exh. cat., Solomon R Guggenheim Museum, New York, 1998, p.
19. Robinson. J (2015) Working with The Shadow: A Writer's Guide | The Artifice (the-artifice.com)
20. Senses of Cinema. Bill Schaffer (2005) *The Riddle of the Chicken: The Work of Norman McLaren* [Online] https://www.sensesofcinema.com/2005/cteq/norman_mclaren/ (Accessed: 12/11/2023)
21. Taberam, P (2018) The Avant-Garde Filmmaker as Practical Psychologist. New York: (Berghahn Books.)
22. Tanizaki, J (1977) In Praise of Shadows'. (Vintage Classics)
23. Seth, A (2017) Royal Institution (2017) The Neuroscience of Consciousness - with Anil Seth. Available at: <https://youtu.be/xRel1JKOEbI> (Accessed: 10 September 2018).
24. Smith, David Woodruff, "Phenomenology", *The Stanford Encyclopedia of Philosophy* (Summer 2018 Edition), Edward N. Zalta (ed.), URL = <<https://plato.stanford.edu/archives/sum2018/entries/phenomenology/>>.
25. Wees, William C. (1992) Light Moving in Time. (University of California Press.)
26. Woodward, M. (no date) "A Brief History and Theory of Not Looking: Toward a Field Theory of the Audiovisual."
27. Wolf, V. The Cinema. (1926)



Keywords

Animation; Gender
Representation; Female
Authorship.

K-Pop Demon Hunters and the Importance of Female Directing in Contemporary Animation

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Abstract

This article analyzes the animated feature film K-pop Demon Hunters as a case study of how female artistic direction in contemporary audiovisual productions can contribute to the construction of multi-dimensional and socially relevant female characters. It is based on the assumption that the presence of women in creative leadership positions directly influences the aesthetic, narrative and cultural choices of a work. The film's semiotic analysis is conducted through an interdisciplinary approach grounded in gender studies, using an analytical framework composed of five categories: (i) visual design, (ii) agency dynamics, (iii) representation of femininity, (iv) interpersonal relationships, and (v) cultural elements. It is argued that the work proposes a representation in which femininity and power are not conceived as opposing categories, but as complementary dimensions of the female experience. The conclusion suggests that female artistic direction can play a decisive role in reshaping dominant imaginaries in mainstream animation, contributing to more inclusive, plural, and culturally diverse narratives. Finally, the article points to future research perspectives on female authorship in animation, considering how ethnicity, diaspora, the body, and culture affect the development of female narratives and characters.

1. Introdução

Este artigo surge a partir de uma proposta de projeto de doutoramento que procura refletir sobre a importância das mulheres na animação, principalmente sobre sua influência nas histórias e narrativas dos filmes e como isso pode inspirar novas gerações de animadoras.

Wells [1] argumenta que as mulheres usaram - e ainda usam a animação para criar uma estética feminina específica que resiste à linguagem comumente masculina do cinema. Neste sentido, as mulheres na autoria da animação podem contribuir para a elaboração de narrativas que valorizem experiências, subjetividades e formas de representação historicamente marginalizadas.

A partir desta perspetiva, este artigo desenvolve um estudo de caso do longa-metragem K-Pop Demon Hunters que foi lançado em 2025 pela *Sony Pictures Animation and Imageworks* para a *Netflix*, que alcançou

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elevada circulação e recepção. O filme gira em torno da cultura coreana misturando elementos da mitologia e K-pop moderno. O filme destaca-se não apenas por sua recepção e ampla circulação, mas por apresentar uma equipa feminina em posições de liderança criativa e por centrar sua narrativa em experiências de amizade, identidade e agência feminina.

Desta forma, o estudo procura propor uma ligação entre a direção artística feminina na realização da animação e a construção de personagens femininas, evidenciando como a presença de mulheres em posições de liderança criativa tende a favorecer na construção de protagonistas mais complexas, plurais e socialmente relevantes, ampliando os horizontes de representação na animação contemporânea. Este trabalho propõe, portanto, a análise conjunta da autoria feminina na construção de personagens.

2. Metodologias

Este estudo adota uma abordagem qualitativa de natureza exploratória, baseada na análise fílmica do longa-metragem K-Pop Demon Hunters, sob a ótica dos estudos de género e da análise semiótica da imagem animada. A opção por um estudo de caso do filme justifica-se pela relevância contemporânea da obra, tanto ao nível da sua inserção na cultura pop global como pela presença de mulheres em posições de liderança criativa, permitindo explorar a relação entre autoria e representação.

1. A análise foi conduzida com base numa grelha analítica composta por cinco categorias:
2. Design visual das personagens (design corporal, figurino, linguagem visual);
3. Agência narrativa (papel das personagens, decisão e autonomia);
4. Representação da feminilidade (relação entre poder, feminilidade e desconstrução de estereótipos);
5. Relações interpessoais (relações de amizade, sororidade e interação com personagens masculinas);
6. Elementos culturais (integração de referências à cultura coreana e à cultura pop).

Foram selecionadas sequências-chave do filme com base na sua relevância narrativa, nomeadamente momentos de introdução das personagens, desenvolvimento de conflitos, interações entre protagonistas e cenas de resolução. Estas sequências foram analisadas considerando simultaneamente elementos visuais e narrativos.

A análise seguiu uma lógica interpretativa, procurando estabelecer relações entre os dados observados e os conceitos discutidos na literatura, particularmente no que diz respeito à construção da subjetividade feminina e às dinâmicas de representação na animação contemporânea.

3. Mulheres Dirigindo Animação e Protagonistas Feministas

Luce Irigaray citada por Marvitta e Adni [1] argumenta que a sociedade foi historicamente organizada por uma linguagem masculina e essa lin-

guagem molda a forma como se entende o mundo, mundo esse particularmente centrado no masculino, chamado pela autora de linguagem falocêntrica. A partir desse pensamento, as mulheres foram descritas como em “falta” ou “incompletas”. Ela defende que a construção de uma cultura que valorize as experiências femininas e a criação de uma linguagem própria feminina, onde mulheres falem de si mesmas e que não sejam apenas representadas por homens e nem sejam reduzidas a objetos narrativos. Em vez de buscar igualdade a partir de critérios masculinos, Irigaray defende o reconhecimento da especificidade feminina como fonte de autonomia, subjetividade e criação cultural e social.

Neste sentido, o cinema de animação pode ser o ambiente propício para explorar a representatividade de gênero e/ou cultural, sob a ótica de mulheres criadoras como sujeitos autônomos, dotados de voz, agência e identidade própria.

Esta leitura é reforçada por Pilling [3], ao destacar a marginalização histórica das mulheres na indústria da animação, sugerindo que a ausência de mulheres nos bastidores e no ecrã são fenómenos interligados e não independentes, ao mesmo tempo em que permanecem sub-representadas nas produções animadas, tanto na função de direção quanto na constituição das personagens [4], por ser um ambiente amplamente dominado pelos homens.

A falta de personagens femininas nos filmes reflete sua ausência nos bastidores, Sá [5] cita um estudo feito nos Estados Unidos que demonstra que praticamente todas as posições-chave na cadeia de produção da animação são ocupadas por homens, sendo que apenas entre 2% e 21% dos cargos são preenchidos por mulheres.

Jimenez [4], ao analisar oito filmes da Disney, constatou que 63,3% das personagens eram masculinas e apenas 36,6% femininas. Essa sub-representação carrega uma série de estereótipos que se refletem negativamente nessas personagens e exercem impacto significativo sobre o público, maioritariamente composto por crianças, uma vez que tais produções difundem a ideia de que as mulheres não são dignas ou valiosas. A noção de feminilidade e do papel social feminino é comprometida por determinadas representações, que condicionam o valor da mulher à sua aparência física, reforçam sua dependência emocional de personagens masculinos e associam sua felicidade e realização pessoal à presença de um relacionamento romântico [2]. As discrepâncias nas produções não param apenas no gênero, a etnia predominante desses filmes é branca [5].

Esses dados têm sido interpretados como resultado de estruturas que favorecem redes masculinas e dificultam a progressão feminina [6]. Contudo, esta explicação estrutural deve ser analisada em conjunto com a dimensão cultural apontada por Irigaray [1], na medida em que a exclusão das mulheres não se limita ao acesso às posições de poder, mas também à forma como o feminino é conceptualizado e representado.

Nas últimas décadas, a presença feminina na produção audiovisual tem tido um aumento gradual, e esses aumentos são fundamentais para enfatizar o lugar das mulheres na sociedade e para servir de exemplo para as próximas gerações.

Ótimos exemplos, são os filmes *Brave* (2012), *Frozen* (2013) e *Turning Red* (2022), que têm protagonistas femininas diferentes do habitual cujas histórias não sejam focadas em um parceiro romântico. Mesmo que seja um aumento gradual, ainda há esperança para o futuro da animação, usando como exemplo o filme *Turning Red*, foi profundamente influenciado pela forte presença feminina em sua equipa de produção [6].

O filme acompanha a adolescência de Mei Lin, uma jovem sino-canadense que enfrenta a puberdade e a relação conflituosa com sua mãe superprotetora, foi inspirada nas experiências pessoais da diretora Domee Shi, que contou com uma equipe central composta maioritariamente por mulheres em cargos de liderança. Esse facto foi considerado inédito dentro do estúdio e proporcionou um ambiente em que as profissionais se sentiram ouvidas, compreendidas e apoiadas, inclusive em questões relacionadas à maternidade e à conciliação entre vida pessoal e trabalho [5].

Sá [5] em seu texto, contrasta esta experiência com relatos anteriores de desigualdade e discriminação enfrentados por mulheres na Pixar. Casos como o de Brenda Chapman, afastada da direção de *Brave* sob a justificativa de “diferenças criativas”, evidenciam como mulheres em posições de liderança historicamente enfrentaram desvalorização e exclusão. Outras profissionais também denunciaram ambientes marcados por sexismo, assédio e desigualdade de tratamento devido ao género. Assim, *Turning Red* representa não apenas uma mudança temática na representação feminina na animação, mas também um marco institucional ao ampliar a participação das mulheres em posições-chave de liderança dentro da indústria.

Além disso, os filmes de maneira geral constituem um meio popular para a transmissão de mensagens sociais e culturais. Mesmo sendo considerados um género literário, os filmes não apenas entretêm, mas também fornecem informações sobre cultura e valores, que podem influenciar normas sociais e papéis femininos, representando como essas normas afetam as percepções sociais sobre identidade de género ao retratar características masculinas e femininas [2].

O caso de *Turning Red* é particularmente relevante, dado o papel central da realizadora Domee Shi e de uma equipa maioritariamente feminina em posições-chave [5], que criaram as personagens com características que elas viam nelas mesmas, como rostos arredondados, canelas grossas, pintas, etc. Isso aproxima as personagens da audiência e gera identificação.

A animação, enquanto meio altamente maleável e expressivo, oferece um espaço fértil para esta transformação, permitindo explorar novas formas de representação que escapam às convenções do cinema tradicional.

As mulheres precisam ocupar um lugar ativo na transformação das narrativas, em vez de serem reduzidas a elementos decorativos ou simples acessórios da história [2]. O impacto da desconstrução de estereótipos étnicos e de género [4] ultrapassam a questões de representação e de dados, isso influencia diretamente na mentalidade dessas crianças e na percepção social dos valores associados ao género [4]. Torna-se relevante que estas produções ofereçam modelos diversos e inclusivos [5].

Importa, no entanto, evitar uma relação causal simplista entre a presença feminina e qualidade representacional. A hipótese aqui defendida sustenta que a autoria feminina pode criar condições favoráveis à emergência de representações mais complexas,— embora essas representações continuem condicionadas pelas regras da indústria e da cultura.

Maggie Kang co-realizadora de *Kpop Demon Hunters*, que ao falar sobre o desenvolvimento do filme reflete sobre a identificação que o filme pretende abordar “*E eu sabia que queria ver heroínas femininas identificáveis, que comem e fazem caretas bobas... não apenas para serem bonitas e sexies e legais, mas com inseguranças reais [...] [11]. Um tipo diferente de super-heroína – mulheres que não são apenas legais e duronas, mas também imperfeitas e com falhas, que são bobas, que amam comida e comem demais – o tipo de mulher que eu sempre quis ver na tela.*”. Reforçando a importância de utilizar os filmes animados como um veículo de transformação social e desafiar normas de género estabelecidas [2].

4. K-Pop Demon Hunters: Feminilidade, Agência e Identificação na Animação Contemporânea

Já faz alguns anos que a onda coreana surgiu na cultura popular ocidental, o evento chamado *Hallyu*, que bombardeia streaming com dramas coreanos (doramas), apps de músicas com músicas pop (K-Pop) e a culinária com *gimbap* (rolinho de arroz coreano) [7].

O cinema de animação ainda representa um espaço pouco explorado para a representação da cultura coreana [7]. Nesse contexto, *K-Pop Demon Hunters* surge como uma proposta inovadora, ao buscar expor elementos da cultura coreana ao público internacional e, ao mesmo tempo, ressignificar possíveis estereótipos de género associados a essa cultura [2].

Pensando nisso, *K-pop Demon Hunters* é um deleite tanto para a representação de género quanto para a representação cultural [7]. A configuração autoral inclui Maggie Kang (co-direção), Hannah McMechan e Danya Jimenez (argumento), bem como Mingjue Helen Chen e Ami Thompson no design visual [8][9][10]. Entre outras mulheres em funções diversas no desenvolvimento do filme [11].

Essa composição torna-se relevante na análise da representação das protagonistas.

O filme conta a jornada do grupo de música pop Huntrix, formado por Rumi, Zoey e Mira. Elas são caçadoras de demônios e utilizam da sua própria música - e vozes para combater demónios que ameaçam o mundo real criando uma barreira mágica conhecida como *Honmoon*. Demónios estes que formam um grupo rival para combater a força das protagonistas, os *Saja Boys*. Combinando elementos de fantasia urbana, mitologia coreana e o sobrenatural é uma história sobre sororidade, amizade e se manter verdadeiro sobre a sua verdadeira identidade. O filme apresenta personagens fortes que não são utilizadas como objetos e são agentes da própria história. Resistindo estereótipos de género que ainda hoje são perpetuados na sociedade coreana, por exemplo [2].

Rumi, a líder do grupo, no entanto, esconde um segredo das suas companheiras, ela é metade demónio e isso a deixa com medo de ser des-

truída por suas amigas. Isso a força esconder as marcas na sua pele com roupas e fazendo com que ela tenha um senso de culpa e ao mesmo tempo responsabilidade para com o seu trabalho de proteger o *Honmoon*.

Esta secção pretende examinar como a construção das personagens e narrativas femininas podem ter sido influenciadas por uma direcção criativa formada por mulheres. A análise organiza-se em cinco dimensões: construção visual, agência narrativa, representação da feminilidade, relações interpessoais e elementos culturais.

4.1. Construção Visual das Personagens

A construção visual das personagens desempenha um papel central na definição das suas identidades e trajetórias.

A obra opta conscientemente por representar mulheres de forma independente, complexa e multidimensional. A história e a personalidade delas impactam nas escolhas sobre suas formas e figurinos, como afirma a diretora de arte Ami Thompson no *Artbook* do filme, “Emocionalmente, ela sempre pareceu uma personagem usando armadura, tanto literal quanto figurativamente” [11].

Rumi, enquanto líder, apresenta um design que reflete a contenção como golas altas, mangas longas, reforçando simbolicamente o seu conflito interno, funcionando como marcador visual de contenção emocional e ocultação identitária.

Mira, por sua vez, é uma personagem rebelde, tem o corpo esguio e anguloso, expressando uma postura mais assertiva, embora em momentos mais casuais adota uma postura mais relaxada, associada a traços considerados “masculinos” [11].

Zoey é coreana-americana e isso parece trazer para a personagem bagagens e referências e até atitudes diferentes refletidas num design mais arredondado e isso traz leveza e suavidade para a sua personalidade alegre e criativa [11].

As escolhas de figurino contam com detalhes que ajudam a contar a história e a revelar detalhes das personalidades de cada personagem. Euni Cho, a designer de personagem, adicionou detalhes em bordados *dancheong* e manteve as manicures das personagens durante todo o filme, o que segundo o *artbook*, algo raro em animações devido à complexidade.



Além disso, os calçados usados pelas personagens foram pensados para serem além de estilosos, funcionais, para poderem correr e derrotar os demônios [11].

Adicionalmente, o filme recorre a estratégias visuais estilizadas, como na cena em que o trio encontra pela primeira vez o

grupo *Saja Boys* na rua e suas expressões mudam, e aparecem milhos que estouram em pipocas e corações, como mostra a Fig. 1. Uma referência clara aos desenhos animados orientais, transicionando para uma versão de *chibi* (uma versão simplificada e cómica do personagem) [11].

Fig. 1. Cena em que Mira e Zoey estão vendo os *Saja Boys* pela primeira vez e aparecem pipocas estourando nos olhos para representar que eles são atraentes.

4.2. Agência Narrativa

As protagonistas possuem papel ativo na progressão da narrativa, sendo responsáveis pelas decisões que moldam o desenrolar da história. Rumi, por exemplo, enfrenta um conflito ao esconder sua identidade como metade demónio, o que impacta diretamente as suas relações e sua capacidade de cantar e se relacionar com as amigas.

O sucesso das personagens não decorre de capacidades inatas, mas de esforço, aprendizagem e colaboração. A presença dos Saja Boys, representados como igualmente talentosos, reforça essa dinâmica, exigindo das protagonistas disciplina e superação. O sucesso não decorre de um poder inato ou excecional, mas de treino, esforço e superação — dinâmica que dialoga com a trajetória da protagonista de Mulan (1999), cuja competência é resultado de aprendizado e persistência. Essa construção contrasta com versões mais recentes (2020) da personagem, nas quais habilidades extraordinárias prévias reduzem o arco de desenvolvimento e o conflito narrativo. Em *K-pop Demon Hunters*, a competência é conquistada e não inerente a personagem.

Desta forma, o filme afasta-se de modelos de heroínas infalíveis, propondo personagens que evoluem ao longo da narrativa.

4.3. Representação da Feminilidade

K-Pop Demon Hunters destaca-se por evitar a dicotomia tradicional entre feminilidade e poder. As protagonistas são retratadas como simultaneamente fortes e vulneráveis, demonstrando emoções, inseguranças e falhas. Ao contrário de modelos idealizados, as personagens falham, pedem desculpa e aprendem, reforçando a sua humanidade.

O filme recusa a construção de um ideal normativo de feminilidade: as personagens comem de forma exagerada, apresentam expressões faciais caricaturais e surgem, por vezes, sem maquilhagem ou com imperfeições visíveis. Estes elementos reforçam a identificação com o público e ampliam a complexidade das personagens.

Além disso, a obra rejeita o arquétipo da “rapariga diferente das outras”, que normalmente associa valor feminino à rejeição de traços considerados femininos. Pelo contrário, a feminilidade é integrada como parte da identidade das personagens, como citado anteriormente, através de manicure feita ou em uma cena específica em que usam máscaras de cuidados faciais, e essas características “femininas” coexistem com a força e independência.

4.4. Relações Interpessoais

A narrativa privilegia relações de amizade e sororidade, em detrimento de rivalidades ou dependência de personagens masculinos.

Os conflitos entre as protagonistas, especialmente relacionados com o segredo de Rumi, são tratados como processos de crescimento e reconciliação, evidenciando a profundidade emocional das relações.

As músicas do grupo funcionam como dispositivos narrativos de esperança, união e sororidade. Em vez de reforçar rivalidade entre mulheres ou dependência emocional de figuras masculinas, o enredo prioriza o vín-

culo entre as integrantes da banda. Embora não exclua a possibilidade de romance, pois as personagens demonstram algum nível de atração pelos Saja Boys [10], e em algumas artes conceituais haja cenas de um possível romance entre Rumi e Jinu (líder dos Saja Boys), a narrativa desloca o foco da realização amorosa para a amizade, a lealdade e o crescimento coletivo. Podendo ser um contraponto às críticas de Irigaray [1], em que as personagens não são objetos narrativos e nem centram suas vivências na aprovação masculina e sim valorizando o apoio mútuo, especialmente nos momentos de erro e reconciliação construindo uma comunidade feminina solidária, na qual se sustentam e se fortalecem.

4.5. Elementos culturais

O filme integra elementos da cultura coreana de forma significativa, contribuindo para a disseminação da hallyu no contexto da animação [7].

A combinação de K-pop, mitologia coreana - como mostra a figura 2 - e estética contemporânea cria uma narrativa híbrida que dialoga com o público atual, sem perder a especificidade cultural.



O desenvolvimento visual do filme recorre a referências que, muitas vezes, passam despercebidas, como detalhes nos figurinos inspirados na cultura coreana, armas baseadas em armamento tradicional da história

Fig. 2. O filme é recheado de referências culturais e mitológicas da cultura coreana, como o tigre Derpy, que é um animal de relevância na história coreana.

da Coreia, bem como a incorporação de elementos de *taekwondo* [12] nas coreografias.

Ao incorporar elementos associados a interesses juvenis femininos, como música pop e estética *idol* e de *doramas* (dramas coreanos), o filme legitima esses universos como dignos de centralidade narrativa, contrariando a sua desvalorização histórica.

Nesse sentido, *K-Pop Demon Hunters* além de ampliar a representação cultural, também reforça a importância de considerar o público feminino como agente ativo na cultura contemporânea.

Assim, *K-pop Demon Hunters* contribui para reconfigurar o imaginário da heroína animada contemporânea: poderosa e falível. Ao conjugar agência, vulnerabilidade e sororidade, o filme oferece uma representação mais identificável e socialmente relevante da experiência feminina na cultura pop atual.

5. Conclusão

Este artigo defende que a direção artística feminina não apenas amplia a presença de protagonistas mulheres, mas redefine estruturas narrativas, estéticas corporais e imaginários culturais na animação contemporânea. O filme demonstra que mulheres em mais cargos de liderança podem tender a influenciar diretamente a construção de narrativas mais inclusivas. Nesse sentido, *K-pop Demon Hunters* não apenas amplia o repertório de heroínas na animação, mas também contribui para deslocar paradigmas sobre como mulheres podem — e devem — ser representadas.

Sob a ótica do feminismo, *K-Pop Demon Hunters* valoriza a pluralidade cultural, pluralidade de género e fortalece o feminino sem relacioná-lo com fragilidade, nem pressionando relacionamentos românticos às personagens e sim a relação de amizade entre elas, além de adicionar interesses culturalmente associados às mulheres e meninas, rompendo com a lógica que desqualifica esses interesses como menores em comparação a interesses culturalmente masculinos.

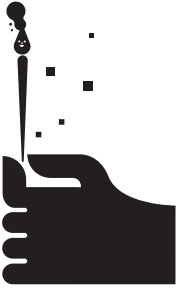
Os resultados desta análise indicam que a presença de mulheres na direção criativa pode contribuir para a construção de personagens mais complexas, possibilidades narrativas e visuais mais plurais e socialmente relevantes, desafiando normas estabelecidas e abrindo caminho para uma animação mais inclusiva e representativa.

Assim, este estudo contribui para os debates em torno da animação contemporânea e dos estudos de género ao propor uma leitura integrada entre autoria, representação e construção narrativa. Sugere-se, para investigações futuras, o alargamento desta análise a outras produções animadas, bem como a exploração de interseções entre género, etnia, diáspora e contexto cultural, de forma a aprofundar a compreensão das dinâmicas de representação na animação global contemporânea.

Referências

1. P. Wells, *Understanding Animation*. London, U.K.: Routledge, 1998.
2. P. M. A. Prastiwi and N. P. Adni, "Postmodern Feminism in the Movie *K-Pop Demon Hunters* (2025)," *JURRIBAH*, vol. 4, no. 2, pp. 744-754, Jul. 2025.
3. J. Pilling, *Women & Animation: A Compendium*. London, U.K.: British Film Institute, 1992.
4. S. Jimenez, "The representation of women in Disney animated films," Bachelor's thesis, Univ. of Nebraska at Omaha, Omaha, NE, USA, 2022. [Online]. Available: https://digitalcommons.unomaha.edu/university_honors_program/181 (acessado: Fev. 2026).
5. G. Sá, P. Tavares, and H. Alvelos, "Domee Shi's Turning Red as feminist hope for feature animation," presented at the 3rd Int. Congr. Mujeres Creadores: Dibujo + Diseño + Acción, Sevilha, Espanha, 2023.
6. G. Sá, P. Tavares, and H. Alvelos, "Where are the women? An overview of female representation in popular contemporary animation feature films," presented at CONFIA – 10th Int. Conf. Illustration and Animation, Caldas da Rainha, Portugal, 2023.
7. X. Fan and S. Supalakwatchana, "KPop Demon Hunters: Cultural representation in contemporary Korean animation," *Asian Journal of Arts and Culture*, vol. 26, no. 1, p. 16, 2026, doi: 10.48048/ajac.2026.16.
8. "LMU screenwriters create inspiring story of self-acceptance with K-pop Demon Hunters," *LMU Newsroom*, Dec. 8, 2025. [Online]. Available: <https://newsroom.lmu.edu/campusnews/lmu-screenwriters-create-inspiring-story-of-self-acceptance-with-kpop-demon-hunters/> (acessado: Fev. 2026).
9. M. Donnelly, "K-Pop Demon Hunters girl group animated movie at Sony," *Variety*, Mar. 8, 2021. [Online]. Available: <https://variety.com/2021/film/news/k-pop-demon-hunters-girl-group-animated-movie-sony-1234924941/> (acessado: Fev. 2026).
10. C. Bell, "K-Pop Demon Hunters: Maggie Kang and Chris Appelhans interview,"

- Mashable*, Jul. 9, 2025. [Online]. Available: <https://mashable.com/article/k-pop-demon-hunters-maggie-kang-chris-appelhans-interview> (acessado: Fev. 2026).
11. *KPop Demon Hunters*, “The Art of KPop Demon Hunters.” [Online]. Available: <https://theartofkpopdemonhunters.com> (acessado: Fev. 2026).
 12. N. Ramachandran, “Kpop Demon Hunters’ Creator Maggie Kang Names Her Favorite Character and Reveals How She Injected Korean Culture Into Netflix Hit at Busan: ‘We’re All Excited for the Possibilities of More Stories,’” *Variety*, 2025. [Online]. Available: <https://variety.com/2025/tv/festivals/kpop-demon-hunters-creator-maggie-kang-favorite-character-1236525113/> (acessado: Mai. 2026).



From Panels to Pixels: Reconfiguring Metaphor and Narrative Timing in the Animated Adaptation of Screen Smart

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Keywords

Animation; Education;
Screen Smart; Adaptation.

Abstract

Along with the flourishing of digital lives in online spaces, new challenges emerge. The paper explores the translation of a graphic novel with a primary focus on preserving educational intent while responding to medium specific constraints. Through the graphic novel format of the original source, *Screen Smart: Growing Up in the Digital Age*, the paper investigates how narrative, character design, and metaphor must be reconfigured when adapting a static and spatial comic-story into the dynamic and time-based medium of animation for young audiences. While in the graphic novel the reader holds an active position in determining narrative timing and the configuration of scenes across pages, animation introduces fixed sequencing, which fundamentally changes audience engagement and cognitive perception. The case study examines a project of animated adaptation of the novel's Chapter III, *A Monkey in Rabbit's Clothing*, which addresses digital threats such as phishing through metaphorical storytelling. Particular attention is paid to character design and its alterations, which signal a division between real and digital space, supporting a sympathetic experience for children. Additionally, the paper demonstrates the emotional curve of the animation in contrast to the static format of the novel, where the reader shapes timing. The analysis involves three key areas of transformation: medium specific narrative timing, preservation of metaphorical and educational meaning, and audience specific reception, complementing wider studies of adaptation with a project-based examination for educational purposes. As a result, the translation across media can support reception among wider audiences and enhance explainability for younger viewers.

1. Introduction

Adaptation of canonical works, including “Snow White” [1], “The Little Mermaid” [2], and “Cinderella” [3], exemplify how filmic adaptations have increasingly drawn upon classic literary narratives. Yet, the educational value contained within Disney stories aims predominantly to establish moral frameworks revolving around real-world human interactions. Naturally, it is unreasonable to expect classical stories written and

illustrated in the nineteenth century to include scenes of digital communication on social media; yet would a modern Snow White encounter “phishing” – a digital impersonation – rather than the Evil Queen disguised as an old peddler woman?

In the realm of children’s media, where the internet and social platforms are particularly significant, educational messages must target modern challenges. The threat of impersonation is no longer linked to the physical world but to the digital one, which cognitively may be difficult for children to transfer traditionally shaped stories into an online context. The development of reasoning in young learners, particularly perception of fraudulent intent, is linked to age [4], and thus a narrative that does not reference elements of the modern world may become inadequate today, particularly when responding to modern threats like cyber-crime through educational advice. How age, gender and choice of medium influence and support the spread of educational content?

The graphic novel “Screen Smart: Growing Up in the Digital Age”, published in 2023, communicates educational messages through illustrated stories and comic-like structures. While implausible narratives occur, the use of metaphor suspends disbelief; the novel employs visual cues to directly identify certain objects with those in the real world, with the aim of informing children about digital threats. We employ the same methodological approach used in contemporary narrative forms such as Screen Smart and translate it into an animated medium; the resulting work is presented as an animated adaptation of the story. Based on this framework, the paper explores the necessary changes, decisions, and challenges that occurred in transforming a graphic novel into a short animation, with the goal of sustaining its educational content. Our adaptation project reimagines the graphic novel as an animated series for children ages 6 to 12, where moving from one medium to another unlocks opportunities for spreading educational content while also presenting challenges in maintaining clarity throughout the adaptation.

There are multiple aspects involved in the translation of media, particularly when the nature of the original source carries educational value. Additionally, translation across media supplements educational messages by targeting audiences with differing preference needs. The analysis of the animation process allows for insight into how characters, narrative flow, and timing are transformed into linear animation. The animation project elucidates potential challenges in approaching media translation and frames them within three major aspects: medium-specific narrative timing, preservation of educational and metaphorical intent, and medium-specific audiences.

2. Translation of Mediums

As Hutcheon notes, adaptation “is an announced and extensive transposition of a particular work or works. This ‘transcoding’ can involve a shift of medium or genre (...)” [5]; the nature of animation allows for reinterpretation, as its narrative temporality varies from that of a static graphic book format. Static media such as graphic novels or comic books construct

narrative meaning through fundamentally different visual logics than animation. From a short story captured in comic format to animation, certain conditions must be sustained in order to preserve the narrative intensity originally conveyed in the static form.

Bartosch and Stuhlmann, through their analysis of the aesthetic transformation of literature into comics and of comics into film, argue that adaptation can be understood through the means of translation, adding that such an approach “from one medium into another creates a new, yet possibly overlapping storyworld”, while also noting that this practice “contains both aesthetic losses and gains” [6]. Translation into moving images offers cognitive supplements to the original educational message. In particular, animation introduces designed motion that guide attention and interpretation more explicitly than static media, and thus shapes how educational meanings are processed. As a result, adaptation into animation necessitates careful consideration of medium-specific reception.

3. Opportunities and Challenges of Translating Mediums

The discussion of this paper is framed within three aspects that arise during the translation of a story into animation. Researchers in comics, graphic novels, and animation who write about the translation from page to screen underscore that certain interdependencies must indeed be considered. This project adds to the discussion on how educational aspect can be adapted from graphic novel to animation.

3.1. Medium-Specific Narrative Timing

Graphic novels rely on spatial narration, where the story unfolds through the arrangement of panels and page composition. Mikkonen and Lautenbacher note that “global attention in reading comics should be understood (...) as attention to larger segments of the composition as the reader is capable of exploring reading patterns beyond the traditional Z-path” [7]. Likewise, comic reading is governed by a learned system in which readers actively assemble layout structures before engaging with narrative meaning [8]. To some extent, the reader is active; once turning a page, the reader oversees timing, order, and textual lines of the presented segment. Pratt frames comics as hybrid forms “having both literary and pictorial narrative,” which significantly corresponds with the above line by elaborating that “any motion, whether it is within or between panels, must be imagined by the reader” [9].

On the other hand, animation operates through fixed timing, externally controlled through frame sequence. In the context of narrative, this shift may change how uncertainty and consequence are perceived by young audiences. The emotional output mechanisms of animation involve visual elements, auditory soundscapes, and the emotional resonance of characters, all of which contribute to the overall viewer experience and are present in animation in contrast to static media [10].

The translation from graphic novel to animation introduces a challenge in preserving the reader’s active engagement, as timing control is largely pre-determined by the animation’s sequence. It is reckless to claim

that educational content cannot be preserved with adaptation, but highly reasonable to admit that static and motion mediums operate in different ways. This has severe consequences for image composition – it is no problem to overload a comic panel with detail, while an animation shot must convey all story-relevant information during its short appearance on screen. While static form encourages self-exploration, animation evokes it through motion and timing stimulation. At the same time, it offers an opportunity to guide attention more explicitly through motion and audio-visual emphasis, potentially reducing ambiguity for younger audiences.

3.2. Preserving Metaphorical Clarity and Educational Intent

Translation across media for educational purposes may yield different results. On contrary, such change may trigger global audience to become aware of specific culture or educational intent. When a narrative is translated across media for educational purposes, shifts in modality not only reshape how metaphors are constructed but also determine the degree to which moral and didactic intentions must be made explicit in order to remain understandable to the audience.

The communication of metaphors varies according to the choice of medium. One significant difference between the source of our translation and the end product is the multimodality of the graphic novel. As described by Wang, “Multimodal metaphors refer to metaphors in which the source and target domains are represented by two or more modalities, such as words and images, which provide a more accurate tool for constructing the meaning of multimodal discourse” [11]. The original source, that is “Screen Smart novel”, relies precisely on both visual and textual cues. The novel utilises textual narrative alongside pictorial games at the end of each chapter to highlight the educational intent of the story.

The situation changes with animation, which operates mainly through visual and audio modes of reception. This by no means indicates that the animation format carries less educational value; rather, it underscores the need for clearer visual cues to convey moral messages. The implementation of metaphors therefore requires specific measures to ensure that audiences understand the ideas represented in the animation [12]. While the original source includes multimodal educational cues, the animation operates on intensity and emotional curve which directly influence the sympathetic experience and thus intensity of a moral value.

3.3 Medium specific Audiences

Changing the medium alters not only how a story is told but also how audiences interpret, feel, and respond to it, as “the medium through which a story is conveyed significantly impacts how that narrative is received” [13]. More importantly, adaptation does not always move a story to the same audience but rather introduces it through a new format. One who has read *Snow White* may never have had occasion to watch Walt Disney’s adaptation. Kaindl highlights a growing trend in comics production targeting children since the turn of the millennium, addressing topics such as climate change and gender, while at the same time noting the relevance of

the target group for theoretical approaches to translation [14]. In this section, the main aim is to elucidate differences in audiences across specific media and their reception of animated content.

In terms of specific design measures, animated characters vary across different age groups. Although preferences among children for particular character features are not fully explored, those created for younger children, as noted by Carter et al., “tend to have larger head height, larger eye height, and rounder eyes than those created for older children” [15]. This aspect may be linked to cognitive processes in younger and older children, where age in this regard plays an important role. In this context, gender and age-related data suggest that the female audience is far smaller than the male audience for comic books [16], while other research notes that males and younger individuals are more likely to watch animated sitcoms regularly than females and older individuals, establishing a link between gender and viewing habits [17]. As for animated cartoons, preferences among children aged 3–6 are not universal but vary significantly depending on developmental stage and gender: girls show a clearer preference for realistic themes, while older children and boys increasingly prefer unreal and imaginative content [18].

It is also relevant to note that within animated media, preschool children who watch television prefer well-known animated characters, such as animals and fantastic creatures, over human characters [19] and thus the implementation of such characters may support a more sympathetic experience within the animation medium. On the other hand, Kilicgun does not support this claim, noting that human-like characters are more favoured, while imaginative and animal characters occupy second and third positions respectively [18].

As a result, two primary conclusions can be drawn. First, medium specificity appears to be stronger within particular groups, such as age or gender groups. Analysis of the targeted audience is therefore significant when selecting methods for delivering educational content. While the choice of a medium based on a group’s preference is crucial for project development, the translation of an already developed story into another medium opens the message to a different audience. Second, children’s preferences in cartoons and animation for specific character types appear to be linked to individual development. Overall, adaptation should be understood not as a neutral change of format but as a process of readdressing a narrative to a specific audience with distinct modes of engagement and interpretation.

4. Case Study: Screen Smart Growing Up in Digital Age

4.1. Project Overview

Animation adapted from a graphic novel must undergo structural and narrative modifications. Since this project aims to convey an educational message targeting children, it is important that the transformation of media does not disrupt the overall goal. Hence, in the project analysis, the focus is placed on building narrative tension alongside educational elements that present the digital world in a more direct way.

Chapter III: A Monkey in Rabbit's Clothing situates the action in 2028, with three main characters, KiKi, Weijun and Rita. During multi-player game called "Animal Lands", the characters KiKi and Weijun encounter an unexpected situation finding themselves as victims of phishing – impersonations, where the villain of the story portrayed as monkey lead them into dangerous space. The educational themes of the novel address online gaming and cyber safety, encouraging interaction with online spaces as they are inevitably blended into physical lives, while simultaneously emphasising the need for caution.

The animated project uses narrative simplification as a deliberate strategy to enhance the clarity of the narrative and pedagogical focus. In the original story, a group of school friends discuss a global online game, in which they later log in from home with their avatars. The narrative changes once the characters become misled and trapped in a maze within the virtual world, which they ultimately escape, concluding with an educational conversation with the school counsellor. The animated storyline, however, is reduced to a more concise narrative set in two environments: the classroom and the online game world. The reduction in locations and characters aims for a more concise storytelling structure, as timing is pre-defined in animation in comparison to a graphic novel. This simplification enhances thematic focus, allowing for a clearer contrast between offline (classroom) and online risk (game environment), with the prevailing aim of supporting the pedagogical clarity of the adaptation.

The overall design process takes under consideration all aspects such as timing, use of metaphor and targeted audience. While the project is still in the production stage, the process of translating educational content into animated form can elucidate the relationship between medium specific affordances, narrative structure, and audience.

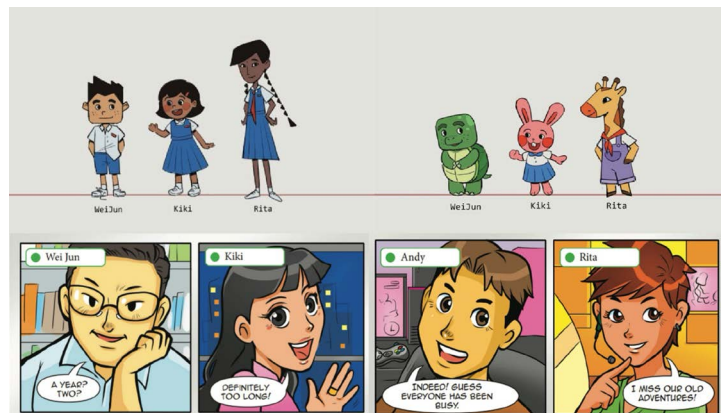
4.2. Character design

Careful character design that aligns with the narrative and visual development of animation is crucial to maintaining audience attention. For this reason, we translate the novel's characters into animal representations in order to highlight the process of "logging in" to the digital world. The choice of animal representation is grounded in audience preferences. As mentioned in the previous section, younger children favour animated characters such as animals rather than human characters. Anthropomorphic animals are a well-established trope in comics and animation – one which younger audiences are likely to respond to (add citation recent box office-successes like Zootopia 2 prove the immense contemporary relevance of this approach. Anthropomorphism is much more than a creative shortcut; it is a sophisticated narrative tool that functions as a "universal language" in visual storytelling. For younger audiences, it bridges the gap between the abstract concepts of the adult world and the imaginative logic of childhood. Anthropomorphism allows creators to tackle heavy sociological or educational topics by stripping away the baggage of human identity (cultural background, class, or specific cultural history). In Zootopia, using a fox and a rabbit to discuss

systemic bias and “predator vs. prey” dynamics, the film makes a heavy sociopolitical allegory digestible for children without being didactic. Similarly, in our case, using a monkey to represent a phishing threat utilizes the cultural shorthand of the “mischievous trickster”. Children can fear the “scary monkey” without being traumatized by the reality of an adult human predator. In our film, particularly the human/animal “body-switch” resonates particularly well with the topic of forged identities and fake personalities that are central to cyber-hazards.

Naturally, the animation is visualised in a cartoon format, with human characters entering the digital world; however, implementing their transformation supports both the sympathetic experience and the main narrative. Given the ambivalent results regarding children’s preferences for animated characters, the decision to implement animals as alternative representations is based on real-life metaphors of the digital age. In other words, elements of virtual space directly link the audience to something they can relate to, while the representation of characters in online space becomes an effect of purely digital action.

Fig. 1. The sketches of main character and their alteration in digital world (upper images), original graphic novel (lower images).



The use of animal representations in animation often includes the attribution of exaggerated human features, which are non-existent in real animals but are introduced to enhance expressivity and facilitate the understanding of emotion and attention [20]. Such a measure is widely common within animation practice, where the non-human characteristics of animal figures are prioritised, which may eventually result in a deeper interest in them as representational objects rather than human figures [21]. They also serve as visual shorthand: An anthropomorphized character’s personality is “read” the moment they appear on screen based on their species. When we animate a bipedal giraffe or a cowardly tortoise, the brain accepts the “fantasy logic” immediately. This allows for more expressive, “squash and stretch” animation that carries higher emotional resonance without breaking immersion.

Beyond the mere translation of characters into animal representations, there exists a relatively fixed set of expectations that audiences may

bring with them, shaped by cultural and anthropological frameworks. Keen discusses such interdependencies, noting that “(...) sharks must be voracious killers and bulls aggressive fighters for revisionist representations to gain any purchase. When it comes to evoking readers empathy in tales that employ animal figures, then, the representation of particular animals can rarely be a neutral matter. Household pets, farmyard animals, jungle dwellers, birds and sea creatures are already part of a literary tradition that dictates which figures will be sympathetic and which will automatically evoke antipathy” [22].

Integrating features socially associated with a particular animal, whether accurate or not, is therefore a measure that can support the overall narrative. Cartoon representations of animals have conditioned audiences to associate certain species with traits, which, when exaggerated, fulfil specific functions within a moral narrative. The choice of the villain, a metaphorical phishing persona encountered by the protagonists, is thus grounded in this representational system. The monkey figure, in particular, can be described through two dominant variations. One is playful and energetic, jumping and swinging, rarely still, light-hearted and chaotic. The other is an animal that outsmarts others through its mischievous and rule breaking nature.

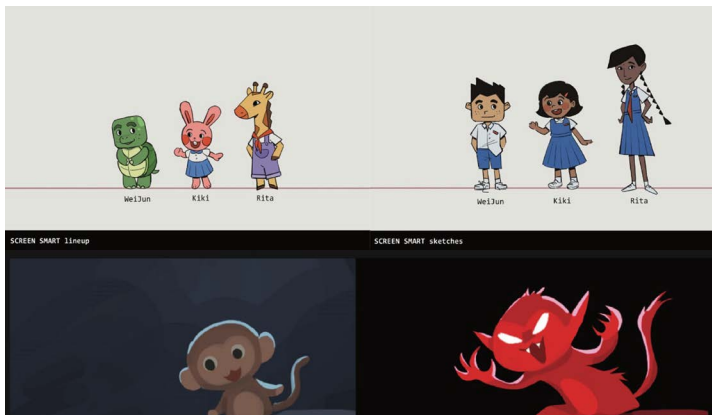


Fig. 2. Visual development of the villain character with their animal alteration.

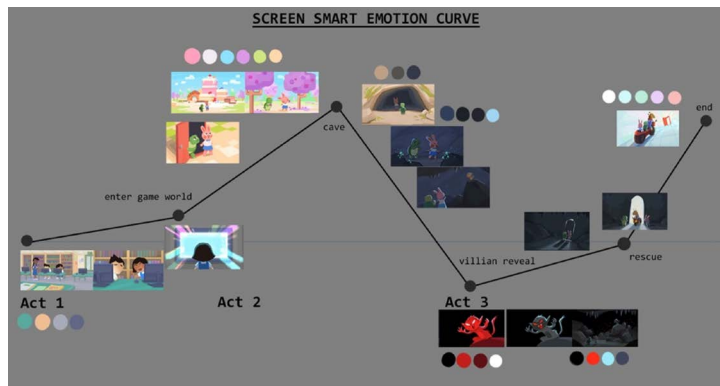
Designing characters from static representation to an animation medium underscored the method of animal alteration. Namely, comic books, picture books, and graphic novels all operate on the reader’s ability to imagine movement. The situation shifts in animation, where the creator not only adapts the story but also translates the basics of movement that define a character’s personality. Animal representations are equipped not only with species specific biological traits but also with anthropomorphic features that aim to engage young viewers with characters as if they were human [23]. In this regard, the characters designed for our animation feature a similar visual style, while their personalities are linked to perceptions of animal behaviour.

4.3. Narrative Timing and Metaphor

As demonstrated in the medium specific section, timing varies significantly across media. When exploring a world through static media, the reader is in charge of narrative temporality, which may vary depending on the individual. In animation, this timing is set through a predefined sequence and therefore requires careful design of the culmination point. The animation establishes four main emotional curves: the introduction of the plot and characters through the sequence of entering the game; a scene in which audience expectation rises, as each story has its aim, beginning with the entrance to the cave; a sudden drop to a negative curve once the villain is revealed; and a final resolution marked by the rescue.

Naturally, audiences, including children, anticipate increasing conflict that forces a crisis and eventually leads to resolution, which ultimately establishes the meaning of the story [24].

Fig. 3. Development of emotional curve for fixed narrative timing in animation.



The most crucial motif occurs when the audience observes the unveiling of a metaphor. During the exploration of imaginary worlds, the characters encounter an impostor, which functions as a metaphor for the modern threat of phishing. Animation as a medium is especially suited to metaphorical and metonymic representations of inner states due to the high level of control and precise harmony it allows in the production of animated images [25]. Since meaning in animation relies on the co-presence of elements such as language, visuals, and sound [26], the beginning of the animation encourages the characters to play through a short conversation, while at the same time Rita warns them to remain cautious. This moment underlines one central message, namely, to use digital space wisely.

5. Conclusions

Translation of media brings opportunities but also constraints. In this paper, we discussed three areas that emerged during the production process: audience specific considerations, medium specific characteristics, and the preservation of educational intent during a change of medium. The primary conclusion regarding narrative timing highlights a positive outcome, as the fixed temporality of animation may reduce ambiguity for younger

children who struggle with perception in static media such as the graphic novel. While animation reduces interpretive freedom in pacing, it enables deliberate design of emotional curves that can support comprehension of metaphor, facilitating learning through emotional engagement.

Another aspect concerns the preservation of purpose. While the original graphic novel utilises multimodal metaphor, including visual narrative and textual games, animation lacks this format. Nevertheless, analysis of audiences across different media demonstrates that children vary in their preferences due to personality, gender, or age.

By strongly relying on the allegorical powers of anthropomorphism as a well-established trope for both, comics and animation, we are adding an additional layer of meaning. It resonates particularly well with the educational topic itself: the deceitful nature of online appearances. Its appeal for young audiences lays the foundation for emotional engagement that still keeps children in a safe emotional space. These findings ultimately support the need for a thoughtful adaptation across diverse formats, each making the most of its respective strengths. The conclusions suggest that successful educational adaptation requires deliberate design decisions that align each medium with perceptual and emotional reception rather than simple narrative transfer. More broadly, we hope that the discussion contributes to educational adaptation within children's media where animation reshapes educational messages for wider audience.

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References

1. Hand, D. (dir.): *Snow White and the Seven Dwarfs*. Walt Disney Productions (1937)
2. Geronimi, C., Jackson, W., Luske, H. (dirs.): *Cinderella*. Walt Disney Productions (1950)
3. Clements, R., Musker, J. (dirs.): *The Little Mermaid*. Walt Disney Feature Animation (1989)
4. Lemaire, M., Ye, S., Le Stanc, L., Borst, G., Cassotti, M.: The Development of Media Truth Discernment and Fake News Detection is Related to the Development of Reasoning During Adolescence. *Scientific Reports* 15(1), 6854 (2025)
5. Hutcheon, L.: *A Theory of Adaptation*. Routledge, London (2006)
6. Bartosch, S., Stuhlmann, A.: Reconsidering Adaptation as Translation: The Comic in Between. *Studies in Comics* 4(1), 59--73 (2013)
7. Mikkonen, K., Lautenbacher, O.P.: Global Attention in Reading Comics: Eye Movement Indications of Interplay Between Narrative Content and Layout. *ImageText* 10(2) (2019)
8. Cohn, N.: Navigating Comics: An Empirical and Theoretical Approach to Strategies of Reading Comic Page Layouts. *Frontiers in Psychology* 4, 186 (2013)
9. Pratt, H.J.: Narrative in Comics. *The Journal of Aesthetics and Art Criticism* 67(1), 107--117 (2009)
10. Cai, Z.: The Emotional Impact of Animation on Its Audience. *Communications in Humanities Research* 52, 18--26 (2024)

11. Wang, G.: Multimodal Metaphor Construction and Cognitive Analysis in Educational Cartoons. *Theory and Practice in Language Studies* 12(3), 543--550 (2022)
12. Stützle, T., Sajaniemi, J.: An Empirical Evaluation of Visual Metaphors in the Animation of Roles of Variables. *Informing Science* 8, 87 (2005)
13. McAllister, C.: From Page to Pixel: Exploring the Power of Mediums, Technology, and Audience Expectations in Experience. In: *Proceedings of EVA London 2025*, pp. 139--145. BCS Learning & Development (2025)
14. Kaindl, K.: For Younger Audiences. *The Routledge Handbook of Translation and Young Audiences*, 37 (2025)
15. Carter, E.J., Mahler, M., Landlord, M., McIntosh, K., Hodgins, J.K.: Designing Animated Characters for Children of Different Ages. In: *Proceedings of the 15th International Conference on Interaction Design and Children*, pp. 421--427 (2016)
16. Healey, K.: When Fangirls Perform: The Gendered Fan Identity in Superhero Comics Fandom. In: *The Contemporary Comic Book Superhero*, pp. 158--177. Routledge, London (2009)
17. Zsila, Á., Urbán, R., Orosz, G., Demetrovics, Z.: The Association of Animated Sitcom Viewing with Humor Styles and Humor Types. *Humor* 34(3), 393--409 (2021)
18. Kilicgun, M.Y.: An Examination on the Quality of Contents of the Cartoons that Children Aged 3-6 Years Preferred to Watch: The Cartoon I Like Most. *Educational Research and Reviews* 10(10), 1415--1423 (2015)
19. Armstrong, A.L., Chamberlin, B.: Friendly Monsters or Children: A Character Design Process Which Considers Representation and Inclusive Design for Young Children. In: *Proceedings of the 2024 Symposium on Learning, Design and Technology*, pp. 70--78 (2024)
20. Grodal, T.: Aesthetics and Psychology of Animated Films. In: *Emotion in Animated Films*, pp. 107--121. Routledge, London (2018)
21. Holliday, C.: 'I'm Not a Real Boy, I'm a Puppet': Computer-Animated Films and Anthropomorphic Subjectivity. *Animation* 11(3), 246--262 (2016)
22. Keen, S.: Fast Tracks to Narrative Empathy: Anthropomorphism and Dehumanization in Graphic Narratives. *SubStance* 40(1), 135--155 (2011)
23. Dydzinski, J.M., Mäekivi, N.: Impacts of Cartoon Animals on Human--Alloanimal Relations. *Anthrozoös* 34(6), 753--766 (2021)
24. Caldwell, C.: What We Talk About, When We Talk About Story. In: *ACM SIG-GRAPH 2020 Courses*, pp. 1--15 (2020)
25. Fahlenbrach, K., Reinert, M.S.: Audiovisual Metaphors and Metonymies of Emotions in Animated Moving Images. In: *Emotion in Animated Films*, pp. 37--58. Routledge, London (2018)
26. Forceville, C.J., Urios-Aparisi, E. (eds.): *Multimodal Metaphor*, vol. 11. Walter de Gruyter, Berlin (2009)

Returning to Charles Perrault's *Donkeyskin*: New Aesthetic Configurations

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Abstract

This article focuses on Charles Perrault's *Donkeyskin* and situates it within the broader field of the literary fairy tale, underlining its cultural relevance and its complex, often challenging, significance for children. After a brief theoretical introduction on the functions of fairy tales in children's emotional, cognitive, and ethical development, the study presents precise information on the plot, context, and main thematic nuclei of *Donkeyskin*, namely death, incest and transgression, disguise, metamorphosis, identity, and love. It offers a concise analysis of two contemporary retextualizations of the tale: *Piel de Asno* (2019) [24], written by Cécile Roumiguère and illustrated by Alessandra Maria, and *Peau d'âne. Un opéra de papier* (2024) [31], by Clémentine Sourdaïs. While the first adopts the form of a sophisticated, visually dense illustrated book/picturebook that emphasizes the dramatic and feminine dimensions of the narrative, the second presents itself as an artist's book and paper-theatre object, integrating pop-ups and other interactive devices that invite a performative reading. The study argues that such visually, graphically, and materially elaborate editions constitute particularly appealing and contemporary ways of (re)presenting a classic, structurally disruptive tale whose origins are rooted in distant cultural memory, and that they significantly contribute to reactivating and expanding its reception among both young and adult readers.

Keywords

Children's Literature;
Fairy Tale; C. Perrault;
Donkeyskin; Illustration.

1. Introdução³

Os contos de fadas continuam a figurar como um dos géneros mais revisitados nas reedições contemporâneas destinadas ao público infantojuvenil, inscrevendo-se em projetos editoriais, não raramente, caracterizados por uma notável qualidade gráfica e apuro estético [15]. Desta feita, podemos dizer que, desde os exemplares matriciais que compõem o repertório clássico até às recriações modernas, o conto de fadas ocupa um lugar insubstituível na literatura de potencial receção infantojuvenil, pontuando uma parte essencial do seu *corpus*.

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Christa C. Jones e Claudia Schwabe [12] sublinham o facto destas narrativas primordiais facultarem a oportunidade de os ouvintes (se) projetarem num mundo ficcional fantástico, povoado por entidades sobrenaturais, confinado ao âmbito regulado da narrativa e no espaço resguardado da imaginação, sem colocar em perigo a sua integridade física. Com efeito, “sabemos hoje, conforme Bruno Bettelheim expõe no seu livro *The Uses of Enchantment*, que os contos de fadas desempenham uma função importante na vida psíquica da criança, levando-a a ultrapassar situações que, não sendo vencidas, podem deixar imprevisíveis traumas” [22]. Assim, o conto de fadas dirigido ao público infantil estrutura-se, de um modo recorrente, em torno de uma figura central confrontada com provações ou situações de injustiça, dentro de um fluxo narrativo permeado por episódios de ameaça ou por situações de risco. Estas narrativas assumem, portanto, um carácter explicitamente ficcional, distanciando-se do real empírico ou histórico-factual. Com frequência, retratam uma jornada marcada pela procura de soluções que restabelecem a ordem, num desfecho de natureza reparadora e regeneradora. O espectro temático que as compõe é vasto, podendo o discurso verbal assumir uma estrutura repetitiva e simples ou, inversamente, revelar uma complexidade narrativa acentuada. Em todo o caso, este género arquitecta-se a partir de um contrato de leitura que pressupõe a adesão voluntária do leitor a um universo imaginário autónomo, dotado de coerência interna e composto por leis particulares [15]. Em termos mais latos, aquilo que os contos em pauta apresentam coincide, em última instância, com algumas das manifestações profundas da experiência humana, quase sempre representada simbolicamente, e a verdade é que, como defende Alison Lurie, em “What fairy tales tell us”, “Sometimes we need to have the truth exaggerated and made more dramatic, even fantastic, in order to comprehend it” [16].

De um modo geral, as narrativas tradicionais de cunho clássico precedem as ilustrações, concebidas posteriormente como forma de reinterpretação visual. Trata-se, assim, como sublinha Sophie Van der Linden [15], de textos literários autónomos e estruturalmente completos. Ainda assim, a ilustração tem desempenhado, desde cedo, uma função estruturante no âmbito do discurso narrativo. A este respeito, importa, portanto, naturalmente destacar a célebre edição de *Histoires et Contes du temps passé* (1697), de Charles Perrault (1628-1703), ilustrada, no século XIX, por Gustave Doré (1832-1883) pela forma como essas gravuras continuam a constituir um marco incontornável da cultura imagética coletiva. Na perspetiva de Sophie Van der Linden [15], a intensidade estético-formal e a complexidade interpretativa das ilustrações de contos de fadas determinam, em larga medida, a capacidade imaginativa que estas podem despertar no leitor, sendo, hoje, amplamente reconhecido que a ilustração transcende a mera função de acompanhamento textual, assumindo papéis autónomos e heterogéneos. Com efeito, conquanto a sua relação com a componente textual continue a constituir um traço distintivo, a ilustração detém a capacidade de veicular sentidos dissonantes ou subversivos. Como afirma esta estudiosa francesa, no editorial da revista *Hors Cadre(s): Observatoire de l’album et des littératures graphiques*

(número 9) dedicado à ilustração de contos de fadas, “ponctuellement, et particulièrement dans le domaine de l’édition pour la jeunesse, les illustrateurs s’attachent à nous rappeler que les contes n’ont pas toujours été adressés au jeune public, que la cruauté que l’on pensait chassée persiste, que la violence évacuée reste présente, le plus souvent tapie dans l’ombre d’une forêt menaçante pour enfant perdus” [13].

Excluindo-se, desta forma, as versões higienizadas resultantes de determinadas adaptações ou reescritas, é possível dizer-se que os contos de fadas recentemente publicados sobressaem pela inventividade e apuro linguístico, afirmando paralelamente a ilustração como espaço central de criação e ousadia estéticas. O que confere singularidade à ilustração, segundo Linden [13], não reside tanto na originalidade do ponto de vista, na construção simbólica ou na subversão de motivos recorrentes, mas antes na capacidade de o ilustrador de operar uma metamorfose textual, imprimindo uma marca distintiva sobre o texto que lhe serve de matriz.

O *corpus* selecionado é, assim, composto por um primeiro volume intitulado *Piel de Asno* (2019) [24], escrito por Cécile Roumiguère e ilustrado por Alessandra Maria, um livro-álbum que privilegia a sofisticação visual e as valências dramática e feminina do conto, bem como por uma segunda proposta com o título *Peau d’âne. Un opéra de papier* (2024) [31], de Clémentine Sourdaïs, um livro-objeto com elementos *pop-up* e outros mecanismos interativos que solicitam uma fruição performativa. Este breve estudo procura, assim, evidenciar uma tendência criativa contemporânea que consiste em edições visual, gráfica e materialmente complexas e o modo como estas constituem vias singularmente apelativas para (re) apresentar um conto clássico, estruturalmente transgressor, cuja génese remonta a estratos profundos da memória cultural, contribuindo, de forma decisiva, para revitalizar e alargar o seu horizonte de receção entre leitores de diferentes faixas etárias.

2. Notas sobre o conto *Pele de Asno* ou *Pele de Burro*

O conto *Pele de Asno* ou *Pele de Burro* (*Peau d’Âne, Donkeyskin*) integra o variado conjunto de contos de fadas associados ao grupo *Cendrillon* [3], [26]. A sua primeira publicação, em verso, da autoria de Charles Perrault remonta a 1694. O motivo narrativo d’*A Gata Borralheira* compõe um amplo ciclo de contos organizado por Francisco Vaz da Silva em quatro subgrupos no volume *Gata Borralheira e Contos Similares* (2011).

O segundo subgrupo, identificado pelo autor como “Maria Peluda” e associado ao conto-tipo 510B, centra-se numa jovem cuja semelhança com a mãe falecida desperta o desejo do pai. Como tal, para se salvar, a protagonista irá disfarçar-se de animal e procurar abrigo no palácio de outro monarca, onde realiza tarefas modestas, acaba por conquistar o coração do príncipe local e, finalmente, por se casar com ele. Embora apresentem variações internas, os três primeiros subgrupos convergem numa estrutura simbólica central, na qual a heroína realiza uma passagem figurada ao domínio dos mortos, representada pela sua cobertura com cinzas, fuligem ou peles animais, ou ainda pela guarda de aves, tradicionalmente ligadas às almas dos falecidos. Após suportar provações, de

carácter humilhante, que equivalem a uma morte simbólica, a personagem principal renasce para uma vida nova [26].

O conto de fadas literário francês diferencia-se dos contos populares, de acordo com Christa C. Jones e Claudia Schwabe [12], e institucionaliza-se como um género dirigido simultaneamente às mulheres da aristocracia e da burguesia e aos seus filhos, ao veicular moralidades explícitas, regular comportamentos e reproduzir valores da sociedade cortesã, tais como a centralidade do matrimónio. Por seu turno, Jean-Paul Gourevitch [8] preconiza que os contos de fadas de Perrault não foram concebidos deliberadamente, na sua origem, para um público infantil, mas faziam parte de um amplo movimento literário responsável pela proliferação de contos da tradição oral, entre 1685 e 1705, quando se publicaram as principais coletâneas do género. Nelly Novaes Coelho (2012) explicita, assim, que “na época proliferavam os salões elegantes, onde mulheres cultas reuniam intelectuais e artistas para discussões literárias ou culturais em geral” [4] e, aproveita, ainda, para esclarecer que será somente após a publicação do conto em análise neste estudo que o escritor francês manifestará a intenção de produzir uma literatura para crianças.

Como tal, se nos centrarmos na edição datada de 1697 de *Contes du temps passé* é de supor, tal como referiu Gourevitch [8], pela representação da figura de uma contadora de histórias no frontispício, que esses textos foram registados para serem contados oralmente, parecendo, por conseguinte, pelo seu potencial oralizante, regressar à sua índole natural ou original. Assim, e ainda de acordo com Jean-Paul Gourevitch, “comment ces ouvrages écrits par des adultes pour des adultes ont été adaptés pour les enfants et adoptés par eux, c’est toute l’histoire de la naissance de la littérature enfantine qui s’étend de la fin du XVII^e au début du XIX^e siècle” [8].

Como tal, a trama do conto *Peau d’Âne* fazia parte do acervo oral da cultura francesa no século XVII, sendo de salientar, a este respeito, o conto *A Ursa*, publicado por Giambattista Basile (1583-1632), em 1634, por se tratar de um dos mais antigos registos do tema “Maria Peluda”, na Europa [26]. Marc Soriano (1968) [30] lembra, além disso, que a expressão “Peau d’Âne” se encontrava amplamente atestada no século XVII, em numerosos relatos. Importa talvez lembrar, igualmente, que, para Michele Simonsen (1992) [29], estamos diante de uma narrativa sem verdadeira racionalidade. Este último estudioso prefere sustentar que, apesar de Marc Soriano apontar convergências com o relato de Basile, é mais verosímil admitir uma inspiração direta de Perrault em motivos da tradição oral francesa então largamente conhecidos.

No enredo revisitado por Perrault, a rainha falecida impõe ao rei o compromisso de só voltar a casar com uma mulher que reúna mais beleza e inteligência do que ela própria. A escolha incestuosa da própria filha leva à fuga da jovem e à sua metamorfose sob a pele de burro, enquanto símbolo de abjeção e de ocultação identitária. Assim, esta acaba por encontrar refúgio numa propriedade rural, onde assume a tarefa de cuidar de aves. Com a permissão relutante da rainha, a protagonista prepara uma refeição para o príncipe adoecido que a havia vislumbrado, por acaso, e

que, desde então, estava invadido por um amor irrefreável. Quando a sua verdadeira identidade é revelada, celebra-se, por fim, o casamento e o pai é convidado, selando-se a reconciliação.

Conforme refere Francisco Vaz da Silva [26], tanto neste conto como em *A Gata Borralheira*, Perrault aposta numa intervenção mágica feminina através da personagem da Fada Madrinha, que intervém oferecendo vestidos magníficos. Também nos dois relatos é conferido destaque a um objeto (sapato ou anel) que permite reconhecer a heroína, ao mesmo tempo que assinala a sua singularidade e a continuidade simbólica da mãe defunta. Michele Simonsen (1992) sublinha, do mesmo modo, o papel fulcral do anel no reconhecimento da protagonista “le motif est ainsi lié à celui de l’anneau qui sert à la reconnaissance: l’anneau est bien sur le signe traditionnel d’une promesse de mariage, mais son étroitesse, et donc la finesse du doigt, connote la haute naissance réelle de l’héroïne” [29].

O valor das variantes de Perrault advém, segundo Francisco Vaz da Silva [26], do facto de terem operado a passagem de um motivo tradicional da oralidade para a escrita e, subsequentemente, para o campo visual. Assim, a popularidade destas narrativas deve-se, sobretudo, ao uso de motivos altamente sugestivos, como o recurso à figura adjuvante da Fada Madrinha e às suas intervenções mágicas icónicas (por exemplo, a abóbora-coche e o baú prodigioso), que representam atualizações de temas tradicionais, assegurando a sua continuidade. Michele Simonsen (1992) recorda a este respeito que, em *Peau d’Âne* “Perrault introduit dans son récit une marraine fée comme adjuvant de l’héroïne, et renvoie explicitement sa destinataire à la tradition orale des «mies» (gouvernantes, bonnes d’enfant) pour plus de détail sur le pouvoir des fées. (...) La fée fournit à sa filleule une cassette magique qui voyage sous terre, pour lui permettre d’avoir ses parures à sa disposition où qu’elle aille” [29].

No volume *Gata Borralheira e Contos Similares* [26], sublinham-se as principais singularidades desta escrita perraultiana. É, portanto, dado relevo a motivos como os vestidos da cor do Tempo, da Lua e do Sol, que inscrevem a protagonista na esfera cósmica própria dos esquemas tripartidos tradicionais (Tempo/Lua/Sol ou Céu/Terra/Mar). Estes aspetos atribuem, por conseguinte, um cariz sobrenatural e simbólico à heroína e à mãe como figuras de amplitude universal, o que torna coerentes, num mesmo quadro conceptual, a desmedida delicadeza do pé ou dedo, a dimensão feérica da mãe e a sua associação simultânea às aves e aos peixes.

Na obra em apreço, é ainda realçada a importância simbólica da pele de animal, que Perrault relaciona com o burro de ouro, suporte económico do reino e cuja morte o rei aceita em virtude do amor incestuoso pela filha. A pele de animal envolve, então, a heroína em fuga, conferindo-lhe uma aparência animalesca que equivale a um encantamento, homólogo à transformação em Ursa, presente na versão escrita por Basile. A assunção da forma animal traduz um período de encantamento e de exílio no Além, análogo ao sentido de morte em vida associado às cinzas em variantes d’*A Gata Borralheira* [26]. Por fim, em *Gata Borralheira e Contos Similares* [26], salienta-se, também, que o refúgio da protagonista é uma quinta destina-

da à criação de aves, o que a inscreve no motivo da pastora de pássaros, consideradas no folclore como emblemas das almas.

O tema do incesto manifesta-se, de acordo com Michele Simonsen (1992), em *Peau d'Âne* de uma forma explícita que “(...) n'engage pas seulement la poétique du récit (nouvelle vs conte), elle retire de plus au thème sa dimension anthropologique pour le réduire à un phénomène psychologique, voire pathologique” [29]. Mas, além do até aqui exposto, importa recordar a tese defendida por Jorgensen (2008), citada por Christa C. Jones e Claudia Schwabe [12], de que o conto em análise retrata a mudança de uma postura de vitimização ao empoderamento da jovem protagonista maculada pelo desejo incestuoso do pai, simbolizado pela renúncia à pele de animal em prol de um vestido mágico, indicando, deste modo, que está preparada para casar. Marc Soriano (1968) [30] faz notar, igualmente, que o rei incestuoso se move livremente no quadro ficcional do relato, podendo considerar-se que a maior parte das crianças, em especial as mais pequenas, não se sente perturbada por uma situação cujo verdadeiro sentido não compreende. Em seu entender, a inadequação deste conto de fadas ao público infantil reside, antes de tudo, no facto de que, já no século XVII, o texto não se prestava a uma leitura fácil por parte dos mais novos, devido a uma linguagem elaborada, rica em alusões, e de um estilo excessivamente rebuscado e artificial. Não surpreende, portanto, para Marc Soriano (1968) [30], que este enredo, ainda que meritório, tenha sido relegado a um relativo esquecimento. Na mesma linha, isto explica, ainda, a razão pela qual, por volta de 1781, surgiu uma versão em prosa, concebida para o tornar mais facilmente apreensível pelo leitor.

Por forma a atestar a perenidade deste conto, registado num contexto originalmente marcado, como procurámos demonstrar, pelo ideário francês do século XVII, recorde-se o seu legado até à contemporaneidade, composto por variantes filmicas e textuais diversas. Assim, segundo Jean-Paul Gourevitch (2013) [7], *Peau d'Âne* foi repetidamente ilustrado por diversos criadores, como a pintora e ilustradora russa Hélène Guertik (1897-1937), conhecida, sobretudo, pela sua colaboração na coleção «Albums du Père Castor» da editora Flammarion, nos anos 1930, e Jean Claverie, nascido em 1946, um premiado ilustrador francês, reconhecido, em 1983, com a Plaque d'Or, da Bienal de Ilustração de Bratislava. Refere, igualmente, a título exemplificativo, a versão filmica, vinda a público em 1970, protagonizada por Catherine Deneuve (1943-) com título homónimo, um musical francês, escrito e realizado por Jacques Demy (1931-1990).

No contexto português, e através da consulta do catálogo da Biblioteca Nacional de Portugal, foi possível constatar que a primeira edição em língua portuguesa deste texto tem por título *A pelle de burro* [sic] e data de 1821, tratando-se de uma publicação da Imprensa de Alcobia [25]. Com ilustrações de Alfredo Morais, em 1927, surge a primeira edição do volume *A princesa pele de burro*, publicada pela Editora João Romano Torres, obra que, na década de 40, terá sido revisitada várias vezes, contando, também com ilustrações, datadas de 1949, da autoria de Amorim [6].

Já na década seguinte, vêm a lume os seguintes títulos: *A Princesa Pele de Burro: Livro Infantil* (1954, 1.^a ed.), com adaptação de Costa Barreto e

ilustrações de César Abbott [2]; *História de Pele de Burro* [21], primeira-mente com autoria atribuída ao escritor francês, da responsabilidade da Civilização Editora, no ano de 1954; surgindo, quatro anos depois, uma nova publicação [1], de título homónimo, da mesma editora, cuja adaptação se atribuiu, então, a Salomé de Almeida.

Nos anos 90, Maria Alberta Menéres adapta esta obra numa versão publicada pela Edinter, na coleção «Contos de Sempre», com o título *A Princesa Pele de Burro* [17]. As ilustrações são de Fina Rifá.

Entre as edições vindas a lume no século XXI, em língua portuguesa, merecem destaque, por exemplo, a coletânea *Contos ou Histórias dos Tempos Idos* (Publicações Europa-América, 2004), volume que integra o conto em apreço [20]. De índole distinta é a obra *Contos de Perrault para crianças aventureiras* (2011), de Alice Vieira, que conta com ilustrações de Carla Nazareth [42]. Registe-se que o texto de Alice Vieira coincide com uma reelaboração reveladora de uma atitude aberta face às temáticas ditas “desconfortáveis”, não se observando nenhum tipo de aligeiramento/apagamento ideotemático. Mesmo do ponto de vista do registo literário, determinados segmentos testemunham um envolvimento estreito da voz autoral ou do narrador naquilo que se encontra a relatar, observando-se, assim, uma espécie de predileção por procedimentos metalépticos (ainda que relativamente moderados) [28]. No ano seguinte é, também, publicada a coleção «*Segredos de Princesas: uma caixa preciosa com oito livros pequeninos*» (2012, 1.^a ed.), à qual pertence o volume *A Princesa Pele de Burro* [23], ilustrado por Charlotte Gastaut.

3. Duas revisitações contemporâneas de Pele de Burro

A pervivência e a vitalidade das narrativas clássicas perraultianas parece irrecusável, quando se procede a um levantamento editorial dos exemplares publicados ao longo dos séculos. Mesmo em contexto escolar, os *Contos ou Histórias dos Tempos Idos* têm feito parte das leituras previstas nos Programas de Português para o Ensino Básico.

Os dois exemplares que, de seguida, serão analisados, substancialmente distintos, como explicitaremos adiante, atestam as potencialidades que encerra o conto *Pele de Burro*, do ponto de vista da retextualização criativa tanto verbal como pictórica e gráfica.

A análise das duas obras selecionadas, exemplos da atual recuperação ou revisitação de contos menos “populares” – digamos assim – pela edição contemporânea e da própria adaptabilidade que os caracteriza, será baseada em pressupostos metodológicos inerentes à hermenêutica textual e nortear-se-á por critérios estético-literários, nomeadamente: a) a análise multimodal do texto verbal e das ilustrações, visando explorar as relações de complementaridade, reforço ou expansão de sentido entre palavra e imagem; b) a análise comparativa das duas retextualizações do conto em pauta, considerando alguns elementos narrativos (como diegese e personagens), estilísticos (como, por exemplo, a escolha lexical) e visuais (paleta cromática, composição ou estilo de traço); e c) a interpretação dos sentidos produzidos pela interação texto-imagem, tendo em conta as transformações temáticas, simbólicas e ideológicas sugeridas em cada edição.

Globalmente, as edições em causa enquadram-se na tendência observada desde o início do milénio e registada por Sophie Van der Linden [14], que, através de originais transformações textuais, procura ampliar o espectro etário do público-alvo do livro ilustrado e fomentar também a aproximação das crianças aos clássicos, dotando-os de uma dimensão pictórica renovada e apelativa.

Piel de Asno (2019) (Fig. 1) [24], com texto de Cécile Roumiguière e ilustrações de Alessandra Maria, exemplar que integra a coleção «Clássicos ilustrados», dirigida pelo reconhecido ilustrador Benjamin Lacombe,

Fig. 1. Capa de *Piel de Asno* (2019, Edelvives).



responsável também pela conceção e realização gráfica do volume, distingue-se pela elegância e sofisticação. A série em causa organiza-se a partir de narrativas oriundas do repertório cultural universal e dirige-se potencialmente a um destinatário juvenil ou adulto, experiente e entusiasta da leitura visual. Conforme podemos verificar na nota peritextual colocada no fecho da obra em análise, cada ilustrador é chamado a desenvolver uma abordagem hermenêutica autoral e subjetiva, que se distingue pela irrepetibilidade, apesar de integrar uma linha editorial identificável pela uniformidade gráfica.

Em capa dura e privilegiando uma paleta cromática ostensivamente escura, sombria ou soturna, consentânea, por conseguinte, com a densidade dramática do conto em causa, pontuada de elementos dourados e de subtis efeitos de brilho, passíveis de serem entendidos como sinais de uma esperança feminina, esta edição guarda uma versão do conto em questão, “Basado en las versiones y adaptaciones de Charles Perrault, los hermanos Grimm y Jacques Demy, entre otros” [24], como se pode ler na folha de rosto, peritexto que evidencia, desde logo, uma assumida dimensão intertextual e intermediática. O texto verbal/narrativo, pautado pelo apuro linguístico e na linha das matrizes, como aludimos no início deste breve estudo, é manifestamente mais extenso do que qualquer um dos textos-matriz e reparte-se por uma introdução, sete capítulos e um epílogo. Todos os momentos diegéticos, distribuídos de forma convencional (situação inicial, peripécias, ponto culminante e desenlace) são iluminados por um conjunto impressionante de ilustrações extensas, por vezes, em página dupla, que enfatizam expressivamente a condição e a singularidade femininas, ao mesmo tempo que exploram, com mestria, o jogo entre exposição e ocultação, vulnerabilidade e poder. Na verdade, o dramatismo evidente e inerente às isotopias (morte, feminilidade, incesto e transgressão, disfarce, metamorfose, identidade, amor, entre outros) que distinguem este conto, assim como o potencial alusivo do texto literário *per se*, reflete-se no discurso visual, que recorre a enquadramentos fechados, a contrastes acentuados de luz e sombra e a motivos simbólicos recorrentes (flores, animais, texturas têxteis, joias) para tornar mais denso o subtexto emocional e psicológico, fortemente enquadrado pelo *pathos* feminino (Fig. 2). A este respeito, importa talvez

recuperar a perspectiva apresentada por Cécile Roumiguère, enunciada na nota final que acompanha esta adaptação. Assim, à semelhança do que ocorre em *Gata Borralheira*, também, aqui, a heroína é forçada a camuflar a sua beleza, a usar um vestido dotado de poderes mágicos e a reafirmar a sua identidade através de um objeto específico, corporizado, então, na Pele de Burro, motivo simbólico e sobrenatural, como mencionámos, associado ao encantamento. Nesta reescrita, Cécile enfatiza o valor da entreajuda feminina, visível na relação de confiança e cumplicidade entre fada e afilhada. Ao mesmo tempo, o leitor é confrontado com o retrato de uma jovem que

assume um papel determinante na conquista de uma relação amorosa exterior à sua estrutura familiar. Com efeito, configurando-se como uma personagem que, embora inserida num quadro narrativo cruzado pela submissão ou fragilidade e pela determinação, a protagonista demonstra saber com nitidez o que deseja para si.



Fig. 2. Páginas de *Piel de Asno* (2019, Edelvives).

As ilustrações da americana Alessandra Maria, por seu turno, exploram uma composição saturada de motivos vegetais, criando uma gramática visual que evidencia o potencial regenerador da floresta e dialogam, simultaneamente, com a iconografia bizantina e com o universo decorativo do *Art Nouveau* de finais do século XIX, movimento artístico caracterizado pela dimensão simbólica e pela ornamentação sinuosa de raiz naturalista [10]. Trata-se, sem dúvida, de uma edição que contemporaneiza um texto de natureza fraturante ou disruptiva, tanto no passado como no presente, e que, pelas suas opções gráficas e pela cuidadosa articulação entre palavra e imagem, parece acentuar a sua amplitude receptiva ou a sua essência “crossover”, convocando tanto um público infantojuvenil como um leitor adulto, talvez já familiarizado com as camadas de leitura mais complexas inerentes ao conto tradicional.



O livro-objeto *Peau d'âne. Un opéra de papier* (2024) (Fig. 3) [31], da autoria da artista francesa Clémentine Sourdis, sobressai, contrastando, de forma notória e desde o primeiro momento, com o volume anteriormente analisado. De facto, “claridade” e a leveza do traço das ilustrações, visíveis desde a capa deste livro-álbum, assim como os quatro segmentos ou cenários em *pop-up*, além de outros três, em formato de pequenos

lift-the-flap, escondendo elementos também *pop-up*, propõe um processo de leitura distinto, que convida à ação sobre o livro e, consequentemente, à exploração lúdica e tátil.

A ênfase atribuída ao suporte material do livro tem como objetivo focalizar a atenção do leitor neste artefacto, tornando os elementos físicos constitutivos de sentido, ao mesmo tempo que se projeta a ação para

Fig. 3. Capa de *Peau d'âne. Un opéra de papier* (2024, Barbara Fiori Editora).

fora do plano bidimensional da página. A mobilização do leitor, além de ser, simultaneamente, reveladora do caráter inovador e experimental do trabalho desta criadora francesa e do potencial criativo do livro enquanto objeto editorial, assume um impacto significativo na dinâmica da leitura e no próprio processo de construção de leitores. Deste modo, três abas de papel velam os três painéis nucleares, que o leitor vai revelando, de forma progressiva, permitindo-lhe descobrir os dois cenários fulcrais da narrativa, correspondentes, respetivamente, ao palácio (Fig. 4) e ao espaço campestre onde a protagonista acaba por encontrar refúgio. No derradeiro painel, figura o instante da união com o príncipe, numa composição que articula uma perspetiva aérea com uma imagem frontal do casal recém-formado no interior de um balão. A aparência dos três vestidos solicitados pela personagem central vai sendo também, pouco a pouco, revelada por mecanismos de papel idênticos, desenhados para que o leitor os descubra ao manipular fisicamente o próprio livro. A utilização expressiva destes procedimentos derivados da engenharia do papel possibilita a construção imagética de um envolvente jogo de volumetrias e de articulação de perspetivas que, em última instância, gera uma rica diversidade de profundidades espaciais.

Neste caso, o texto narrativo é transformado num texto com fortes marcas do modo literário dramático, composto, assim, por um texto principal, correspondente às intervenções em discurso direto das personagens, e por um texto secundário ou didascálias, que orientam a “encenação” e sugerem gestos, movimentos ou mudanças de cenário, aproximando o livro do universo do teatro de papel e da ópera, como se pode ler na própria capa da obra. Nesta variante editada pela Seuil Jeunesse, a solução encontrada para o novo matrimónio da personagem paterna é avançada por um grupo de conselheiros, que reconhece na jovem de dezasseis anos a companheira perfeita. Todavia, a obra em análise procura, desde o início, salientar a atitude firme da heroína, ao explicitar a recusa absoluta dessa proposta. A este respeito, merece destaque o seguinte trecho “Elle savait bien, elle, que jamais, jamais un parent et un enfant n’entretiennent ce genre de relation” [31].

Fig. 4. Página de *Veio el Mundo* (2018, Seuil Jeunesse).



O policromismo das ilustrações, feitas de tons vivos, pontuadas de traços ou linhas, pequenos círculos, formas preenchidas de cor, por vezes, sem sinal de contorno, em certos casos, não isentos de algumas sugestões humorísticas, funcionam como meio de aligeiramento ou alívio da forte carga emotiva da narrativa, atenuando o

dramatismo do enredo e criando um jogo de contrastes entre a gravidade de certas situações e a aparente leveza visual. De notar que a configuração de determinadas personagens, tais como a figura da fada-madrinha (ou, até mesmo, da jovem protagonista, quando se livra definitivamente da pele que a camuflava) se afastam deliberadamente dos moldes tradi-

cionais. Considerando-se, além do exposto, também os diálogos entre as duas personagens femininas, podemos, igualmente, constatar que a caracterização psicológica desta figura adjuvante se demarca pela jovialidade e pelo bom-humor. Veja-se, por exemplo, o comentário da madrinha no episódio alusivo à exigência do último vestido “Et si par malheur il réussit, j'en mangerai des fourmis!” [31].

Em termos globais, trata-se de um objeto estético particularmente apelativo, que articula de forma feliz a dimensão performativa e teatral do conto, potenciando experiências de leitura multimodal, em que virar páginas, levantar abas e acionar mecanismos se torna parte-integrante da construção de sentido.

Considerações finais

Os contos de fadas continuam a assumir um papel fulcral na edição para a infância, nos dias de hoje, graças a reconfigurações de elevado apuro gráfico. Trata-se de textos primordiais que permitem a entrada em universos fantásticos, onde se espelham experiências humanas profundas. O conto *Pele de Burro* persiste, atestado por reedições e interpretações diversas que, no caso português, terão iniciado em 1821. Hoje, este conto perraultiano subsiste por via de novos e sensíveis olhares de ilustradores contemporâneos, que incluem o público jovem e adulto.

Como procurámos explicitar, as duas propostas de leitura coligidas, a primeira, um conto ilustrado, que propõe um exercício de leitura que poderemos apelidar de mais “contemplativo”, e a segunda, um livro-álbum/livro-objeto, de teor mais ativo, são reveladoras da perenidade de um conto que, apesar de formalmente inquietante, tem sido objeto de atualização num quadro estético e ético atento às inquietações contemporâneas, ainda que por via de estratégias distintas. Deste modo, podemos dizer que a primeira proposta visual revela um esmerado cuidado nos detalhes e na dimensão simbólica e refinada das suas ilustrações, todas atestando o sentido dramático do enredo. Já a segunda publicação procura um significado mais performativo e condensado, a partir de uma interpretação pictórica mais simplificada e abrangente, materializada num livro-objeto interativo, de certo modo, potencialmente destinado a leitores mais novos. Ambas as obras relidas enfatizam o papel ativo da personagem principal na definição do seu destino, sem deixar de fora a complexidade e os caminhos obscuros de certas relações familiares. Estamos perante, portanto, duas retextualizações que, cada uma a seu modo e mobilizando estratégias singulares, convidam à reflexão crítica em torno de temas inquietantes como o incesto, a morte e a feminilidade “agredida”, tópicos que devemos entender como fundamentais na formação de leitores reflexivos, críticos e conscientes da obscuridade de certas facetas do ser humano.

Trata-se, como vimos, de obras graficamente sofisticadas, que se distinguem, também, por uma criteriosa seleção cromática, significativamente densa. Lembre-se a este título, por exemplo, como, do ponto de vista cultural, a cor dourada está associada às qualidades que se robustecem ao longo do tempo, como a fidelidade e o companheirismo ou a integridade e a confiança, bem como a sua ampla associação com os

conceitos de beleza, de vaidade e de luxúria [9]. A esta opção estética importa somar, também, a densidade simbólica das imagens que compõem estas duas revisualizações. Como tal, Alessandra Maria faz-nos entrar num universo dramático (visualmente denso e feminista) que se distingue pela elegância e delicadeza, em parte devido à intensidade dos contrastes de luminosidade. Trata-se de uma estratégia compositiva que se demarca pela valorização estética das diferentes volumetrias e formas visuais reconhecida por vários estudiosos do fenómeno cromático, tais como Itten (2020) [11] ou Falcinelli (2019) [5], pelos seus efeitos de expressividade, proximidade e relevo.

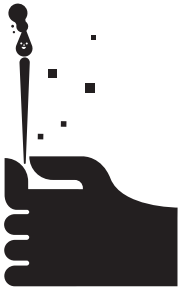
Peau d'âne. Un opéra de papier (2024) [31], de Clémentine Sourdis, demarca-se, por sua vez, pelo cromatismo vibrante e pela leveza gráfica, aspetos que acabam por suavizar o dramatismo deste texto clássico através de diferentes sugestões humorísticas. Como mencionámos, este livro-objeto integra um cuidado conjunto de elementos volumétricos, ativados por abas que desvendam espaços físicos, objetos mágicos e ações centrais da narrativa, por via da intervenção direta dos seus leitores. Estes mecanismos de engenharia de papel geram jogos de volumetria e combinações diversificadas de perspetivas, projetando a ação para além da bidimensionalidade. Além disso, dotam a obra em apreço de uma dimensão performativa e lúdica que articulada com os demais aspetos vindos do modo dramático, como os diálogos diretos e as didascálias teatrais, por exemplo, transformam esta publicação numa ópera de papel. Trata-se, em última instância, de uma obra que, através de uma leitura multimodal, destaca a dimensão determinada da protagonista, envolvendo diretamente o leitor nessa jornada pela conquista do seu próprio destino.

Em suma, as duas propostas editoriais analisadas neste breve estudo, trazidas a lume pelas editoras Edelvives e Seuil Jeunesse, são reveladoras da significativa relevância deste conto na atualidade, na medida em que evidenciam problemáticas que permanecem pertinentes (como o incesto e o abuso de poder), ao mesmo tempo que destacam a capacidade de resistência e a afirmação feminina. Cada uma destas obras constitui um exercício especial e, de certa maneira, pessoal de apropriação pictórica, que, embora ancorado na especificidade visual de cada uma das ilustradoras, mantém uma fidelidade estrutural à dimensão arcaica e atemporal da narrativa de origem. Estamos, portanto, diante de duas interpretações plásticas muito expressivas, verdadeiramente memoráveis, isto é, de duas obras paradigmáticas e exemplificativas da maturidade da ilustração contemporânea.

Referências

1. Almeida, S.: História de Pele de Burro. Livraria Civilização, Porto (1958).
2. Barreto, C.: A Princesa Pele de Burro: Livro infantil. Majora, Porto (1954).
3. Carpenter, H. & Prichard, M.: The Oxford Companion to Children's Literature. Oxford University Press, Oxford (2005).
4. Coelho, N.: O Conto de Fadas: Símbolos, Mitos, Arquétipos. Editora Nova Vega, Lisboa (2012).
5. Falcinelli, R.: Cromorama: Cómo el Color Transforma Nuestra Visión del Mundo. Taurus, Barcelona (2019).

6. Ferreira, L.: A Princesa Pele de Burro. Romano Torres, Lisboa (1949).
7. Gourevitch, J.: ABCdaire Illustré de la Littérature Jeunesse. L'atelier du poison soluble, Le Puy-en-Velay (2013).
8. Gourevitch, J.: Images d'enfance: Quatre Siècles d'illustration du Livre pour Enfants. Editions Alternatives, Paris (1994).
9. Heller, E.: Psicologia de Cor: Como as Cores Afetam a Emoção e a Razão. Gustavo Gilli, Barcelona (2014).
10. Heller, S., Chwast, S.: Illustration: a Visual History. Abrams, New York (2008).
11. Itten, J.: El Arte del Color. Editorial Gustavo Gili, Barcelona (2020).
12. Jones, C., Schwabe, C.: Cross-Disciplinary Perspectives on Teaching Folklore and Fairy Tales in Higher Education. In: Jones, C., Schwabe, C. (eds.). New Approaches to Teaching Folk and Fairy Tales. pp. 10-25. University Press of Colorado, Colorado (2016).
13. Linden, S.: Exercices de Style. In: *Hors Cadre(s): Observatoire de l'album et des Littératures Graphiques*, n.º 9, pp. 4-5, L'atelier du poison soluble, Le Puy-en-Velay (2011).
14. Linden, S.: Le Livre de Contes Illustré: le Défi de la Modernité. In *Hors Cadre(s): Observatoire de l'album et des littératures graphiques*, n.º 9, pp. 14-17, L'atelier du poison soluble, Le Puy-en-Velay (2011).
15. Linden, S.: Tout sur la Littérature Jeunesse de la Petite Enfance aux Jeunes Adultes. Éditions Gallimard Jeunesse, Paris (2021).
16. Lurie, A.: What Fairy Tales Tell us. In: Lurie, A.: Boys and Girls Forever. Children's Classics from Cinderella to Harry Potter. pp. 125-137. Penguin Books, New York (2003).
17. Menéres, M.: A Princesa Pele de Burro. Edinter, Porto (1993).
18. Perrault, C.: A Princesa Pele de Burro. João Romano Torres, Lisboa (1927).
19. Perrault, C.: Contos de Charles Perrault (tradução de M. L. Rodrigues e Magda Bigotte Figueiredo). Colares Editora, Sintra (1996).
20. Perrault, C.: Contos ou Histórias dos Tempos Idos. Publicações Europa-América, Mem Martins (2004).
21. Perrault, C.: História de Pele de Burro. Livraria Civilização, Porto (1954).
22. Rocha, N.: Breve História da Literatura Portuguesa para Crianças em Portugal. Lisboa: ICALP (1984).
23. Romão, H. (Trad.): Segredos de Princesas: uma Caixa Preciosa com oito Livros Pequenos. Lisboa: Edicare (2012).
24. Roumiguère, C.: Piel de Asno. Espanha: Edelvives (2019).
25. S.n.: A Pelle de Burro. Lisboa: Imprensa de Alcobia (1821).
26. Silva, F.: Gata Borralheira e Contos Similares. Maia: Círculo de Leitores e Temas e Debates (2011).
27. Silva, S. R. da: Clássicos da Literatura Infantojuvenil em Forma(to) de Livro-objeto. Braga: UMinho Editora.
28. Silva, S. R. da: Para Leitores Aventureiros e Valentes: Alice Vieira entre Perrault e Grimm. In Silva, S. R. da & Ribeiro, J. M. (Coord.). Estes Livros que nós Escolhemos: Contributos para a Leitura da Obra Infantil e Juvenil de Alice Vieira. pp. 61-75. Porto: Tropelias & Companhia (2016).
29. Simonsen, M.: Perrault: Contes. Paris: Presses Universitaires de France (1992).
30. Soriano, M.: Les Contes de Perrault: Culture Savante et Traditions Populaires. França: Éditions Gallimard (1968).
31. Sourdis, C.: Peau d'âne. Un Opéra de Papier. Paris: Seuil Jeunesse (2024).
32. Vieira, A.: Contos de Perrault para Crianças Aventureiras. Alfragide: Oficina do Livro (2011).



The Representation of Female Traumatic Experience through Animated Documentary

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Keywords

Animated documentary;
Gender Representation;
Trauma; Memory.

Abstract

This article examines how contemporary animated documentary has been used by female animators to represent gendered traumatic experiences. Drawing on a feminist perspective on animation, the study discusses how this medium offers visual and narrative strategies capable of representing memories, emotions, and experiences that are difficult to convey through traditional cinematic languages. The research is based on an analysis of three animated documentary short films: *Inside Me* (2019), by Maria Teixeira Trigo; *Granny's Sexual Life* (2021), by Urška Djukić and Émilie Pigeard; and *Carne* (2019), by Camila Kater. Based on theoretical contributions on trauma, memory, and animation, the study explores how these works use techniques such as visual metaphor, abstraction, bodily metamorphosis and first-person narration to address experiences of violence, sexuality, oppression and bodily autonomy. It is argued that animation, by moving away from the literalness of realism, creates a sensitive space and a symbolic language that makes visible traumatic experiences that are often silenced or kept invisible. Thus, animated documentary emerges as a powerful tool for engaging with testimony, memory and social critique from feminist, political, and artistic perspectives.

1. Introdução

Esta análise resulta da investigação desenvolvida no âmbito do projeto de mestrado em Design da Imagem, que tem como objeto de estudo o trauma na animação sob uma perspetiva feminina, explorando de que forma as experiências das mulheres influenciam as animadoras a criar e a narrar histórias marcadas pelo feminino, sobretudo aquelas relacionadas com violência sexual, opressão de género e controlo do corpo feminino.

O presente trabalho estrutura-se a partir de três eixos interdependentes: (i) experiência feminina, (ii) memória traumática e (iii) documentário animado. Este enquadramento permite compreender de que forma as experiências das mulheres influenciam a criação e a narração de histórias em documentário animado particularmente no que diz respeito à violência sexual, à opressão de género e ao controlo do corpo feminino.

A animação apresenta um potencial significativo de representar a memória, a identidade, o corpo e as dores humanas. No entanto, foi minimizado por muito tempo como um meio infantil e, consequentemente, retirada

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das discussões da teoria do cinema. Como resultado, questões relacionadas com a memória e com a experiência do trauma permaneceram, durante largos períodos, pouco exploradas nesse contexto [1]. Contudo, a história da animação inclui diversas animadoras que privilegiam perspectivas feministas ao abordar questões de relevância social, como a opressão, a violência sexual e os impactos do gênero na vida quotidiana [2].

Wells [1] sugere que as mulheres utilizam a animação para resistir à linguagem historicamente dominadas por perspectivas masculinas. Neste sentido, as mulheres utilizam a animação para contar as suas experiências pessoais relacionadas ao gênero para ressignificar violências vividas. Diferentes movimentos sociais e políticos têm causado mudanças nos direitos humanos fundamentais das mulheres, algumas vezes com avanços significativos, outras vezes por retrocessos.

Estas transformações revelam uma tendência crescente entre mulheres que trabalham na animação para expor experiências profundamente pessoais e marcadas pelo gênero. Nesse contexto, o documentário animado tem-se afirmado, nas últimas duas décadas, como uma das áreas mais dinâmicas de investigação no campo dos estudos do documentário.

Este estudo de caso busca compreender como isso é feito através da análise de três curtas-metragens de documentário animado que abordam e resistem a diferentes formas de violência: *Inside Me* (2019), de Maria Trigo Teixeira; *Granny's Sexual Life* (2021), de Urška Djukić e Émilie Pigeard; e *Carne* (2019), de Camila Kater.

2. Revisão de Literatura

2.1. Memória e o Trauma na Animação

A relação entre memória, trauma e animação tem sido abordada a partir de diferentes perspectivas teóricas que destacam a natureza subjetiva, fragmentária e construída da lembrança. No contexto da animação contemporânea, a memória não pode ser entendida como um registo fixo do passado, mas como um processo dinâmico de reconstrução sensorial, emocional e narrativa.

Neste sentido, Ruth Richards [3] cita Walden (2019) destacando que a animação permite evidenciar características fundamentais da memória, como a sua ligação com a imaginação, a criatividade e a corporeidade, sublinhando sobretudo o seu caráter subjetivo.

Complementarmente, uma das propriedades fundamentais da animação é a metamorfose, que permite a transformação contínua de imagens [1]. Esta fluidez torna-se particularmente relevante na representação da memória e do trauma, uma vez que permite a dissolução das fronteiras entre passado e presente, realidade e imaginação, corpo e narrativa.

Tendo em conta que a memória não se apresenta como um processo linear ou sequencial, mas sim como uma montagem fragmentada de imagens, emoções e acontecimentos, na qual a causalidade narrativa é frequentemente substituída por associações subjetivas e afetivas. Este modelo é particularmente relevante para a animação, uma vez que esta partilha a mesma lógica de fragmentação, montagem e recomposição temporal [3].

E é com a função de preservar, transmitir e mediar as memórias (traumáticas ou não) que a animação constitui uma tecnologia mediadora e desempenha papel integral no desempenho de memórias pessoais e coletivas [4]. Ao operar fora das limitações da representação fotográfica, a animação permite a construção de formas visuais que não dependem da fidelidade ao real, mas sim da sua interpretação subjetiva e simbólica.

O trauma não reside apenas no evento em si, mas na forma como este é repetido e reexperienciado ao longo do tempo [3]. Esta dimensão de repetição e posse do sujeito pelo evento traumático torna-se particularmente relevante na análise da animação, uma vez que a repetição e a transformação são princípios estruturais do próprio meio [1]. A animação permite, assim, representar não apenas o evento traumático, mas a sua persistência através de formas visuais e corporais.

E a relação entre o corpo e a memória é aprofundada por Edward Casey (2000) em Richards [3], distingue termos como *“body memory”* e *“memory of the body”*, sendo a primeira entendida como uma forma de memória incorporada e não consciente, enquanto a segunda corresponde a uma recordação reflexiva do corpo como objeto.

No contexto da animação, esta distinção torna-se emblemática, uma vez que o meio visualiza precisamente a tensão entre o corpo como sujeito da experiência e o corpo como objeto de representação. Assim, a animação permite explorar a instabilidade entre estas duas formas de memória corporal, especialmente em contextos de trauma e especialmente no que tange o trauma experienciado no corpo de mulheres.

As práticas cinematográficas, e a animação em particular, têm o potencial de oferecer maneiras de desafiar as relações de poder hegemônicas, especialmente aquelas relacionadas ao género, algo que a torna ainda mais propícia para explorações da memória pessoal [6].

2.2. O Potencial do Documentário Animado

O documentário animado consiste num projeto audiovisual que parte do registo de imagens live-action ou apenas de áudio de situações, personagens e espaços reais, os quais posteriormente recebem intervenções de animação, geralmente evidenciado por fotografias, desenhos, filmes ou outros materiais reinterpretados na animação [5].

De acordo com Honess Roe [6], o documentário animado não deve ser entendido como uma simples ilustração de conteúdos factuais, mas como uma forma documental que reconfigura a relação entre imagem e realidade. A autora argumenta que, ao invés de comprometer a veracidade, a animação introduz uma dimensão interpretativa que permite representar experiências subjetivas, memórias e estados internos que escapam ao registo fotográfico. Neste sentido, o documentário animado opera como uma construção que torna visível aquilo que não pode ser diretamente capturado pela câmara.

De acordo com Nea Ehrlich, o uso da animação para representar o que é real reflete uma mudança cultural no qual a animação se afasta de imagens infantis ou mesmo fantasiosas para abordar conteúdo factual [7]. Oferecendo novas formas de ver o mundo, de formas não convencionais [6].

O uso do documentário animado começou a crescer em meados dos anos 2000, como os filmes *Persepolis* (2007) [5,6] e *Waltz with Bashir* (2008) [5], e abriu espaço para diferentes formas de documentar a realidade, por seu caráter contraditório entre realidade e ficção. Nesse sentido, pela animação representar o que é fantástico, onírico ou extraordinário, o documentário animado torna-se a uma mídia exemplar para representar histórias absurdas, principalmente relacionadas ao trauma e à memória para ultrapassar o realismo e explorar o peso dessas experiências. [6,7]

E se o documentário animado se tornou uma mídia utilizada nos anos 2000, é natural que o político e o social desta época impulsionem estes assuntos, como as políticas de gênero e sexualidade, por exemplo.

Warren e Veras [2] citam o livro de Jayne Pilling *Animating the Unconscious: Desire, Sexuality and Animation* (2012) como sendo um dos primeiros trabalhos a trazer a atenção para a forma como a animação pode abordar temas ligados ao desejo, à sexualidade e ao inconsciente, levantando a seguinte questão: por que razão e de que forma a animação é um meio tão adequado para tratar este tipo de temas.

Pilling e os autores que participaram no livro foram também dos primeiros a estudar curtas-metragens de animação autorais ou artísticas que exploram a sexualidade e o desejo a partir de perspectivas feministas. Em vez de olhar apenas para a animação comercial ou infantil, focaram-se em obras independentes que abordam experiências pessoais e questões sociais.

Segundo Pilling, o crescimento do documentário animado pode ser explicado por vários fatores, como a uma mudança na cultura da animação de autor, que passou de temas mais universais para narrativas mais específicas e pessoais; a influência do feminismo, que incentivou a exploração de experiências individuais, especialmente as das mulheres; o surgimento do documentário animado como gênero próprio; e o uso mais frequente de vozes humanas reais, em vez de vozes caricaturais ou de personagens antropomórficas, o que transmite a sensação de que uma pessoa real está a relatar a sua própria experiência [2].

A animação, portanto, torna-se um meio muito adequado para abordar questões relacionadas às memórias, ao trauma, ao conceber formas de realidades impossíveis de capturar, como sonhos, emoções e memórias. Segundo Wells [1], através da animação é possível extrapolar os limites da realidade que ampliam as possibilidades da forma, sendo capaz de acolher e tornar legítimas narrativas marcadas por ambiguidades sociais e políticas, como aquelas que envolvem experiências traumáticas, violência ou marginalização, sem a obrigação de reproduzir fielmente a realidade tal como ela é vista no mundo físico. Ao mesmo tempo, em que a animação pode dialogar com condições reais da existência, como emoções, relações de poder e experiências vividas, ela também se distancia do realismo literal ao recorrer a recursos próprios do seu vocabulário visual, como a abstração, a metáfora, a distorção do corpo e a manipulação do tempo e do espaço. Essa dupla capacidade permite que a animação expresse contradições e conflitos internos de forma mais flexível e sensível do que linguagens baseadas na representação direta do real, tornando-se especialmente eficaz para narrativas sociais e politicamente complexas.

Através de cenas que podem ser interpretadas como humorísticas, a animação consegue representar formas de violência que seriam difíceis — ou até mesmo insuportáveis — de assistir em live-action. [2].

Este artigo propõe um enquadramento analítico baseado em três eixos interdependentes (i) experiência feminina, (ii) memória traumática e (iii) documentário animado. Sendo que o documentário animado funciona como meio expressivo que permite a interpretação da memória traumática como ferramenta para expressar, explorar e denunciar as experiências pessoais traumáticas do corpo feminino construídas numa sociedade misógina que desvaloriza, restringe e controla os corpos das mulheres e as suas possibilidades. Sendo a violência um elemento persistente que permeia todas essas experiências.

3. Metodologia

Este estudo adota uma abordagem qualitativa de análise fílmica, centrada na interseção entre documentário animado, memória traumática e experiência feminina.

O corpus é composto por três curtas-metragens de documentário animado contemporâneo: *Inside Me* (2019), de Maria Teixeira Trigo; *Granny's Sexual Life* (2021), de Urška Djukić e Émilie Pigéard; e *Carne* (2019), de Camila Kater.

A seleção destas obras baseia-se na sua relevância para a investigação, nomeadamente pela representação de experiências femininas marcadas por diferentes formas de trauma e pelo uso de estratégias diversificadas de animação documental.

Os critérios de seleção foram definidos de forma a garantir coerência analítica entre os filmes: (i) tipo de trauma representado, privilegiando-se experiências sexuais e estruturais associadas a desigualdades de género; (ii) centralidade da experiência feminina, com narrativas construídas a partir de vozes ou perspetivas femininas; (iii) forma de narração, com ênfase no testemunho e na narração em primeira pessoa ou múltiplas vozes testemunhais; e (iv) estratégias de representação animada, incluindo o uso de metáfora visual, abstração, metamorfose corporal e distorção expressiva da realidade.

A análise dos filmes foi realizada com base na aplicação dos critérios acima descritos, permitindo identificar padrões recorrentes e diferenças estruturais entre as obras. Este processo analítico considerou três dimensões principais: (a) a relação entre experiência feminina e estruturas de poder, (b) as formas de representação da memória traumática e (c) o papel do documentário animado enquanto dispositivo de mediação visual.

Esta abordagem comparativa permite compreender como diferentes práticas de documentário animado utilizam estratégias narrativas e visuais para a representação da memória traumática feminina.

4. Análise

4.1. Inside Me

Dirigido por Maria Trigo Teixeira, *Inside Me* (2019) é um curta-metragem que aborda a experiência do aborto vivido por uma jovem mulher. O filme

é narrado na primeira pessoa e as imagens vão-se construindo gradualmente ao longo do relato. As animações, frequentemente simbólicas e por vezes



abstratas, acompanham a narrativa e contribuem para revelar sentimentos e acontecimentos que são ou não explicitamente verbalizados.

Há ambiguidade e sensibilidade tanto no relato quanto na animação. A linguagem visual, construída em 2D com tinta e

apenas em preto e branco, intensifica a tensão emocional que atravessa a história. *Inside Me* revela cuidado e responsabilidade ao tratar um tema extremamente delicado e pessoal.

A plasticidade da animação conversa com a dualidade simplista que permeia o tópico do aborto. A animação é utilizada como uma camada além da narrativa, emoções que possam estar implícitas no discurso que não podem ser explicadas em palavras.

4.2. Granny's Sexual Life

Granny's Sexual Life (2021), é um documentário animado dirigido por Urška Djukić e Émilie Pigéard, baseado em mais de 2.000 testemunhos de mulheres entre os 80 e 90 anos sobre as suas experiências sexuais durante a juventude na Eslovénia, coletados por Milena Miklavčič no seu livro esloveno "*Fire, Ass, and Snakes Are Not Toys*" (1970) [2].

O filme começa utilizando fotografias de homens e mulheres em preto e branco, acompanhadas da narração de uma mulher idosa, e ao longo do filme



adota um estilo cartunesco, quase como um desenho infantil, que dá vida aos relatos dessas mulheres sobre opressão e violência. Nesse processo, o corpo da personagem é constantemente metamorfoseado e transformado através de traços rabiscados, utilizados para representar as experiências

vividas pelos corpos femininos. As metáforas são ampliadas para representar as genitálias ou situações violentas de machismo no matrimónio.

Uma cena específica revela uma experiência devastadora, todo o ecrã escurece e apenas se ouvem os sons de gemidos e respirações, dando a entender que está a acontecer uma violência sexual.

O curta-metragem evita tornar essas situações explicitamente visíveis nas imagens, recorrendo antes à sugestão e ao simbolismo para transmitir a violência e o impacto emocional dessas experiências - é uma violência que acontece dentro do privado, dentro de um matrimónio, ninguém fica sabendo. A autonomia e o prazer dessas mulheres são-lhes negados e é através do documentário que a voz dessas mulheres pode ser resgatada e ouvida.

Fig. 1. Frame do filme *Inside Me* (2019).

Fig. 2. Frame do filme *Granny's Sexual Life* (2021), exemplo como uso do estilo próximo do desenho infantil dá vida a plasticidade do corpo e das opressões narradas.

4.3. Carne

Em *Carne* (2019), da diretora Camila Kater, a metáfora que articula os diferentes relatos de mulheres é construída a partir dos diferentes pontos de cozedura da carne — bem passada, no ponto ou mal passada. Este recurso funciona como uma analogia às experiências e às fases da vida dessas mulheres, acompanhando os seus testemunhos desde a infância, passando pela adolescência e pela menopausa, até à velhice. E são utilizadas diferentes técnicas de animação, à medida que as diferentes mulheres narram as suas experiências. Numa entrevista [8], a diretora afirmou que o seu curta conversa intimamente com as suas próprias experiências e é através delas que ela utiliza de outras mulheres para narrar as delas.

Neste filme, as violências representadas não são apenas físicas, são violências epistêmicas, opressões sobre o corpo, sobre idade e género. “Quando eu era criança eu pensava que tinha sido um mau negócio eu ter nascido mulher. Porque aquele corpo limitava as liberdades [...]”. Neste filme, cada história relata uma experiência diferente com o próprio corpo e as cobranças externas que as mulheres enfrentam, os seus corpos nunca as pertencem e sim aos outros, os maridos, os filhos, a sociedade. E isso conversa explicitamente com as metáforas da carne, aludindo a objetificação feminina.

Cada capítulo é narrado por uma pessoa diferente, em idades diferentes sobre assuntos diferentes através de técnicas diferentes. O primeiro capítulo “Crua” é sobre a experiência de uma menina sobre crescer gorda tendo uma mãe nutricionista

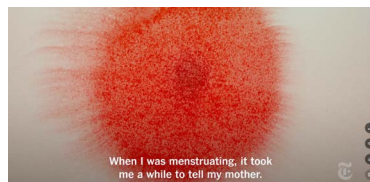


Fig. 3. Frame do filme *Carne* (2019), no segundo relato “Mal Passada” sobre a experiência da primeira menstruação.

que a diminuí por isso. O segundo capítulo, “mal passada” é sobre como foi a primeira menstruação e como isso influencia o relacionamento de si própria e entre mulheres. O terceiro capítulo “Ao Ponto” é sobre os desafios de ser uma mulher transexual negra e a hipersexualização que acompanha essa experiência. O quarto capítulo “passada”, é sobre o climatério e a invisibilização da mulher na menopausa, além de ser uma mulher lésbica sem filhos. O último capítulo “Bem Passada”, sobre envelhecer e as reminiscências, medos e descobertas que acompanham esta fase.

O filme é sobre transformação, mas sobretudo sobre humanizar as experiências femininas.

5. Discussão

Em primeiro lugar, observa-se que todos os filmes analisados recusam a representação realista, substituindo-a por formas de mediação visual baseadas na metáfora, na abstração e na transformação do corpo. A animação surge como um meio de tornar representável aquilo que, na experiência traumática, resiste à realidade. Sendo utilizada como uma tradução do indizível.

Apesar desta similaridade, os filmes diferem significativamente no tipo de trauma representado e na forma como este se conecta a narrativa.

Inside Me centra-se numa experiência individual e íntima do trauma do aborto, estruturada pela narração em primeira pessoa. Aqui, a me-

mória assume uma forma subjetiva e é constantemente atravessada por momentos de metáforas visuais. A animação funciona sobretudo como extensão afetiva da voz narrativa, traduzindo estados emocionais que escapam à verbalização.

Em contraste, *Granny's Sexual Life* constrói uma memória coletiva e intergeracional do trauma feminino, onde a narração fragmentada e múltipla produz um efeito de polifonia. O trauma aqui é estrutural e histórico, associado a formas de violência sexual normalizada dentro do espaço doméstico e conjugal. A representação do corpo é marcada por metamorfose constante e estilização gráfica, reforçando a ideia de um corpo socialmente construído e disciplinado.

Já em *Carne*, o trauma é sobretudo estrutural, relacionado com a objetificação do corpo feminino e a sua regulação social ao longo do tempo. A narrativa é profundamente não-linear, baseada numa lógica de acumulação de experiências que se conectam mais por associação conceptual do que por continuidade temporal. A animação funciona como metáfora da experiência, transformando o corpo num campo de leitura das relações de poder que funcionam na sociedade.

Apesar destas diferenças, os três filmes constroem o corpo feminino como lugar central da inscrição do trauma, seja através da dor física, da violência ou da opressão e pressão social. A animação emerge consistentemente como um dispositivo de mediação que permite simultaneamente revelar, distorcer e dar profundidade a experiência traumática em todos os três documentários.

Assim, pode argumentar-se que o documentário animado funciona como um meio de representação do trauma feminino através da combinação da voz, corpo e da plasticidade que a animação oferece, sendo capaz de produzir um espaço de testemunho onde o indizível resiste à representação direta.

6. Conclusão

A análise dos três filmes demonstra que o documentário animado tem desempenhado um papel relevante na representação de experiências femininas marcadas pelo trauma, pela violência e pelo controlo social do corpo das mulheres. Em consonância com Richards [3], os filmes analisados recorrem a estratégias visuais próprias da animação, como a fragmentação, a abstração, a metáfora, a distorção do corpo e a manipulação do espaço e do tempo, estas obras conseguem abordar temas sensíveis e relevantes [3].

Simultaneamente, os resultados confirmam a perspetiva de Annabelle Honess Roe [6], segundo a qual o documentário animado expande as possibilidades de representação do real ao incorporar dimensões subjetivas. Nos casos analisados, a animação funciona como um meio que substitui a imagem ausente permitindo aceder a memórias fragmentadas, silenciadas ou invisibilizadas.

Apesar dessas diferenças, os três filmes convergem na centralidade do corpo feminino como lugar de inscrição da violência e na utilização da fragmentação e metamorfose da imagem como estratégia de representação da memória traumática.

Nos três casos analisados, a animação funciona como um meio de dar forma a experiências frequentemente silenciadas além de convidar o público a refletir criticamente sobre as formas de opressão de gênero e sexual que persistem na sociedade [2]. Também sendo uma forma de proteger as pessoas que estão contando as suas histórias, dando voz sem precisar expor as identidades, como expressa a diretora de *Carne*, Camila Kater, “adiciona uma camada sensorial, aumenta a sua empatia para com o que está sendo dito” [8].

Em conjunto, estas obras evidenciam como o documentário animado se tornou um espaço fértil para a expressão de narrativas femininas e para a exploração artística do trauma e da memória. Mais do que representar eventos traumáticos, estes filmes contribuem para a construção de novas formas de testemunho visual que permitem tornar visíveis experiências historicamente marginalizadas, silenciadas e desprezadas tendo impacto social sobre artistas, colaboradores, público e até a indústria, tendo o potencial de questionar estruturas sociais e culturais que moldam e limitam as experiências das mulheres [2].

Desta forma, este estudo contribui para a compreensão do documentário animado não apenas como um gênero híbrido, mas como uma prática crítica, abrindo novas possibilidades para a representação da experiência feminina e das suas memórias.

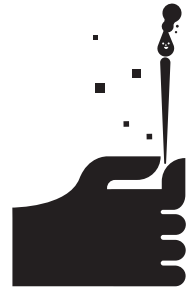
Referências

1. P. Wells, *Understanding Animation*. London, U.K.: Routledge, 1998.
2. S. Warren and C. Veras, *Feminist Animated Documentary: Ways of Confronting Violence against Women*. London, U.K.: Bloomsbury, 2025, doi: 10.5040/9781350422933.
3. R. Richards, “Nothing But Paper and Ink”: Metamorphosis, Memory, and Trauma in “The Hat,” in *Animation and Memory*, M. van Gageldonk, L. Munteán, and A. Shobeiri, Eds. Cham, Switzerland: Palgrave Macmillan, 2020, pp. 145–162, doi: 10.1007/978-3-030-34888-5_8.
4. A. Honess Roe, “Animated Documentary and the Reclamation of Lost Pasts and Forgotten Memory in *Irinka and Sandrinka and Waltz with Bashir*,” in *Animation and Memory*, M. van Gageldonk, L. Munteán, and A. Shobeiri, Eds. Cham, Switzerland: Palgrave Macmillan, 2020, pp. 219–236, doi: 10.1007/978-3-030-34888-5_12.
5. I. M. Martins and D. Tavares, “Documentário animado, uma estratégia para biografias: o caso Ryan,” *DOC On-line: Revista Digital de Cinema Documentário*, no. 9, pp. 80–106, Dec. 2010.
6. A. Honess Roe, *Animated Documentary*. Basingstoke, U.K.: Palgrave Macmillan, 2013.
7. N. Ehrlich, *Animating Truth: Documentary and Visual Culture in the 21st Century*. Edinburgh, U.K.: Edinburgh Univ. Press, 2021.
8. [n] Terra Brasil, “‘Carne’ é nova aposta do Brasil para o Oscar,” YouTube, 22 jan. 2021. [Online Video]. Available: <https://www.youtube.com/watch?v=wmsEr-ii774>. Acessado: 8 Fev. 2026.

Illustration as Regenesi

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Abstract

In the space surrounding recreated artefact, tailwinds of re-birth issuing from process engender materialisation of certain virtues which inhere in illustrating (as a form of artefact production). These values are framed within and include intentional ends, but they are also emergent as particulars. In this paper, we explore some of those values, including re-visualisation, enrichment, contextualisation and enlightenment. We draw on some of the works of early Renaissance architectural theorist, Leon Battista Alberti, to reify our observations.

Keywords

Illustration; Architecture;
Leon Battista Alberti;
Proportion; Renaissance.

1. Introduction

In this paper, we will address the power of illustration to produce a new birth of an idea that had existed at some point. Re-birth, we will argue in this case, enacts elevation of the idea. Illustration has capacity, we shall submit, not just to deposit merely a replica in the process of re-birth, but it casts a genetic stock which allows transcendence of the nature of or boundaries of the original idea. For the purpose of this paper, we shall turn to the work of Renaissance architectural theorist, Leon Battista Alberti, to support our articulations of the capacities of illustration.

2. Alberti: Theorist of Early Renaissance

Leon Battista Alberti (1404-1472), wrote Szoradi [1], was the “first and most important theoretician of the early Renaissance” (p. 150). In order to build, he believed one must theorize. For him, theorizing was a high form of practice. In helping to spur intellectual interrogation, he helped raise the status of architecture to a high art. That re-defined architecture is the one that we know today.

Grafton [2] observed that although architectural commentary was widely practiced in 15th-century Italy, “no one did more than Alberti to forge a language for discussing the built world and to found it on rich theory and observation” (p. 262). It was Alberti, embracing the “Vitruvian idea of art as a combination of theory and practice” [3, p. 131], who made sense of Vitruvius and the views of other writers since antiquity for a modern audience [4]. This does not mean, though, that

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Alberti fully conformed to Vitruvius, the much earlier writer of a treatise on architecture, who saw antiquity as confirmed exemplar. Alberti did not advocate complete devotion to the ancient past. As Payne [5] wrote, “Alberti does not dwell on the past, on how things were done... instead he turns to the future, to a new order of building” (p. 72). For Alberti, Payne added, “antiquity is a location *from* [emphasis in original] which the present takes its cue not *toward* [emphasis in original] which it travels” (p. 73). In the quattrocento, Alberti was the first theoretician, working within a broader cultural debate, to formulate a “new approach to precedent rules and knowledge” [6, p. 1].

Alberti focussed on search for beauty in architectural design. For him, beauty was linked to nature and reason. Beauty was the absolute law that defined nature and, for that cause, order inherent in nature demanded its role in articulation of beauty [3]. He defined beauty as “congruity or *concininitas* [original italics].” Beauty is “a harmony of all the parts, in whatsoever subject it appears, fitted together with...proportion” [3, p. 106]. His vision and prescription for beauty were most visibly mathematical. He had a mastery of mathematics and geometry and endeavored to “turn such pure knowledge into practical advantage” [4, p. 13]. Addressing architecture, he saw the building as “a kind of body” possessing properties of a “relational and rational kind of unity” through the “proportional arrangement of its material parts” [3, p. 104].

In the contemporary age, in architecture, we routinely theorize about and in conjunction with the act of designing. While this art of theorizing has evolved collectively, its formalization and consequent undeniable impact on practice and scholarship have often been introduced with an eye to Alberti.

3. Renaissance through Illustration

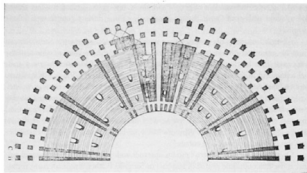
In the following sections, we shall describe four terms of re-birth engendered through illustration. Let us begin, though, with a word on the type of illustration we shall be discussing. As already indicated, we shall be drawing on the work of Alberti. The illustrations will largely be technical illustrations. As Alan Male [7] has described it, technical drawing’s chief concern is to provide clear insight and understanding into structure, function and mechanics of the subject (p. 114). Thus, it acts as an effective instructional medium. Illustration, he wrote, “is the only discipline within the realm of the visual arts and communications that explains or elucidates information” (p. 90). Both outcome and process of illustrating can function to attain that end.

Rhetoric, some have argued, is embedded in visual forms of art [8]. Visual rhetoric is a discursive field that emerged in the late 20th century. Proponents argue that “visual images provide access to a range of human experience not always available through the study of [verbal] discourse” (Foss, in [8], n.p.). It has been argued that visual rhetoric is capable of providing an argument to us. An argument, in turn, “provides reason for a conclusion” (in [8], n.p.). In the following sections, those conclusions are forms of elucidation and learning.

Before we end these observations, a note on presence of aesthetics in visual technical representation. Kostelnick [9] has argued for historical compatibility between the two when appropriate or deemed to serve a purpose. Aesthetics have rhetorical impact in communicating with an audience. (Kostelnick included an example of 19th century French architect, Viollet-le-Duc's, drawing. The reader can see it in the cited reference.) Relative to our current paper is Kostelnick's argument that, *inter alia*, fine descriptive detail (which we shall see in some of the illustrations below) is a manifestation of beauty.

Illustration as Re-Vernacular(isation). An idea might have existed originally in a different form—for instance, as text or as oral knowledge. In revisitation, illustration provides opportunity to change its expression into graphical imagery. We provide a few examples below, all of them adding to our capacity to visualize an idea in a more “active” way.

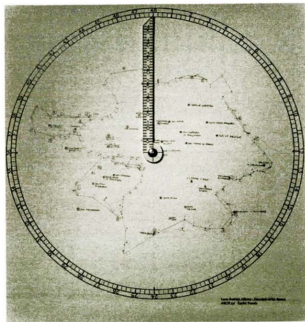
In his archetypal treatise on building, *De re aedificatoria* (published in 1485), Alberti discussed “show buildings.” [10, p. 268] Among them, any “shaped like a moon on the wane,” he said, “are called theaters.” (p. 270). He set out character of a theater in fair detail. It has a clear open area,



stepped seating and a raised stage “at the mouth.” (p. 270). All are placed in a semi-circular area. He went on to describe height of steps, height of theater in relation to width of the central area, where steps begin, seating tiers and several details of the stage. He laid out details of “a completely

perfect and satisfactory form of theater” (p. 271). Cosimo Bartoli, in a 1550 edition of Alberti's treatise [10, p. xxii], created an illustration, based on Alberti's description (though probably with some extra added), thus translating text into graphical form [5, pp. 73-74] (Fig. 1).

In Tavernor's [4] view, Alberti's search for truth and certitude of reason can be credited for his innovative effort to create “the first accurate cartographic mapping of the city [of Rome]”



(p. 13). He invented a measuring disc with a rotatable pointer pinned to its centre which could be pointed to align with landmarks of the city. Both disc and pointer were calibrated. Although he did not produce an actual illustration, he provided instructions that “allow the map to be drawn accurately on any scale” [11, p. 1]. Figure 2 shows a contemporary effort to convert Alberti's description to illustration.

In *De re aedificatoria*, Alberti described the doric order (among many other things). He began his description as follows: “The Dorians made their Capital of the same Height as their Base, and divided that Height into three Parts....The Breadth of the

Fig. 1. Illustration of plan of a theater, following Alberti's description, as produced in Bartoli's 1550 translation [in 5; also see 10, p. xxii, 272].

Fig. 2. Xavier Prouls reproduced map of Rome through following Alberti's instructions in *Descriptio urbis Romae*. [in 11].

Abacus every Way was equal to one Diameter, and a twelfth of the Bottom of the Shaft.” He continued, “This Abacus is divided into two Members, an upright Cymatium and a Plinth, and the Cymatium is two fifths Parts of the whole Abacus” [3, pp. 123-124]. Alberti’s description provided much more detail. That text has been converted into graphical form in figure 3 below.

Fig. 3. Doric order, based on Alberti’s description (in [3]).

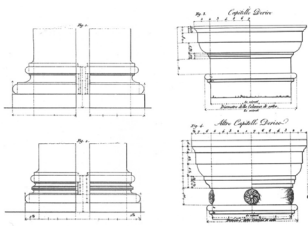
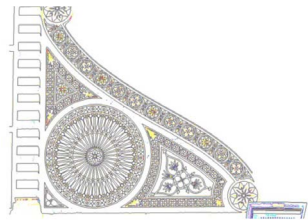


Illustration as Re-Articulation through Sophisticating. When new technologies appear and new competencies arise, they bring with them possibilities of representing or re-enacting the old in a new way. Thus, in illustration, we are able to witness variably-stated enhancements such as keener precision, more superior representation of conformation or clearer

integration of parts, distinctive legibility, finer eloquence, contextual vocality, and greater efficiency. The old is vivified. This is not addition of new constructs as in “Petri-dish(ing)” below, but an optimization of the existing so that it is more lucid, more evocative.

Some vivid re-illustrations of Alberti’s work have been produced. (See [12], p. 97 for top of front facade of Santa Maria Novella in Florence; Tavernor [4], p. 172 for front facade of Sant’ Andrea in Mantua.) In figure 4, we mimic such reproduction of a portion of top of the front elevation of Santa Maria Novella.

Fig. 4. Part of top section of front of Santa Maria Novella, Florence, Italy. (Author adaptation of [13; contour trace].



Ferrari and Medici [14] presented an ongoing large project in which 3D data capturing techniques (e.g. application of 3D laser scanner technology) were used to facilitate digital and analytical reconstruction of buildings and other cultural heritage. One sub-project focussed on the works of Alberti. Re-illustration enabled a more immediate contextual reading of plan

and section of San Francesco in Rimini (fig. 5). Their reproduction is not so much a mining of the hidden (next sub-section). The current illustrative form used a data-base created through new technology (3D scans of the visible-existing) to generate a new illustration. An illustrative form of juxtaposition and alignment of different diagram forms is then utilized for enhancement of communication.

Fig. 5. San Francesco in Rimini: Comparative delineation of different visual rhythms between original church framework (blue) and Alberti’s added envelope (red). (Ferrari & Medici [14]; image enhanced by this author--for legibility--to show Alberti’s rhythm.)

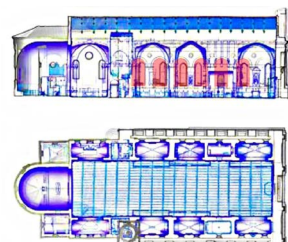


Figure 6 below is an illustration which presents Sant’ Andrea (Mantua) in its urban context [image from Archivo del Stato, Mantua, in 15]. Jarzombek [15] described Sant’ Andrea as a building which is not free-standing. It is “boxed in” on all sides except its front. The illustration

presented effects an immediate grasp of the building's integration into the urban fabric.

Illustration as Radiography(-ing). Illustration can be used to uncover or extrude what is buried in an artifact or what formerly existed as inaccessible detail. In that regard, illustration functions as a tool for archaeological exploration.

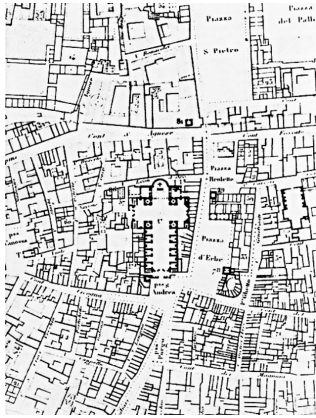


Fig. 6. Sant' Andrea in Mantua: Integration into physical context. (image from Archivio del Stato, Mantua, in Jarzombek [15].)

The San Francesco church in Rimini was never finished by time of its patron's death, and it remains unfinished (fig. 7). Alberti built a shell of Roman arches around the original mediaeval church. In figure 9 [16] illustration is used as a form of partial excision of the current (or probing beyond the current) in order to allow the old to be extruded and visualized underneath the new. Another extraction is effected through illustration: Although front facade of the church

remains uncompleted, by studying a medal, made by Matteo de'Pasti, which provided an impression of the church, Wittkower [16] was able to peer beyond the manifest and "complete" the facade (fig. 8). In essence Alberti's design intention (former, schemed, but obscured) is illuminated.

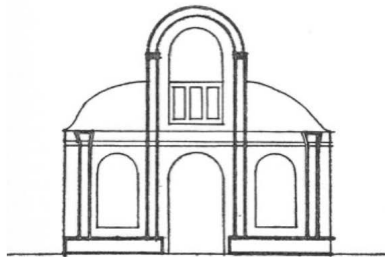


Fig. 7 & 8. Front elevation of San Francesco, Rimini as it exists today (Left: Fig. 7; [17]). Wittkower's extrusion intended to complete the façade (Right: fig. 8 [16]).

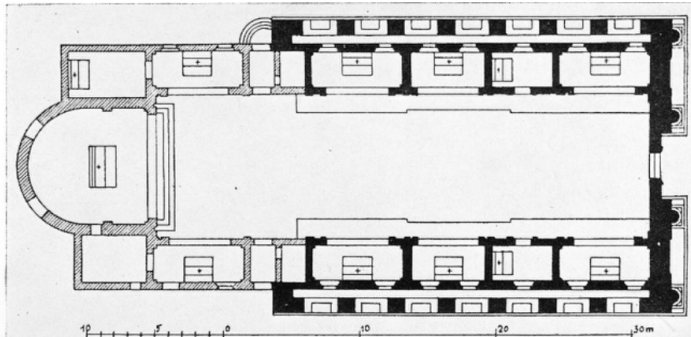


Fig. 9. Plan of San Francesco, Rimini, showing original form of the church (grey outline) beneath Alberti's built form [16].

Borsi [12] also provided an instance of the radiographic function of illustration. He presented a reconstruction of Alberti's plan over the 16th century apse of the old church (fig. 10).

Fig. 10. San Francesco in Rimini: Reconstruction of Alberti's plan (red) over plan of 16th century apse. (Drawn by author, based on Borsi [12]; base plan from Wittkower [16].)

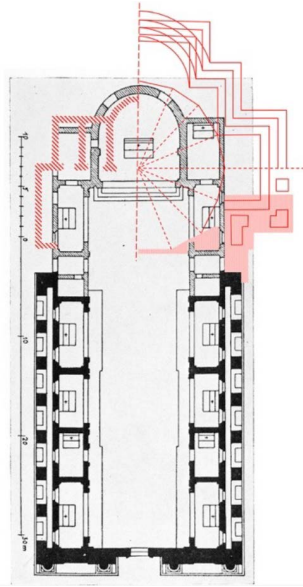


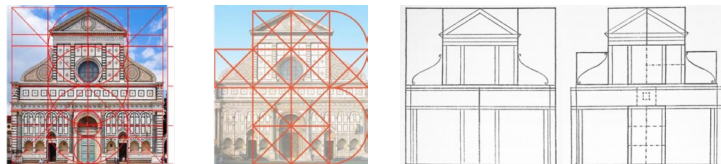
Illustration as Petri-dish(-ing).

Here, we define Petri-dish in terms of its function rather than its concurrent nature as a container. Petri-dish as container defines a bounded or isolated space which secures what actually takes place inside it and what it produces. Petri-dish as operational space presents as the naturalized state of evolution of new species as well as noegenesis of new ideas.

Petri-dish brings together a progenitor (e.g. a cell), an environment (physical/performative context-including content such as agar in a laboratory Petri-dish or other scientist-introduced compounds) and, delineated as such or not, an evolutionary possibility. That third property is rendered viable as a condition due to the morphological potentiality or vigor which exists inside a Petri-dish [18 & 19]. In context of the current discussion, progenitor is the original idea; environment is performative context of set of processes and techniques which illustrating affords, but also cogitative capacity of the proprietary or incumbent innovator; and evolution exists in the unfolded or emergent integrated idea (or ideas).

Inside Petri-dish of illustration, emergent ideas are given presence. Proportion (*concinnitas*) [3], geometry and rationalism [1] were central to Alberti's world-view and, consequently, design. Examples below mostly show application of mathematics (primarily geometry) to Alberti's work in Florence and Mantua. These later geometric overlays are akin to mathematical proof of a theorem--an external system, emerging from and superposed on an existing idea. Ultimately, it extends the original idea, codifies it as deepened knowledge and enriches its essentiality.

Fig. 11 - 13. Three schemes for illustration of proportion on facade of Santa Maria Novella in Florence, Italy. Top left (Fig.11): Geometry overlay by author, after Tavernor [4]; base image [20, image skew adjusted]; top right (Fig. 12): [21]; bottom (Fig. 13): [16].



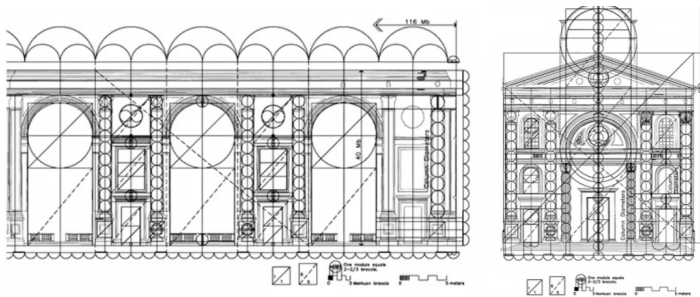


Fig. 14 & 15. Sant'Andrea, Mantua, Italy: Proportional elevational schemes. Left (Fig. 14): Nave south elevation. Right (Fig. 15): Front façade. [22]

4. Conclusion

In the current paper, we have submitted that a combination of the processes of producing illustration and the objectives driving each illustrating episode erupt certain virtues. Those values include such things as re-visualisation (different vernacular), enrichment (sophisticating), contextualisation (placement--ideative/evolutionary/ historic), enlightenment through emergence of new ideas/conceptualisations. All these lead to greater elucidation and enhanced “presence” of the original idea. These values of technical illustration are not limited to architecture alone. They are likely applicable to other types of technical and scientific illustration, as well as other forms (e.g. digital art).

References

1. Szoradi, C. A.: Alberti, Leon Battista. In J. A. Wilkes, & R. T. Packard (Eds.), *Encyclopedia of Architecture, Design, Engineering and Construction*: 149-154. New York, John Wiley (1988)
2. Grafton, A.: *Leon Battista Alberti: Master Builder of the Italian Renaissance*. New York, Hill & Wang (2000)
3. Gadol, J.: *Leon Battista Alberti: Universal Man of the Early Renaissance*. Chicago, University of Chicago Press (1969)
4. Tavernor, R.: *On Alberti and the art of building*. Yale University Press, New Haven (1998)
5. Payne, A. A.: *The Architectural Treatise in the Italian Renaissance: Architectural Invention, Ornament, and Literary Culture*. Cambridge, Cambridge University Press (1999)
6. Lefavre, L.: *Leon Battista Alberti's hypnerotomachia poliphili*. Cambridge, Massachusetts, MIT Press (1997)
7. Male, A.: *Illustration: A theoretical and contextual perspective*. Ava Publishing (2007) Male (2007)
8. Garcia, Z. R.: *Visual Rhetoric*. In *Oxford Research Encyclopedia of Communication* (2018) <https://doi.org/10.1093/acrefore/9780190228613.013.212>
9. Kostelnick, C.: *The Art of Visual Design*. *Technical Communication*, 67(4), 6-27 (2020) <https://www.jstor.org/stable/10.2307/27340192>
10. Alberti, L. B.: *On the Art of Building in Ten Books*. The MIT Press, Cambridge, Massachusetts (1989) (J. Rykwert, N. Leach & R. Tavernor, Trans.) (Original work, 1485).
11. Schwab, M. E.: Rome as “Part of the Heavens”? Leon Battista Alberti's Descriptio

- urbis Romae (ca. 1450) and Ptolemy's *Almagest*. *Journal of the History of Ideas*, 84(1), 1-27 (2023) <https://doi.org/10.1353/jhi.2023.0000>
12. Borsi, F.: *Leon Battista Alberti*. Harper & Row, New York (1977) (R. G. Carpanini, Trans.).
 13. iStock (elleon): *Detail of decorations of Santa Maria Novella church, Florence, Italy* (2015)
 14. Ferrari, F., Medici, M.: *Critical Analysis and Digital Reconstructions of Alberti's Architectures by the Use of 3D Morphometric Integrated Survey Database*. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, XLII-2/W3, 289-295 (2017). <https://doi.org/10.5194/isprs-archives-XLII-2-W3-289-2017>
 15. Jarzombek, M.: *IV: Postscript: Alberti as Architect*. MIT Press Open Architecture and Urban Studies: *On Leon Baptista Alberti* (2021) Jarzombek (2021)
 16. Wittkower, R.: *Architectural Principles in the age of Humanism* (3rd. ed.). Alec Tiranti, London (1967) (Original work published 1949).
 17. ArchINFORM: *San Francesco Church* (n.d.) ArchINFORM
 18. Giverson, C., Verani, M., Ciarletta, P.: *Emerging Morphologies in Round Bacterial Colonies: Comparing Volumetric versus Chemotactic Expansion*. *Biomechanics and Modeling in Mechanobiology*, 15, 643-661 (2016). <https://doi.org/10.1007/s10237-015-0714-9>
 19. Petre, C. V., Tanase, C.: *Changes in Morphology and Growth Rate of Fusarium Solani Colonies Exposed to Volatile Compounds Synthesized by Wood-Rotting Basidiomycetes*. *Journal of Plant Development*, 25, 107-118 (2018). doi: 10.33628/jpd.2018.25.1.107
 20. Shutterstock (Mistervlad): *Basilica of Santa Maria Novella, Florence, Italy* (2018)
 21. Nifosi, G.: *The facade of Santa Maria Novella in Florence by Alberti. The Renaissance age: The fifteenth century*. *Arte Svelata*. (2020, July 29) Nifosi (2020)
 22. Ytterberg, M. R.: *Alberti's Sant' Andrea and the Etruscan Proportion*. In: K. Williams & M. J. Ostwald (eds.), *Architecture and Mathematics from Antiquity to the Future, Volume I: Antiquity to the 1500s*, pp. 629-644. Heidelberg, Birkhäuser (2015)

Validating Voices Comics

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Abstract

In this paper, I will explore the use of comics as a vehicle to investigate this medium and to communicate challenging subjects, with a focus upon ACES (adverse childhood experiences) intersecting with four themes -Depression, Hidden Pain, Acting Out and Neurodivergence. The project, 'Validating Voices', was part of a larger, five- year UKRI funded research investigation titled 'The Attune Project'. This involved participants from universities including Oxford, Kent and Falmouth collaborating with diverse groups of young people around the UK with a view to investigate how Arts interventions might aid with mental health struggles.

Through my continuing research practice, I have further developed an awareness of the use of comics and graphic novels as a conduit to explore challenging subject matter and this growing interest brought me into contact with Anna Mankee -Williams, a researcher at Falmouth University ,who was involved with an important 5 year UK based research investigation named 'The Attune Project' in which the use of arts interventions were being explored as a means to opening up a dialogue with a diverse demographic of young people about their experiences of mental health issues. During our initial conversation I had mentioned that comics and graphic novels could be an accessible format through which to explore difficult subject matter and this led to a further discussion in which Anna mentioned that one of the researchers working on the project, Dr Siobhan Hugh – Jones , was interested in working with a visual practitioner who could develop some of the research material visually, as comics, that would be used to open up a dialogue with young people and those working with them, including social workers, therapists and staff in schools, about their experiences of invalidation by adults.

During the 5 year project, and working with diverse groups of young people, The Attune Project had harnessed a multi – modal approach to encouraging participation in these arts interventions, and these particular methods were used to engage the young people , who in addition to ACEs (adverse childhood experiences) had other challenges which could mean that one single approach might not be so successful in gathering data.

Keywords

Validating Voices;
The Attune Project;
ACES; Mental Health;
Depression; Hidden Pain;
Neurodivergence; Acting
Out; Falmouth University;
Oxford University; Kent
University; UKRI.

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‘Arts research and practice offer innovation and new solutions for psychiatric and mental health sectors, given conventional methods do not consistently serve the most marginalised groups, those living at the intersections of precarity, and those who find verbal and cognitive tasks too demanding. By drawing on the wider literature and our experience of delivering an arts and health research programme to improve support for young people who had adverse experiences in childhood, we discovered dynamic principles and conceptual and skills competencies that we hope add to the emerging guidance on interdisciplinary research.’ [1]

This was an exciting prospect, as through such a collaboration there could be opportunities for my research to evolve and develop further; in addition to academic research that I had undertaken, I was very interested in the exploration of practice – based research as a means to broaden my existing knowledge of comics and trauma and to collaborate with experts in the field of psychology. Such an approach, whereby researchers from various disciplines collaborate with a view to share their knowledge from a range of perspectives is a particular research approach that has gained traction over recent years, *‘being in the world, knowing and an ethical disposition are intra- connected. Indeed, the entanglement of different research approaches characteristic of HEI culture today is, in my view, productive ..And today, indeed, many arts projects engage with the sciences, with digital technologies and with socio-political issues [2].* As the Attune Project had already been running for almost 5 years, and was coming to the end of its course, I learnt that there were sufficient funds remaining that could be used to support the research, development and publication of 4 comics. *‘Funding might be sought for” research and development” (R & D), but this not quite the same as academic research, which requires establishing new insights within the academic sphere and sharing them in that specific domain’ [3]*

In addition to a more traditional and academic approach to undertaking research, I have had an interest in harnessing my visual practice as a means to research into and tackle challenging subject matter and the AT-TUNE project seemed the perfect vehicle through which to do so. *‘Practice based research is capable of bringing scholarly inquiries to broad interdisciplinary and non- specialist audiences. Illustrative strategies can be used to bring together different bodies of knowledge in order to present and communicate multifaceted perspectives surrounding a particular subject matter or concern.’ [4]* Through collaborating with experts working within the field of mental health and trauma, I realised that there could be opportunities for developing sequential narratives related to these themes and to personally put into practice strategies that I had become aware of through analysis undertaken during more recent academic research, into visual practices, and especially comics and graphic novels which explored traumatic narratives.

The theme ‘Practice as Research’ is a relatively new term within the history of academic research and still remains relatively under- represented in Higher Education as a more theoretical framework for gaining new knowledge and understanding has previously taken precedence. *‘As I read its history, the notion of “Practice as Research” emerged over the past four*

decades largely because the practice-based research of staff and students ... was not fully recognised' [5]. Nelson goes on to propose that educators and students have always created art in numerous forms, however it is only within the context of the HEI that they began to study these practices in terms of research projects. Nelson continues' *In my understanding, then, PaR is a modern institutional matter*' [6].

In his analysis, Nelson brings to light the conflict between HEI 'corporate' institutions and Art Schools and Conservatoires through which doing and thinking (reflection) led to new insights, rather than the more formal writing and analysis about practice as in HEI. Practice research is submitted to RAE/REF in the UK. *'In some universities, staff have been unable to secure tenure or receive promotion when their research is based in practice because the institution still struggles to understand it'* [7]. He describes Practice Research and Art Research as a means to distinguish them from a purely academic, theoretical based analysis.

Contemporary funding bodies stipulate that arts practice research should have some social impact or focus and the ATTUNE project aligned strongly with such intentions which resonated with my aims and piqued my interest in becoming involved. Over the past few years, I have undertaken research exploring traumatic themes and the ways in which sequential narratives including comics and graphic novels, can offer an important platform for disseminating such subjects, this research has also been presented at conferences and published.

Traumatic and challenging subjects have historically been a recurring theme as explored through the lens of comic books and graphic novels and their creators including) Jade Perkin's 'I'm Not Ready' (2019) 'Best Breasts in The West' (2024) Trishelle Jeffrey', Dave McKean's 'Black Dog' (2016) and 'Traces of Madness' (2024) written by Fernando Balius and illustrated by Mario Pellejer disseminated subjects that command respect and gravitas through their depictions of themes including death, Breast Cancer, psychosis, Post Traumatic Stress Disorder, war trauma and mental illness.

Through my research, I have discovered that strategies used by comic book and graphic artists, can be powerful in their ability to communicate challenging themes such as trauma. In his visual practice, Nick Sousanis *'defies disciplinary boundaries and epistemological hierarchies, advocating that visual thinking allows us to access dimensions of reasoning that escape the linearity of verbal language.'* [8] This is particularly relevant for the exploration and depiction of trauma narratives, which by their very nature, can be defined by their lack of a cohesive linear structure.

In the case of 'Black Dog' by Dave McKean (a graphic novel exploring the devastating effects of war on the artist Paul Nash) it can be understood that certain panelling techniques offer unique strategies able to visually communicate complex, abstract concepts including the fragmentation and disruption of memory as experienced by those diagnosed with PTSD and the ways in which trauma can impact upon both mind and body. Theorist Cathy Caruth has documented the elusive and fragmentary nature of trauma - through trauma analysis it is understood that words and distinctive 'film-like' memories are lost and that the brain stores trauma in ways different to

normal memories. Those working in the field, including Bessel Van der Kolk, suggest that traumatic memories are not retrieved through complete 'video-like sequences' but through other modalities including bodily sensations and that the central nervous system, in particular, is affected.

Through my initial conversations with Anna Mankee – Williams, we discussed the unique role of comics in their ability to convey challenging themes and also their accessibility for a broad range of audiences. Neuro Divergent people, in particular, can find them easier to engage with than purely text - based information. An article on the BBC website mentioned a study by researchers at Cambridge University,

'Co-lead Prof Jenny Gibson, an expert in neurodiversity and autism (described the project as "kick-starting a wider conversation about comics and autism. Comics seem to have massive appeal for a surprising number of autistic people, and many of them are not just fans but enormously talented cartoonists, artists and illustrators," she said. "This is something the comics community is increasingly aware of, and there is a lot of enthusiasm for becoming better allies for autistic people." [9]

The combination of word and image is powerful. In trauma, language and memory can be disrupted. During the spring of 2025, I became involved with the final part of the UKRI funded **Attune Project**, an Arts and Mental Health research project. My role was as the illustrator of 4 comics designed to visually communicate and address the invalidation of young people with mental health and physical disability issues which also intersected with **ACEs** (Adverse Childhood Experiences). *'Adverse childhood experiences (ACEs) are distressing events that may occur in a young person's life. These may include, but are not limited to; experiences of psychological, physical or emotional abuse, neglect, loss of parents or siblings. The term ACEs encompasses potentially traumatising events that occur as a result of deliberate, intentional harm, as well as events that are unintentional in nature.'* [10]

'The Validating Voices' project was a sub - theme of the broader Attune Project, which evolved in response to findings by researchers working on the overall project, who had found that a repeated narrative was emerging as young people voiced their concerns of not being believed when reporting personal issues, or having their perspectives minimised, often by those working in the helping professions. One of the aims of the project was to bring to light to and address such invalidation, using arts interventions as a catalyst to disrupt existing narratives and encourage change. This is of course, a bold claim and those involved with the initial design of the project were tasked with the challenges of developing a study which sought to tackle such issues and find out if such interventions could actually be a catalyst for change.

'Objectives

This multi- site study seeks to understand the lived experiences of adolescents (10-24) in England regarding ACEs. Specifically, the study's primary research questions are:

1. *What are the and psychological and geo socio -economic contextual mechanisms by which ACEs unfold to affect or safeguard the mental health of YP (aged 10 – 24)*
2. *Do creative and participatory arts approaches facilitate the generation of new and transformative experiential data to improve understanding of mechanisms, and actions for prevention and care interventions* [11]

The ethical implications of working with a group of vulnerable young people required extremely careful assessment and planning with clear intentions to mitigate for and prevent further harm being caused. Specialist clinicians were on hand throughout the process to fully support the young people participating in the process. The entirety of the project was assessed and ethically approved by the University of Oxford Medical Sciences Inter-Divisional Research Ethics Committee (R71941/RE001) and the NHS Health Research Authority Committee (23/WM/0105). Clearly, there are ethical concerns that need to be carefully considered before embarking upon any such project, and the psychological safety of those participating is of utmost importance. Psychotherapist Ellie Baker and psychologist Dr Siobhan Hugh-Jones were always present throughout the duration of the Validating Voices comics research project, they facilitated the online group meetings with the young people and were careful to support them and listen to any concerns that were brought to the meetings.

Working with a group of young people can pose ethical issues, and researchers in this project worked hard to ensure that power dynamics between young people and adults were equalised as much as possible and that the young people had a voice in how their information and experiences were used. The young people were seen as co-researchers in the project. Data gathered was carefully stored in alignment with the GDPR guidelines.

My initial role in the collaboration involved participating in a series of online meetings with Dr Siobhan Hugh-Jones (Leeds University), Ellie Baker (Cornwall based Arts Psychotherapist) and a diverse group of young people of varying ages who - during the process, shared their lived experiences of invalidation by social workers, therapists, health workers, teachers and other adults.

The aim of the comics was to communicate to those working with young people the various ways in which invalidation impacted upon them and to provide them with a voice and once published the comics were distributed to those adults working within schools, health settings and therapeutic practices with the intention of discussions taking place between the young people and adults as a catalyst to open up conversations about their experiences of invalidation. The comics were designed to align with the following themes:

Depression Neurodivergence Hidden Pain Acting Out

In my role as the illustrator, I was responsible for the design, illustration, hand lettering and layout of the comic interiors and front cover image, and also for visually interpreting the narratives and conversations that emerged through the online meetings. I began by researching the **Attune**

Project website, having had an initial conversation with Anna Mankee - Williams who was a key member of the broader research group. I listened to a range of podcasts relating to the over - arching theme to gain a deeper understanding of young people's experiences of mental health and invalidation, to further explore ways in which engagement with the Arts could empower them and enable their voices to be heard.

From both historical and cultural perspectives, comics and graphic novels as a form had been well utilised to explore themes of a more traumatic nature and that in recent years the use of such formats to explore challenging themes was rapidly expanding. Through further online research I recently discovered the Graphic Medicine website, which uses comics and graphic novels as a conduit to explore healthcare themes of a biological and psychological nature, and which hosts an annual conference related to the theme. Several of the titles featured on the website are alluded to earlier in the paper. The founder, Ian Williams first created the term. *'Williams is credited with coining the term 'graphic medicine' as a handy term to denote the role that comics can play in the study and delivery of health-care ...The number of health - related memoirs in comics form has grown in the past five years (as documented in the last six occurrences of the Graphic Medicine conference.) While much of this has biomedical Context, publications relating to mental health conditions are also evident. Instances include autobiographical and fictional where the experience of living with a particular mental health condition is either at the core of the story or an underlying theme.'* [12]

Great care was taken throughout the development of the comics, not to identify any single person's narrative, but rather to represent a more generic range of voices, experiences and diversities. During the initial stages of creating the comics, primary research in the form of participating in group meetings with Siobhan, Ellie and the young people required my careful listening, whilst note taking and asking pertinent questions to ensure understanding. *'The practice of listening occurs in any method where a dialogue or conversation is interpreted. There are many practices that involve speaking and listening in order to gain information or understanding...Group discussions can encourage dialogues between people who converse through responding to one another. This can be a strategy to gain insight from within social groups or communities where the relationships, dynamics and shared knowledge are as useful as the content of the conversation.'* [13]

Fig. 1. Linda Scott.



This was followed by a process of mind mapping, storyboarding, character design and particularly in the case of the depression narrative, considering ways in which I might visually represent the emotional tone of the experiences of the main character Shazna and how I might explore visual disruptions of the sequential chronology to mirror her experiences of trauma. Shifts in colour and visual representations of body language were harnessed as a strategy for communicating her internal state.



Through the process of producing a series of visual narratives that were co-created by a group of adults and young people, and as the theme was their experiences of invalidation by adults, it was crucial to ensure that the voices of each participant were heard,

Fig. 2. Linda Scott.

honoured and included in the comics. In addition to group conversations, some of the participants also created and added sketches and drawings to our TEAMS channel to more easily communicate their ideas. At each stage of the initial planning, I also uploaded thumbnails and sketches to the channel to enable the young people, Ellie and Siobhan to share their feedback, so that the process and final outcomes would be a true exercise in collaboration. *'The questions that the dialogic readers ask, illuminate the pivotal role that 'possibility thinking' and the positing of ideas and suggestions take in the co-construction of meaning of visual texts. The strategies are also potentially indicated through specific linguistic markers that are evident ... The comprehension strategies ...are closely tied to the affordances of the metaphorical dialogic space of possibility, as they enable the co-construction of meaning to follow different lines of enquiry based on the negotiation of provisional meanings.'* [14]

Through further verbal discussions, the group explored and identified themes connected with the comics and each member provided examples of their own experiences of invalidation and verbally described how that felt. Several members of the group also articulated their experiences visually, sharing images during the meetings and sharing documents that could be accessed by the group. I adapted some of these initial images and these eventually became integrated within the comics. Throughout the process of the development of the initial character designs, I sought to create characters that would aim to embody some of the challenges experienced by the young people and to do so, I took an empathic approach, imagining how they might feel, and was also able to gain further understanding through connecting with my own personal experiences (theory of mind) of invalidation which led to being more able to visualise and communicate how they felt about being invalidated. Reading through the initial storyboards together with group members online, enabled further productive conversations about each participant's personal experiences of invalidation and provided opportunities for feedback and amendments to be made, where necessary. *'Recounting an experience is a reflective act; it requires editing, organising and articulating information. Any telling will include excluded information, disrupted chronologies and a sense of time regarding what and where things took place.'* [15]

In the first of the comics to be developed, 'Depression' it was decided that the audience did not need to know why the character Shazna was depressed. It was more important that the narrative focused upon her declining state of mind which was visually communicated through a shift in tone, colour and body language, starting with the initial panels and then documenting her deepening depression, the colour palettes changing from vivid, bright colours to muted, monotonous to reflect her mood. Body language and

Fig. 3. Linda Scott.

facial expression were also key to conveying her unhappiness (alongside the limited verbal language) to depict how she was struggling to articulate how she was feeling.

The writing into the steamed - up mirror further communicated and reinforced her worsening emotional landscape, the inclusion of dark cloudy media surrounding her aimed to depict the feelings of alienation and isolation experienced by those with depression. I decided upon coloured inks to render the comics as they offered a fluency that might not be afforded with other media,

I was also able to allow the darkness of Shazna's depression to 'bleed' out and impact upon her surrounding environment but also reinforce the sense of separation that she was feeling.

Through an earlier analysis of an adaptation of Octavia Butler's novel, 'Kindred', I became aware of John Jennings' visual representation

of the main protagonist Dana's traumatic journey back in time through a circular portal. I interpreted this visual representation as a manifestation of 'the Trauma Vortex', author Peter Levine's term for the magnetic pull back in time experienced somatically by those reliving, in the present moment, traumatic memories. With this knowledge in mind, I aimed to visually depict Shazna caught within her own 'Trauma Vortex' but without any specific reference to what had happened to her in the hopes that this representation might resonate with some of the members of those young audiences (10 - 24) and adults who would read the comics.

The final comic narratives unfold through a combination of image and conversational text, with each story being prefaced by an introduction written by Siobhan and Ellie, which outlines the harms caused by repeated invalidations and how adults can

**Fig. 4.** John Jennings.**Fig. 5.** Linda Scott.

help support young people through intentional validation. Also included were suggestions about how to use the comics and the information here was created by Siobhan and Ellie). Each comic concludes with an overview of examples of invalidation designed to educate those adults who are in supporting roles with young people. These include a lack of empathy, rushing or ignoring conversations, not believing or minimizing their experiences and also provides examples of empathy, including the term 'Listening to Understand', showing acceptance of a young person's identity and personal experiences.

Later in the process of developing the comics, Ellie was instrumental with refining the language used, to ensure that there was no additional unintentional invalidation occurring and that terminologies used were respectful. We also discussed the role of the adults in the narratives, as although the invalidation was attributed to them, we also wanted to ensure that their voices and perspectives could also be acknowledged, for example in the case of the teacher who had been impatient with Shazna, we thought it important to show his perspective and ability to self-reflect with regards to his behaviour and ultimately adapt this to become more understanding and empathetic of the character's ongoing struggles.

In their recent published reflection and analysis of introducing art interventions as a possible tool for supporting those with ACES (also intersecting with other mental health issues, including PTSD and neurodivergence) the researchers, including Anna Mankeewilliams, Siobhan Hugh-Jones and within the context of participatory research projects in which young people play an active role, outline the benefits of a 'gradual exploration' of certain issues whilst participating in research projects, and the enabling of a 'survivor' to exercise a certain amount of control over their exploration of some of the issues they might have encountered. *'there are ethical concerns about triggering disturbing experiences without appropriate support by a clinician or therapist, thus highlighting the need to always take participant safety into consideration when working with vulnerable individuals.'* [16]

Clearly, there are ethical concerns that need to be carefully considered before embarking upon any such project, and the psychological safety of those participating is of utmost importance. Psychotherapist Ellie Baker and psychologist Dr Siobhan Hugh-Jones were always present throughout the duration of the Validating Voices comics research project, they facilitated the online group meetings with the young people and were careful to support them and listen to any concerns that were brought to the meetings and followed up after the project concluded.

Working with a group of young people can pose ethical issues, and researchers in this project worked hard to ensure that power dynamics between young people and adults were equalised as much as possible and that the young people had a voice in how their information and experiences were used. The young people were seen as co-researchers in the project. Ethical approval and guidance were always provided from the institutions in which the researchers work, and data gathered was carefully stored in alignment with the GDPR guidelines.

Conclusion

Through my collaboration with experts working in the field of psychology and with a specially selected group of young people, we were collectively able to create visual in the form of 4 comics that aimed to resonate with young people who had intersections both with ACES and other challenges. My role as the illustrator was very much as an interpreter and conduit for crystallizing and visually communicating complex themes which aimed to resonate with young people in the UK and those adults working with

them, to bring understanding around themes of invalidation and validation. Although the aims of the broader Attune project were to foster deeper understanding between young people and adults and to find possible solutions to invalidating experiences, there were unexpected outcomes with regards to the young people's personal experiences of participating in academic research projects:

'Young people talked about researchers using 'their words,' 'their data' to position young people within a research project in a particular way that was not necessarily of the young person's choosing and, in doing so, limiting their agency (a term discussed further below). Academics, particularly those working in the social and medical sciences, perceived that 'research' has 'an air of formality' that 'sits in certain contexts and paradigms' involving a 'process of structured enquiry' (C) that may, despite best intentions, create distance and inequity between academic researchers and participating young people... The young people's perception that research was often 'done to' them, despite efforts to create equitable and safe spaces.. If this challenge is not adequately addressed, involving young people in the research process might ultimately cause more problems than it solves. It can, for example, lead to young people feeling exploited by researchers for their knowledge, or even to the potential exacerbation of the issue the research project is ostensibly seeking to address [17]. Perhaps this perception, as experienced by young people, is understandable, as although the research process in the instance of the collaborative comics aimed to provide an equitable experience for them, the ultimate power inevitably lies with the researchers, who apply for funding, edit and shape the words and images, facilitate the group process and who are usually aligned with powerful institutions.

In my role as the illustrator and character designer, I made sure that no character resembled any of the participants, and that their challenges were more an amalgam of information I had taken from the podcasts, conversations in group meetings, my experiences of working with young people with similar challenges in Higher Education and a more general understanding having extensively researched into psychology over the years. One of the participants involved in the group research process, was a wheelchair user and was quite vocal that one of the illustrated characters should be featured in a wheelchair, so her request was accommodated in the Neurodivergent themed comic. It is not always possible to understand what a young individual might be experiencing whilst working with adults, due to them not always feeling empowered that they can voice their concerns in a group setting or having the language to do so. This information is invaluable for the researchers, in future, to understand what might be changed to address such issues. Feeding back after the project, some young people involved disclosed dissatisfaction at particular ways in which they experienced their role in the research process.

'However, young people presented a far stronger sense of power asymmetry and 'othering' in their responses, which conveyed a perceived lack of ownership of the research process. Young people talked about researchers using 'their words,' 'their data' to position young people within a research project in a particular way that was not necessarily of the young person's choosing and, in doing so, limiting



their agency (a term discussed further below)' [18]. The comics were distributed at a final conference event at Falmouth University during the summer of 2025, hosted by the group of young people, which was a very moving event. Initial feedback was that the comics had been very well received and one of them, in particular, the Hidden Pain comic, had opened the eyes of at least one practitioner, in terms of how not being believed added extra layers of pain to those young people who already felt unheard and powerless.

Fig. 6. Linda Scott.

As funding for further research into the potential impact of the comics had not yet been acquired at the time of writing this paper, we are yet to gain a reasonable understanding of the comics in their ability to disseminate challenging themes affecting young people and to understand, more fully how the young people involved in the project had perceived how their experiences had been developed as a body of visual communication.

Further developments of this project will include a submission of the comics (supported with a written overview) to the Graphic Medicine website with the aim of being published later in 2026.

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References

1. <https://www.routledge.com/Routledge-Handbook-of-Arts-and-Health/Holt-Tischler-Corvo-Vougioukalou/p/book/9781032546957,2026>
2. Nelson, R. (2022) Practice as Research in the Arts (and beyond). pp 4 Palgrave McMillan,
3. Nelson, R. (2022) Practice as Research in the Arts (and beyond). pp 5 Palgrave McMillan,
4. Fauchon, M, Gannon, R.(2021) Illustration Research Methods, pp186, Bloomsbury
5. Nelson, R. (2022) Practice as research in the Arts (and beyond). pp 11 Palgrave McMillan
6. Nelson, R. (2022) Practice as research in the Arts (and beyond). pp 13 Palgrave McMillan,2022
7. Nelson, R. (2022) Practice as Research in the Arts (and beyond). pp 15 Palgrave McMillan,
8. Sousanis, N. (2025) Confia 25, Sousanis, N pp 5 Insituto Politecnico do Cavado e do Ave,
9. <https://www.bbc.co.uk/news/articles/ceq9rejp320>
10. Hugh-Jones, S, Mankee - Williams, A. (2025) Exploring Differences and Similarities in How Researchers and Young People Understand Key Terms in Youth Mental Health Research

11. Hugh-Jones, S, Mankee – Williams, A. (2025) Exploring Differences and Similarities in How Researchers and Young People Understand Key Terms in Youth Mental Health Research
12. Farthing, A, Priego, E. (2016-02) The Comics Grid, Vol.6 (1), p.3 pp 1-2
13. Gannon, R, Fauchon, M. (2021) Illustration Research Methods, pp 72, Bloomsbury
14. Maine, F. (2015) Reading together: Transactional Strategies for Making Meaning
15. Fauchon, M, Gannon, R. (2021) Illustration Research Methods, pp,73, Bloomsbury,
16. Anna Mankee -Williams, A, Bhui, K, Shakoor, S, Otis, M. (2022 – 12) Nature Communications, Vol.13 (1), p.7870-5, Article 7870
17. Mawn et al., 2016; Totzeck et al., 2024; Schmid and Garrels, 2024; Wyatt et al., 2024.’ Hugh Jones, S, Mankee- Williams, S, et al
18. Raginie, D, Pavlopoulou, G, Hugh-Jones, S, Shaughnessy, N, Herbert, R, et al. (2025) Exploring similarities and differences in how researchers and young people understand key terms in youth mental-health research Scholarly Journal, Humanities & Social Sciences Communications; London Vol. 12, Iss.1): 1521.

A Portrayal of Longing in Transnational Families: A Case Study of the Children's Picturebook "Maribel's Year"

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Abstract

This article presents a case study on 2023 picturebook "Maribel's Year" by writer Michelle Sterling and illustrator Sarah Gonzales. The central theme of the discussion is the representation of absence and longing within the context of a transnational family through imagery. The analysis examines the resources used to represent feelings and personal dynamics, as well as how the narrative emphasizes resilience in the face of the reality of a transnational family. Furthermore, the article includes part of a interview with the book's illustrator, Sarah Gonzales, and explores her collaborative work with the textual content and how the narrative was interpreted through a cultural and visual perspective. Additionally, it comments on the function of the picturebook as a connecting artifact around sensitive themes.

1. Introduction

Transnational families are "families that live some or most of the time separated from each other, yet hold together and create something that can be seen as a feeling of collective welfare and unity, namely 'familyhood', even across national borders." according to Deborah Bryceson and Ulla Vuorela [6].

The concept of transnationalism and transnational relations is not recent, being present throughout the 20th century, however the modern migratory framework of the concept is attributed to the decade of 1990 [1] after which in 2002, the term "transnational families" was largely introduced in "The transnational family: New European frontiers and global networks" [6][1][7].

The phenomenon of families separated by long distances has become increasingly common in the 21st century, especially in migration contexts. According to the Migration Data Portal [15] powered by collaborating organizations of the European Union: 43% of permanent migration flows to countries of the Organisation for Economic Co-operation and Development (OECD) in 2023 were due to family reasons; 2,519,700 migrant families moved to OECD countries in 2023; 678,900 migrants moved to OECD countries in 2023 to accompany family members.

Picturebooks exist and have existed for various purposes. Often, the interest lies in literacy, or in the sharing of life lessons, but there is also a fun-

Keywords

Picturebooks; Emotional Connection; Absence; Illustration; Transnational Families.

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damental space and need for such books to serve as channels for addressing themes that are often sensitive for young and grown readers alike [10].

Centered on the themes of absence and longing within transnational families, this article proposes to exemplify and analyze the case of a picturebook, “Maribel’s Year” [20] by Michelle Sterling (text) and Sarah Gonzales (illustration). The book addresses these subjects through images and written narrative, but more importantly, the storytelling emerges from the interconnection between signs. Further, this analysis will be conducted with firsthand insights from the book’s illustrator, and additionally will be part of the theoretical basis for the first author’s master’s dissertation, currently in development.

2. Methodology

For this investigation, several key methodologies were applied. It began with extensive research on which children’s picturebooks met criteria for data collection and analysis, including: the theme of longing, the approach to absence, empirical discussion of those feelings, and transnational families’ portraits. The research took place from 2024 to 2026, drawing on already published papers and studies, database analysis, bookstores, online marketplaces, small publishers, and recommendations from peers and professionals.

Over the course of this timeframe, a few important observations were made. First, a majority of the books that met the criteria were published in North America or the UK, specifically in English. Second, within this pool of published books, many addressed the context of families that were separated due to a family member serving military service abroad [22][18][9][16][17] or, on the other hand, immigration usually due to sensitive topics such as warfare and poverty [12][19][8]. Neither of the contexts excluded books from possibly being analysed, however it was an undeniable observation.

“Maribel’s Year” was selected as the subject of this article because it offers a different perspective from most of the books reviewed. In the majority of those books, the story is told from the point of view of an adult contextualizing and explaining to the child why the families live apart. The child tends to have a passive place in the story, sometimes reserved for the role of incomprehensible agent. In “Maribel’s Year”, the storyteller is the child herself, and through her lens the reader can comprehend the meaning of transnationality and the emotional connection the family holds.

Furthermore, in the case study of the picturebook, the images were contextualized according to predetermined criteria of composition of the images, use of color, character design and the representation of the textual narrative through the images. Also relevant to the analysis are concepts of iconography, particularly those paralleled by Theo Van Leeuwen in “Semiotics and Iconography”, regarding representation and how sometimes over an iconographical lens what is recognized could be done based on the personal background of the reader, specially in the case of “Maribel’s Year” where the reader might not be familiar with the cultural references being illustrated, but through contextual references and text descriptions an emotional relationship with the book can be created [21].

The visual study is conducted regarding what the images represent but also exploring what ideas or values it can imply in the context, most knowingly established by Roland Barthes over the visual semiotics [3][4] as described as denotation and connotation, respectively.

Finally, a semi-structured interview was conducted with the illustrator of the book "Maribel's Year", Sarah Gonzales, which allowed for the collection of more nuanced insights into the project and greatly aided the analysis of the images.

3. What happened in Maribel's Year?

"Maribel's Year" [20] is a picturebook published in 2023 by HarperCollins, featuring a story written by Canadian author Michelle Sterling and illustrated by Filipina-Canadian artist Sarah Gonzales [13][14]. The book's text narrative is divided by months, telling the reader, like in a diary, about Maribel's year as she moves countries. Simultaneously it explores the longing and connection she feels to her father, who remained in her original homeland.

It is introduced that Maribel's original homeland is in the Philippines, and with no specifics, she has to move to a presumably North American country just with her mother, where her father, a very important figure in her life, is not able to join them during this impactful year. Culture, climate, and socialization all become points of conflict for the child.

In the criteria of longing, the approach to absence, there are many instances in the story where that is mostly what the reader has access to.

"January

First steps, first snow.
New country, new home.

I miss the swish of fresh carabao milk
On our doorstep every morning.
And friends and family
Dropping in for merienda
And chats in our courtyard.

Here it's quiet steps
Quiet everything." [20]

The young girl defines a parallel complex relation to what she is experiencing and what she used to experience, and by extension, what is probably still her father's reality in the Philippines. From weather to holidays, from the daily rituals as simple as feeding the fish on their pond, to making handmade lamps in her father's workshop for one of the most important holidays of the year.

There is deep pain in her experience, but also great resilience in her reports as the months go by.

3.1. The split connection between memory and reality

One of the main visual resources used to represent the parallels Maribel narrates is a flowing diagonal where color, texture and figurative elements divide the double spread pages of the book, affecting both the composition and the reading flow. This asset creates an important visual break between reality and memory, reinforcing the subtext of longing and reaching toward the past. Sarah Gonzales expanded the use of this tool:

“I think visually, how I wanted the spreads to look, I always have everything composed as a spread versus separate spot illustrations in a shape kind of thing. I wanted everything to flow and that ties into the idea of seasons, seasons flow. Everything is going to flow and blend together. And in a way, that’s what it feels like, an immigrant experience, you’re blending the culture that you have in front of you, your surroundings, but then you have the culture that you are, that’s ingrained within you. So there’s a play between what’s on the outside and what’s on the inside and how do you blend those two things together?” [11]

Fig. 1. Pages 3 & 4 from “Maribel’s Year”, image available at <https://sgonzalesart.com/Maribel-s-Year>.



The choice to do an oblique slice of the double spreads works in favor of the emotions conveyed by the story for a few reasons.

Fig. 2. Pages 33 & 34 from “Maribel’s Year”, image available at <https://www.youtube.com/watch?v=7cJcNzIK4o8&t=217s>.



Fig. 3. Pages 9 & 10 from “Maribel’s Year”, image available at <https://sgonzalesart.com/Maribel-s-Year>.



One, as mentioned by the artist, there is a sense of flow in the narrative being presented. The psychological process of immigration, especially for a child, involves a constant back-and-forth between one’s own culture and what is new [5][6]. There is no place in the story for Maribel to isolate the past from the present in what is presented in her inner world. She inevitably moves between her firsthand experience and comparisons are inevitable.

Two, the story is visually charged with nature imagery, as seen on the cover and in most spreads, so organizing that narrative split with water/wave like figures, embraces the needs of the content and grants nuance to the “flow of seasons” and experiences commented on by Gonzales.

On one example of a spread of the book, the illustrator comments:

“The rain, for instance, transitioned to the banana leaves in the Philippines and the ocean. So yeah, there’s differences, but then there’s also similarities with the seasons, both sides get rain.” [11]

3.2. A familiar face

Character design also plays a significant role in the story, especially in the context of immigration. Ethnic representation is not one of the central themes of the narrative, but it becomes a present supporting theme in Maribel's new reality. There are many representations of her close and extended family in the book. Later on, we see the child integrated into school, with an ethnically diverse group of peers.

When asked about the character design decisions that were made for Maribel, illustrator Sarah Gonzales brought up the use of her own personal life to help with the design decisions and how relevant that was to add complexity to the work. Given that the main character portrayed and the illustrator have similar ethnic backgrounds, references from close and extended family pictures were used for physical features, hair texture, hair color and skin color. [11]

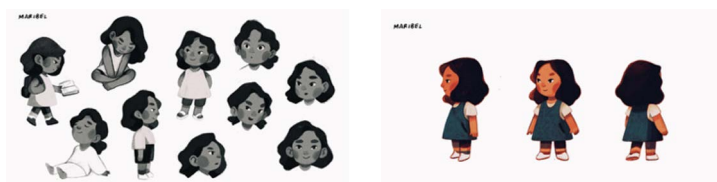


Fig. 4 & 5. Character design sheets “Maribel’s Year”, image available at <https://sgonzalesart.com/Maribel-s-Year>.

This creative process was also associated with Gonzales’ drawing style and form specificities, as told by her, “Maribel’s Year” [20] was her first illustrated children’s picturebook project within an already established career as an illustrator, so character studies and details were important aspects of the ideation process.

3.2. Longing available to the eyes

One of the many ways the main character finds to deal with her longing for her father and homeland is through writing letters. She details little snippets of what is new in her life, how it might relate to her past and furthermore, their future together.



Fig. 6. Pages 7 & 8 from “Maribel’s Year”, image available at <https://www.youtube.com/watch?v=7cJcN-zIK4o8&t=217s>.

In these appearances of the messages sent, the illustration gains a degree of surrealistic representation, bleeding one step ahead of reality and memories. It creates a third temporal

space for the emotional consequences of absence. It is not just about a remembrance, the element of what could have been gets stronger, leading back to the emotional connection and longing as a defining lead. A feeling of sorrow, nostalgia and incompleteness, caused by the absence to which one was affectionately and happily attached and which one would wish to have present again.

As time passes and Maribel devotes herself to staying connected with her father through their shared past, the small child grows stronger in her new environment. The deep feeling of inadequacy presented in the winter

Fig. 7. Pages 17 & 18 from “Maribel’s Year”, image available at <https://www.youtube.com/watch?v=7cJcN-zIK4o8&t=217s>.



starts to become softer in spring, and by summer, Maribel is starting to enjoy what is new. There are still many parallels brought back in her memories, but they seem to be more motivating than upsetting. A great visual example of this is found on pages 17 & 18 of the book:

The transition between pages takes on smooth and passive characteristics. There is no great contrast of colors, and the diagonal, once very striking, becomes a gentle breeze between scenes – they blend, coexist, and the background colors and visual elements evoke this structure by not changing drastically across the spread.

4. A connection device

In researching the picturebook as a device for connection, one the most obvious plot lines is the reader’s and co-reader’s emotional connection to the artifact and the story being portrayed [2]. The themes that are presented in the story are a very valuable bridge to discuss sensitive topics within responsible walls [10].

As said by Evelyn Arizpe in the prolog of “Challenging and Controversial Picturebooks : Creative and Critical Responses to Visual Texts”:

“Works of art or literature have never been distanced from controversy but there is something about the way both word and image are brought together in these highly crafted picturebooks that doubles the impact on our minds, our emotions and even our bodies. [...] Finally, and perhaps most significantly, because they are ostensibly for a particular yet undefined audience, picturebooks challenge notions of childhood.”[10]

By challenging notions of childhood and picturebook itself, there is an opportunity to embrace the themes of absence. This being a simple word that holds so many possibilities and stories. Longing is not a feeling defined by a single type of absence experience.

The space for longing can be held by missing a classmate while on vacation, missing one of your parents that has died, or missing the food of your country that your family had to flee in order to survive.

What Arizpe invites the reader to do is to rethink the boundaries of the picturebook’s audience, or in this case, their dissolution, since these books often exist precisely to dissolve the communication boundaries between child and adult. This is a form of literature that should not be constrained by age categorisation; this will allow us to understand better narratives that escape the status traditionally attributed to them, children’s literature, when they clearly address a dual readership of children and adults.

“Many adults feel that challenging and controversial picturebooks are not suitable for children to read, however, it is they, the adults, who have problems coping with these challenging texts and not the

children. In reality many young children have to deal with troubling, personal problems on a day-to-day basis on their own lives: real-life problems needing real-life solutions that are not just found on the pages of books.”[10]

As “Maribel’s Year” demonstrates, the theme of transnational families and immigration are the truest core of the story. Realities that a child can not avoid, but has to resiliently navigate.

By centering the story on a transnational family, the book holds considerable power to connect young children to a narrative they may relate on a personal level. The book arranges the storyline in a way that the main character’s resilience towards her difficulties is greater than any obstacle. This is also a great example for an adult co-reader [2] that could facilitate the child’s navigation process in a new reality, just like Maribel’s mother and father did.

It is not just a matter of having a well thought picturebook made about a sensitive situation, it is about the potential of generating critical thought and conversation about someone’s reality [5][2], furthermore leading to more emotionally aware children and adults.

5. Conclusion and future developments

Finally, “Maribel’s Year” is a rich example of a picturebook engaging themes of longing and absence through a child’s perspective, with credible accomplishments both through text and image. It offers a representation of a transnational family’s reality and the challenges faced by a young immigrant child.

This book also allows us to affirm the picturebook as a polysemic artefact in which multiple meanings reside, encouraging the exchange of experiences in individual or mediated reading. The act of reading offers different levels of affectivity and personal and collective self-reflection that intersect and contribute to the assimilation and recognition of the experience of longing in each reader’s own story, expanding what the book induces in us, through the inclusion of the personal narrative of those who see and read it.

The research base for this article forms part of a dissertation that is leading to its conclusion. The overarching themes are the same as present in this article, longing and absence as leading emotion in relation to picturebooks and how it connects people, specially families. Further, in what way longing can be represented visually. The dissertation will be finished in 2026 as a master’s conclusion in the course of Image Design, accompanied by an original picturebook on these themes.

6. Appreciation

It is with immense gratitude that we thank artist Sarah Gonzales for her collaboration and fundamental insights for the development of this text and future developments of the research.

References

1. ACP Observatory on Migration: Transnational families and the social and gender impact of mobility in ACP countries - Background Note, ACPOBS/2012/BN06 (2012)
2. Arizpe, E., Noble, K., Styles, M.: *Children Reading Picturebooks : New Contexts and Approaches to Picturebooks*. Taylor & Francis. (2023).
3. Barthes, R.: *Elements of Semiology*. (1967)
4. Barthes, R.: *Rhetoric of the Image*. *Communications*, 4, 40-51.(1964)
5. Brochin, C., Medina, C. L.: *Critical Fictions of Transnationalism in Latinx Children's Literature*. Bookbird. (2017)
6. Bryceson, D., Vuorela, U.: *The Transnational family. New European frontiers and global networks*. (2002)
7. Budginaitė-Mačkinė, I., Albert, I., Schrooten, M., Stanojević, D., & Wojtyńska, A.: *Defining transnational families across countries and time: an analysis of academic discourse on the phenomenon between 2003 and 2023*. *Journal of Family Studies*, 32(1), 9-28. (2026)
8. Davies, N.: *The Day War Came*. (2019)
9. Ehrmantraut, B.: *Night Catch*. (2006)
10. Evans, J.: *Challenging and Controversial Picturebooks : Creative and Critical Responses to Visual Texts*. Oxon: Routledge. (2015)
11. Gonzales, Sarah. "On Maribel's Year" Interview by Marina Tiveron. December 16th, 2025.
12. Khwaja, M.: *The Home We Make*. (2024)
13. *Maribel's Year*, <https://sgonzalesart.com/Maribel-s-Year>
14. *Michelle Sterling*, <https://www.michellesterlingbooks.com/>
15. *Migration Data Portal*, International Organization for Migration (IOM). (2023)
[https://www.migrationdataportal.org/themes/family=-migration-new#:~:text=Family%20migration%20remained%20the%20main,standardised%20data%20only\)%20that%20year](https://www.migrationdataportal.org/themes/family=-migration-new#:~:text=Family%20migration%20remained%20the%20main,standardised%20data%20only)%20that%20year)
16. Parker, M.B.: *I Love You Near and Far. Snuggle Time Stories*, 4. (2015)
17. Rabe, T.: *Sometimes Apart, Always in My Heart*. (2025)
18. Ruth, G.: *Coming Home*. (2014)
19. Sanna, F.: *The Journey*. (2016)
20. Sterling, M.: *Maribel's Year*. HarperCollins. (2023)
21. van Leeuwen, T., Jewitt C. (eds): *The Handbook of Visual Analysis*. London: Sage. (2001)
22. Winters, E.: *Sometimes I Want A Hug*. (2024)

Satoshi Kon and Cinema as a Dream Space

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Abstract

Cinema proves to be a uniquely suitable medium for representing the oneiric and the subconscious, allowing for the creation of narratives that resonate beyond realism. In *Perfect Blue* (1997) and *Paprika* (2006), Satoshi Kon uses animation to construct spaces that materialise the unconscious and articulate the identity and cultural complexities of contemporaneity. This article examines the dream space as a central element in cinematic narrative, highlighting Kon as a filmmaker who destabilises the boundary between reality and illusion through extraordinary formal and narrative techniques. Drawing on the theoretical contributions of authors such as Christian Metz, Gaston Bachelard and Michael Taussig, it argues that his works transform the dream into an autonomous cinematic space, guiding the spectator through a reflection on the layered nature of human subjectivity.

Keywords

Satoshi Kon; Oneiric cinema; Mimetic space; Japanese animation.

1. Introduction

“In a dream you have at night, the story...well, most of them are illogical. That I incorporate into my productions.” [1] Estas palavras de Satoshi Kon revestem a essência do seu cinema: uma ótica que assimila a fluidez e a imprevisibilidade do sonho, o que faz dele uma força narrativa. Para Kon, os sonhos não são controlados pelo sonhador, mas também não exercem controlo absoluto; habitam num limiar ambíguo entre o consciente e o inconsciente. “There is a similarity between dreams and films, for sure. The dream is uncontrollable, an uncontrollable drama.” [1] Kon atenta numa conexão entre o cinema e o sonho, que é amplificada pela plasmaticidade da animação e que, consequentemente, aproxima os territórios férteis da criação e imaginação, como sugerido por Napier [2] e Leslie [3].

O trabalho de Kon em *Perfect Blue* (1997) e *Paprika* (2006) explora precisamente este prelúdio, que provoca a margem que separa a realidade da ilusão e que posiciona o espectador num estado de constante incerteza, como nos sonhos [2]. Ao mesmo tempo, transpõe naturalmente os romances de Yoshikazu Takeuchi e Yasutaka Tsutsui para uma linguagem cinematográfica capaz de materializar estados psicológicos complexos, como a instabilidade preceptiva [4].

Este artigo analisa a narrativa onírica no cinema de Satoshi Kon, explorando como a animação constrói espaços do inconsciente a partir

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de fundamentos teóricos de Christian Metz, Gaston Bachelard e Michael Taussig [5][6][7]. Propõe-se que, em *Perfect Blue* (1997) e *Paprika* (2006), o espaço onírico não funciona apenas como representação, mas como um dispositivo estrutural que reconfigura a experiência do espectador, articulando sonho, identidade e percepção.

Adota-se uma abordagem qualitativa de análise fílmica, com uma leitura semiótica e interpretativa de sequências específicas destes filmes, selecionadas pela forma como evidenciam a dissolução entre sonho e realidade e a fragmentação identitária.

2. Bases Teóricas e Contextuais: Satoshi Kon e o Onírico

2.1. O Universo de Satoshi Kon

Satoshi Kon, enquanto um dos mais proeminentes realizadores da animação japonesa contemporânea, desenvolve a sua obra num período em que o anime se consolidava internacionalmente como um meio capaz de articular entretenimento, experimentação formal e reflexão filosófica sobre tecnologia, subjetividade e identidade [2][11]. Em *Perfect Blue* (1997) e *Paprika* (2006), Kon explora temas como a fragmentação do eu, as ansiedades tecnológicas e as dinâmicas culturais da modernidade líquida [6]. Estas narrativas emulam a percepção tradicional de linearidade temporal e espacial, e trazem à tona a complexidade da identidade em constante metamorfose.

Em *Perfect Blue*, o declínio psicológico de Mima personifica as pressões exercidas pelo culto à celebridade e a alienação imposta e daí decorrente. A sua identidade fragmenta-se progressivamente, à medida que o limiar entre o seu eu público e privado se dissipa, em consequência da obsessão de um fã patológico que invade a sua intimidade. Apesar de Kon ser fortemente inspirado pelo cinema live-action, demonstra uma profunda consciência das especificidades inerentes ao seu meio. Neste filme, aproveita-se dos espelhos e superfícies refletoras para traduzir a dissociação do eu; cenas repetitivas e cortes rápidos revestem a narrativa de um carácter modular e psíquico, ademais de sustentar a incerteza tanto da protagonista como do espectador. [8]

Por outro lado, *Paprika* alarga esta discussão ao investigar a interseção entre os mundos onírico e real através do dispositivo DC Mini, capaz de partilhar sonhos. Aqui, os sonhos não são apenas espaços de escapismo, mas também bancos de dados coletivos que absorvem desejos, traumas e ansiedades. Na cena em que acontece o desfile surreal — repleto de objetos tecnológicos e figuras antropomórficas — é simbolizada uma coexistência entre um consumo desmedido e a fragmentação identitária, e que reforça a ideia de Hiroki Azuma sobre o “animal otaku” [4]. Segundo Susan Napier, esta manipulação de perspetivas e o uso dos reflexos intensificam a relação entre o real e o ilusório [2]. Este jogo de percepções, como ela sugere, coloca o espectador num estado de observação reflexiva que amplifica o impacto emocional do filme [8].

Sob a perspetiva de Satoshi Kon, numa entrevista conduzida por Jason Gray no Festival de Veneza de 2006, a génese de *Paprika* foi marcada pela colaboração direta com Yasutaka Tsutsui, autor do romance original

[9]. Kon afirmou que os romances de Tsutsui influenciaram profundamente o seu trabalho desde a juventude: “I read a lot of his books when I was in my early twenties, and years later when I began working in animation as a director and telling my own stories, I realized I had been influenced by him far more than I expected.” [9]. Contudo, enquanto o romance se baseia predominantemente numa exploração psicológica textual, Kon encontrou na animação a possibilidade de traduzir visualmente estes conceitos. Em *Perfect Blue*, a animação reflete o colapso mental de Mima, enquanto em *Paprika* permite a construção de espaços infinitos. Esta capacidade de manipulação visual e diagética vai além da estética e acaba por assumir uma dimensão filosófica. Como argumenta Gilles Deleuze, “Cinema not only puts movement in the image, it also puts movement in the mind. (...) The brain is unity. The brain is the screen. (...) On the contrary, the biology of the brain – molecular biology – does. Thought is molecular. Molecular speeds makeup the slow beings that we are” (Deleuze cit. in Teodorescu, 2016, p.366) [8]. Esta fluidez, ou velocidade molecular, está presente desde o início de *Paprika*, quando a protagonista salta de um ecrã para o outro, e se torna parte dos próprios objetos e dos cenários. O filme não só critica como também alivia ansiedades contemporâneas sobre o uso da tecnologia nos seus efeitos no eu. Toda a narrativa de *Paprika* pode ser compreendida em termos de subjetividades modulares que se entrelaçam, enquanto o eu permanece preso numa sequência onírica perpétua que remete a traumas ou transtornos mentais mediados pela tecnologia. Não somos confrontados com ecrãs divididos, mas sim com mentes dispersas que se desdobram nas histórias passadas (como o drama infantil de Konakawa), nos eus (a fragmentação literal entre *Paprika* e a Dra. Chiba) e nos mundos (o choque entre sonhos no clímax do filme) [8].

O impacto das obras de Kon está profundamente enraizado nas ansiedades da modernidade líquida, tal como descritas por Zygmunt Bauman [6], caracterizadas pela instabilidade identitária e pela efemeridade da memória. Ao integrar elementos tecnológicos como câmaras, ecrãs e interfaces digitais, Kon medita sobre a remediação da realidade, conforme definida por Bolter e Grusin, demonstrando como a mediação constante altera a nossa relação com o mundo. [10]

2.2. A Maleabilidade da Animação

A animação, pela sua ausência de vínculos físicos com o mundo real, permite a manipulação de tempo, espaço e identidade de forma singular. Satoshi Kon utiliza a fluidez da animação para construir obras que transformam o realismo e permitem a metamorfose constante dos elementos visuais e narrativos [11]. Como defendido por Leslie, na animação, “tudo no mundo desenhado é da mesma matéria” [3]. Esta característica concede à animação uma maleabilidade que Kon usufrui ao dar origem espaços que, apesar de parecerem realistas, podem ser desconstruídos e reconstruídos com facilidade. Este método explora camadas sobrepostas, deslizamentos de superfícies e transições impercetíveis entre realidades. Em *Perfect Blue*, por exemplo, o uso do espelho no vidro do comboio marca o desfasamento entre Mima e o mundo exterior.

LaMarre salienta que, ao contrário do cinema live-action, no qual a perspectiva é construída em torno de um ponto de vista monocular, a animação permite uma maior liberdade espacial [12], quando subverte as expectativas de profundidade e continuidade. Além disso, a ausência de restrições impostas pela física no espaço animado permite a criação de narrativas oníricas que exploram estados psicológicos labirínticos. Em *Paprika*, essa liberdade é exercida para transitar entre dimensões de realidade e sonho, novamente, como na sequência inicial em que a personagem criada pela Dra. Atsuko Chiba salta de um ecrã para outro. Tal fluidez aprofunda os traumas e patologias que se transformam na tessitura da mediação tecnológica. Satoshi Kon rejeitava a ideia de realizar filmes live-action, na defesa de que apenas na animação conseguia exercer o controlo absoluto necessário para comunicar exatamente o que pretendia [11]. Esta escolha origina uma ‘realidade excessiva’, como ele descreveu, na situação em que a estilização do espaço e a manipulação do tempo intensificam a imersão diegética [9]. Como observado por Denney (2015), Kon combinava um profundo pertencimento na tradição estética japonesa, marcada por conceitos como *ma* (a interseção entre espaço e tempo), com uma visão pós-moderna que desmonta o que é o real e o virtual, o passado e o presente, o ser e o parecer [13].

Portanto, a animação, enquanto ferramenta para o onírico, serve como uma forma de desconstrução de narrativas tradicionais e possibilita a gênese de universos fora de um cinema mais conformista. No trabalho de Kon, esta capacidade é elevada ao ápice, e permite uma experiência cinematográfica que reflete e torna o inconsciente corpóreo.

3. Casos de Estudo

3.1. Ausência, Identificação e o Espectador

Christian Metz compreende que o cinema funciona como um significante que opera pela sua ausência intrínseca: os objetos, as ações e os seres humanos que habitam o ecrã não estão fisicamente presentes; em vez disso materializam-se como sombras, delegados à memória gravada. Esta ausência, longe de ser uma limitação, é o elemento que singulariza o cinema e o define como um meio de expressão que dialoga diretamente com o inconsciente e com as dinâmicas do desejo [14]. No cinema de Satoshi Kon, esta característica torna-se central.

Em contraste com outras formas artísticas como o teatro, onde a fisicalidade dos atores e adereços assegura a interação direta entre o público e a cena, o cinema apresenta uma ilusão mediana, que prende o espectador num sistema de perceção visual e auditivo, e logo, é confrontado com representações que o posicionam como um “todo-percebedor”. Contudo, esta “superioridade perceptual”, no sentido quantitativo, é paradoxalmente acompanhada por uma diminuição da presença tangível [14]. Lacan sugere, no conceito do estádio do espelho, que a identificação do sujeito com a sua imagem projetada estrutura a sua compreensão de si mesmo. No entanto, enquanto o espelho reflete diretamente o corpo do sujeito, o ecrã projeta o outro, deslocando o eu e criando uma identificação indireta

(Lacan cit.in Metz, 1981) [14]. Nos filmes de Satoshi Kon, como *Perfect Blue* e *Paprika*, esta ausência do eu é intensificada, que se reflete tanto nas próprias narrativas quanto na experiência do espectador. Em *Perfect Blue*, a protagonista, Mima, vive uma crise de identidade marcada pela divisão entre a sua persona pública e privada. A ausência de uma presença estável é espelhada na construção narrativa do filme, que também acaba por desorientar o espectador ao alternar entre a realidade e a ilusão. Aqui, o cinema torna-se um espaço de projeção do inconsciente, onde a tangibilidade é substituída por uma miríade de camadas simbólicas.

Esta ausência é, na visão de Metz, o que permite ao cinema operar no registo simbólico, que transgride a fisicalidade para despertar memórias, desejos e medos. A cadeira ou o quarto que Mima ocupa não estão realmente ali; são sombras, replicações que projetam a tangibilidade e convidam o espectador a reconstruir simbolicamente o que vê [14].

3.2. *Paprika*: O Sonho como Espaço Mimético

No filme *Paprika*, acontece um emblemático desfile cheio de símbolos culturais descartados pela modernidade – brinquedos antigos, figuras religiosas esquecidas e objetos banais – que, no espaço onírico, ganham vida e refletem as pressões do inconsciente coletivo [15] – um conceito introduzido pela primeira vez por Jung. A narrativa de *Paprika* centra-se em Atsuko Chiba, uma cientista que atravessa o limiar entre o mundo consciente e o onírico através da sua persona, Paprika. Este processo, que configura a identidade de Chiba nos sonhos, evidencia a tensão entre semelhança e diferença descrita por Taussig [7], em que a mimesis não apenas imita a realidade, mas também cria contacto, transformação e transcendência. Na relatada cena do desfile surreal, a acumulação de objetos e figuras descartadas exemplifica este dinamismo mimético ao reunir fragmentos do quotidiano, cujas propriedades materiais e simbólicas são expostas e reconfiguradas pela imaginação, e expõe o poder do cinema em articular emoções e desejos num espaço simbólico e interno.

Além disso, o cinema de Satoshi Kon dialoga profundamente com o conceito de “inconsciente ótico” de Walter Benjamin [16]. Benjamin argumenta que o cinema, ao fixar o quadro, desacelerar ou ampliar o movimento, desvenda detalhes invisíveis ao olhar humano, tornando visíveis as camadas ocultas da experiência. Em *Paprika*, Kon utiliza essas ferramentas para dissolver as ligações entre o real e o imaginário, o que permite que os sonhos assumam uma dimensão tátil e emocional. O “DC Mini”, dispositivo central na narrativa, reflete a metáfora da câmara de Benjamin, e funciona como uma tecnologia que expande a percepção, mas também desestabiliza, e gera caos quando mal utilizada. A desorientação provocada pela fluidez visual em *Paprika* ecoa a “iluminação profana” [16], em que a imagem se conecta sensorialmente ao espectador, e permite que este sinta e participe da narrativa.

A sequência da parada evidencia ainda a relação entre imagem e essência, como descrito por Frazer na sua “Lei da Semelhança” [17]. As cópias no cinema de Kon – sejam elas sonhos ou ilusões – não se limitam a reproduzir fielmente a realidade, mas mantêm um poder simbólico, ao

mesmo tempo em que influenciam as personagens e o espectador. Este jogo entre semelhança e transformação também remete com a cosmologia Cuna [7], onde imagens (purpakana) funcionam como contrapartes invisíveis que ligam mundos alternativos. Em *Paprika*, muitas das imagens funcionam como purpakana, como tendo uma alma.

Esther Leslie, ao discutir a “plasmaticness” da animação [3], reforça como a maleabilidade das formas animadas eleva-se acima do animismo tradicional para refletir a lógica do capitalismo, caracterizada pela sua contínua transformação e mercantilização. Em *Paprika*, esta fluidez visual é utilizada para desorientar o espectador, envolvendo-o numa experiência visceral. Tom Mes (2007) descreve este efeito como “sonho febril”, no qual o público é imerso num universo em constante mutação [18]. Assim, *Paprika* apresenta uma relação complexa entre criador e criação, sujeito e objeto.

3.3. Atmosferas Psíquicas: Espaço, Subjetividade e Imaginação

Gaston Bachelard (1957/1994), em *A Poética do Espaço*, apresenta o espaço habitado como um elemento essencial na construção da subjetividade, que funciona como um refúgio íntimo e, simultaneamente, como um ponto de partida para o devaneio. A casa, em sua análise, é mais do que uma estrutura física; é um microcosmo de memórias, emoções e sonhos, que influencia a imaginação e reflete os estados psicológicos do indivíduo [5]. No cinema de Satoshi Kon, essas ideias manifestam-se de forma singular, tanto com os espaços concretos quanto os oníricos que desempenham papéis simbólicos essenciais.

Em *Perfect Blue*, o apartamento da protagonista, Mima, simboliza um espaço de refúgio que, com o tempo, vai se transformando numa prisão psicológica. Inicialmente, o quarto é apresentado como um lugar de intimidade e segurança, onde a Mima se isola do caos exterior que sente, ao transitar de ícone pop para atriz. No entanto, à medida que a sua identidade começa a desintegrar-se, o quarto sofre uma metamorfose visual e atmosférica. Bachelard [5] descreve a casa como um “canto do mundo”, onde o indivíduo se sente protegido, mas também como um espaço que reflete a profundidade do inconsciente. Essa dualidade é esculpida por Kon através do uso de sombras, ângulos de câmara claustrofóbicos e um silêncio opressivo que transforma o apartamento num espelho da alienação e da ansiedade crescentes de Mima. A materialidade simbólica do espaço, como sugere Bachelard, é crucial para perceber a relação entre o indivíduo e o ambiente que habita. Em *Perfect Blue*, as paredes do quarto de Mima, outrora neutras, tornam-se ameaçadoras, carregadas de uma sensação de confinamento. A presença de objetos aparentemente banais, como os peixes no aquário ou os detalhes decorativos, ganham novos níveis de significado, e representam o peso emocional que recai sobre a protagonista. Esta transformação do espaço íntimo num lugar opressivo esclarece as suas memórias e medos, enquanto o quarto deixa de ser um santuário para se tornar um palco onde a sua identidade se segmenta, vagarosamente.

Por outro lado, *Paprika* apresenta um movimento em direção ao ilimitado, em que os espaços oníricos extrapolam o físico, e entram em

conformidade com o que Bachelard chama de “imensidão íntima” [5]. Para Bachelard, o devaneio é uma força que transforma o espaço interior num universo vasto, e que faz desaparecer as delimitações entre o íntimo e o infinito. Todo este conceito ganha vida em *Paprika*, de onde os sonhos começam como reflexos das emoções e desejos das personagens, mas rapidamente se expandem em paisagens vastas e surreais. A sequência emblemática do desfile onírico exemplifica esta transição em que se presencia o familiar com o estranho e a fusão do inconsciente individual com o coletivo. Neste contexto, Satoshi Kon explora a dialética entre o interior e o exterior de maneira fluída e sensorial. Tal como Bachelard sugere que os recantos íntimos de uma casa oferecem refúgio e introspeção [5], os recantos dos sonhos em *Paprika* tornam-se projeções psíquicas. Este efeito é intensificado pelas técnicas cinematográficas de Kon, que utiliza cores saturadas, movimentos fluídos e metamorfoses contínuas para criar um universo visualmente hipnótico.

4. Importância Atual

A obra de Satoshi Kon mantém-se relevante ao abordar questões que permanecem atuais, particularmente no que diz respeito à relação entre sonhos e tecnologia. Em *Paprika*, a personagem principal afirma que “*dreams and the internet are the same thing in a way*”, uma analogia que Kon explica ao dizer que ambos os espaços manifestam o subconsciente reprimido: “*When you’re sitting in front of your computer and connect to the internet, you’re also going down into some kind of underworld. (...) I’m not trying to say that dreams and the internet are good or bad, I’m trying to say that there’s good and bad that cannot be judged in both worlds*” [9]. Esta comparação reflete a forma como Kon explora os impactos da tecnologia na identidade e no comportamento humano. Ao tratar a internet como uma extensão do espaço onírico, Kon evidencia como os mundos virtuais e reais coexistem, e como se influenciam mutuamente.

No plano cultural, o impacto de Kon é reconhecido tanto na animação quanto no cinema live-action. *Paprika* inspirou diretamente *Inception* (2010), de Christopher Nolan, que reconheceu a influência do filme na construção visual e narrativa da sua obra [13]. De forma semelhante, *Perfect Blue* tem sido associado a *Black Swan* (2010), de Darren Aronofsky, que adquiriu os direitos de adaptação do filme e utilizou uma sequência icónica em *Requiem for a Dream* (2000): Como mencionado por Andrade (2017) ao referir Horn [19]: “*There has been some outcry about the similarities between the two movies, especially because Aronofsky owns the rights to the Perfect Blue adaptation, since he used one of its sequences in Requiem for a Dream*”. Kon, ao referir-se a estas semelhanças, descreveu-as ironicamente como “*a copy*” [20]. Embora as suas obras tenham recebido aclamação crítica, os lançamentos fora do Japão foram limitados. Ainda assim, a influência de Kon continua evidente em produções contemporâneas, o que solidifica o seu legado como um autor que ampliou o cinema de animação ao explorar temas universais através de uma perspetiva crítica e peculiar [11].

5 Conclusão

Como explorado ao longo deste artigo, o cinema de Satoshi Kon revela-se uma síntese entre a potência narrativa da animação e as questões filosóficas que permeiam o onírico e a subjetividade. A desconstrução da separação entre o real e o imaginário, elemento-chave na sua produção, emerge como uma reflexão sobre a natureza da identidade, do tempo e do espaço num mundo atravessado por incertezas tecnológicas e culturais [6]. Kon utiliza a especificidade da animação – a ausência de um vínculo indexical direto com a realidade física – como um meio para ampliar o cinema além das suas conformidades tradicionais.

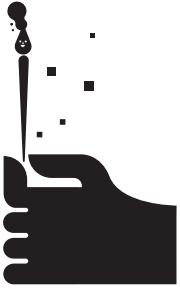
Em *Perfect Blue* e *Paprika*, constrói universos que abraçam a fluidez do sonho e da memória, onde a mimesis, tal como descrita por Taussig [7], evidencia tensões entre o íntimo e o coletivo. A fragmentação identitária e a multiplicidade de perspetivas dialogam com o pós-modernismo, ao mesmo tempo que refletem o impacto da mediação tecnológica na construção da subjetividade [10]. No entanto, o seu trabalho não se limita a essa fragmentação: através de uma abordagem crítica, Kon utiliza o espaço-tempo animado como lugar de exploração do inconsciente. Tal como Bachelard [5] sugere, o espaço torna-se uma extensão da subjetividade, visível tanto no confinamento psicológico de Mima como na expansão onírica de *Paprika*. A marca de Satoshi Kon, ainda que enraizada na animação japonesa, alcança uma dimensão global, influenciando cineastas como Christopher Nolan e Darren Aronofsky [13], e contribuindo para debates sobre cinema, subjetividade e espaço. A sua obra reafirma a animação como um meio singular para pensar o imaginário, onde o material e o simbólico coexistem em constante transformação.

Assim como Akira Kurosawa internacionalizou o cinema japonês [21], Kon reposiciona a animação como uma forma de arte globalmente relevante. As suas histórias permanecem como testemunhos da capacidade do cinema de reinventar a experiência humana, criando espaços que não apenas representam o sonho, mas o tornam habitável.

Bibliografia

1. Abrams, S.: Exclusive interview with Satoshi Kon. *ScreenAnarchy* (2008)
2. Napier, S.J.: *Anime from Akira to Princess Mononoke: Experiencing Contemporary Japanese Animation*. Palgrave (2001)
3. Leslie, E.: *Hollywood Flatlands: Animation, Critical Theory and the Avant-Garde*. Verso (2004)
4. Azuma, H.: *Otaku: Japan's Database Animals*. University of Minnesota Press (2009)
5. Bachelard, G.: *The Poetics of Space*. Beacon Press (1994). Original work published 1957
6. Bauman, Z.: *Liquid Modernity*. Polity Press (2000)
7. Taussig, M.: *Mimesis and Alterity: A Particular History of the Senses*. Routledge (1993)
8. Teodorescu, A.: Blurring the screen: The fragmented self, the database, and the narratives of Satoshi Kon. *Ekphrasis. Images, Cinema, Theory, Media* 1, 63–74 (2016)
9. Gray, J.: Midnight Eye interview: Satoshi Kon. *Midnight Eye* (2006)
10. Bolter, J.D., Grusin, R.: Remediation. *Configurations* 4, 311–358 (1996)
11. Andrade, N.A.T.: *Space in Animation – The Kon Way: A Study of the Characteristics and Contexts of Space in Kon Satoshi's Oeuvre*. Master's thesis, Moholy-Nagy University of Art and Design (2017)

12. LaMarre, T.: *The Anime Machine: A Media Theory of Animation*. University of Minnesota Press (2009)
13. Denney, A.: The cult Japanese filmmaker that inspired Darren Aronofsky. *Dazed* (2015)
14. Metz, C.: *The Imaginary Signifier: Psychoanalysis and the Cinema*. Indiana University Press (1981)
15. [15] Jung, C.G.: *Collected Works of C.G. Jung, Volume 7: Two Essays in Analytical Psychology*. Princeton University Press (1966)
16. Benjamin, W.: The work of art in the age of mechanical reproduction. In: Arendt, H. (ed.) *Illuminations*, pp. 217–251. Schocken Books (1969). Original work published 1935
17. Frazer, J.G.: *The Golden Bough: A Study in Magic and Religion*. Oxford University Press (1998). Original work published 1890
18. Mes, T.: Requiem for a dream. *Film Comment* 43(2), 46–48 (2007)
19. Horn, C.G.: *Seraphim: 266613336 Wings*. Dark Horse Comics (2011)
20. Kon, S., Nagai, R.: Interview with the director. In: Kon, S. (dir.) *Perfect Blue* [Blu-ray]. Anime Limited (2007)
21. Figueiredo, A.M.L.: *Violência, Samurais e o Bushido no Cinema de Akira Kurosawa*. Editus (2021)



Constructing Character Through the Masked Face

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Keywords

Mask-Making; Character
Construction; Visual
Storytelling.

Abstract

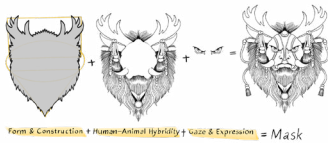
Masks are often discussed as symbolic, ritual, or performative objects, yet they also provide a precise way of studying how character becomes readable through facial design. This paper examines that question through a structured mask-making study in which participants translated Jungian archetypes into three-dimensional masks. Working from shared prompts but without prior experience in mask-making, participants produced masks, concept notes, and reflective discussion material that together formed the basis of the analysis. A hybrid deductive-inductive thematic analysis identified recurring relationships between formal features and intended meanings. Three dimensions emerged as central to character construction: gaze and relational expression, shape and form, and humanistic-animalistic qualities. The findings show that archetypal meaning was not simply illustrated in the finished mask, but negotiated through the design of the face itself. The study treats Jungian archetypes as situated creative prompts, the findings are framed as qualitative tendencies within a practice-based workshop context. The paper therefore positions the masked face as a focused site for examining the visual logic of character construction in relation to illustration, animation, and visual storytelling.

1. Introduction

Masks have long been examined across anthropology, performance studies, art history, and phenomenology as objects that mediate transformation, embodiment, and perception [1–3]. Across these fields, masks are understood not simply as crafted artefacts but as structures that alter how identity is presented, read, and experienced. Existing scholarship has demonstrated their ritual significance, performative efficacy, and symbolic force, while also showing how masks reorganise bodily technique and audience reception. Less attention, however, has been given to how the mask face itself is organised so that character becomes readable. Features such as gaze, proportion, exaggeration, distortion, and hybridity are often described, but less often examined as interacting visual decisions through which character is made legible. This paper addresses that question through a structured mask-making study. Conducted with participants who had no prior experience in mask-making, the study reduced

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variation linked to established technique and allowed closer attention to the formal decisions through which archetypal character was constructed. Participants translated Jungian archetypes into three-dimensional masks [8]. The resulting masks did not function as straightforward illustrations of pre-existing character types. The analysis concentrates on three recurring dimensions developed through the study: (i) gaze and relational expression, (ii) shape and form, and (iii) humanistic–animalistic qualities



illustrated in figure 1. Together, these dimensions show that character was not generated by symbolic naming alone but through the interaction of structural anatomy, material execution, and perceptual effect. Examining

Fig. 1. Analytical layers identified across the workshop masks: gaze and relational expression, shape and form, and humanistic–animalistic qualities.

these patterns across repeated workshop iterations makes it possible to move beyond descriptive documentation and towards an account of how mask-making can clarify the visual logic of character construction. For illustration and animation research, this is significant because the masked face isolates a problem that also lies at the heart of character design: how facial structure, expression, and stylisation make identity readable before movement, dialogue, or narrative context are added.

2. Methodology

The study adopts a practice-based visual research approach in which making is both the subject of study and the means through which evidence is generated [4–7]. Visual practice is treated here as epistemic: it enables concepts to be explored, tested, and materialised through form. This orientation is important because the masks were analysed not only as finished objects but as visual constructions through which participants interpreted and reworked archetypal ideas. The study therefore does not ask whether a mask accurately represents an archetype in abstract terms; it asks how character becomes readable through facial construction. Jung’s twelve archetypes provided a shared conceptual frame [8]. They did not function as fixed templates to be copied, but as prompts that enabled participants to explore character in visual and material terms. The workshop also drew on a bricolage logic, allowing participants to combine and reconfigure formal elements such as gaze, silhouette, expression, and animal-like traits as illustrated in figure 2. In this setting, making became a way of thinking through form rather than a final stage of execution.

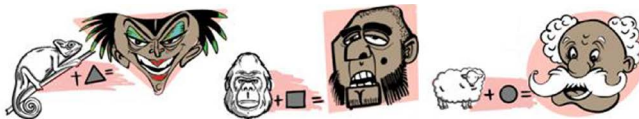


Fig. 2. Bricolage combinations used during ideation to connect animal reference, shape, and emotional quality in mask design.

The participant group consisted of forty-eight foundation-year design students working within the same educational setting. None had prior specialist training in mask-making, although they had basic exposure to

visual thinking and studio-based design exercises. This shared beginner status was important because it allowed the analysis to focus on exploratory decisions in character construction rather than on differences in advanced craft technique. Participants first engaged with all twelve archetypes through introductory exercises and ideation sheets. They were then assigned an archetype through random chit-picking. Across the four workshop cohorts, allocation was monitored to ensure that the full range of archetypes was represented in the final dataset. The resulting distribution should therefore be understood as a structured workshop sample rather than as a statistically random sample. Figure 3 illustrates the overview of the workshop process, collected material, and analytic flow across four cohorts. Masks were constructed over clay moulds using paper-mâché, with shared materials, demonstrations, and time frame across cohorts. Over ten days, participants made repeated decisions about silhouette, facial proportion, gaze, expression, symmetry, distortion, and the inclusion of human, animal, or hybrid traits. The dataset consists of completed masks (as shown in table 1), ideation sheets, in-progress photographs, exhibition material, concept notes, and focused group discussion responses.

Fig. 3. Schematic overview of the workshops across four cohorts.

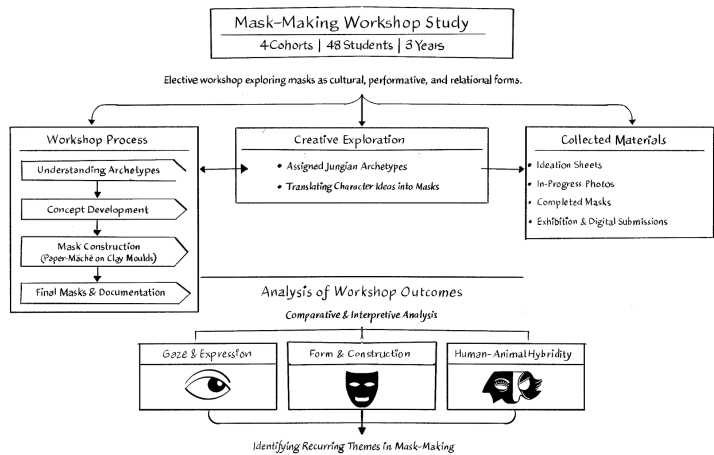
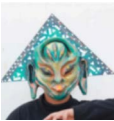
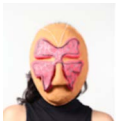
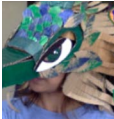


Table. 1. Forty-six masks developed across four workshops over three years.

Archetype	Mask 1	Mask 2	Mask 3	Mask 4
Hero	a1	a2	a3	a4
				

Mentor	b1	b2	b3	b4
				
Magician	c1	c2	c3	c4
				
Ruler	d1	d2	d3	d4
				
Caregiver	e1	e2	e3	e4
				
Jester	f1	f2	f3	f4
				
Innocent	g1	g2	g3	g4
				

Creator	h1	h2	h3	
				
Everyday person	i1	i2	i3	i4
				
Antihero	j1	j2	j3	j4
				
Revolutionary	k1	k2	k3	
				
Explorer	l1	l2	l3	l4
				

3 Method of Analysis

The mask was treated as the primary unit of analysis. To examine how archetypal character was translated into form, the study employed thematic analysis following Braun and Clarke’s six-phase approach [9], as depicted in table 2. Repeated viewing of the masks was combined with close reading of concept notes and workshop discussion in order to identify recurring formal tendencies and interpretive patterns. Masks are open to multiple readings, the analysis did not treat any single interpretation as definitive. Visual features were interpreted in relation to participants’ concept notes, in-progress documentation, and focused group discussion responses. Even so, alternative interpretations remain possible, especially where masks used ambiguous, hybrid, or highly stylised forms.

Archetype	Dominant visual codes	Maker emphasis	Overlap	Divergence
Hero	Direct gaze; bilateral symmetry; oval or rounded-square face; calm mouth	Strength, courage, protection, composure	Stable geometry + direct gaze support moral clarity	Some masks sharpen fierceness; others soften expression
Mentor	Half-closed eyes; radiating forms; centred symmetry	Wisdom, guidance, enlightenment, peace	Calm gaze and elevated form align strongly	Minor variation mainly in detailing
Innocent	Soft contour; circles/ellipses; upward, playful, or weak gaze	Purity, fragility, openness, dependence	Softness and incompleteness recur	Gaze varies widely, from playful to abstract
Everyday person	Averted gaze; recognisable human face; minimal distortion	Fatigue, confusion, frustration, ordinariness	Averted gaze aligns with social withdrawal	Emotion varies within a stable human-centred form
Explorer	Enlarged or multi-directional eyes; directional facial flow; map-like details	Curiosity, movement, discovery, searching	Expansive gaze aligns with outward orientation	Some masks stress eye treatment; others surface movement
Revolutionary	Angular direct gaze; asymmetry; sharp contours; forceful silhouette	Rebellion, anger, disruption, intensity	Confrontational energy and visual tension recur	Formal language varies while affect remains similar
Ruler	Steady direct gaze; strong contour; vertical emphasis; horns/snouts	Authority, command, dominance, vigilance	Animal power imagery reinforces hierarchical control	Some masks stay more human-centred than others
Magician	Ambiguous direct gaze; doubled structures; asymmetry; contrast	Mystery, transformation, duality, hidden power	Ambiguous gaze aligns with unstable form	Some masks emphasise duality, others otherworldliness
Jester	Widened eyes; circular forms; exaggerated grin; comic distortion	Humour, play, mischief, trickery	Circular exaggeration supports playful disruption	Some masks move toward irritation or the uncanny
Creator	Organic contour; natural motifs; saturated colour; variable gaze	Imagination, growth, invention, nature	Shared symbolic field more stable than facial code	Gaze and structure vary considerably

Table 2. Archetype-wise coding matrix linking visual evidence and maker interpretations.

Caregiver	Soft direct gaze or wide alert eyes; protective expression	Care, nurture, vigilance, responsibility	Care combines softness with watchfulness	Some masks are gentle; others more severe or hybrid
Antihero	Elongated skull; horns; asymmetry; sharpened contours; intense gaze	Menace, defiance, danger, instability	Distortion and menace strongly coincide	Some masks stress demonic force; others troubled humanity

Through iterative comparison across masks, notes, and discussion, three analytical dimensions emerged as especially significant:

- 1. gaze and relational expression,
- 2. shape and form, and
- 3. humanistic–animalistic qualities.

4. Gaze and Relational Expression

Fig. 4. Variations in gaze direction and eye configuration used in the analysis of mask character construction.



Gaze (and gaze direction as illustrated in figure 5) was one of the most consistent means through which participants differentiated character. Across the masks, three recurrent modes became visible: stabilising gaze, intensifying gaze, and withholding or displaced gaze. These modes cut across archetype categories and reveal how character was constructed through relational positioning rather than through labels alone. A first group of masks used gaze to stabilise character through calm directness. In Hero and Ruler masks, forward-facing eyes secured presence and authority, but in different ways. Hero masks typically combined direct gaze with balanced organisation and softened expression, producing firmness without overt threat. Ruler masks used a more restrained directness that felt disciplined and controlled. In both cases, the eyes anchored the face, but surrounding structure determined whether that anchoring was read as benevolent, composed, or authoritative. A second group intensified character through widened, exaggerated, or sharply framed eyes. Explorer masks frequently used enlarged, centrally focused eyes to produce curiosity and heightened sensory openness. Revolutionary masks also relied on direct gaze, but sharper angles and facial tension shifted that directness towards confrontation. Magician masks complicated this further: while often viewer-facing, their gaze tended towards ambiguity, supported by forms that suggested instability or mystery rather than openness. Here gaze amplified character, but that force could register as curiosity, intensity, or otherworldliness depending on formal context.

A third group weakened, redirected, or displaced gaze in order to produce fragility, uncertainty, or social distance. Everyday Person masks consistently employed averted gaze, positioning the character less as an active protagonist than as a fatigued or frustrated observer. Innocent masks showed another kind of instability: upward-looking, abstract, or weakly defined eyes reduced directional certainty altogether. In one case, butterfly-wing forms replaced the eye region, preserving visual emphasis while removing ordinary gaze logic. Across these examples, the absence of stable gaze became meaningful in itself. These patterns suggest that gaze was the most immediate means through which character entered into relation with the viewer. Before other features were fully read, the eye region established whether the mask invited, confronted, withheld, or unsettled attention. Its consistency across otherwise different archetypes indicates that participants relied on gaze as a primary means of making character legible.

5. Shape and Form

Across the dataset, three formal tendencies became especially visible: stabilising forms, expansive or directional forms, and distorted or destabilized forms. Stabilizing forms were most evident in masks whose character depended on balance or authority. Hero masks frequently relied on symmetrical, contained geometries such as rounded rectangles and ovals. Mentor masks, though more stylised, also produced stability through repetition and centred organisation, often using radiating structures that visually reinforced coherence rather than fragmentation. In these cases, symmetry and containment worked as visual guarantees of composure.

A second tendency involved expansive or directional forms that oriented the mask outward. Explorer masks often used elongated or multi-directional shapes, dispersed emphasis, and structures that implied movement beyond the face itself. Creator masks similarly opened the face towards organic and environmental associations through flowing contour and natural motifs. These masks did not stabilise character through closure, but through extension. Their formal logic suggested curiosity, growth, or creative emergence rather than fixed authority. A third tendency involved distortion, compression, or exaggeration as a means of producing tension. Antihero masks are the clearest example: elongated skull-like structures, horned forms, and sharpened contours displaced the face from ordinary human proportion and intensified menace or defiance. Magician masks also worked through formal destabilisation, using doubled structures, extended elements, or strong contrast to suggest ambiguity and altered presence. In these cases, form became a tool for loosening perceptual certainty. Character remained coherent, but that coherence depended on pushing anatomy towards the uncanny rather than preserving recognisable balance. These tendencies show that shape worked as a structuring condition of character. Before expression or detail was interpreted, proportion and silhouette had already established whether the face appeared stable, expansive, or unstable. Form therefore organized how other features would be read, helping explain how different masks could remain recognizable within the same archetypal frame.

6. Humanistic and Animalistic Qualities

Between these poles were masks that used hybridity more ambivalently. Creator, Explorer, and Caregiver masks often combined human facial organisation with non-human or symbolic additions, allowing the face to hold both familiarity and transformation at once. Here, hybridity operated less as a marker of threat than as a way of thickening character. Human features preserved emotional or cognitive nuance, while animal-like traits intensified instinct, vitality, or relational complexity.

7. Discussion

The findings show that participants did not treat archetypal prompts as fixed templates but translated them into recurring facial strategies that enabled rapid character recognition. Wide eyes in Explorer masks signal outward attention and openness, aligning with exploration, while the averted gaze in Everyday Person masks reduces confrontation and suggests observation or withdrawal. In both cases, gaze functions as a primary tool for organising relational orientation. Direct gaze follows a similar logic but varies in effect. Hero masks combine it with balanced proportions and softened expression to convey authority without threat, whereas Ruler masks pair it with sharper contours and animalistic markers, producing dominance. This indicates that gaze alone is insufficient; it must be modulated by surrounding structure. The recurrence of half-closed eyes in Mentor masks further suggests that reduced openness communicates inwardness and composure more effectively than intensity. Thus, the eye region operates as a flexible mechanism for calibrating relational intent.

Shape and form serve a complementary role. If gaze establishes contact, form ensures coherence. Hero masks adopt symmetrical, contained geometries to stabilise the face, while Explorer masks use elongation and directional flow to convey openness. Antihero masks employ skull-like elongation and asymmetry, displacing the face from human proportion and making instability perceptible. Mentor masks, by contrast, organise form around a calm centre, giving wisdom a visible structure. Form therefore actively determines the kind of face required. Animal motifs reveal another pattern. They appear where human features alone are insufficient to convey intensity. Ruler masks draw on animals such as lions or bulls because these forms condense associations of power and command while also restructuring the face morphologically. Antihero masks use skeletal or demonic hybridity to intensify threat, while Magician masks employ ambiguity and transformation through non-human features. Here, hybridity functions as a strategy for exceeding recognisable human form. More human-centred masks show the opposite tendency. Hero, Innocent, Mentor, and Everyday Person masks remain closer to human physiognomy to support empathy and familiarity. Caregiver masks often combine softness with vigilance, indicating that care is understood as both gentleness and protection. Creator and Explorer masks use hybridity to expand rather than destabilise the face. This suggests that the human-animal spectrum operates as a continuum for regulating familiarity and intensity. The findings should therefore be read as patterns generated

within a specific pedagogical and cultural setting, rather than as universal rules of mask perception. The recurrence of gaze, form, and human-animal hybridity across the dataset suggests that these features were useful strategies for making character legible in this workshop context. However, the meanings attached to archetypes, animals, facial expressions, and symbolic forms may vary across cultural, gendered, and narrative traditions. This is especially relevant given the contested status of Jungian archetypes and the criticism that universal archetypal models may privilege particular mythic and narrative structures [10, 11]. The present study therefore treats archetypes as situated design prompts, while recognising that other cultural frameworks could generate different visual strategies.

8. Conclusion

This paper examined how archetypal character was constructed through the masked face by analysing visual and verbal material from a structured mask-making study. The findings show that character was not determined by archetypal prompts alone, but emerged through recurring formal decisions made during mask construction. Of the three analytical dimensions, gaze was the most consistent in organising relational stance and initial readability, while shape and form stabilised or varied that reading through proportion, contour, and silhouette. Humanistic-animalistic qualities appeared less uniformly, but significantly extended character beyond ordinary human facial logic. Within the limits of this study, these results indicate that character construction in mask-making operated through a layered but differentiated process. The masked face thus provides a focused setting for examining how formal organisation contributes to the perceptual coherence of character. The study has a few limitations. First, it is based on a relatively small practice-based dataset produced within a shared educational context. Second, the analysis is qualitative and interpretive rather than statistical, meaning that the findings identify recurring tendencies rather than measurable laws of character construction. Third, the use of Jungian archetypes offers a useful common framework for the workshop, but also introduces cultural and theoretical limitations. Future research could compare similar mask-making exercises across different cultural contexts, use alternative narrative or character frameworks, and combine qualitative interpretation with quantitative coding of visual features such as gaze direction, symmetry, angularity, colour, and human-animal hybridity.

References

1. Belting, H.: *Face and Mask: A Double History*. Princeton University Press, Princeton, NJ (2017). <https://doi.org/10.1515/9780691244594>
2. Bell, C.: *Ritual: Perspectives and Dimensions*. Oxford University Press, Oxford (2003)
3. Lévi-Strauss, C.: *The Way of the Masks*. University of Washington Press, Seattle (1979)
4. Gray, C., Malins, J.: *Visualizing Research: A Guide to the Research Process in Art and Design*. Ashgate, Aldershot (2004)

5. Nimkulrat, N.: Hands-on Intellect: Integrating Craft Practice into Design Research. *International Journal of Design* 6(3), 1–14 (2012)
6. Ingold, T.: *Making: Anthropology, Archaeology, Art and Architecture*. Routledge, London (2013). <https://doi.org/10.4324/9780203559055>
7. Prosser, J.: Visual Methodology: Toward a More Seeing Research. In: Denzin, N.K., Lincoln, Y.S. (eds.) *Collecting and Interpreting Qualitative Materials*, 4th edn., pp. 177–212. SAGE, Thousand Oaks, CA (2013)
8. Jung, C.G.: *The Archetypes and the Collective Unconscious*. Princeton University Press, Princeton, NJ (1959)
9. Braun, V., Clarke, V.: Using Thematic Analysis in Psychology. *Qualitative Research in Psychology* 3(2), 77–101 (2006). <https://doi.org/10.1191/1478088706qpo630a>
10. Roesler, C.: *Deconstructing Archetype Theory: A Critical Analysis of Jungian Ideas*. Routledge, London (2023)
11. Rowland, S.: *Anima, Gender, Feminism*. In: *Teaching Jung*, pp. 169–182. Oxford University Press, Oxford (2011). <https://doi.org/10.1093/acprof:oso/9780199735426.003.0011>

The Role of Illustration in Digital Textile Printing: A Case Study of Emma J Shipley's Lynx Silk Twill Scarf

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Abstract

In recent decades, digital textile printing has profoundly transformed the ways in which textile patterns are conceived, produced, and experienced. Within this context, illustration has acquired a new domain: it has moved beyond the margins of books and print media to become embedded in the fabrics of everyday life, carrying with it its narrative, affective, and identity forming dimensions. This article reflects on this convergence, seeking to understand how illustration structures the fashion design process from the initial sketch to the final printed textile and what kinds of experiences it offers to those who wear or simply engage with it through touch. To this end, three lines of inquiry are brought together: a historical and theoretical review of textile illustration and the decorative arts; an analysis of the main characteristics and possibilities of digital textile printing; and a discussion of the role of illustration within the pattern design process. The central argument is that illustration, by integrating technical, formal, and conceptual knowledge, is far more than a mere aesthetic starting point; rather, it is the element that endows contemporary digital textile printing with meaning, memory, and singularity.

Keywords

Illustration; Digital Textile Printing; Surface Design; Textiles; Cultural Memory.

1. Introdução

A trajetória da ilustração nas últimas décadas pode ser considerada como paradoxal visto que nasceu para acompanhar textos e tornar as ideias mais acessíveis, foi gradualmente conquistando autonomia própria e com isto foi possível alcançar novos suportes, novos públicos, novas linguagens. O têxtil é um desses territórios de chegada. Graças aos avanços na estamperia digital, tornou-se possível transferir para tecidos imagens ilustradas de grande complexidade cromática e formal, sem as restrições de outrora em termos de escala de produção ou de número de cores [1, 2, 3]. O resultado é um estampado mais rico, mais pessoal e, em muitos casos, mais significativo. Neste sentido, o artigo inscreve-se nos estudos de ilustração ao observar a ilustração não apenas como imagem aplicada, mas como prática autoral, projetual e comunicativa que se desloca para suportes materiais, vestíveis e quotidianos.

Este artigo propõe-se explorar precisamente essa riqueza. Partindo de um olhar cruzado sobre a história da ilustração, as possibilidades da

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tecnologia digital e a prática do design de superfície têxtil, procura-se compreender que papel desempenha a ilustração no processo de criação de padrões para tecidos e que tipo de valor acrescenta, tanto do ponto de vista estético como do ponto de vista comunicacional e identitário. Para isso, revemos investigações recentes sobre ilustração aplicada ao têxtil [4], design de superfície [3], memória cultural nos tecidos estampados [5] e intermedialidade têxtil [6], entre outras contribuições.

Metodologicamente, o artigo assume-se como uma revisão bibliográfica narrativa, complementada por uma breve análise visual de caso. A revisão foi construída a partir de fontes académicas e técnico-científicas sobre ilustração, design de superfície, estampa digital e cultura têxtil, privilegiando livros especializados, artigos com revisão por pares, dissertações académicas e estudos de processo [1,3,7, 8, 4, 6, 9, 10, 11]. A análise de caso incide sobre o trabalho de Emma J Shipley, selecionado por articular de forma clara desenho manual, digitalização, coloração digital e impressão têxtil, permitindo observar num exemplo concreto as funções conceptual, formal e técnica da ilustração na estampa digital. O texto organiza-se em três partes principais: o enquadramento histórico e teórico da ilustração e do suporte têxtil; a análise do processo de estampa digital e design de padrões; e uma discussão integradora sobre as funções da ilustração neste contexto, seguida de conclusão.

2. Ilustração, artes decorativas e suporte têxtil

Durante muito tempo, a ilustração foi tratada como prima pobre das belas-artes. Associada às artes decorativas e ao que alguns teóricos apelidavam de “artes menores”, como a ornamentação de livros, a decoração de cerâmica, o bordado e a estampa têxtil, raramente era reconhecida como forma expressiva autónoma [4]. O próprio verbo “ilustrar” carregava essa limitação: servia para tornar algo mais claro, para acompanhar um texto, não para criar significado por si mesmo [7]. Não surpreende, por isso, que museus como o Louvre ou o Victoria & Albert Museum tenham historicamente remetido as suas coleções de tapeçarias e objetos do quotidiano para espaços “anexos”, secundários em relação às galerias de pintura e escultura [6].

Esse olhar foi, felizmente, sendo revisto. Autores como Male [7, 8] têm argumentado de forma consistente que a ilustração é uma disciplina com identidade própria, definida não pelo suporte em que se manifesta, mas pela sua capacidade de resolver problemas de comunicação visual para contextos e públicos específicos. Nessa perspetiva, ilustrar é pensar: é articular competências conceptuais, narrativas e formais para produzir imagens que comuniquem, que provoquem, que permaneçam. Esta definição alargada abriu caminho para que a ilustração se afirmasse em territórios como o design gráfico, o design de produto, a animação e, naturalmente, o têxtil [12, 13].

No campo dos tecidos, essa evolução traduziu-se numa passagem assinalável: dos padrões codificados pela tradição como ornamentos regionais transmitidos de geração em geração, motivos seriais sem autoria reconhecida para linguagens visuais de autor, com assinatura e intenção.

Cada vez mais, são ilustradores que transitam entre o livro, o objeto e o espaço a definir a identidade visual dos tecidos contemporâneos [4]. É nesse cruzamento entre prática artística e aplicação industrial que a estamparia digital encontra o seu terreno mais fértil.

Pensar o têxtil apenas como suporte físico é redutor. Ao longo da história, os tecidos foram muito mais do que isso: foram documentos visuais, símbolos de identidade, veículos de memória coletiva. Os bordados indo-portugueses do século XVII são um exemplo notável, neles coexistem motivos religiosos, fabulosos e do quotidiano numa mesma superfície, como se o tecido fosse uma espécie de livro que se pode tocar, dobrar, passar de mão em mão [14]. As tapeçarias medievais, os trajes elaborados das cortes europeias, os panos de trabalho das mulheres do campo: todos eles falam de gostos, de pertenças, de histórias que de outra forma não teriam chegado até nós [15, 16].

Esta ligação profunda entre tecido e memória é documentada com particular acuidade por Cimino [5] no contexto brasileiro. Estudando a Companhia Têxtil Ferreira Guimarães ao longo do século XX, a investigadora mostra como o design têxtil funciona como forma de representação da história pessoal e social, os padrões impressos nos tecidos narram décadas de moda, de gostos, de transformações culturais. Os tecidos guardam, à sua maneira, o que as palavras às vezes esquecem.

Veiga [4] sublinha, por seu lado, a carga afetiva específica do têxtil: porque está associado ao corpo, ao lar, ao quotidiano, o tecido tem uma intimidade que poucos suportes conseguem igualar. No seu projeto “No outono cai o dente”, almofadas ilustradas tornam-se objetos-livro que se pegam, se dispõem, se recompõem, ativando leituras múltiplas sem precisar de palavras. Há qualquer coisa de participativo nesta abordagem que a aproxima das práticas de arte relacional e de educação visual contemporâneas [13, 17].

A esta dimensão afetiva junta-se uma dimensão háptica, a capacidade do têxtil de evocar sensações de toque, mesmo quando mediado por outros meios. Vieira [6], a propósito das ilustrações bordadas que compõem as capas da coleção Penguin Threads e da edição especial de Grande Sertão: Veredas, mostra como a materialidade têxtil, mesmo quando reproduzida fotograficamente em papel, estabelece um campo intermedial que envolve o leitor de forma sensorial. Esta propriedade háptica não é exclusiva do bordado. Na estamparia digital, a interação entre o padrão ilustrado e a textura do substrato cria experiências sensoriais que completam e enriquecem a mensagem visual.

Em suma, o tecido estampado não é apenas uma superfície decorada. É um objeto que carrega significados, que evoca memórias, que provoca sensações. E é nesse território complexo que a ilustração tem muito a dizer.

3. Estamparia digital e design de padrões ilustrados

A história da estamparia têxtil é, em certa medida, a história da relação entre a mão humana e a máquina, uma tensão criativa que nunca se resolveu completamente e que continua a alimentar a prática contemporânea. Teixeira [3] traça esse percurso desde o *block printing*, a técnica mais antiga, em que um bloco de madeira esculpido com o motivo era preenchido

com tinta e pressionado sobre o tecido. Esta técnica era demorada, artesanal, irrepetível na sua imperfeição, usada sobretudo antes da industrialização no este asiático e na europa. Com a revolução industrial chegaram novos processos: a estamperia por quadros, primeiro manual, depois automatizada nos anos 1950, e a estamperia por cilindros, introduzida nos anos 1960, que passou a dominar a produção em larga escala [3].

Mas nem tudo caminhou para a mecanização total. Mărghidan [10] recorda que técnicas de ateliê como a serigrafia artística e o *batik* mantiveram ao longo deste percurso um elevado nível técnico e expressivo, funcionando como alternativas ao fabrico em série e como laboratórios de experimentação. A serigrafia artística, por exemplo, tem a particularidade de nunca produzir dois estampados exatamente iguais, o que é, em si mesmo, uma forma de autoria. O *batik*, com as suas reservas de cera e as suas aguarelas acidentais, aproxima-se da pintura e confere aos tecidos uma qualidade pictórica difícil de replicar por outros meios.

É neste contexto histórico que surge a estamperia digital, não como rutura absoluta, mas como mais um capítulo numa longa história de transformações. O que muda, desta vez, é a escala das possibilidades.

A estamperia digital funciona através da deposição controlada de microgotas de tinta sobre o tecido, geralmente com tecnologia *inkjet*, a partir de ficheiros digitais de alta resolução [1]. À primeira vista, pode parecer apenas mais um processo técnico, mas ao contrário da serigrafia convencional, a estamperia digital não exige a criação de quadros específicos para cada cor, o que não só elimina um passo demorado e dispendioso, como também suprime a limitação no número de cores utilizadas. Além disso, reduz significativamente o desperdício de água, permite mudanças rápidas entre trabalhos e viabiliza a produção de quantidades muito pequenas, incluindo peças únicas [2, 3].

Teixeira [3] sintetiza bem o alcance desta transformação ao definir a estamperia digital como o conjunto de todos os métodos em que as imagens são geradas digitalmente ou digitalizadas, sendo a sua transferência para o tecido feita sem recurso a matrizes nem a separação de cores. Na prática, isto significa que um designer pode criar um padrão no computador de manhã e tê-lo estampado num tecido à tarde e que esse padrão pode ter inúmeras cores, gradações subtis de luz e sombra, texturas pictóricas que imitam a aguarela ou o guache, sem qualquer perda de fidelidade [9, 1].

Mărghidan et al. [11], documentando uma colaboração entre a Universidade Nacional de Artes “George Enescu” e uma empresa têxtil romena, confirmam que a estamperia digital é hoje a técnica preferida tanto na indústria como entre criadores independentes, precisamente pela sua capacidade de combinar rigor técnico com liberdade criativa. Ao mesmo tempo, sublinham um dado consistente com a investigação de Teixeira [3]: independentemente de quão avançada seja a tecnologia, o ponto de partida continua a ser o ato individual de quem desenha.

Criar um padrão para estamperia não é apenas ilustrar, deve-se pensar a imagem em termos de repetição, de ritmo, de escala, de comportamento sobre o tecido. O que em design de moda se designa por módulo, motivo, *rapport* ou repetição [3].

O módulo é a unidade mínima do padrão: o conjunto de elementos que, quando repetido, forma o estampado corrido. O *rapport* é o tipo de repetição adotado, que pode ser: o *block repeat*, em que o módulo se repete em grelha regular; o *half-drop repeat*, em que cada coluna desce meia unidade em relação à anterior; o *brick repeat*, que imita o alinhamento dos tijolos; o *mirror repeat*, em que os motivos são espelhados; o *design multidirecional*, em que os elementos são dispersos em direções aleatórias para criar uma sensação de espontaneidade [3]. Cada escolha tem consequências visuais: determina o ritmo do padrão, a forma como o olho percorre o tecido, a sensação de movimento ou de repouso que o estampado transmite.

Mas antes de chegar ao *rapport*, existe o motivo e é aqui que a ilustração entra de forma decisiva. Male [8] sublinha que é a capacidade de explorar variações de escala, densidade e ritmo visual através do desenho que permite encontrar soluções que respondam simultaneamente ao conceito do projeto e às exigências técnicas da produção. Teixeira [3] mostra, de forma particularmente elucidativa, como técnicas manuais como o carimbo com elementos vegetais e o *monoprinting* podem ser o ponto de partida de padrões digitais de grande qualidade expressiva. A textura da couve pressionada contra o papel, as manchas irregulares da tinta na placa de gel, tudo isso produz qualidades visuais que os programas informáticos, por si sós, não conseguem simular.

Uma vez criados os motivos, o processo continua com a digitalização, a limpeza da imagem, a construção do módulo e a sua organização com software como o Adobe Photoshop ou o Illustrator, por exemplo [18]. A preparação técnica do ficheiro final, a gestão do perfil de cor e a provas de cor no tecido é uma etapa crucial que exige diálogo entre o ilustrador e o técnico de estamparia [9, 1]. A escolha do substrato é igualmente determinante: Teixeira [3] demonstra, através de análise colorimétrica, que o mesmo padrão impresso em linho, tencel e algodão apresenta diferenças cromáticas mensuráveis.

3.1. Estudo de caso: Emma J Shipley e a ilustração aplicada ao lenço estampado digitalmente

Para concretizar a relação entre ilustração, processo digital e suporte têxtil, este artigo integra uma breve análise visual de Lynx Silk Twill Scarf (Fig. 1), de Emma J Shipley. A escolha deste caso justifica-se pela clareza com que a prática da autora articula desenho manual, digitalização, tratamento cromático e aplicação sobre tecido. Shipley é apresentada pelo Royal College of Art como artista gráfica especializada em desenho fino, lenços de luxo e objetos têxteis para interiores, tendo lançado a sua marca na London Fashion Week em 2012, após a conclusão da sua formação no Royal College of Art [19]. Esta dimensão profissional torna o seu trabalho particularmente relevante para observar a passagem da ilustração autoral para o design têxtil contemporâneo. O próprio Royal College of Art descreve ainda a marca Emma J Shipley como dedicada a lenços, tecidos, papel de parede, almofadas e outros objetos de design, com inspiração em mitos, lendas e no mundo natural [20].

Fig. 1. Lynx Silk Twill Scarf, de Emma J Shipley. Exemplo de aplicação de ilustração autoral em suporte têxtil estampado digitalmente. Disponível em: Lynx Silk Twill Scarf - Red Leopard - Autumn Orange - Emma J Shipley



A análise do caso é orientada por uma leitura visual da peça, considerando composição, motivo, escala, cor, suporte e relação com o corpo. Esta abordagem segue a perspectiva de Rose [21], para quem os materiais visuais podem ser estudados a partir das suas condições de produção, da sua organização formal e dos seus modos de circulação e receção. Neste sentido, Lynx Silk Twill Scarf não é observado apenas como produto comercial, mas como

objeto visual e têxtil no qual a ilustração estrutura a identidade da peça. A opção pelo lenço é igualmente significativa: ao contrário de uma superfície plana e fixa, o lenço é dobrado, enrolado, usado sobre o corpo e sujeito ao movimento, o que obriga a ilustração a funcionar simultaneamente como imagem autónoma e como padrão vestível.

O processo criativo de Emma J Shipley reforça esta articulação entre manual e digital. Em entrevista à *Schön! Magazine*, a autora explica que inicia os desenhos finais com lápis e papel, planeando primeiro a composição e construindo depois camadas de grafite para desenvolver profundidade tonal; após essa etapa, os desenhos são digitalizados, trabalhados cromaticamente e ajustados à escala dos lenços [22]. Numa entrevista posterior, Shipley volta a descrever um processo semelhante, baseado em investigação visual, esboços de composição, desenho em grande escala sobre papel, digitalização e trabalho digital da cor, mantendo a qualidade manual do traço original [23]. Esta sequência é relevante porque demonstra que a tecnologia digital não substituiu o desenho, mas prolonga a sua ação no processo de estamparia.

Em Lynx Silk Twill Scarf, a ilustração funciona como matriz conceptual e formal da peça. O motivo animal, associado ao universo visual recorrente da autora, não surge apenas como elemento decorativo, mas como centro narrativo da composição. A peça pertence a uma linha de produtos onde o mesmo imaginário é transposto para diferentes suportes, incluindo papel de parede, almofadas, roupa de cama, objetos cerâmicos e lenços, o que demonstra a capacidade da ilustração para gerar uma linguagem visual coerente e expansível [24]. No caso específico do lenço, a composição tem de responder ao formato quadrangular, à escala do corpo e à legibilidade variável da imagem quando o tecido é usado. Assim, a ilustração deixa de ser apenas imagem impressa e passa a organizar a relação entre desenho, matéria e gesto.

Este caso permite, por isso, tornar mais tangível o argumento central do artigo: na estamparia digital, a ilustração não é um adorno posterior ao processo técnico, mas uma estrutura que orienta decisões conceptuais, formais e materiais. Tal como defendem Bowles e Isaac [18], o design têxtil digital implica a articulação entre desenho, ferramentas digitais, repetição, escala e preparação para impressão. Briggs-Goode [25] reforça esta ideia ao compreender o design têxtil estampado como um processo

que vai do briefing e da investigação visual à composição, à cor, ao *repeat* e à coleção final. A prática de Emma J Shipley confirma esta continuidade: o traço manual permanece reconhecível, mas é transformado pela digitalização, pela cor e pela impressão em seda, convertendo a ilustração num objeto têxtil de uso quotidiano.

4. Discussão

Fica claro que a ilustração não é um elemento opcional na estampa digital, é o seu motor e sem ela, o tecido pode ser tecnicamente impecável e visualmente inerte, mas com ela esse mesmo tecido ganha vida, narrativa e identidade.

Podemos organizar as funções da ilustração neste contexto em três planos interligados. O primeiro plano é o conceptual: a ilustração é o processo através do qual uma ideia se transforma numa imagem concreta que orienta todo o desenvolvimento do padrão [7, 4]. Cimino [5] reforça esta dimensão ao mostrar que os designs têxteis com maior longevidade são aqueles que conseguem condensar referências artísticas e culturais partilhadas, tornam-se clássicos porque tocam algo que é reconhecível, porque falam uma linguagem que muitas pessoas sentem como sua.

O segundo plano é o formal: por meio do desenho, o ilustrador organiza a composição, o ritmo, a escala e a paleta cromática do padrão, garantindo que este funciona tanto em repetição bidimensional como quando aplicado a um volume tridimensional [25, 18]. A escolha do tipo de *rapport*, como documenta Teixeira [3], não é indiferente porque determina a leitura visual do padrão e a sua adequação ao produto e ao utilizador final.

O terceiro plano é o técnico: o ilustrador que trabalha para a estampa digital precisa de conhecer a tecnologia com que trabalha, os seus limites, as suas possibilidades, as suas especificidades em termos de resolução, o perfil de cor e comportamento das tintas sobre diferentes fibras. Mărgădan et al. [11] mostram, a partir de experiências pedagógicas documentadas, que a criação direta no computador e a criação a partir de esboços manuais digitalizados produzem resultados esteticamente distintos.

Há ainda uma quarta dimensão que merece atenção: a intermedial. Vieira [6] mostra como o carácter artesanal de uma imagem textilidade mesmo quando mediada por reprodução fotográfica ou digital ativa vínculos afetivos com o objeto e estimula dimensões hápticas que transcendem a pura visualidade. A lógica é a mesma na estampa digital, um padrão que nasce de um processo manual, que guarda na sua textura a memória da mão que o desenhou, oferece ao utilizador uma experiência sensorial e emocional mais rica do que um padrão gerado por algoritmo.

É importante, todavia, reconhecer os limites desta análise. A reflexão apresentada neste artigo é de natureza teórica e bibliográfica não se apoiou em dados primários recolhidos junto de ilustradores, designers ou utilizadores, nem num processo criativo documentado de raiz. As conclusões têm, por isso, um alcance geral. Estudos futuros que combinem revisão bibliográfica com trabalho de campo, entrevistas a profissionais, análise de processos criativos, estudos de receção junto de utilizadores poderão aprofundar e matizar os argumentos aqui avançados.

5. Conclusão

Há uma frase de Cimino [5] que resume bem o espírito deste artigo, os tecidos guardam histórias. Não apenas porque registam tendências de moda ou porque refletem o gosto de uma época, mas porque transportam, em cada padrão, a visão e a sensibilidade de quem os criou. A ilustração traz uma presença humana, uma intenção, uma narrativa que vai muito além da superfície à estampa digital.

Este artigo procurou mostrar que a relação entre ilustração e estampa digital é mais profunda do que uma relação de ferramenta e suporte. A ilustração não serve apenas para decorar o tecido, confere-lhe identidade e orienta todas as decisões subsequentes, desde a escolha do *rapport* até à seleção do substrato. E faz tudo isso enquanto carrega consigo uma longa história, a das artes decorativas, que durante séculos foram tratadas como menores, mas que nunca deixaram de ser essenciais. Os tecidos onde foram aplicadas técnicas manuais que a digitalização não apagou serviram como documentos de identidade e memória, transformando-se num ponto de partida para novas possibilidades.

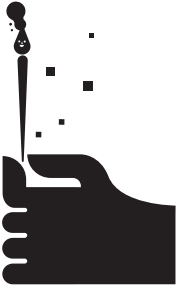
Os contributos de Teixeira [3], Cimino [5], Mărghidan et al. [11], Mărghidan [10] e Vieira [6] enriqueceram substancialmente esta reflexão, ao introduzirem perspetivas complementares, como a dimensão técnica do design de superfície, a memória cultural inscrita nos tecidos estampados, a prática pedagógica e colaborativa que documenta o processo criativo em contexto real, a hapticidade da imagem têxtil e a evolução histórica das técnicas de estampa.

Há caminhos por explorar neste artigo que merece investigações futuras, como a perspetiva do utilizador ao receber, interpretar e viver os tecidos ilustrados. A relação entre ilustração têxtil e outros meios em expansão, como a animação e os ambientes interativos, abre possibilidades criativas que vale a pena acompanhar. E a documentação de processos criativos reais, com dados primários recolhidos junto de ilustradores e designers, permitiria tornar mais concreto aquilo que aqui se avança como argumento teórico.

Referências

1. Islam, M. M.: Digital printing of textiles. *Journal of Textile Science & Engineering*, 10(3), 1-8 (2020). <https://doi.org/10.35248/2165-8064.20.10.410>.
2. Tyler, D. J. (2005). Textile digital printing technologies. *Textile Progress*, 37(4), 1-65. doi: 10.1533/tepr.2005.0004.
3. Teixeira, A. F. P.: Design de superfície têxtil para estampa digital. Dissertação de mestrado, Universidade do Minho, RepositórioUM (2019).
4. Veiga, M. L. P. C. A.: A ilustração aplicada ao suporte têxtil. Dissertação de mestrado, Instituto Politécnico do Cávado e do Ave (2016).
5. Cimino, C. C. G.: Textile design: Print of life in the history of art. *Journal of Textile Engineering & Fashion Technology*, 9(3), 65-67 (2023). <https://doi.org/10.15406/jteft.2023.09.00335>.
6. Vieira, E. V. C.: Embroidered illustrations: Paratextuality and book design with textile arts. *Lublin Studies in Modern Languages and Literature*, 46(3), 15-24 (2022). <https://doi.org/10.17951/lsmll.2022.46.3.15-24>.

7. Male, A.: *Illustration: A theoretical & contextual perspective*. AVA Publishing, Lausanne (2007).
8. Male, A.: *Illustration: Meeting the brief*. Bloomsbury, London (2014).
9. Ujiie, H. (Ed.). (2006). *Digital Printing of Textiles*. Woodhead Publishing.
10. Mărghidan, E.: Textile printing / art and technology. In: *Proceedings of the V-th International Symposium Creativity Technology Marketing 2023*, pp. 27–32. Technical University of Moldova (2023).
11. Mărghidan, E., Vieriu, M., Loghin, R. S.: Digital textile printing. In: *Proceedings of the IV International Scientific-Practical Conference “Current Problems of Modern Design”*, pp. 256–258. KNUTD (2022).
12. Arisman, M., Heller, S.: *Teaching illustration*. Allworth Press, New York (2006).
13. Salisbury, M.: *Illustrating children's books*. A&C Black, London (2004).
14. Pereira, F., Alarcão, T.: *Fábulas bordadas: Uma colcha indo-portuguesa do século XVII*. Instituto Português de Museus, Lisboa (1988).
15. Gusmão, M.: *Folie textile: Mode et décoration sous le Second Empire 1852–1870*. MODA MODA, (108), 77–81 (2013).
16. Silva, A. C. V. R.: *Arte portuguesa: As artes decorativas*, Vol. 2. Verbo, Lisboa (2009).
17. Steiler, C.: *The human side of fashion. Obra de arte, Contextile* (2014).
18. Bowles, M., & Isaac, C. (2012). *Digital Textile Design*. 2nd ed. Laurence King Publishing.
19. Royal College of Art: “I felt inspired every single day”: An MA in Textiles led to Emma Shipley launching a luxury label. Royal College of Art (2019).
20. Royal College of Art: Emma J Shipley. InnovationRCA, Royal College of Art.
21. Rose, G.: *Visual Methodologies: An Introduction to Researching with Visual Materials*. 5th ed. SAGE, London (2022).
22. Schön! Magazine: Interview, Emma J Shipley. Schön! Magazine (2014).
23. Olise Magazine: Behind the Prints: Emma J Shipley Discusses Art, Nature and Design. Olise Magazine (2024).
24. Emma J Shipley: *Lynx Silk Twill Scarf*. Emma J Shipley.
25. Briggs-Goodie, A.: *Printed Textile Design*. Laurence King Publishing, London (2013).



Creative Processes and Teaching Methodologies in Animation within VR Contexts

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Keywords

Animation; Virtual Reality;
Teaching Methodologies;
Production Methodologies;
Immersive Animation.

Abstract

This paper is focused on the context of animation methodologies and creative processes in the field of Virtual Reality (VR) and its impact on improving teaching methodologies in the classroom. The central problematic, draws on a theoretical framework, that discusses major differences between classical animation production approaches versus emergent technological approaches in VR using animation. Some of the concepts discussed are the sense of physical presence in VR, embodiment, “storyboarding inside virtual environment”, virtual focal points, user interaction and participatory engagement approach in the construction of an immersive experience. Methodologically, this research combines literature review, critical theoretical analysis, and a case study analysis of VR projects produced by the Brazilian studio HILDA Motion. Complementarily a semi-structured interview with its authors particularly with the directors, Baboo Matsusaki and Isabella Papa were conducted to collect data and insights about the creative and production processes to better inform production methodologies used by the studio in this field and critically reflect on pedagogical strategies.

As a contribution this paper aims to reflect on contemporary concepts and emergent practises of production in VR in animation and consequently implement impactful pedagogical approaches of project-based learning (PBL) teaching methodologies contexts.

1. Introduction

Although often associated with recent technological developments, Virtual Reality (VR) is part of a longer historical genealogy of immersion. From nineteenth-century optical devices—such as Charles Wheatstone’s stereoscopes—to panoramic experiences and illusionistic strategies in painting, visual culture has consistently sought to reduce the distance between subject and representation, intensifying the sense of presence. In the twentieth century, systems such as Morton Heilig’s Sensorama deepened this tendency by integrating multiple sensory channels, anticipating the multimodal logic of contemporary immersion. With the development of Ivan Sutherland’s *Sword of Damocles* in 1968, stereoscopic visualization

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became articulated with body tracking and real-time computation, establishing the foundations of modern VR. Initially confined to scientific and industrial contexts, the technology later expanded into cultural, artistic, and interactive practices, particularly through its convergence with video games and digital culture in the 1980s and 1990s [1][2]. From 2013 onwards, with the availability of commercial head-mounted displays such as the Oculus Rift DK1, VR became consolidated as an expressive medium accessible to artists, independent studios, and educational contexts.

Within this new context, VR emerges not merely as a technological phenomenon, but as a new paradigm oriented toward the management of attention and perception [3], shifting the interpretative axis from visual simulation to the intensification of the user's embodied experience. This shift introduced implications in the field of animation, as it transformed its standardized principles of production and creative methodologies. Will Traditional animation is grounded in the sequential organization of moving images, in the control of time, and the viewer's gaze, animation in VR approaches is reconfigured as a practice of constructing experiential environments in which narrative is articulated through space, interaction, and user agency. Consequently, this transformation introduced specific challenges at the level of creative processes, production models which affect updated methodologies of learning and pedagogical approaches to projects. Teaching VR in the context of animation involves adapting pre-existing techniques but also requires rethinking fundamental concepts and aspects such the sense of presence in virtual environments, point of view, focal points, temporality, rhythm, now distributed as a participatory approach between author and user as part of the process. To better analyse this problematic in practical and professional terms, a case study of the Brazilian-Portuguese VR animation studio HILDA Motion — focused on practice and production aspects — is examined to better inform and implement teaching methodologies.

2. Literature review and critical analysis on Animation and VR: the reconfiguration of creative processes and production models

2.1. The centrality of user experience

This paper examines three areas of visual and media practice within the context of VR: (1) Animation; (2) Immersive media; and (3) Interactive and virtual environments.

Animation [4][5] in traditional terms can be understood as an experience based on a fixed narrative where the user is a passive observer, with no control over the content, narrative, or formal and spatial experience. The director controls a linear, one-directional storyline as well as its creative and production methods: the storyboard process, frame and composition, time and rhythm, mise-en-scène and cinematography — the viewer's linear overall visual experience depends entirely on the director's creative decisions. The narrative conducts the immersive passive user through an emotional, aesthetic, and spatial experience.

In contrast, VR and 360° animation experiences partially challenge this logic: the user can physically move through the space and orient their gaze freely through focal points, but the narrative content remains fixed and authored. The space opens up new possibilities, but authorial control persists. This intermediate condition — between passive spectatorship and full interactivity — is precisely the point at which the concept of narrative space [6] begins to be change: the user's body enters the scene but does not yet determine it. Interactive VR experiences go further still: the user is no longer merely an oriented observer but becomes an active agent who interacts with the environment, makes decisions, and alters the content of the experience itself. The narrative ceases to follow a fixed linear path and constitutes itself as a system of possibilities co-determined by the user through spatial exploration, interaction, and discovery. The use of VR in the context of animation, rather than being understood as a simple extension of the bidimensional logic of animation, can be better understood as a transformation of its formal, creative, productive, and narrative foundations. The shift between authorial control over different points of view and user interaction in VR transforms the passive immersivity of animation into a participatory or interactive user experience in which the user redefines the experience, controlling what is seen, when, and how. The user no longer observes the action from a distant exterior but becomes integrated into the digital environment, acting within a space that responds to a sense of virtual presence.

In interactive cinematic VR contexts, this transformation is understood as responsible for the emergence of an egocentric and partially authorial spectator [7][8]. Murray [9] associates this condition with “the satisfying power to take meaningful action and see the results of our decisions and choices”. However, this redistribution of control also introduces what has been described as the “narrative paradox” [10]: the tension between maintaining authorial coherence and the freedom granted to the user within the virtual environment, often intensified by the phenomenon of Fear of Missing Out (FOMO), in which the user becomes aware that parts of the narrative may remain invisible depending on where they choose to look or move.

This reconfiguration of the relationship between work, author, and audience/user has simultaneously demanded new production models centred on user experience, partially aligned with the principles of game design, in which the focus shifts from an aesthetics of representation to an aesthetics of participation and the design of interactive systems that generate meaning through action [3][11][12]. In VR narrative experience, usability becomes central to the development process, requiring continuous user testing to evaluate presence, engagement, comfort, and spatial orientation [13][14]. In this context, iterative cycles of prototyping and testing become essential, as user behaviour and bodily response become fundamental criteria for evaluating immersive experiences. According to Ryan [15], interactive VR reconfigures the linear logic of traditional narrative by transforming it into an experience in which the user actively participates in the construction of the experience through spatial

exploration and attention orientation. However, this interactive openness introduces tensions between agency and narrative coherence, as exploratory freedom can simultaneously enhance immersive engagement and provoke narrative dispersion. VR interactive narrative thus depends on the articulation between spatial organisation, temporal structure, and emotional engagement, going beyond the simple dimension of sensory immersion or interactivity.

The transformations in narrative experience observed in VR also imply a shift from traditional cinematic syntax — organised through editing and montage — to a logic of spatial composition, in which environments are designed to guide the user's attention and movement. Proximity, scale, direction, and environmental cues become structuring elements of narrative, bringing VR composition closer to spatial practices such as scenography or installation. Recent research shows that freedom of gaze orientation requires new attention-guidance strategies [10], with diegetic cues — such as spatialized sound, character movement, or gaze direction — proving particularly effective in orienting the user without breaking immersion [16][17]. Empirical studies further demonstrate that cues embedded in the *mise-en-scène*, such as gestures or head movements, increase engagement and reduce the time needed to locate narrative information.

The repositioning of the user's point of view at the centre of the narrative space also introduces a fundamental shift in storyboarding practice: rather than sketching a linear sequence on paper, the author works from within the virtual environment itself, defining multiple points of view and focal points of attention from the perspective of an embodied, spatially situated user. In this context, different authors [11][12][18] argue that the virtual environment must be conceived as a stage production that unfolds around the viewer, requiring new storyboard formats — panoramic, diagrammatic, and equirectangular — capable of representing spatial relationships, attention zones, and viewing trajectories that conventional storyboards are unable to capture in their omnidirectional totality.

2.2. The Artist's Relationship with Immersive Space, the Body, and Composition

In VR, the notion of presence — understood as the “sense of being” in a mediated environment [19][20] — extends beyond the user to also encompass the artist/ animator, both inhabiting the environment as a space of action and creation. Unlike bidimensional regimes — where formal organisation is tied to a fixed frame and a temporality controlled through montage — composition in VR becomes fundamentally spatial. Rather than constructing sequences through editing, the artist works immersed within trajectories of gaze and the distribution of elements in a navigable environment, replacing sequential logic with an architecture of perception.

Technological mediation no longer operates merely as an external interface but directly structures the relationship between body, perception, and space, shifting the creative process toward an embodied logic. In immersive environments, the interface integrates into action itself, giving rise to “embodied interfaces” (Hansen, 2004), in which bodily

gesture, gaze orientation, and spatial movement become the primary mechanisms of creation and interaction. This shift becomes particularly evident in immersive creation tools such as Quill, in comparison with development platforms like Unity, Unreal Engine, and other real-time 3D engines. Creation moves away from symbolic actions — such as menus or commands — and increasingly depends on perceptual-motor competencies: approaching, navigating, circling, tracing, or modelling. VR tools thus intensify the phenomenological dimension of the creative process: the artist no longer merely observes the object but inhabits its scale and negotiates its form through the body.

3. Case study analysis methodologies

The transformations outlined in previous section — from passive spectatorship to participatory agency, from fixed-frame composition to embodied spatial creation — raise a central pedagogical question: how can teaching methodologies incorporate the major differences between classical animation production approaches and emergent technological approaches in VR? To better analyse this problematic in practical and professional terms, the following section presents a case study of HILDA Motion.

A case study of VR projects by HILDA Motion was conducted — including a semi-structured interview with the studio's directors — to examine industry standards, creative and production processes, and the constraints and advantages of VR production, with a view to informing teaching methodologies and sharing knowledge with students.

HILDA Motion is an independent animation studio founded by Baboo Matsusaki, where Isabella Papa works as a director, and Leticia Mello as a producer, operating between Brazil and Portugal. The studio combines a broad commercial practice — with clients including Netflix, Disney+, Amazon Prime Video, HBO, and Meta — with an experimental line of VR animation development using immersive tools such as Quill and Next Lab Grease Pencil VR. The VR projects analysed include: *Parallel Lines at Infinity* (finalist, Next Lab Generation 2024); *Echoes of Drowning* (winner, Next Lab Generation 2025, MIFA Annecy); *The Mother Tree*, co-produced with Gastonia Motion, selected for the 10th Biennale College Cinema – Immersive (Venice, 2025); and *Catwalk*, co-produced with Ibermedia Next funding, currently in post-production. For the purpose of this study the case study of Hilda motion was selected followed the listed relevant criteria: (1) international recognition of its VR projects, notably through Next Lab Generation, where it achieved finalist and winner status across consecutive editions, and through selection for the Biennale College Cinema – Immersive, Venice (2025), one of the world's leading events for VR and immersive cinema projects; (2) the studio's award-winning trajectory in international immersive project development contexts, attesting to the quality and relevance of its practice in the field; and (3) institutional ties to Portugal, with particular relevance to the academic context of this research, notably the University of Algarve, which can have a major impact on student learning through workshops and masterclasses close to the university and their spaces of work.

Empirical data derives from the analysis of projects as creative artefacts and a single semi-structured interview with the directors, conducted in February 2026, in person, in Portuguese, covering four thematic axes: creative process and production workflow; narrative and interaction design; use of immersive tools; and pedagogical implications of professional VR practice.

3.1. Analysis of Creative Processes and Production Practices

The theoretical transformations examined in Section 2 found concrete expression in the creative and production practice of HILDA Motion. Regarding the storyboarding techniques employed, Matsusaki and Papa (personal communication, 2026) converge on a shared observation: while storyboard techniques may adapt to the specific needs of each project, VR storyboarding fundamentally shifts from planning a linear sequence within a fixed frame to entering the virtual environment directly. Consequently, VR storyboarding becomes an iterative and exploratory process of inhabiting the experience from within the virtual environment itself, developed through the creator's direct bodily interaction with the digital space, the storyboard drawings, and the evolving prototype.

This process is illustrated, for instance, in the production of *Echoes of Drowning* (HILDA Motion, 2025), in which the storyboard was developed using traditional methods and subsequently directly in the virtual space. Although the production process used VR tools, the project was never conceived as an immersive experience; from the outset it was designed as a teaser for 2D exhibition. Nevertheless, part of the material produced was later adapted for the Theater Elsewhere, allowing a section of the animation to be viewed within a virtual reality environment (Figure 1).

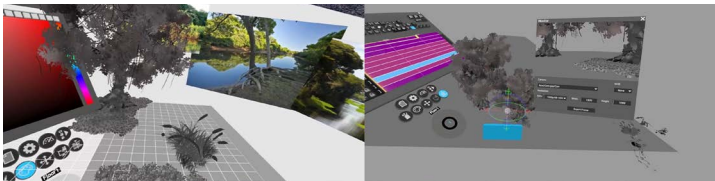


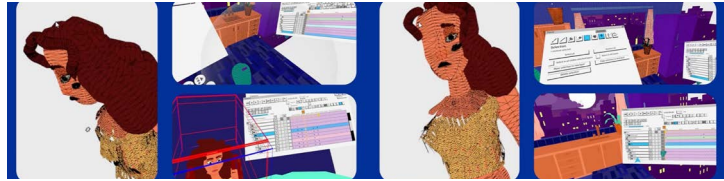
Fig. 1. Stills documenting the 360° environment creation process of the work *Echoes of Drowning* (2025), by HILDA Motion. (Source: HILDA Motion).

The practice of the HILDA studio further illustrates how this embodied and multisensory approach reconfigures the creative process itself. In *The Mother Tree*, for example, the physical installation replicates elements of the virtual environment: as the virtual space features a wooden floor, “the floor is also made of wood so that when the user steps on it...” (Matsusaki & Papa, personal communication, 2026). This continuity between embodied perception and spatial design reflects a broader understanding of VR as an experience constructed through the articulation of sensory, material, and performative dimensions.

Matsusaki and Papa (personal communication, 2026) also describe VR production using tools such as Quill and Next Lab Grease Pencil VR as more “organic” and “efficient”, highlighting a shift from production mediated by conventional interfaces to a practice based on the intensifica-

tion of bodily gesture. The modelling process based on “bodily memory”, described as “much more intuitive”, reveals the activation of tacit and sensorimotor forms of knowledge akin to sculptural practices. The virtual space thus ceases to be merely visualised and becomes a field of action in which form and gesture are co-produced. In this sense, VR production approximates a performative and sculptural logic: the artist acts directly within the virtual space, composing the work through gesture, movement, and embodied interaction with the environment.

Fig. 2. Stills documenting the embodied creation process of *Parallel Lines At Infinity* (2024), by HILDA Motion. (source: HILDA Motion).



This logic is also reflected in the way the relationship between storyboard and composition is conceived. Rather than constructing images for a fixed frame, the artist composes from the position of the body in space, privileging what will be effectively experienced by the user. This approach reduces visual redundancy and reinforces compositional intentionality, orienting the creative process toward situated experience (Figure 2).

At the same time, the practice of the HILDA studio demonstrates that this embodied approach is neither immediate nor intuitive in a simplistic sense. Creating in VR requires the development of new competencies related to scale, spatial orientation, legibility, comfort, and attention management — variables that are stabilised through iterative processes of experimentation and testing. The need to define in advance aspects such as the device (headset), the level of interactivity, the exhibition context, and the target audience indicates that, despite the intuitive dimension of gesture, the process demands a high degree of planning and interdisciplinary integration. As discussed in Section 2, the incorporation of UX principles from the conceptual phase confirms that user experience does not constitute a secondary layer but a structural component of the creative process.

This condition reinforces the interdisciplinary nature of VR, requiring the articulation of visual language, embodied sensibility, spatial thinking, and critical reflection. As evidenced by the competencies identified by Matsusaki and Papa (personal communication, 2026) — illustration, sculpture, experimental curiosity, and UX knowledge — creation in VR cannot be reduced to a purely technical or aesthetic domain but must be understood as an integrated practice that articulates experience, narrative, and interaction.

4 Teaching Methodologies for VR in Animation: training, pedagogical approaches and reflective practice

Teaching VR in animation sits at the intersection of animation education, interactive and immersive experience design, and audiovisual practice. It requires moving beyond models centred exclusively on technical compe-

tencies: the expressive potential of VR depends on embodied interaction and spatial perception, dimensions that cannot be transmitted through theory or demonstration alone. As Matsusaki and Papa (personal communication, 2026) note, contemporary educational contexts in animation are already shaped by a “culture of immersion” inherited from video games and interactive digital media; pedagogy must therefore build on these pre-existing experiential literacies while simultaneously introducing critical distance and new conceptual frameworks specific to immersive animation.

4.1. Project-based methodologies (PBL), and experimentation

Project-based learning (PBL) constitutes a central approach in teaching VR in the context of animation, structuring the learning process around the development of concrete proposals that integrate conceptualisation, technical implementation, and experiential evaluation. Students are encouraged to define objectives, target audiences, and interactive strategies, assuming responsibilities close to professional practice. This approach draws on foundational traditions in experiential and reflective pedagogy. Dewey [21] argued that genuine learning emerges from purposeful experience rather than the passive reception of knowledge. Schön [22] extended this through the concept of reflection-in-action, according to which the practitioner learns by doing and by critically examining the outcomes of their practice. Kolb [23] formalised this logic in his experiential learning cycle (concrete experience > reflective observation > abstract conceptualisation > active experimentation), particularly applicable to iterative VR production workflows.

PBL approaches to project are directly integrated in VR practice methodologies by structuring learning around concrete challenges, enabling the formulation of particularly relevant pedagogical problems: how to preserve narrative intention when the user controls the gaze? How to guide attention without resorting to intrusive mechanisms? How to manage transitions between different media (for example, between 2D and VR) without losing coherence? More broadly, how to redefine what constitutes an “animated image experience” in an immersive context? In project development, objectives may oscillate between ensuring comfort, legibility, and orientation, or producing sensory impact and estrangement; the notion of target audience frequently involves decisions related to accessibility and cognitive load; and usability and interactivity risk becoming uncritical values, leading to redundant or meaningless solutions. Pedagogy must therefore teach not only how to introduce interaction but also how to determine when it is relevant and when it becomes noise that compromises the experience.

Within PBL, experiential learning — based on the direct exploration of immersive environments — gains relevance in both production and creative contexts. Experimentation involves aesthetic-conceptual processes but also technical development, including students’ contact with VR devices (headsets), software, and prototyping workflows, enabling first-person understanding of the effects of immersion, interaction, and presence.

However, direct experience alone does not guarantee learning. The sensory intensity of VR may generate immediate fascination — a “novelty effect” mentioned by Matsusaki and Papa (personal communication, 2026) — that tends to mask weaknesses in narrative coherence. This immediate sensory engagement can create a perception of effectiveness even when the narrative structure or the organisation of the experience proves fragile. Teaching VR therefore requires the development of a critical distance in relation to immersion itself, enabling students to distinguish between sensory intensity and experiential quality.

In this framework, it becomes essential to articulate theoretical, technical, and aesthetic content, avoiding their compartmentalisation. Mastery of game engines, programming languages, or VR systems must be inseparable from understanding perception, presence, and the construction of experience. When VR is used only as a tool, the focus tends to reduce to technical efficiency; when treated exclusively as a final medium, a rhetoric of “immersion” may emerge that substitutes critical analysis. Pedagogy must avoid both extremes, recognising VR simultaneously as a tool and as an expressive medium.

The interview with Matsusaki and Papa (personal communication, 2026) reinforces the centrality of experimentation as a learning process. The authors describe a learning trajectory that began “without knowing anything about VR”, evidencing a progression grounded in practice and discovery. They highlight participation in the Next Lab Generation workshop — an international programme for project development in cinema and immersive technologies, associated with Biennale College / La Biennale di Venezia — as a decisive moment in their formation. This participation resulted in projects such as *Parallel Lines at Infinity* (2024, finalist) and *Echoes of Drowning* (2025, winner). They also reference the development of *The Mother Tree*, co-produced with Gastonia Motion, presented at MIFA and subsequently selected for the 10th edition of Biennale College Cinema - Immersive (2025), where it was developed within an international mentoring context. Baboo Matsusaki’s participation in the conference “Animating Films with VR Tools” (MIFA 2025) further reinforces the formative dimension, providing contact with VR tools applied to animation production — such as Quill and Next Lab Grease Pencil VR — as well as with emerging industry practices. These formative environments function as spaces of practical learning, grounded in experimentation, interdisciplinary collaboration, and direct engagement with VR production processes. The interviewees also underline that, in these formative contexts, access to equipment — particularly VR headsets — was fundamental to overcoming initial barriers, evidencing the decisive role of material conditions in teaching VR (Matsusaki & Papa, personal communication, 2026).

This dependence on material conditions reveals that VR production involves specific constraints — such as access to hardware, long setup times associated with the technical configuration of devices and testing environments, difficulties of sharing, and slower iteration cycles (as each modification frequently requires export, testing under immersive conditions, and subsequent refinement) — that shape the learning process itself.

Learning VR largely means learning how to test: performance limits and potential, system stability, export processes, and behavioural responses. In this context, aesthetics ceases to constitute an autonomous domain and becomes inseparable from technical constraints. Error and iteration thus become structural components of the pedagogical process. The continuous construction, testing, and reformulation of prototypes promotes learning grounded in the resolution of concrete problems.

4.2. Physical Presence in Virtual Environments: Towards a VR Storyboard Practice

As discussed in Section 2.1, VR in the context of animation requires a fundamental reconception of storyboarding: rather than planning a linear sequence within a fixed frame, the author enters the virtual environment directly, defining focal points, attention trajectories, and spatial triggers from the perspective of the embodied user.

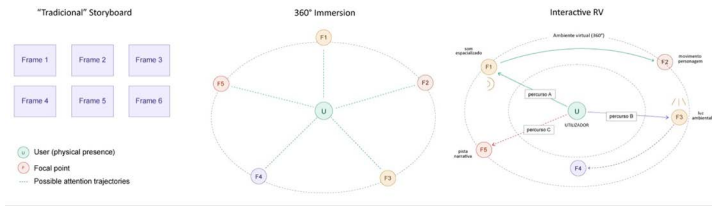


Fig. 3. Comparative diagrams between storyboard processes.

From a pedagogical standpoint, the spatial and structural challenges of VR storyboarding — the absence of a fixed frame, the logic of blocking, the disorienting effects of cuts, and the need to plan for a viewer who can look in any direction — demand that students develop a spatial, multi-directional, and user-centred planning sensibility. Practical exercises include mapping attention trajectories within a 360° environment; designing diegetic cues for guiding the gaze (spatialized sound, character movement, environmental light); and producing “experience maps” that document the possible paths a user might take through the narrative space [7]. These tools function as spatial storyboards, capturing not a single viewing path but a field of possible experiences, aligning VR animation pedagogy with the iterative and collaborative workflows documented, for instance, by Tricart [11], Bucher [12], Fahmy [15], and Henrikson et al. [18]. These authors emphasise that VR storyboarding in the context of animation cannot be completed before production begins it must be tested and refined through direct engagement with the environment — a logic fully consistent with the experiential learning cycle of Kolb [21] and the reflective practice model of Schön [20].

4.3. Interdisciplinary and collaborative learning

VR production in the context of animation frequently involves multidisciplinary teams, integrating areas such as animation, design, programming, visual arts, sound, and theoretical research. For this reason, teaching methodologies must promote interdisciplinary and collabora-

tive contexts in which students learn to work in teams and to communicate across different areas of knowledge.

Interdisciplinarity enables VR to be explored from multiple perspectives, enriching the understanding of the medium and expanding creative possibilities. The analysis of VR production methodologies for animation demonstrates that training in this area requires integrated approaches centred on user experience, reflective practice, and interdisciplinarity. In this framework, the integration of interaction design and user experience principles becomes central. In the context of VR animation, where the body participates directly in interaction, this perspective involves training students capable of articulating technique, narrative, and user experience, understanding that each formal decision carries perceptual and affective consequences.

Collaborative learning promotes the sharing of competencies, the negotiation of decisions, and the collective construction of solutions. This model brings the educational context closer to professional practices and favours the development of social and communicational competencies. However, in VR, the division of tasks can generate fractures (for example, between programming, art, and design) that hinder the integration of the experience; pedagogy must therefore ensure moments of “interdisciplinary testing”, in which all participants engage in the experience, analysis, and refinement of the work, preventing user experience from becoming invisible to parts of the team. Furthermore, as evidenced by the projects of HILDA studio (Matsusaki & Papa, personal communication, 2026), collaboration in VR presents a specific challenge, particularly in remote teaching contexts: the experience is difficult to observe and discuss without direct bodily involvement, as it depends on physical perception and embodiment. This condition requires the development of documentation protocols — such as video recordings, experience maps, or test logs — that function as forms of translation of the immersive experience into formats accessible to collective analysis.

5. Conclusions

This paper set out to examine how teaching methodologies can incorporate the major differences between classical animation production approaches and emergent technological approaches in VR animation, and how these differences can be implemented in Project-Based Learning (PBL) contexts in practical classroom terms.

The analysis developed through a literature review, critical theoretical analysis, and a case study of VR projects produced by the Brazilian-Portuguese studio HILDA Motion demonstrates that these differences are not merely technical but structural: VR reconfigures animation from a representational logic — in which the director controls a fixed frame, a linear sequence, and the viewer’s gaze — toward an experiential and spatial regime in which narrative emerges from the articulation between space, attention, agency, and embodied interaction. The key transformations identified include: the absence of a fixed frame and the consequent need to plan 360° environments; the shift from linear storyboarding to a spatial storyboard developed within the virtual environment itself, defining focal

points and attention trajectories; the replacement of montage-controlled temporality with diegetic cues, blocking, and spatial composition; and the repositioning of the user from passive observer to active co-determinant of the narrative path.

The case study of HILDA Motion demonstrates that these transformations constitute concrete production decisions — made from the earliest stages of conception and refined through iterative user testing. The studio's practice evidence that VR animation requires an integrated competency profile: spatial thinking, embodied sensibility, narrative design, interaction design, and continuous user experience evaluation. The diversity of its projects confirms that there is no single way of “doing VR”, but rather a heterogeneous field in which technical, narrative, and experiential objectives intersect — with direct implications for both creation and teaching.

In answer to the central pedagogical question of teaching VR in the context of animation, these differences can be incorporated into PBL contexts through an iterative process structured around project typologies: (1) technical prototypes, in which students learn to operate immersive VR creation tools and develop basic spatial and bodily literacy; (2) experiential prototypes, in which students design and test a specific sensory or narrative situation — a focal point, a diegetic cue, an attention trajectory — evaluating user response; and (3) narrative prototypes, in which students integrate spatial composition, character movement, sound design, and interaction into a coherent immersive experience. This scaffolded approach — grounded in the experiential learning cycle of Kolb [21] and the reflective practice model of Schön [20] — ensures that technical competence and experiential literacy develop simultaneously rather than sequentially. Learning in VR must be centred on experimentation, iteration, and the capacity to diagnose user experience: not reducible to technical efficiency, nor to the rhetoric of immersion alone.

References

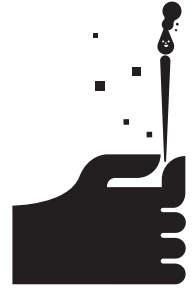
1. Kelley, B., & Tornatzky, C. (2019). The Artistic Approach to Virtual Reality. In *VRCAI '19: The 17th International Conference on Virtual-Reality Continuum and its Applications in Industry* (pp. 1–5). <https://doi.org/10.1145/3359997.3365701>
2. Paul, C. (2023). *Digital Art* (4th ed.). Thames & Hudson.
3. Grau, O. (2003). *Virtual art: From illusion to immersion*. MIT Press.
4. Buchan, S. (Ed.). (2013). *Pervasive animation*. Routledge.
5. Furniss, M. (2007). *Art in motion: Animation aesthetics* (rev. ed.). John Libbey.
6. Murray, J. H. (1998). *Hamlet on the Holodeck: The future of narrative in cyberspace*. MIT Press.
7. Heath, S. (1981). *Questions of cinema*. Macmillan.
8. Schell, J. (2008). *The art of game design: A book of lenses*. Morgan Kaufmann.
9. Salen, K., & Zimmerman, E. (2004). *Rules of play: Game design fundamentals*. MIT Press.
10. Ryan, M.-L. (2001). *Narrative as virtual reality: Immersion and interactivity in literature and electronic media*. Johns Hopkins University Press.
11. Tricart, C. (2018). *Virtual reality filmmaking: Techniques and best practices for VR filmmakers*. Routledge.

12. Bucher, J. (2017). *Storytelling for virtual reality: Methods and principles for crafting immersive narratives*. Michael Wiese Productions.
13. Steuer, J. (1992). Defining Virtual Reality: Dimensions Determining Telepresence. *Journal of Communication*, 42: 73–93. <https://doi.org/10.1111/j.1460-2466.1992.tb00812.x>
14. Henrikson, R., De Araujo, B., Chevalier, F., Singh, K., & Balakrishnan, R. (2016). Multi-device storyboards for cinematic narratives in VR. In *Proceedings of the 29th Annual Symposium on User Interface Software and Technology (UIST '16)* (pp. 787–796). ACM. <https://doi.org/10.1145/2984511.2984539>
15. Slater, M. (2009). Place illusion and plausibility can lead to realistic behaviour in immersive virtual environments. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 364(1535), 3549–3557. <https://doi.org/10.1098/rstb.2009.0138>
16. Fahmy, Z. (2024). Making movies in the air: Adapting traditional storyboard techniques to drone film and virtual reality (VR). *Norsk Medietidsskrift*, 31(2–3), 1–12. <https://doi.org/10.18261/nmt.31.2-3.8>
17. Isbister, K. (2016). *How games move us: Emotion by design*. MIT Press.
18. Mateer, J. (2017). Directing for cinematic virtual reality: How the traditional film director's craft applies to immersive environments and notions of presence. *Journal of Media Practice*, 18(1), 14–25. <https://doi.org/10.1080/14682753.2017.1305838>
19. Syrett, H., Calvi, L., & van Gisbergen, M. (2016). The Oculus Rift film experience: A case study on understanding films in a head mounted display. In *International Conference on Intelligent Technologies for Interactive Entertainment* (pp. 197–208). Springer. https://doi.org/10.1007/978-3-319-49616-0_19
20. Tong, L., Jung, S., Li, R. C., Lindeman, R. W., & Regenbrecht, H. (2020). Action Units: Exploring the use of directorial cues for effective storytelling with swivel-chair virtual reality. In *Proceedings of the 32nd Australian Conference on Human-Computer Interaction (OzCHI '20)* (pp. 45–54). ACM. <https://doi.org/10.1145/3441000.3441063>
21. Nielsen, L. T., Møller, M. B., Hartmeyer, S. D., Ljung, T. C. M., Nilsson, N. C., Nordahl, R., & Serafin, S. (2016). Missing the point: An exploration of how to guide users' attention during cinematic virtual reality. In *Proceedings of the 2016 ACM International Conference on Interactive Surfaces and Spaces* (pp. 229–232). ACM. <https://doi.org/10.1145/2993369.2993405>
22. Rothe, S., Hußmann, H., & Allary, M. (2017). Diegetic cues for guiding the viewer in cinematic virtual reality. In *Proceedings of the 23rd ACM Symposium on Virtual Reality Software and Technology* (pp. 1–2). ACM. <https://doi.org/10.1145/3139131.3143421>
23. Dewey, J. (1938). *Experience and education*. Macmillan.
24. Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. Basic Books.
25. Cooper, A., Reimann, R., Cronin, D., & Noessel, C. (2014). *About face: The essentials of interaction design* (4th ed.). Wiley.

Design Transmedia Network: animated explorations for promoting the education in design history

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Abstract

Since its birth, animation has served as an effective communication vehicle for informing, educating, and training. Its unique capacity for empathic engagement communicative versatility and narrative effectiveness are only some of the characteristics that led to its use as a tool for introducing diverse audiences to a variety of topics including technology, social issues and general culture.

This text introduces an experience conducted as part of a research project made possible by research fundings from the Regional Government of Sardinia and carried out by the animazionedesign research unit at the DADU Department of the University of Sassari.

The “Transmedia Design Network” (RTD) research project aimed at showcasing the potential power of the language of animated images in introducing an audience of exchange Erasmus incoming students to the Italian Design Golden Age (1950-80). The short animated stories specifically created for the project serve in this framework as activators, opportunities to freely engage with the various elements of the project’s platform, and becoming thus part of an ‘informative mosaic’, freely available on-line in various formats, compiled with the help of design history experts. While both being visually enjoyable and capable of conveying high-quality contents, the two original audiovisual products created for the project enable to explore a variety animation and of moving image language formulas, while experimenting innovative narrative approaches to the communication of complex contents.

1. Introduction

Thanks to a research grant from the Sardinia Regional Government (Italy), the animazionedesign research unit of the University of Sassari was able to develop the Design Transmedia Network project *Rete Transmediale del Design* (RTD). RTD is a prototype informative tool aimed at exploring languages and strategies for the dissemination of design culture, intended to provide prospective Erasmus students with an introduction to Italian design.

Carried out in direct collaboration with experts in design history, the project’s pivots on the development of an integrated platform resulting

Keywords

Transmedia; Animation;
Informative Animation;
Design.

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from the combination of two parallel efforts. The first is a compilation of already available online selected materials, that shape a critical informative anthology on the subject. The second is the production of a library of experimental animated films that explore narrative languages and strategies to combine the presentation of quality contents within the frame of accessible, and possibly enjoyable, introductory audiovisual material.

2. Audiovisual aids to design history education

The idea of supporting education at various levels through distance learning is everything but new: the experience carried out at the Open University (Weinbren 2015) is possibly the most authoritative and celebrated in this domain.

Sparked from an egalitarian ideal introduced in 1965 by UK's Prime Minister Harold Winson with the political and social mandate of promoting cultural enrichment and opening university access to a wide sector of the population including women, since 1969 the Open University has offered a wide spectrum of courses – many of which on Architecture and Design.

Among its many pedagogical innovations, Open University – OU's impressive body of work was in 2018 at the center of the major exhibition *The University is Now on Air. Broadcasting Modern Architecture*, at the Canadian Centre for Architecture in Montreal – introduced educational programs based on the in-house production of a variety of learning aids. Within this effort, in the late 60's Professor Tim Benton curated a landmark course on History of Architecture for which 24 television documentaries were produced and broadcasted by the BBC.

Since these early experiments, distance learning has always remained behind the lines of higher education, with a few notable exception, such as MIT's 2001 OpenCourseWare, an open program of educational resources aimed at exploring online education and sustaining free access to knowledge.

New interest in this area of remote education was recently renewed as an effect of the COVID 19 lockdowns. The pandemic outbreak triggered a shift towards online, flexible personal learning, acting as a catalyst in highlighting the need of approaching digital education in more flexible, inclusive and accessible ways (Farnell, Skledar, Matijević and Šćukanec Schmidt 2021), and contributing to the wide uplift towards online learning.

As a consequence of this change of perspective we today witness a proliferation of experiences in the area of online distant education, the most well-known of which is possibly Domestika, a commercial platform mainly focusing on professional training in the area of communication and the visual arts. With a reference platform of more than eight million members, Domestika with its competitor CreativeLive, is today one of the new players in the growing market of on-line design education, a sector that even larger entities have become interested in, as for the Adobe corporation itself, which has entered the field by launching its learning.adobe.com platform.

A different and alternative form of dissemination, the graphic novel, has recently experienced a new, very promising, season in the area of design. A small selection of 'comics' either based on key characters – such as Ettore Sottsass (Giacon 2015), Eileen Gray (Malterre-Barthes and

Dzierżawska 2019), William Morris (Valentinis and Ascari 2023) – and or specific contexts – i.e. the Bauhaus (Grande and Varbella, 2022) – presenting main episodes in the history of design is also a mark of the emerging of new attitudes towards the dissemination of the design culture.

Quite surprisingly, although having since its earlier appearances served as an effective communication vehicle for a variety of informative scopes such as educating, training, disseminating science and historical topics (Ceccarelli and Turri 2013), animation appears yet largely unexplored as an aid to support education in the history of design. How to effectively contribute in this area of study is among the scopes of the RTD research project.

3. The Design Transmedia Network (RTD) project

The key idea behind RTD is the exploration of the interactions between the project's two key components. The first being the design and production of prototype animated films, intended as introduction to the domain of design history and acting as starting point for the exploration of a 'companion' reference library. The second being the development of a critical anthology – composed by a variety of selected contents such as articles, essays, videos, interviews – and compiled in collaboration with design history experts and meant to serve as an informative base of reference.

The project is inspired by Henry Jenkins' idea of *Transmedia* (Jenkins 2013), an informative space in which a wide spectrum of different elements and informative components act as the building blocks of a hybrid intertwined system. The specific trait of the RTD endeavor is that, within the project, the crucial role of "gluing together" such variety of different elements – each of which ideally has equal informative value – is assigned to animation.

Another key element in the project is linked to its ideal reference base. RTD's original model envisions Erasmus design students spending a few months in an Italian University to study design as the original main target and potential audience. Among the research's goals is to provide such audience with an introductory contextual framework on the complex series of events that gave shape to a phase – acknowledged by numerous publications and exhibitions such as the New York MOMA 1972 "Italy: the new domestic landscape", curated by Emilio Ambasz (Ambasz 1972), and the later "The Italian Metamorphosis 1943-1969", curated by Germano Celant (Celant 1994) – that saw Italian design play a pivotal role in the evolution of the idea of design itself over more than three decades.

The RTD experiment is in this respect intended to support an alternative approach to the conventional presentation of design history (one that visiting students would be anyway exposed to, by attending a typical Italian design history course) focusing rather on combining the most well-known events – the figures, ideas, and most important achievements – with the social, economic, elements and the political context that took place in the country between the 50's and '80's of last Century.

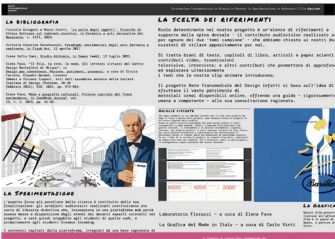
Part of RTD project's focus lays therefore on the implementation of a web-based platform through which the students can have access to a contextualized informative body even *before* starting their stay, hence gaining an original and comprehensive preliminary perspective on the

Italian design culture. In the originally envisioned plan, the contents of such platform could then become the basis of a compact, introductory academic course on Italian design to be followed remotely which, upon arrival, might have been linked to the average educational programs run by the hosting Universities.

4. Hyper-textual narratives

The quest for the right narrative approach for such model of presentation, one in which the story is not ordered in main chapters presenting the contributions of specific designers, leading studios, characters, groups, artistic currents and key occurrences but rather in a way capable of evoking a day-by-day flow of events, can be associated to at the idea of a hyper-textual environment (Nelson 1981). This approach seems more suited to convey that the success of the ‘Golden Age’ of Italian design can, beyond the relevance of some well-known individual contributions, be connected to a rich web of interpersonal, often cross-disciplinary, subtle and even casual interactions, among the many actors that took part in.

Fig. 1. A snapshot of the RTD website (animazonedesign.it/rtd/) which is the informative core of the research’s platform.



Put in narrative terms, this translates in the idea that the viewers’ ‘encounters’ with a given designer rather than occurring in a specific episode of the story may, as it would happen in real life, ‘take place’ almost accidentally.

For instance, if you were part of the cultural scene of Milan in the late 60’s of last century you would easily

meet – possibly in the same week – someone like Ettore Sottsass Jr. either at a cocktail bar, at the opening of an art show or at a design showroom. Here he would have been hanging around with his peers, writers and journalists, entrepreneurs, artists.

In this perspective, the choice of a narrative format capable of conveying a real-life atmosphere through the presentation of apparently almost casual, but in fact often inter-connected, events appears particularly appropriate.

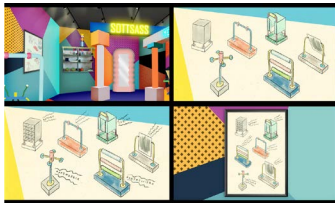
Ultimately, this narrative formula directly refers to the project’s core idea of a transmedia-based informative system. An informative space favoring a circular, multi-faceted, open structure, which is not based on any given ‘entry point’, rather fostering the users’ free exploration, therefore inviting them to ‘put the pieces together’ in personal ways that are always different.

Fig. 2. Two frames of the film on the Graphic Design of Made in Italy.



5. Searching for the appropriate tone

Beyond the research's general framework outlined so far, a key research component of the project lies in the development of the animated films that constitute its main narrative framework.



Unfortunately, only two of the five originally planned films could be brought to completion. Although the results of this effort have been rather satisfactory, the limitations posed by such relative small 'sampling' has invariably reduced the project's exploration intended span, particularly in terms of how different uses of the

Fig. 3. Frames from of a sequence for a design proposal from Sottsass and Associates for a Fiorucci store in USA. Sottsass' own original sketchy 'cartoon-like' style is reinforced by an animated sequential interpretation.

tone of animation could serve its overall informative goals. Nevertheless, as the topics of the two films significantly differ both in terms of their narrative character, of their overall aesthetic setup and in their respective visual languages, the quest for appropriate *tones* for conveying the different contents of the two stories offered sufficient articulation space.

The *Laboratorio Fiorucci: Esperienze di Moda e Design* film (Fiorucci Lab: experiences in Fashion and Design), revolves around the pivotal figure of Elio Fiorucci, a fashion designer/entrepreneur that between the late '60's and the '90's anticipated a very successful model of concept store – due to become a major brand in Italy and worldwide – combining fashion, design, visual arts, and music and opening the way to a totally new model in popular culture (Clark, 2024). While Fiorucci's impact on fashion itself and on the fashion business has long been recognized – his work was recently the topic of a major exhibit hosted at Milan's Triennale – his pivotal role as a talent scout and animator in the Milanese design scene remains less well known. As it occurred in many other areas of the popular culture of the time, Elio Fiorucci acted in fact as a fundamental element of articulation – and to some extent as a patron – among some of the most relevant figures in the field. Furthermore, his very personal approach to the renewal of the idea itself of popular fashion, anticipated the opening of the season of the *stilisti*, the Italian fashion designers (Armani, Versace, Ferré, Valentino, among the others) who took over the international fashion scene at the beginning of last century's 80's (Fava 2018).

The second film, *La grafica del Made in Italy* (the graphic design of the *Made in Italy*) focuses the contribution of Italian graphic design to the affirmation of the idea itself of Made in Italy (Piazza 2012), by presenting the work of many designers that contributed to this success story with a massive amount of work in creating posters, designing advertisement pages on magazines, and of editorial design work for publishers, the design of magazines and a variety of other printed matter.

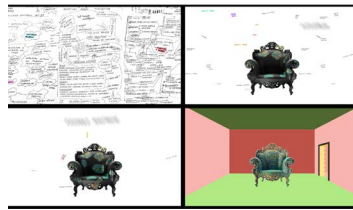
The task of illustrating design-related historical themes typically faces a paradox: the obvious presence of high-quality visual materials is invariably accompanied by sensitive copyright issues. Despite RTD's mainly informative and clearly non-commercial purpose, this was a cen-

tral issue throughout the development of the project.

For instance, whereas much of the visual material displayed in the episode dedicated to graphics is composed of “public domain” matter: advertising pages, book and magazine covers, posters, a significant portion of the visual references presented in the episode dedicated to fashion are commercial in nature: very well known photographic shots, taken by some of the most celebrated fashion photographers, or in any case archival materials protected by copyright.

The strategy adopted for this second fashion-related film was therefore based on a line of work combining motion and animated graphics. The original material was massively re-touched through digital vectorial re-tracing and by a substantial editing of photographs and graphic artifacts.

Fig. 4. Stills from of Mendini’s “Proust” armchair’s sequence. The example presents one of the “sketches” created to incorporate conceptual meaning into stories. In this case, to suggest the trajectory through which the designer’s critical reflections and conceptual work culminated in an iconic and successful product.

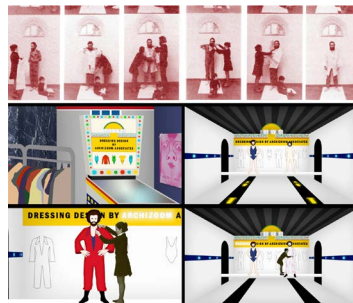


sequences an imaginary sky composed of the writings and notes characteristic of prominent designer and critic Alessandro Mendini dissolve by ‘raining’ onto a black and white picture of his famous ‘Proust’ armchair arranged at the bottom of the frame. As the bits of hand-sketched elements are highlighted in colour and fall, they gradually tinge and complete the originally black and white picture until it is in full colour.

The association in this scene between the voiceover text stating “as for many other Italian designers, the design outcome of his theoretical thinking often resulted into iconic and commercially successful objects, that end up in museums worldwide” and the scene’s itself symbolic visual development, results in a powerful message.

Possibly, the most effective example of this storytelling strategy is in the ‘pinball’ scene created to illustrate a famous sequence of pictures, published in 1973 in the design magazine *Casabella*. From the pages of this authoritative source the then emerging design collective *gruppo Archizoom* launched their radical idea for a “Dressing Design” (Fava 2018). In the film the original

Fig. 5. Archizoom’s “Dressing Design” sequence, and the original set of pictures originally taken to illustrate the concept. To convey the POP atmosphere of the time in one of the project’s animated ‘sketches’, the scene is re-enacted in a pretend ‘theatrical’ pinball machine.



An alternative treatment solution was implemented in both films thanks to a rhetorical device, that could be described as the “sketch” sequence: in several scenes of the presentation part of the narration was combined through movement and composition to underline a conceptual idea. In one of such

sequence of photographs has been translated in a POP-inspired fashion (that they would have probably really appreciated) by incorporating it in a pinball-like theatrical set-up in which elements of the original imagery and some of the wardrobe characteristics are collaged with a dramatic, dynamic effect.

The narrative and visual development of the film about Made in

Italy graphics raised other challenges. On the one hand, it was necessary to confront with the almost forcedly two-dimensional aspect of an imagery conceived in a visual world based on static presentation. A world almost invariably modeled on the analog paper medium characteristic of pre-digital graphic design.

The advantage of relying on a presentation, especially when “interpretative”, of celebrated graphic compositions published in magazines and books raised fewer copyright issues.

On the other hand another issue entered the scene.

The elaboration of static graphic designs into moving graphic exercises has been a typical field of experimentation – as well as too often of showing off – by legions of aspiring motion graphic designers. This has led to a line of work predominantly based on formal stylistic exercises – the internet being clogged with such dynamic experiments, either good or very bad – which presented itself with a high risk of resolving to shallow, banal interpretations. The respect and devotion owed to the masters of Italian graphic design imposes instead caution and a due capacity for introspection.

One of the language strategies pursued in the ‘made in Italy’ graphic design film relates to the idea of the grid, a seminal element in the whole culture of western post-war graphic design (Müller-Brockmann 1996).

The Italian graphic designers of the time certainly adhered – as many of their international peers – with the then prevailing Swiss style, a composition formula centered on a very strict use of a geometric, grid-based style. Although their reference to such systematic, rigorous, and coherent design has been constant throughout their work, the ‘Italian translation’ of this veritable paradigm of *good design* was invariably re-interpreted in a softer, lighter manner (Piazza 2012) (Vinti 2024). According to this observation, in the film ‘the grid’ becomes almost a key narrative element: always at the foundations of any presented project, but of flexible nature, an adaptable scheme, even an element of *meta-design* that plays with the different designs and is in fact the true protagonist, almost a narrator, of the storytelling approach.

This idea of something always present but discreet, not posing as a rule but as a soft, guiding companion, shows through the delicate presence of light gridlines, that throughout the film gently adapt in agreement with each different composition.

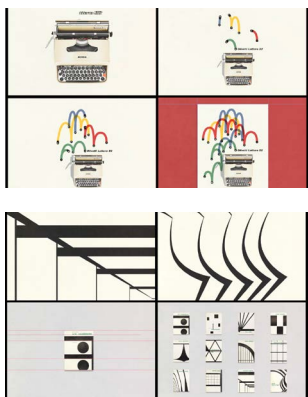


Fig. 6. Frame sequences from the ‘Made in Italy’ film. A classic ad for Olivetti’s Lettera 22 typewriter by the celebrated graphic designer Giovanni Pintori as it was animated in the project in order to come to terms to possible copyright issues.

Overall, despite the limitations imposed by only confronting with two out of the five films originally envisioned, resorting to a balanced mix of integrally re-tracing elements taken from original pictures and/or reinterpreting a concept through the use of inventive metaphorical setups – as in Archizoom’s ‘pinball sequence’ – has shown lines of work that, through adequate and inventive design solutions, not allow to address convincingly the management of copyrights issues, but as often happens with design, often lead to new ideas and solutions.

Fig. 7. Frames sequences from the ‘Made in Italy’ film. The approach adopted in the project turns the graphic grid underlying each visual creation of the time into the true protagonist of the narration.

5. Conclusions

Despite the involuntary scaling that affected the original research project making it so far not possible to validate in full its potential educational outcome, its results are encouraging. Overall the experience presents an original approach, in which animated images play a key role as conceptual tools to the exploration of a multi-faced transmedia information base. The combination of the narrative modes devised in the project's two films and the language nuances devised to present specific angles of a story demonstrates once again the potential communicative powers of animation (Wells 1998). In a world redefined by new paradigms such as the speed and the ease of accessing information. In a framework in which the development of knowledge, the idea of education itself, are increasingly built upon complex and articulated 'informative mosaics' of datasets in a multitude of formats, the experience carried out with the RTD research projects can help casting light on how animation can serve as a valuable vehicle of cultural interpretation and hence as a player of the future, possibly increasingly transmedia-based, arena of communication.

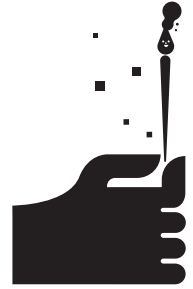
References

1. Ambasz. E. (ed.), *Italy: the new domestic landscape*, The Museum of Modern Art - New York (1972)
 2. Ceccarelli N, Turri C. *Informanimation*, In: Moreira da Silva F. (eds.), CIPED 6-Conference Proceedings (2013)
 3. Celant, G. (ed.), *The Italian Metamorphosis 1943-1969*, Progetti Museali Editore-Harry N. Abrams Inc., (1994)
 4. Clark, J. (ed.), *Elio Fiorucci*, Electa (2024).
 5. Farnell, T., Skledar Matijević, A. and Šćukanec Schmidt, N. - Directorate-General for Education, Youth, Sport and Culture, PPMI Group, *The impact of COVID-19 on higher education - A review of emerging evidence - Analytical report*, Publications Office, 2021, <https://data.europa.eu/doi/10.2766/069216>
 6. Fava, E., *Vestire contro. Il Dressing Design di Archizoom*, Bruno Mondadori (2018)
 7. Giacom, M, *Ettore Sottsass e il mistero degli oggetti*, 24 Ore Cultura (2022)
 8. Grande, V., Varbella, S., *Bauhaus: a Graphic Novel*, Prestel (2022)
 9. Jenkins, H., *Spreadable media: creating value and meaning in a networked culture*. New York University Press (2013)
 10. Malterre-Barthes, C., Dzierżawska, Z., *Eileen Gray: A House Under the Sun*, Nobrow (2019)
 11. Müller-Brockmann, J, *Grid systems in graphic design*, Niggli Verlag (1996)
 12. Nelson, T., *Literary Machines*, Mindful Press (1981)
 13. Piazza, M. *La grafica del Made in Italy*, AIAP Milano (2012)
 14. Valentini, P, Ascari, G., *William Morris. Alla ricerca della bellezza perduta*, 24 Ore Cultura (2023)
 15. Vinti, C., *La Grafica italiana del '900*, Giunti (2024)
 16. Weinbren, D. *The Open University: A History*, Manchester University Press/The Open University (2015)
 17. Wells, P., *Understanding animation*, Routledge, London-New York (1998)
- To access the *Transmedia Design Network-Rete Transmediale Design*:
<https://animazionedesign.it/rtd/>

Grief in Animation: An Analysis of the Visual and Narrative Representations of Grief in Popular Animation

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Abstract

This study aims to explore the visual representations of grief in animation, seeking to understand how this medium can visually represent the emotional experience of loss. In this sense, the main objective of this research is to analyze the strategies used by popularized productions to communicate grief, how those use narrative as a tool for documenting fundamental human experiences, and understand the visual methods that animation uses to convey emotions and feelings. To this end, and in order to enrich the research, three pieces of media whose main or secondary theme is grief were analysed, focusing on recognizing patterns and formal strategies. This analysis took a comparative approach that involved identifying similarities and differences between the pieces and understanding their potential impact on the creation of new projects. It was concluded that animation provided a versatile medium to represent grief, allowing the nuanced explorations of this emotional process.

1. Introduction

Grief and death are complex inevitable parts of life. Animation cinema has been portraying these themes for a long time and the way they're represented has been evolving, both in terms of emotional depth [1] and in the form of visual representation. Grief is a recurring theme in a wide variety of popular animated projects, such as classic Disney movies like *Bambi* (1942) and *The Lion King* (1994), Studio Ghibli productions like *Grave of the Fireflies* (1988), and even in popular animated shows such as *Arcane* (2021-2024) and *Avatar: The Last Airbender* (2005-2008).

This study was developed within the context of a Master's degree project dedicated to explore the visual communication of the theme of grief in animation, in order to map useful design patterns to be used in the development of an animated short film.

This research is organized as follows. First, there is a contextualization of the project by briefly presenting key concepts from the field of psychology on grief and death. Then, we analyze the visual content of

Keywords

Grief in animated Media;
Emotional Symbolism;
Visual Representations;
Animation Studies;
Character Development.

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a sample of relevant animated films and television series, identifying patterns and strategies used when working around the theme of grief, and reflecting on animation and cinema as tools for translating not only individual experiences but also collective experiences, with the ability to connect and interlink communities.. Finally, conclusions and reflections on the work are drawn.

2. Death as a Psychological Construct

Death is one of the most complex and universal concepts of the human experience, being both an inevitable biological event and a psychological phenomenon. From a psychological perspective, death is not only understood as the end of organic life, but as an idea that influences the construction of an individual's identity and behavior.

Psychology attributes a central role to death in shaping human experience. Authors, such as Irvin D. Yalom, argue that awareness of death generates a fundamental existential anxiety, often repressed but structural to psychological functioning [2]. This kind of fear of death manifests itself not only in an apprehension about the end, but also in the need to attribute meaning to life, driving the creation of values and bonds. Death, in this context, functions as a driver of meaning and not just as a threat.

Ernest Becker, in his book *The Denial of Death*, expands on this perspective by arguing that much of human culture arises as a symbolic defense mechanism against the awareness of death. According to Becker, individuals construct systems such as religion, art, and mythology as forms of symbolic transcendence [3]. This view directly influenced the Terror Management Theory, which proposes that humans generate fear of death by adhering to cultural systems of meaning and self-esteem validation, which ultimately confer a sense of immortality and transcendence. This theory was originally proposed by Jeff Greenberg, Sheldon Solomon, and Tom Pyszczynski and was documented in the book *The Worm At The Core: On The Role Of Death In Life* [4].

From a psychological development perspective, the understanding of death evolves throughout life. Studies by Mark W. Speece show that the concept of death is structured around components such as irreversibility, universality, inevitability, and causality. This cognitive understanding influences how death is symbolized and represented. Death ceases to be merely an external event and becomes an abstract concept, filled with emotional and symbolic meanings [5].

3. The Cognitive and Emotional Processes of Grief

For the purposes of this work and according to the Portuguese Association for Integrated Care in Grief, the process of grief is understood as an emotional and cognitive journey that accompanies the experience of losing something or someone [6]. It is usually associated with the death of a loved one, but it can also manifest itself in different ways in response to other significant losses, such as physical and mental disabilities, the death of pets, the loss of objects of sentimental value, and even the removal from social positions and the dissolution of life projects. Although this experience is

common to all human beings, each person faces grief in a unique and individualized way, as it is interconnected with each person's way of being.

There are psychological studies that highlight grief as a dynamic process of adaptation, marked by emotional fluctuations and different individual trajectories. One of the best-known models is that of Elisabeth Kübler-Ross, a Swiss psychiatrist who proposes that the basic structure of the grieving process consists of five stages: denial, anger, bargaining, depression, and acceptance [7]. This model has been criticized because it assumes that all individuals go through the same stages. In this sense, William Worden, an American psychologist, developed a model called the four tasks of grief, which defines the person as an active agent in the process of coping with loss, rather than a passive agent. These tasks refer to accepting reality, processing pain, adjusting to the environment, and reinvesting in life [8]. Another relevant contribution is The Dual Model of Grief proposed by Stroebe & Schut. This model argues that the bereaved individual oscillates between two orientations: the orientation toward loss and the orientation toward restoration [9].

This way, it is possible to understand that grief is a process consisting of advances and setbacks, and this dynamic profile functions as a crucial adaptive mechanism for healing, allowing for moments of pain and moments of reorganization. Although the models referred to here are often presented in psychological literature, understanding their main conceptual differences serves as a framework to analyze how the process of grief and its representations have evolved.

4. Visualizing Loss: Animation as a Tool to Represent Grief

Animation constitutes a particularly effective medium for representing grief due to its capacity to manipulate form, space, time, and movement beyond the constraints of photographic realism. Unlike live-action cinema, which is traditionally associated with the reproduction of physical reality, animation allows the externalization of psychological and emotional states through abstraction, exaggeration, and symbolic transformation. In this sense, animation operates not merely as a representational medium, but as a visual language capable of materializing subjective experiences.

Paul Wells highlights that animation offers unique tools for representing the psychological, like the deformation of figures, the fragmentation of space, the metamorphosis and the manipulation of time allow for the illustration of internal experiences that would be difficult to capture through photographic realism. Referring to John Halas and Joy Batchelor's ideas, he emphasizes that animation cinema is more concerned with metaphysical reality, that is what things actually mean, while live-action's duty is to capture simply the physical reality, or what things look like [10] [11].

Similarly, Maureen Furniss argues that animation should be understood as a distinct visual system whose meaning emerges from stylization, movement, and constructed artificiality rather than realism, which positions animation as a medium suited to represent emotional and psychological complexity [12]. Theoretical discussions surrounding animation have also emphasized its capacity for transformation and instability.

Sergei Eisenstein describes animation as possessing a plasmatic quality, referring to its ability to continuously reshape bodies and environments beyond fixed physical limitations [13].

This expressive potential is reinforced by animation's ability to simplify, stylize, and distort visual forms. As argued by Scott McCloud, visual simplification can intensify emotional identification by reducing representational specificity and emphasizing meaning. In animated media, stylization therefore functions not as a limitation of realism, but as a mechanism that amplifies emotional communication and subjective interpretation [14].

One of the most obvious tools used is colour. Colour is a complex visual element that is charged with information and emotional impact. It is a crucial part of visual communication. Donis A. Dondis, in the book *Primer of Visual Literacy*, explains that there are three dimensions of colour worth mentioning: Hue, Saturation and Brightness. Hue refers to the chroma, the colour itself. Each hue represents different aspects of colour like warmth, emotion and softness. Saturation alludes to the purity of the colour in relation to grey. The intensity of the colour confers it greater impact and expression. Finally, brightness is the achromatic dimension, referring to the value gradations, fluctuating between dark and light. Beyond its formal functions, colour also operates as a way to communicate feelings, emotions and perceptions. The author notes that meaning is attributed to colour and that it can change, meaning the same colour is able to be associated with many different concepts and feelings [15]. In character design, colour is used to convey many features and it frequently reinforces psychological traits. Certain colours like red are often associated with strong feelings like anger, love and passion, while others like blue usually mean melancholy, introspection and sadness. Green is typically connected to nature or toxicity while purple is linked to concepts like spirituality and mysticism. Those parallels allow colour to function not only as an aesthetic strategy but also as a narrative extension of the character's inner world.

In addition to colour, space and depth play a structural role. As grief is closely linked to the feeling of emptiness [1], animation uses this factor by appropriating wide settings, frames that isolate elements and environments that get gradually fragmented. Scale takes on particular relevance with the use of disproportion between character and environment, for example, which amplifies vulnerability, while compact spaces can suggest a feeling of being trapped and immobile. Scale is defined by the object's surroundings, which means that the notion of big is delineated by the notion of small, when both are compared. With the control of scale, it is possible to manipulate small spaces to look open and large spaces to look claustrophobic [15].

Animation also enables non-linear representations of time that reflect the nature of grief and memory. Flashbacks, repetition, and shifts between reality and imagination allow narratives to move between subjective and objective experience. Henry Jenkins describes this as emotional worldbuilding, where fragmented perspectives and symbolic spaces structure narrative experience. By abstracting reality, animation allows emotions that are difficult to verbalize to be visualized.

5. Analysis of the Representation of Grief in Animated Media

In order to demonstrate the practical application of the concepts discussed in the previous sections, this study analyzes three animated works: *Coco* (2017), *Steven Universe* (2013-2019), and *Neon Genesis Evangelion* (1995). The selection of these case studies was based on criteria such as international distribution, cultural relevance, critical recognition, and diversity of aesthetic and narrative approaches to grief. All the pieces analyzed were produced and distributed by companies with a strong presence in the international audiovisual market and accomplished high public visibility and also achievement awards [16][17][18]. Additionally, the works were chosen for representing distinct cultural contexts and animation styles, allowing for a broader comparative analysis of how grief can be visually and narratively articulated through animation.

This study adopts a qualitative comparative methodology informed by animation studies, and grief theory. Rather than focusing exclusively on narrative content, the analysis examines how visual language contributes to the construction of emotional meaning. The selected projects were analyzed through a set of recurring parameters related to audiovisual expression and symbolic representation like the types of grief represented, the narrative approach, the visual strategies used, the emotional tone and the psychological dimension portrayed.

These elements were examined in relation to the psychological models of grief discussed earlier in this paper, allowing the study to identify connections between emotional processes and audiovisual strategies. Particular attention was given to the ways animation externalizes internal states through abstraction, exaggeration, and symbolic transformation.

5.1. *Coco* (2017)

The film *Coco*, directed by Lee Unkrich and Adrian Molina, represents grief primarily through the relationship between memory, family identity, and intergenerational continuity. The film follows the story of Miguel, a young boy who seeks to understand family memory and identity while dealing with the absence of his ancestors. Rather than presenting death as a definitive separation, the narrative constructs a model in which the dead continue to exist symbolically through the memories of the living. The migration between the world of the living and the world of the dead symbolizes the emotional oscillation typical of grief, reflecting psychological concepts such as those proposed by Stroebe and Schut [9], who highlight the alternation between orientation toward loss and toward restoration.

The cultural context of the day of the dead in Mexico provides a rich framework that allows death to be represented not as an absolute end, but as a continuation of the memory and presence of those who have passed away. The construction of family shrines and the invocation of ancestors serve as symbolic mechanisms that keep the bond between generations alive. The *ofrendas* (offerings, in English) are home altars dedicated to guide spirits back to the living world.

The narrative focuses on how memory can be distorted or incomplete. Miguel's family has lived for decades with a fragmented version of

the past, which transforms a musician ancestor into a figure of abandonment. That is documented through a photograph of Miguel's great grandmother's family. In that picture, it is possible to see her as a young toddler with her mother and a mysterious character that is supposed to be her father, holding a guitar. The father's face is torn-off, making it impossible to know his identity. It is later revealed that the father in that photograph was actually a loving and caring family man [19].

Fig. 1. The family photograph, including Coco, Imelda and Héctor (characters) in *Coco*, by Lee Unkrich and Adrian Molina, 2017.



Visually, *Coco* uses colours, light, and character design to communicate emotions related to loss. The dead are represented in a stylized way, as colourful and expressive skeletons, while the world of the living is painted with warm tones that are closer to reality. This distinction reinforces the separation between memory and reality, while humanizing death and making grief more accessible to the viewer. In order to make this world believable, the visual development artists studied

Mexico's story and architecture and mixed real elements with aspects that deeply capture traditions and the country's folklore. Houses, plazas, bridges and other components, and even the characters themselves, portray *Coco*'s universe in an expressive and colourful way, once again supporting the celebratory side of this project [19].

Fig. 2 & 3. The World of the Dead and The World of the Living, in *Coco*, by Lee Unkrich and Adrian Molina, 2017.



5.2. Steven Universe (2013-2019)

The television series *Steven Universe*, created by Rebecca Sugar, presents a complex approach to death and grief, focusing on the relationship between Steven and his mother, Rose Quartz. *Steven Universe* follows the story of Steven, a young half-human, half-gem who lives with the Crystal Gems, a group of alien warriors who protect Earth. Throughout the series, Steven discovers his powers, learns about his mother's history, and faces challenges that explore themes of identity, family, love and acceptance. Although Rose died before the narrative even began, her presence influences the events of the entire series through memories, recordings, and manifestations of the Gems, functioning as a narrative and emotional force that guides Steven on building his identity.

Rose Quartz thus occupies a paradoxical position. On one hand, she is celebrated by the other Gems as an almost mythical figure and as the leader of the rebellion, a symbol of compassion and freedom. On the



other hand, this idealized image places a significant burden on Steven. Grief, in this context, is not only the loss of a loved one, but also the difficulty of relating to a person who exists primarily as a memory and a projection. Steven does not merely suffer from Rose's absence but he also suffers

from the impossibility of building a real relationship with her.

As Steven learns more about Rose Quartz's past, the mother figure ceases to be merely an object of veneration and becomes morally ambiguous. Initially, Rose Quartz appears to him as an idealized figure, shaped by the Crystal Gems' reverent accounts and the lack of firsthand experiences that might have complicated that image. However, as Steven discovers less heroic aspects of Rose's past, this idealization begins to crumble, forcing him to confront the discrepancy between the myth and the person. This process not only alters the way he understands his mother but also redefines his own identity.

Rather than depicting grief as a passive or linear progression, the series presents Steven as actively engaged in the process of coping with loss and the legacy of his mother. Steven's journey reflects the gradual acceptance of the reality of loss, as well as the ongoing effort to process complex and often conflicting emotions associated with the past. Furthermore, the narrative emphasizes his need to adjust to a redefined sense of self and to renegotiate his relationships with others, especially the Crystal Gems, something that directly refers to Worden's model [8].

Visually, the series uses design and animation elements to materialize the mother's absent presence. The colours associated with Rose, soft shades of pink and lilac, appear in objects, environments, and physical manifestations of powers, functioning as mediators of the memory associated with the character. The animation allows Steven to interact with symbolic fragments of Rose, such as recordings or crystals containing messages, exploring memory as a physical and emotional space.

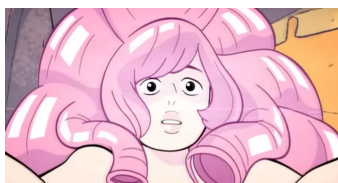


Fig. 4. Rose Quartz's statue in *Steven Universe*, by Rebecca Sugar, 2017.

Fig. 5 & 6. Steven and Rose Quartz (characters) in *Steven Universe*, by Rebecca Sugar, 2017.

5.3. Neon Genesis Evangelion (1995)

Neon Genesis Evangelion (the television series), created by Hideaki Anno, uses science fiction as a framework for exploring trauma, grief, and emotional isolation. Rather than focusing exclusively on external conflict, the series gradually shifts toward the psychological fragmentation of its characters and the emotional consequences of loss.

Grief functions as the emotional foundation of the narrative, particularly through Shinji Ikari, whose experiences of abandonment and maternal loss shape his relationships and sense of self. Instead of directly confronting these emotions, Shinji withdraws into patterns of avoidance and isolation, reflecting psychological responses associated with unresolved trauma and the emotional stages identified by Kübler-Ross [7].

Escapism emerges as one of the central themes of the series. Characters frequently immerse themselves in duty, performance, or institutional structures as mechanisms for avoiding emotional pain. For Shinji, piloting the EVA (a giant robot used to defend the world) operates simultaneously as a source of validation and as a form of psychological refuge, illustrating how identity and self-worth become tied to external expectations.

This dynamic is also reflected in Gendo Ikari's relationship with grief. Unable to process the death of his wife Yui, Gendo becomes emotionally detached and obsessively committed to the Instrumentality Project, a plan intended to dissolve the boundaries between individuals and merge human consciousness into a collective entity. The project represents an attempt to eliminate the suffering associated with separation, individuality, and emotional vulnerability.

Thus, the narrative explores the tension between identity and being, as well as a deep fear of human connection. The characters are perpetually caught in a limbo between desiring intimacy and fearing the vulnerability it requires, a dynamic that was described in the series using the metaphor of the hedgehog's dilemma. This parable was originally described by Arthur Schopenhauer in his 1881 work *Parerga and Paralipomena* [20], and illustrates the difficulty of human relationships. Hedgehogs seek the comfort of warmth in winter, but when they touch, they pierce each other with their spines. These animals need warmth to survive, but the pain caused by closeness forces them to keep their distance. Similarly, relationships offer comfort and recognition, yet they also carry the risk of rejection and emotional pain. As a result, these characters withdraw even though they have a deep longing for closeness. In this way, *Neon Genesis Evangelion* shows that the struggle to understand oneself is inseparable from the struggle to relate to others.

Fig. 7-9. Shinji Ikari and Rei Ayanami (characters) in *Neon Genesis Evangelion*, by Hideaki Anno, 1995.



In terms of visual design elements, the series frequently uses solid compositions, static images, and unconventional camera angles to create a sense of emotional tension and isolation. Characters are often framed alone in vast, empty spaces such as long corridors, train platforms, or dimly lit rooms emphasizing their loneliness and disconnection. Colour and lighting also contribute to the atmosphere through the use of muted palettes and heavy shadows that convey melancholy, as well as sudden

bursts of intense colour during fights or moments of psychological crisis that heighten the emotional impact. Throughout the series, the style becomes increasingly experimental, incorporating abstract imagery, religious motifs, and fragmented editing to represent the characters’ inner thoughts and mental breakdowns.

6. Final Discussion

The analysis developed throughout this study allows to affirm that animation portrays an exceptional form of representing grief in the audiovisual context. Far from functioning merely as an initial narrative device, this theme emerges in the pieces explored as a central aesthetic experience, structuring the identity of the characters and the visual language itself.

Across all three projects, grief serves as a central emotional driver, shaping character behavior and narrative arcs, and is often expressed through visual symbolism and relational dynamics. Common patterns include the oscillation between confronting and avoiding loss, the importance of social and family connections in processing grief, and the use of narrative and aesthetic strategies to externalize internal emotional states.

On the other hand, there are also factors that set these projects apart. *Coco* (2017) emphasizes culturally mediated rituals and collective remembrance, portraying grief as a positive and natural process in life, while *Steven Universe* (2013-2019) presents grief as an active, ongoing process of personal and relational growth. In *Neon Genesis Evangelion* (1995), grief is portrayed in a fragmented and often isolating manner, focusing on the intense emotional turmoil and limbos the characters live on.

These examples demonstrate that animation, by not relying on simply copying reality, has a unique ability to materialize individualized and collective internal states. In this regard, the analysis developed on this paper shows that the visual elements of the narrative can be deeply connected to formal concepts of the psychology of grief. Aspects such as colour, space, time, and composition become extensions of the psychological realm and translate processes of identity rupture.

Project	Type of Grief Represented	Narrative Approach	Visual Strategies	Emotional Tone	Psychological Dimension
Coco (2017)	Family related and intergenerational grief	Grief is framed as a collective and culturally mediated process that is connected to memory and the continuity between generations	Warm colour palettes, expressive lighting and stylized character design. There is a large visual contrast between two different worlds that is portrayed by the symbolism inspired by the mexican culture	Celebratory, portraying grief in a positive way	Reflects oscillation between loss and restoration
Steven Universe (2013-2019)	Parental and identity-based grief	Grief is represented as an ongoing process of identity construction and emotional regulation with an absent parental figure	Soft colour palettes that are associated with the characters, visual manifestations of memories and emotional inheritance	Introspective and transformative, focused on self-growth	Acceptance, emotional processing and adaptation to loss
Neon Genesis Evangelion (1995)	Family related, trauma and unresolved grief	Grief appears as a psychological fragmentation of the self, isolation and avoidance of vulnerability	Empty spaces, static compositions, unconventional framings, muted colours and abstract and symbolic imagery	Melancholic, anxious and oppressive	Reflects emotional turmoil and avoidance patterns

Fig. 10. Table representing the comparative analysis in selected animated media projects.

6.1. Conclusion and Future Work

This study is part of a broader research developed in the context of a final master’s project currently underway. The analysis presented here is a preliminary stage of a project that consists of the development of the pre-

production of an animated short film and the creation of an artbook that documents that process.

With this analysis, it was possible to demonstrate that animation provided a versatile medium to represent grief, allowing the nuanced explorations of emotional processes and visual symbolisms.

There is an interest in expanding this study further in the future, including more media pieces interpretations, allowing for the identification of recurring patterns and a more robust comparative analysis of grief representation in animation. This could also originate a relevant investigation centered on other areas such as psychology, providing deeper insights into emotional processing and the depiction of grief across different media.

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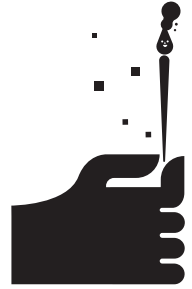
References

1. Graham, J. A., Yuhas, H., & Roman, J. L. (2018). Death and coping mechanisms in animated Disney movies: A content analysis of Disney films (1937–2003) and Disney/Pixar films (2003–2016).
2. Yalom, I. D. (2008). *Staring at the sun: Overcoming the terror of death*. Jossey-Bass.
3. Becker, E. (1973). *The denial of death*. Free Press.
4. Solomon, S., Greenberg, J., & Pyszczynski, T. A. (2015). *The worm at the core: On the role of death in life*. Random House.
5. Speece, M. W., & Brent, S. B. (1984). Children's understanding of death: A review of three components of a death concept. *Child Development*, 55(5), 1671–1686.
6. InLuto. (s.d.). O que é o luto? Inluto. <https://inluto.pt/o-que-e-o-luto/>
7. Kübler-Ross, E. (1969). *On death and dying*. Macmillan.
8. Worden, J. W. (1982). *Grief counseling and grief therapy: A handbook for the mental health practitioner*. Springer.
9. Stroebe, M., & Schut, H. (1999). The dual process model of coping with bereavement: Rationale and description. *Death Studies*, 23(3), 197–224.
10. Hoffer, T. (1981). *Animation: A reference guide*. Greenwood Press.
11. Wells, P. (1998). *Understanding animation*. Routledge.
12. Furniss, M. (2007). *Art in motion: Animation aesthetics*. John Libbey.
13. Filmscalpel. (s.d.) Eisenstein on Disney: Plasmatic.
14. <https://www.filmscalpel.com/eisenstein-disney-plasmatic/>
15. McCloud, S. (1993). *Understanding Comics: The Invisible Art*. Kitchen Sink Press.
16. Dondis, D. A. (1973). *A primer of visual literacy*. MIT Press.
17. Wikipedia contributors. (n.d.). List of accolades received by *Coco* (2017 film). Wikipedia. [https://en.wikipedia.org/wiki/List_of_accolades_received_by_Coco_\(2017_film\)](https://en.wikipedia.org/wiki/List_of_accolades_received_by_Coco_(2017_film))
18. Wikipedia contributors. (n.d.). *Steven Universe*. Wikipedia. https://en.wikipedia.org/wiki/Steven_Universe
19. Wikipedia contributors. (n.d.). *Neon Genesis Evangelion*. Wikipedia. https://en.wikipedia.org/wiki/Neon_Genesis_Evangelion#Awards
20. Laseter, J., Unkrich, L., & Molina, A. (2017). *The art of Coco*. Chronicle Books.
21. Schopenhauer, A. (1974). *Parerga and paralipomena: Short philosophical essays*.

Illustrating grief for young adults: A social design approach to develop emotional resilience

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Abstract

Among the complex range of human emotions, grief manifests itself in deeply personal, emotional, and socio-psychological dimensions. This paper presents a case study of a design project that uses social design as a methodology to create an activity kit to help young adults understand grief and build emotional resilience. The project has developed a hands-on activity kit that includes a creative primer on understanding grief, a set of illustrated postcards as reminders for self-care, and an origami-based workshop. The project's conceptualisation stemmed from addressing the uncertainty Gen Z faces as they leave home and enter college. In higher education institutions, they often receive insufficient support in understanding and processing complex emotions such as grief. It is frequently viewed as an emotion best kept hidden and addressed privately. Through this project, we propose an intervention that is tangible and mindfully engages participants in reflecting on their grief. This project discusses how they can navigate grief and proposes that social design can be effective in creating solutions to address emotions. The paper elaborates on the design process and user testing of the activity kit. It concludes with strong recommendations for higher education institutions to explore similar methods in their classrooms and campuses to create a more emotionally resilient learning environment.

1. Introduction

Grief is generally understood as a response to emotional or social loss and is one of the most universally shared human experiences. Given that design is a field where designers primarily tackle wicked problems related to human-centred experiences, it seems designers are well-positioned to contribute significantly to addressing such profound emotions. In this context, this paper presents a design project that was conducted at the Department of Design, IIT Delhi. Carried out over six months, this project serves as a pilot study for designers to situate their work at the intersection of social design and emotional well-being.

The project is specifically designed for Gen Z, generally defined as those born roughly between 1996 and 2012. This generation is often

Keywords

Social Design; Illustration; Grief; Well-being; Mental Health.

referred to as digital natives, having grown up in a digital-first ecosystem where smartphones and social media are constant tools for engagement. They comfortably share their lives on social media through Instagram reels, vlogs, podcasts, and other online formats. Ironically, this culture of sharing on social media has contributed to a trend that isolates this generation from offline engagements while keeping them linked in the online world [1]. Unfortunately, they also lack adequate support systems within higher education institutes to help them process these experiences [1]. The online sharing trends have additionally introduced performative grief and grief comparison, which adversely affects their emotional health [3] [4].

Gen Z undergoes complex transitions like forming romantic relationships, facing academic pressure, and confronting an uncertain future, which makes them vulnerable, especially when unprocessed emotions are involved [4] [5]. Additionally, the conventions and norms of society also lead to the suppression of grief among young adults to appear relevant and emotionally strong [1] [6]. The American Psychological Association (APA) also confirms that Gen Z undergoes a higher level of anxiety, emotional distress and depression than the previous generations at comparable ages. Interestingly, in the online media, grief can also become increasingly over-shared, but at the same time poorly processed if not given the needed interventions. This lack of understanding of grief in one's identity then leads to the lack of 'continuing bonds' [6] affecting the person's psyche. The current project, therefore, presents a design for an activity kit to assist this age group in processing their grief and instilling a sense of solidarity. The project is not a psychological aid; rather, it is built on social design theory as a methodological framework supporting well-being [7], while using tangible creations to express emotions [8].

2. Connecting with Social Design Theory

While the online world poses a challenging environment for Gen Z to process grief, the offline world offers solutions that can help them manage these emotions [2]. Creative practices such as art therapy, drawing, and journaling in this context have shown significant impacts in facilitating emotional awareness and building resilience [9] [10]. Similar studies have shown the importance of art-based practices in externalising internal emotions that are otherwise difficult to verbalise [11]. Processes of making can distance the person from their grief while allowing them to represent their inner state. Thus, the project uses a hands-on making approach to design a creative outcome.

The current project is built on the discourse that Design is a social agency that creates social value rather than merely producing artefacts [12] [13]. The theory supports the idea that social design acts as a ground for social exchange through collaborative processes. Along with social design, the idea of art therapy in the form of hands-on creation was chosen to create a participatory environment. The grief kit was thus designed to provide the sensory pleasure of handling textured paper in illustrated cards; the personal significance of a notebook primer booklet that belongs to the user and holds their private reflections; and the act of creating

a paper bird symbolising the tenderness of the emotion. The project, therefore, aligns with the idea of materiality and sensorial experience to address complex emotions such as grief [8].



To apply the social design methodology, illustration acts as a communication medium capable of addressing a diverse audience [14]. Since illustrations bear the marks of human creativity, they convey the essence of a person drawing to express specific emotions. In this context, illustration helps com-

Fig. 1. Material exploration for illustration and tangible experiences.

municate complex emotions; the intention is not merely to document, but to create an imaginative space that invokes mindfulness. To include a meaningful experience in the project and support the social design methodology, an origami activity was incorporated. Origami involves folding a piece of paper to create a desired and recognisable object. In this context, it not only engages the person making it but also creates a symbol of transformation. Once it becomes an object that can be held and shared, it serves as a point of social exchange. The details are further elaborated in the following sections.

2. Project Overview: Description of Kit Components

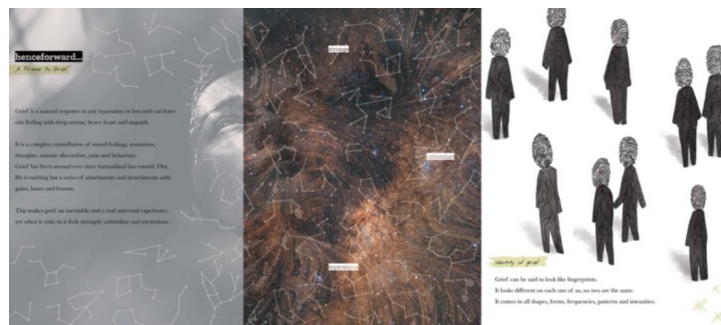
The project ran for six months and followed a complete design process, including the creation of a design brief, open-ended conversations with stakeholders, ideation and brainstorming, prototype development, and the final design of the activity kit, which led to an in-person workshop for a pilot test. Research has shown that feelings and emotions are not confined to the brain but are distributed throughout the body and interact with the environment [15]. This is a considerably different form of embodied cognition that occurs while viewing screen-based interventions, in which the body remains still and focuses only on the screen's pixels [16]. Therefore, hands-on making and learning-based activities are powerful for addressing sensitive topics, as they engage the senses while also making the user present and mindful of the moment [17][18]. The designed activity kit serves as a real-life object with activities and content targeted to the participants and their sensory experience. In this way, processing grief through tangible artefacts helps address complex emotions [8]. The material for the workshop, created thoughtfully with supportive content for emotional well-being, has been chosen as the solution for the project.

The kit comprises a printed booklet on grief titled "Henceforward," which is an introduction to grief using illustrations and handpicked quotes and statements from experts and storytellers who have spoken about the topic. It also includes a set of illustrated postcards that offer feel-good reminders and encourage users to create their own. Additionally, there is an origami activity featuring the "Orizuru," the Japanese crane, which symbolises upliftment. The details of the components are described in the following sections.

2.1. Illustrated booklet ‘Henceforth: A primer to grief’

A booklet titled “Henceforward” serves as the primary content of the kit. It is made in an accordion fold style, combining illustrations and text that together create a narrative. The illustrations are a mix of digital collage and drawn images, including photo illustration, in which digital drawings are layered over existing photographs from stock photo sources. This visual style was chosen to resonate with Gen Z aesthetics, creating a sense of familiarity. The keywords used to create the booklet’s visual aesthetic were polaroids, wildflowers, knitting, quilts, and yarn, to evoke feelings of calm, comfort, nostalgia, and ephemerality. The structure and information of the booklet deliberately avoid reading like a recipe guide. Instead, it presents different dimensions of grief through text like the micro poetry popular on social media platforms. Visual mood boards for image exploration were created before finalising illustrations for each phase of the accompanying fold. The initial exploration of the design appeared more text-heavy, but pilot testing with participant suggested a more illustration-heavy approach. This eventually led to the incorporation of original digital collage-style images that evoke different emotions. Further testing revealed that participants found the illustrations relatable and could symbolically identify with their own experiences of grief.

Fig. 2. ‘Henceforth’ a primer on grief showing digital collage and photo illustration..



2.2. The Illustrated Postcards: Feel-Good Reminders

The set of 7 illustrated postcards was hand-drawn mixed with digital watercolour. Each card is meant to serve as a reminder for each day of the week. The postcards show subjects such as walking barefoot on grass, changing shadows on a wall, embracing a good night’s rest, making chai (tea) for oneself, and other activities that encourage readers to slow down and anchor themselves in the present moment. The gentle reminder, like: “Barefoot Grasswalk: Take off your shoes and walk on the grass today, look how tiny blades caress your toes...come a bit closer to the ground,” is meant to remind the participant of the small actions that can bring mindfulness. The visual style of the illustrations was chosen to resemble media like crayons, watercolour, and gouache. Combined with a handwritten font, the simple messages on the cards serve as reminders for self-care. These

messages are designed to evoke a therapeutic response in participants while helping them become aware of simple activities they can engage in during their grief. These cards can also be shared with others experiencing similar emotions, thus creating a space of socially designed awareness. The cards were printed on 300 gsm matte-textured paper, cut to 4x6 inches to remain portable and easy to carry in the booklet or notebook.



Fig. 3. Illustrated post-cards for self-reminder.

2.3. Orizuru: Making as Mindfulness

The origami activity was the final part of the activity kit, encouraging participants to create a paper crane. Origami has shown therapeutic results, helping to calm the maker, and was chosen as a calming activity for the kit [19]. Based on the Japanese concept of Orizuru, considered one of the classic origami techniques and a symbol of hope in Japan, the kit includes a structured Orizuru activity. Orizuru, in Japanese, means folded crane and has profound significance as a symbol of peace, healing, hope, and longevity. After reading the primer and seeing the postcards, the participants identified the feelings that could be put into words, which they wrote on the origami sheet. After writing their feelings and thoughts, they folded it into an Orizuru and suspended it on a wooden frame with yarn running across it as an act of letting go. They could see how words on a sheet of paper can take on a meaningful shape while evoking a deep feeling.



The activity kit was pilot tested in a workshop with invited participants from the institute. The workshop was held in a design studio, chosen for its creative atmosphere and spontaneous environment. Participants ranged in age from 18 to 24, with $n=27$. The duration of the workshop was approximately 45

Fig. 4. Orizuru making and instructional sheet.

minutes. This timely structure allowed the workshop to be conducted in a single module, which makes it scalable and is feasible. Participants were informed that the workshop focused on an introduction to understanding grief and they were assured that they can choose to step out at any time if they felt uncomfortable. As the workshop addressed the sensitive topic of

grief, participants were informed of the session's purpose, which aligned with the ethics of participatory and art-based research. As a result, Thus, this study is best understood as a qualitative research-through-design model, rather than a controlled psychological experiment. All participants were actively engaged throughout the workshop and provided reflective feedback at the end. They were given sufficient time to reflect on the workshop before sharing their feelings for writing in the Orizuru. In the last segment of the workshop, the participants made their own Orizuru and placed them one by one on a pre-designed wooden frame with a thread running across, to convey a collective sense of 'I am not alone'.

3. Reflections and Insights

After the workshop concluded, participants were asked to provide written feedback and to discuss the workshop's overarching idea and its implications in a brief discussion. Most of the participants commented positively on the community-building aspect of the workshop, while one participant described the session as "...comforting to know, I'm not the only one who is suffering," which captured the objective of the workshop. Another participant noted that the booklet on grief read more like a personal note than a prescriptive book. Many participants appreciated the illustrated postcards, describing them as a pleasing and simple technique that served as a helpful reminder to be gentle with themselves. The accessibility and ease of use of the workshop kit were noted, with one participant describing it as having an "easy-to-follow instruction booklet." Another participant expressed feeling "better as I feel I have let it out," which suggested that the workshop created a safe space for them to address their grief and develop emotional awareness. The shareability of the postcards was also commented on by another participant, who mentioned, "I'll be giving the card to a friend, and I'm sure it's going to help her." Based on the qualitative feedback for this pilot workshop, it can be concluded that the workshop's intended purpose was achieved by providing a sense of community and belonging through hands-on crafting.

Fig. 5. The complete kit showing the booklet, postcards and origami activity.



To gain further insights, the activity kit was shared with the campus counsellor, who primarily counsels students in the same age group. A recorded video of the workshop was shown to her, along with an explanation of the workshop kit. The counsellor noted, "...nicely made and good pictorial description. The content is really good; I like it.

Certain techniques, such as accepting emotions, sharing with others, maintaining contact with someone, and normalising seeking help from professionals, would be especially relevant for those who feel that grief is a weakness and believe they must hurry their recovery. It normalises grief while also encouraging the pursuit of help." These insights from a professional counsellor were truly helpful, as she

reflected on the normalisation of grief and the importance of addressing it as a significant factor that the kit can provide. Even though this activity kit is not meant to replace therapy or psychological support, she emphasised that these creative interventions are needed in the curriculum to identify early symptoms and address emotional and mental well-being. As such, the kit can assist the work of mental health professionals and help create an accessible tool to become aware of one's emotions.

4. Conclusion

The project demonstrates that social design, when applied as a systemic and meaningful intervention, can bring small, meaningful value to participants. While addressing a complex emotion like grief, it was evident how difficult it can be to communicate in a university environment where the pressure of academia is always high. In such situations, working on these topics can become both challenging and rewarding. In this project, it was a fulfilling experience to pilot test a design intervention that addresses the emotional well-being of Gen Z. With the growing mental health crisis among students, it is crucial for universities to implement intensive, well-designed interventions to support emotional well-being at various stages. In the absence of creative interventions such as this project, students often try to identify and navigate the complex landscape of their emotions on their own, which can leave them feeling lonelier. The workshop insights also align with the research-through-design approach, suggesting that design research doesn't depend solely on quantitative validation. Instead, it can also benefit from qualitative, experiential, and interpretive results that provide valuable insights [20] [21] [12].

With the increasing strain on university systems, social design can offer community-oriented approaches to create systems and experiences that help students cope with the demanding situations of their lives. In this context, design can function as a 'diffuse design' that builds on the capacity of non-professional designers who, with the appropriate tools, can create solutions for their own and their community's well-being [9]. The workshop kit is one such resource that enables students to create their own well-being solutions and share them with those in need. It also emphasises the need to incorporate social design as a common pedagogical practice in curricula to develop more creative interventions.

Since the workshop was conducted as a pilot study, more longitudinal studies are needed to provide quantitative data, enabling changes in students' mental health to be measured and monitored. The workshop was conducted within a university system; factors such as timing, test scale, and ethical considerations also needed to be addressed. To advance the project, it is recommended that larger workshops be organised across universities and that activity kits be distributed to students. Additionally, in conjunction with the workshops, it is necessary to routinely assess their progress to develop further social design interventions. The workshop kit can therefore serve as an initial prototype of social design in practice, to be implemented beyond the classroom to support students' emotions.

References

1. Servaty-Seib, H.L., Pistole, M.C.: Adolescent Grief: Relationship Category and Emotional Closeness. *Omega: Journal of Death and Dying* 54(2), 147--167 (2006)
2. Law, M.A., Pastirik, P., Shamputa, I.C.: Expressive Art Therapy with Vulnerable Youth: Loss, Grief and Social Isolation. *J. Loss Trauma* 27(6), 588--591 (2022)
3. Walter, T., Hourizi, R., Moncur, W., Pitsillides, S.: Does the Internet Change How We Die and Mourn? *Omega: Journal of Death and Dying* 64(4), 275--302 (2012)
4. Nelson, K., Lukawiecki, J., Waitschies, K., Jackson, E., Zivot, C.: Exploring the Impacts of an Art and Narrative Therapy Program on Participants' Grief and Bereavement Experiences. *Omega: Journal of Death and Dying* 90(2), 726--745 (2024)
5. Pennington, N.: You Don't De-Friend the Dead: An Analysis of Grief Communication by College Students Through Facebook after the Loss of a College Friend. *Death Studies* 37(7), 617--635 (2013)
6. Arnett, J.J.: Emerging Adulthood: A Theory of Development from the Late Teens through the Twenties. *American Psychologist* 55(5), 469--480 (2000)
7. Armstrong, L., Bailey, J., Julier, G., Kimbell, L.: Social Design Futures: HEI Research and the AHRC. University of Brighton, Brighton (2014)
8. Whitaker, P., McHugh, C.: Making Arrangements: The Curation of Grief in the Home Studio. *Can. J. Art Ther.* 35(1), 32--42 (2022)
9. Malchiodi, C.A.: *Handbook of Art Therapy*, 2nd edn. Guilford Press, New York (2011)
10. Bat Or, M., Peled, R.: Art-Based Interventions for Emotional Regulation in Young Adults: A Systematic Review. *Arts in Psychotherapy* 64, 36--50 (2019)
11. Kumar, I.K., et al.: Connecting Through Comics: Design and Evaluation of Cube, an Arts-Based Digital Platform for Trauma-Impacted Youth. *Proc. ACM Hum.-Comput. Interact.* 9(2), 1--22 (2025)
12. Manzini, E.: *Design, When Everybody Designs: An Introduction to Design for Social Innovation*. MIT Press, Cambridge, MA (2015)
13. Julier, G.: From Design Culture to Design Activism. *Design and Culture* 5(2), 215--236 (2013)
14. Male, A.: *Illustration: A Theoretical and Contextual Perspective*, 2nd edn. Bloomsbury, London (2017)
15. Varela, F.J., Thompson, E., Rosch, E.: *The Embodied Mind: Cognitive Science and Human Experience*. MIT Press, Cambridge, MA (1991)
16. McGann, M.: Embodying the Problem: Ecological Psychology and Material Culture. *Phenomenology and the Cognitive Sciences* 9(4), 575--586 (2010)
17. Creek, J.: *Occupational Therapy Defined as a Complex Intervention*. College of Occupational Therapists, London (2008)
18. Kabat-Zinn, J.: *Wherever You Go, There You Are: Mindfulness Meditation in Everyday Life*. Hyperion, New York (1994)
19. Mendonça, A.R., de Carvalho, J.S.A., Landeira-Fernandez, J., Nórte, C.E., et al.: Cognitive Intervention Through the Use of Origami: A Systematic Review. *Discov. Psychol.* 5(1), 120 (2025)
20. Gaver, W.: What Should We Expect from Research Through Design? In: *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, pp. 937--946 (2012)
21. Braun, V., Clarke, V.: Using Thematic Analysis in Psychology. *Qual. Res. Psychol.* 3(2), 77--101 (2006)

Methodology for the Design and Structuring of Style Guides in 2D Vector Animation Pipelines

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Abstract

This article proposes a methodology for designing, structuring and iterating style guides within 2D vector animation pipelines, addressing the specific technical, aesthetic and organizational demands of contemporary television and digital content production. Rather than treating the style guide as a static, auxiliary document, the proposal conceives it as a dynamic tool that mediates between illustration, character design and industrial workflows. Drawing on theoretical perspectives from animation studies — including Torre's (2019) cognitive approach and Frank's (2019) materialist aesthetics — and professional documentation practices, the article distinguishes visual style guides from production bibles and other industry documents, outlining their specific role in structuring modular design systems, standardizing codification schemes and supporting the reuse of rigs, poses and vector assets. The methodology is articulated in five iterative phases, encompassing the analysis of production context, the definition of visual identity, the structuring of the guide as a document, its integration into the animation pipeline and its continuous revision. The methodology is illustrated through its application to *Sex Symbols* (2021–2022), a 2D vector animation series produced with Adobe Animate, which serves as the reference case of this study. The discussion highlights the aesthetic and cultural implications of style guides, emphasizing their function as instruments that preserve aesthetic coherence and cultural specificity while enabling scalable, collaborative production environments. The article is framed within the practice-based research paradigm and identifies the application of the proposed model in non-Western production contexts as a priority for future research.

1. Introduction

Contemporary 2D animation occupies an intersection between illustration, graphic design and audiovisual narrative, particularly in the context of television series, streaming platforms and multiplatform production. In this setting, the work of the illustrator, the character designer and the art director becomes intertwined with the technical demands of the animator and the post-production team, generating processes in which visual decisions - stroke type, formal construction, chromatic palette or composition

Keywords

2D Vector Animation;
Animation Pipelines;
Style Guides; Production
Documentation; Digital
Asset Management;
Character Rigging; Visual
Coherence.

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- have direct consequences both on the expressiveness of the characters and on the industrial efficiency of the series.

The consolidation of vector animation tools such as Toon Boom Harmony (2025) or Adobe Animate (Jackson, 2010) has reinforced this interdependence between the creative and the technical. These environments allow the reuse of rigs, pose libraries and backgrounds, and facilitate the interpolation of movements; but they also condition the way drawing is carried out: stroke modulation, the degree of volumetric simplification or the structure of backgrounds are conceived from the outset with the possibilities and constraints of the digital pipeline in mind.

Within this scenario, the style guide ceases to be a referential consultation document and becomes a central device where the rules sustaining the graphic coherence of the project are established: how a hand is drawn in different poses, what line weight defines the silhouette of a character, what scale relationships are set between figures and spaces, or which uses of the visual universe are considered legitimate from a cultural and symbolic standpoint.

The professional documentation of animated series has traditionally been organized around production bibles or show bibles, which compile information about the narrative universe, the characters and the tone of the work.² However, the visual style guide - focused on the illustrative dimension and the graphic materialization of that universe - has received less attention in the academic and technical literature, despite being the instrument that translates the decisions of the illustrator and the art director into reusable protocols for large, distributed teams.

In this context, a concrete research problem is identified: the absence of an explicit methodological model to guide the design and structuring of style guides in 2D vector animation pipelines. Neither the academic literature nor the sector's technical resources have formalized a systematic procedure for their construction, implementation, and iteration in vector environments - a gap that generates visual deviations that compromise both aesthetic coherence and productive efficiency. The aim of this article is to propose such a model, conceiving the style guide as a device that articulates drawing practice with the requirements of series production, at the intersection of animation theory, design documentation and the industrial production of series with a recognizable aesthetic identity.

The research questions underpinning this work, as well as the methodological approach adopted, are developed in Section 3. Drawing on a theoretical framework that engages with studies on animation history and theory - and with recent perspectives on the cognitive and material dimensions of the medium (Torre, 2019; Frank, 2019) - and with professional practices around production bibles and style guides, the article presents a methodology in five phases. The emphasis does not fall solely on the technical organization of files and libraries, but also on how these decisions shape the way characters, spaces and objects within the series are conceived, drawn and perceived.

² Bulletin declaration crea serie def bible. (s. f.). SACD. https://www.sacd.fr/sites/default/files/bulletin_declaration_crea_serie_def_bible_en.pdf

2. Theoretical and Contextual Framework

2.1. 2D Animation: From Analogue to Digital Vector

The main theoretical studies on animation have stressed the importance of stylization and the construction of a distinctive visual language. Wells describes animation as an expressive system based on simplification, exaggeration, and metamorphosis, capable of articulating specific graphic codes that differentiate animation from live-action image (Wells, 1998). Furniss, for her part, proposes a broad vision of the history of animation that integrates aesthetic, technological and production shifts, emphasizing how technical transformations have gone hand in hand with new forms of work organization and the circulation of works (Furniss, 2016). Bendazzi, finally, contributes a world history perspective, foregrounding the diversity of traditions, styles and cultural contexts that coexist within the medium (Bendazzi, 2016).

To these historical and theoretical perspectives must be added more recent approaches that address animation from its cognitive and material dimensions. Torre (2019) examines animation as a process, highlighting the relationship between production decisions, the spectator's perception and the construction of meaning within the animated medium.³ Frank (2019), from a materialist aesthetics standpoint, proposes that manufacturing processes - the stroke, the frame, the technical structure - are not neutral, but actively participate in the production of meaning and in the configuration of the visual conventions of each work.⁴ Both perspectives are pertinent to understanding the style guide not only as an operational tool, but as a space where decisions are made with aesthetic, cultural and perceptive implications.

The arrival of vector environments has brought about a profound shift in 2D animation production: the ability to scale images, reuse drawing libraries and structure characters in modular rigs has redefined the work of the illustrator and the animator, simultaneously increasing the need for rigorous visual documentation. Glebas (2017) underlines how decisions on timing, layout, colour and composition - fixed in the style guide - directly determine the expressive capacity of the animated image.⁵

2.2. Production Bibles, Show Bibles and Style Guides

In the television industry, the term *bible* (Murray, 2010) designates a reference document compiling detailed information about characters, setting, tone and narrative structure of a series. In animation, these documents are complemented by graphic manuals and style guides that capture the visual dimension of the project, especially when dealing with intellectual properties that may generate merchandise, video games or other products. Winder, Dowlatabadi and Miller-Zarneke (2017) offer a systematic description of the documentary ecosystem of animated production, posi-

³ Torre, D.: *Animation – Process, Cognition and Actuality*. Bloomsbury Academic, 2019.

⁴ Frank, H.: *Frame by Frame: A Materialist Aesthetics of Animated Cartoons*. University of California Press, 2019.

⁵ Glebas, F.: *The Animator's Eye: Adding Life to Animation with Timing, Layout, Design, Color and Sound*. Focal Press, Burlington, 2017.

tioning the style guide as the instrument that translates the art director's decisions into reusable materials for large, distributed teams.⁶

Professional resources such as those of Canadian Animation Resources describe the production bible as a living document that may include model sheets through to acting descriptions. However, the methodology underlying the visual style guide and its integration into the vector pipeline has not been formalized in the existing literature - a gap that this article addresses.

2.3. Vector Pipelines, Style Guides and Animation Theory

The pipelines of 2D vector series combine stages of visual development, storyboard, rig construction, layout, animation, compositing, and post-production. Their foundations trace back to the emergence of "Flashimation" from the 2000s onwards: Baldwin, Daubs and Ludwick (2006) documented how Adobe Flash animation transformed workflows, reduced costs and established aesthetic conventions tied to the digital vector, laying the foundations of current pipelines.⁷ Tools such as Toon Boom Harmony have become the industry standard for numerous international series, and their concentration of functions - rigs, libraries, effects, compositing - reinforces the need for a style guide that acts as an interface between the initial design and the serial production (Milic and McConville, 2006).⁸

The proposed methodology situates itself in dialogue with Wells, Furniss and Bendazzi, as well as with the more recent perspectives of Torre and Frank. The visual standardization proposed by the guide does not entail a renunciation of expressiveness, but rather a way of preserving the internal logic of the animated language. In cognitive terms, the guide operates as a system of productive constraints that orient creativity towards solutions coherent with the visual identity of the series (Torre, 2019). From Frank's (2019) materialist perspective, choices about stroke, colour and character structure configure visual imaginaries and participate in the production of cultural meaning: the style guide does not merely document a visual language - it constructs and constitutes it.

3. Objectives and Methodological Approach

The main objective of this article is to formulate a methodology for designing and structuring style guides specific to 2D vector animation pipelines, one that responds to the demands of serial production while simultaneously preserving the coherence and aesthetic identity of the project.

The specific objectives are:

- To define the style guide conceptually in relation to other production documents (series bible, brand manuals, etc.).
- To identify the indispensable elements of a style guide in 2D vector productions for television or other serial formats.
- To propose a phased methodological model for the creation, implementation and iteration of the style guide.

⁶ Winder, C., Dowlatabadi, Z. y Miller-Zarneke, T.: *Producing Animation*. Taylor & Francis, 2017.

⁷ Baldwin, D. L., Daubs, M. S. y Ludwick, J. B.: «Flashimation: The Context and Culture of Web Animation». ACM SIGGRAPH 2006 Art Gallery, 2006, p. 150.

⁸ Milic, L. y McConville, Y.: *The Animation Producer's Handbook*. Open University Press, 2006.

- To discuss the implications of this model for professional practice and for research in 2D animation.

These objectives are organized around three research questions that guide the work as a whole: How is a style guide designed and structured when the project is developed in 2D vector animation? In what way does it record and standardize graphic decisions to integrate them into an industrial pipeline? How does it intervene in the construction of visual identity and in the aesthetic experience of the audience, beyond guaranteeing the efficiency of the workflow?

The article adopts a propositional approach inscribed within the practice-based research framework (Candy and Edmonds, 2018; Smith and Dean, 2009): it constructs a general model drawing on the specialized literature, the observation of industrial practices and the analysis of contemporary vector pipelines, producing transferable results that are verifiable in future empirical studies.⁹

The methodology departs from practices documented in Western industries - North American, Canadian and European. Its contrast with non-Western traditions, such as the Japanese or the Latin American, constitutes a priority line of future research that this article opens.

4. Methodology for the Design of Style Guides in 2D Vector Animation: Application to the Case of Sex Symbols

The methodology is organized into five phases, adaptable to the scale and needs of each production. Rather than a rigid sequence, it is proposed as a flexible cycle in which it is possible to iterate between stages as the series advances and new visual or productive requirements emerge (Muir, 2007). To illustrate the practical application of the model, each phase is developed in parallel with its implementation in *Sex Symbols* (2021-2022), a 2D vector animation series produced by Admirable Films using Adobe Animate, which constitutes the reference case of this article. *Sex Symbols* is a popular-science series on sex education aimed at an audience aged 12 and above, with a comedic tone, comprising 26 episodes of 7 minutes each. The case analysis is based on the examination of the series' production materials: the versions of the visual guide, the file and folder structure, the explanatory videos produced for the team, and the asset naming and coding conventions implemented in Adobe Animate.

4.1. Phase 1: Analysis of the Production Context

The first phase defines the production framework: series type and target audience, volume and schedule, technical infrastructure (software, asset management) and team configuration (in-house, outsourced or remote). This diagnostic determines the level of detail required from the guide and anticipates the areas in need of greater standardization.

In the case of *Sex Symbols*, the analysis of the production context determined particularly demanding working conditions. The series, aimed at an audience aged 12 and above and inscribed in the popular-science

genre with a comedic tone, required an accessible, expressive visual language consistent with its educational content. The production volume - 26 episodes of 7 minutes - and the start of production in 2021, under the full restrictions of the COVID-19 pandemic, made it necessary to organize a workflow based on remote collaboration managed through a shared repository. These circumstances heightened the need for a rigorous guide: without in-person supervision, visual coherence depended on clear documentation that would allow each collaborator to work autonomously while remaining aligned with the project's standards.

4.2. Phase 2: Definition of Visual Identity

The second phase establishes the visual identity of the series through four key decisions: aesthetic references, stroke treatment (uniform, modulated or hybrid line), chromatic palette and level of detail in characters and backgrounds. The team materializes these decisions in a line-style document, a chromatic palette with applied examples and test sketches in different narrative situations. These choices condition the expressiveness of the characters, the construction of space and the spectator's aesthetic experience, and they configure the regulated visual system that guides the entire pipeline.

In *Sex Symbols*, the visual identity was developed by Gallego Bros, a studio specialized in the visual development of animation projects. The proposal is an original creation combining clean, uniform stroke - without line-weight modulation - with a clear palette and a cartoon-type stylization that balances legibility and expressiveness. The characters were designed from the outset with the demands of cut-out animation in mind: their forms, articulations and proportions respond both to aesthetic criteria and to the technical logic of the rig in Adobe Animate. This dual determination - artistic and technical - is precisely what justifies the need for a style guide that documents and preserves those decisions throughout the entire production, both visually and technically.

4.3. Phase 3: Structuring the Guide as a Document

The third phase converts visual decisions into a consultable guide organized into five blocks: (1) general visual principles (line, colour, proportions, atmospheres); (2) characters (model sheets, rotations, expressions, mouth charts and scale comparisons); (3) settings and layout (key backgrounds, location maps, depth schemes and compositional norms); (4) props and effects (reusable catalogues, level of detail and description of vector effects); and (5) animation and acting norms (rig constraints, gestural patterns, "correct vs. incorrect" examples). In this way, the guide is constituted as a documented visual system that translates artistic sensibility and technical processes into clear rules for production.

In *Sex Symbols*, the design team developed a visual guide that took the pilot episode of the series as its central reference, used as a living document of aesthetic coherence. The guide was organized into blocks corresponding to the main asset categories: characters, backgrounds, props, and effects. The documentary structure followed the logic of the production folders, integrating the guide, explanatory videos and working

files within a single organizational system. This approach - in which the guide forms part of the pipeline itself - is particularly effective in productions with distributed remote teams.

4.4. Phase 4: Integration into the Pipeline and Library Management

In this phase, the guide is integrated into the pipeline through the construction of character libraries and rigs - with animation controls and libraries of mouths, hands, and expressions -, layered background libraries, catalogues of props and recurring assets, and a system of alphanumeric nomenclatures with a centralized repository. The result is a set of reusable digital assets that materialize the guide within the actual workflow.

In *Sex Symbols*, each character was created in a dedicated Adobe Animate file, with the nomenclatures of each part of the rig correctly defined to facilitate use by the animators. Backgrounds, props, and other elements followed the same principle: individual Animate files, organized according to a consistent alphanumeric coding scheme: CH_000 for characters, BG_000 for backgrounds, PRP_000 for props and FX_000 for effects. This nomenclature system allowed remote collaborators to locate, update and reuse assets with precision and without ambiguity. Centralized management through a shared repository, together with the video guides, ensured that all team members always worked with the updated version of each file, reducing the risk of visual inconsistencies across episodes.

4.5. Phase 5: Implementation and Continuous Revision

The fifth phase focuses the implementation and revision of the guide on three actions: internal team training, integration into production templates and platforms, and continuous revision based on the first episodes to detect deviations and expand asset libraries. This cycle guarantees that the guide functions as a living document protecting aesthetic coherence throughout the entire production.

In *Sex Symbols*, communication of the guide to the team was organized through two complementary channels: the Adobe Animate files themselves, which simultaneously functioned as working tools and technical references, and a series of explanatory videos documenting the operation of the files, the construction of the rigs and the specific animation procedures for each character. This audiovisual material proved especially valuable in the context of remote production, compensating for the absence of in-person training. The guide demonstrated its nature as a living document: rigs were updated between episodes to incorporate technical improvements and expand pose libraries, responding to emerging expressive needs and ensuring that the guide evolved alongside the production.

5. The Style Guide as a Cultural Document

Beyond technical organization, the style guide preserves the cultural and visual identity of the series. Continuous revisions ensure that the graphic representation respects the cultural references of the project, that no problematic stereotypes are generated, that the aesthetics remain consist-

ent with the narrative and target audience, and that the expressiveness of the drawing is not diluted by the demands of the pipeline.

The cultural dimension of the guide acquires relevance in industrial contexts with their own visual traditions. Series such as *Aggretsuko* (Fanworks, 2018) or *Devilman Crybaby* (Science SARU, Netflix, 2018) demonstrate that the vector pipeline has also been adopted in the Japanese industry. The studio Science SARU developed a methodology of its own that combines Adobe Animate with an aesthetic far removed from the conventions of traditional anime,¹⁰ illustrating that the adoption of digital vector in non-Western contexts does not imply the uncritical importation of its conventions: the style guide must record and preserve the specificities of each tradition within the production.

The methodology must be understood as a flexible model, not as a universal template. Its application in industries with distinct visual traditions - Japanese, Latin American - will require adjustments in the criteria of visual identity, the conventions of representation and the logics of documentary organization: systematizing those adaptations is a future line of research that this work opens.

Thus, the guide consolidates itself as an instrument that not only optimizes production but guarantees the conceptual integrity of the visual universe and respects the cultural specificities of each project.

6. Discussion

The proposed methodology makes it possible to reconsider the style guide as something more than a compendium of models and technical rules. By situating it at the intersection of illustration, character design and industrial production, the guide is revealed as a site where decisions that affect how the visual universe of the series is drawn, animated and perceived are formalized and negotiated.

First, the guide operates as a device for the articulation of graphic language: by defining parameters of line, colour, simplification and hierarchy of detail, it conditions the expressiveness of the stroke, the legibility of silhouettes and the visual recognition of the series. From Torre's (2019) perspective, these conventions have direct cognitive implications - they structure the way the spectator processes and makes sense of characters and spaces - as well as narrative ones: by systematizing gestures and expressions, the guide establishes a repertoire of acting that influences the construction of characters' personalities and the representation of social and cultural contexts.

Second, the guide is a site of mediation between individual creativity and industrial production: the art director's decisions are translated into reusable protocols for distributed teams, which raises questions about stylistic homogenization and the preservation of visual diversity. This problem intensifies when production operates in non-Western industrial contexts - as the case of Science SARU in Japan demonstrates - where the adoption of the vector pipeline generates hybrids that negotiate between

10 Adobe Blog: «How Science SARU Animation Studio is Redefining the Japanese Animation Industry». Adobe Inc., 21 de mayo de 2020. Disponible en: <https://blog.adobe.com/en/publish/2020/05/21/how-science-saru-animation-studio-is-redefining-the-japanese-animation-industry>

local visual traditions and global technical logics: a tension that the theory of the style guide will need to address.

Third, the style guide is also a cultural document: it crystallizes representation decisions that influence gender, diversity, social class, or geographical identity. Frank (2019) argues that the technical procedures of animation - stroke, frame, the logic of the rig - are not neutral supports but active agents in the production of meaning: the guide does not document a pre-existing visual language, but rather constitutes it, intervening in how audiences make sense of animated universes.

Finally, the conception of the guide as a living document enters dialogue with the mutable nature of contemporary animation. The possibility of revising and updating the guide allows learning to be incorporated, aesthetic and technical decisions to be refined, and changes in working conditions to be addressed - such as the rise of remote work or collaboration between internationally distributed studios.

7. Conclusions

This article has proposed a methodology for the design and structuring of style guides in 2D vector animation pipelines, inscribed within the practice-based research framework (Candy and Edmonds, 2018; Smith and Dean, 2009) and constructed from the specialized literature, industrial practices, and the *Sex Symbols* case.

The main contributions may be summarized in four points:

Technical and conceptual contextualization: the style guide has been situated within the ecosystem of production documents (bibles, manuals, technical videos), underscoring its specificity in vector environments where modularity and the reuse of assets are central.

Phased methodological model: a flexible model in five phases has been formulated - context analysis, definition of visual identity, documentary structuring, integration into the pipeline, and implementation and revision - that systematically articulates aesthetic, technical and organizational decisions.

Integration of design and production: the proposal reinforces the idea that the design of characters, backgrounds, props, and effects cannot be separated from the logic of the rig, the coding of files and the animation requirements when working with tools such as Harmony or Animate.

Living document perspective: the need to conceive the guide as an evolving document, subject to revision and expansion throughout the production, and not as an artefact closed at the project's outset, has been emphasized. This perspective connects with the understanding of animation as a materially and culturally situated practice, in which the technical and the aesthetic are inseparable (Frank, 2019; Torre, 2019).

The *Sex Symbols* case illustrates this coherence: the context analysis phase anticipated the needs of remote work; the definition of visual identity preserved the original aesthetic decisions of Gallego Bros; and the technical process system of the integration phase guaranteed consistency across the 26 episodes of the series.

Looking ahead to future research, three priority lines are identified: (1) contrasting the methodology with real style guides from other vector series in order to evaluate the scope of the model; (2) examining its applicability in non-Western industries - Japanese, Latin American - where visual traditions and production logics differ from the Anglo-Saxon models dominant in the literature; and (3) studying how digital asset management tools and collaborative platforms can be integrated with the guide to automate visual quality control tasks in remote and distributed production environments.

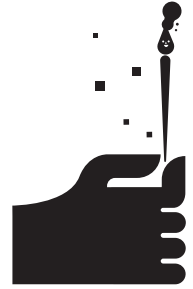
References

1. Adobe Blog: "How Science SARU Animation Studio is Redefining the Japanese Animation Industry". Adobe Inc., 21 May 2020. Available at: <https://blog.adobe.com/en/publish/2020/05/21/how-science-saru-animation-studio-is-redefining-the-japanese-animation-industry>
2. Baldwin, D. L., Daubs, M. S. and Ludwick, J. B.: "Flashimation: The Context and Culture of Web Animation". ACM SIGGRAPH 2006 Art Gallery, 2006, p. 150.
3. Bendazzi, G.: Animation: A World History (Vols. 1-3). Routledge, 2016.
4. Bailey, C. and Lenburg, J.: The Encyclopedia of Animated Cartoons. 3rd ed., Facts on File, 2008.
5. Canadian Animation Resources: The Production Bible. Cartoon North, 2010.
6. Candy, L. and Edmonds, E.: "Practice-based research in the creative arts: Foundations and futures from the front line". Leonardo, 51 (1), 2018, pp. 63-69.
7. Frank, H.: Frame by Frame: A Materialist Aesthetics of Animated Cartoons. University of California Press, 2019.
8. Furniss, M.: A New History of Animation. Thames & Hudson / W. W. Norton, 2016.
9. Glebas, F.: The Animator's Eye: Adding Life to Animation with Timing, Layout, Design, Color and Sound. Focal Press, Burlington, 2017.
10. Jackson, C.: Flash Cinematic Techniques: Enhancing Animated Shorts and Interactive Storytelling. Routledge, 2010.
11. Menog Creative: Style Guides & Art Bible Creation. n.d.
12. Milic, L. and McConville, Y.: The Animation Producer's Handbook. Open University Press, 2006.
13. Muir, S.: Gardner's Guide to Writing and Producing Animation. G G C Inc, 2007.
14. Murray, J.: Creating Animated Cartoons With Character. Watson-Guptill, 2010.
15. Rall, H.: Animation. Amsterdam University Press, 2018.
16. SACD: Definitions and Remuneration of Animation Bibles. Societe des Auteurs et Compositeurs Dramatiques, n.d.
17. Selby, A.: Animation in Process. Laurence King Publishing, 2009.
18. Singer, G.: "The Future of Flash". Animation World Network, 2005.
19. Smith, H. and Dean, R. T. (eds.): Practice-led Research, Research-led Practice in the Creative Arts. Edinburgh University Press, 2009.
20. Toon Boom Animation: Harmony - 2D Animation Software. 2025.
21. Torre, D.: Animation -- Process, Cognition and Actuality. Bloomsbury Academic, 2019.
22. Wells, P.: Understanding Animation. Routledge, 1998.
23. Winder, C., Dowlatabadi, Z. and Miller-Zarneke, T.: Producing Animation. Taylor & Francis, 2017.
24. Withrow, S.: Secrets of Digital Animation: A Master Class in Innovative Tools and Techniques. Rockport Publishers, 2009.

Toy Theory Applications within Illustration Research

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Abstract

My prospective PhD research asserts the illustrated motifs that adorn skateboards are exceptional cultural artefacts. The research intends to reveal the skateboard as a unique site of display by interpreting skateboard culture from the perspective of the illustrator. Drawing upon my positionality in relation to illustration practice and skateboard culture, I have identified the 1980s as the period in which the skateboard deck graphic was formalised as both a distinct visual language and a marketable commodity. Encountering Seth Giddings' 2024 book *Toy Theory* has emboldened a methodological approach that reflects the excitement and risk integral to the skateboard experience. This paper conveys insights from Giddings' work applicable to an expansive notion of illustration as a subject discipline – 'demonstrating illustration to be performing as a creative interpretative process rather than a final outcome'. [1]

1. Introduction

This paper introduces Seth Giddings' *Toy Theory* [2] as an exciting and productive method for mobilising illustration research. For the purposes of this study, I argue that Giddings' work maps the full psychoactive potential of the toy object. In his work, gestures, handling, and bodily engagement with the toy are exposed as means of loosening the ordinary rules that govern social behaviour; toy-play activates meaning through engagement rather than through conventional cognitive states, such as linguistic or optical inquiry. By outlining how this theory has informed and structured my own practice-led research, the paper demonstrates how Giddings' work aligns with the working methods of the illustration practitioner, and asserts the value of embracing the concept of the toy-machine [3] as a methodological framework to enact illustration research.

2. Illustration and the 1980s Skateboard

Skateboard products have consistently employed imagery as a means of differentiation within a commercial marketplace. Skateboard graphics function as effective merchandising conceits, enabling brands and corporate entities to assert identities and values through the graphic mobilisation of the activity's emergent display culture. As Gordon and Rogers attest [4],

Keywords

Illustration research;
Toy Theory; Skateboard;
1980s.

it was the exertions of the skateboarders themselves that gave rise to this distinctive visual site: ‘Initially an unseen space to place the manufacturers logo, the undersides of decks became increasingly visible as skateboard magazines featured shots of skaters riding out of the pool or bowl.’

Commercial artists were commissioned to develop illustrated motifs that evoked aspects or concerns of this new fraternity of skateboard stars. The imagery distinguished these products but also drew strong reactions

from its adolescent target audience (Figure 1). The graphics for skateboards were now a space to tell a story and choosing one (purchasing a skateboard) meant choosing an identity. By examining and discriminating between these illustrated artefacts, new taste structures arose that articulated aesthetic sensibilities. Skateboard graphics became a visual representation of an emer-



Fig. 1. 1980s skateboard retail experience. Available from: <https://www.calstreets.com/wp-content/uploads/2014/04/California-Streets-11-Lonsdale-Greg-Accessories3-1024x661.jpg>

gent attitude: the skulls and zombies that populated the underside of these decks illuminated the sociality and risk-taking integral to the experience.

1980s skateboard culture fostered an aesthetic awakening to the significance of American skateboard products in 1980s Britain – particularly the dominant ‘big three’ American brands (*Powell-Peralta*, *Santa Cruz* and *Vision*). As Ian Trowell, skateboarder-turned-doctoral-commentator on UK subculture, recounts:

Skateboards, as a carefully curated and purchased assemblage of a deck, grip tape, stickers, trucks, bolts, bearings and wheels, are incredibly material and evocative, triggering deep and affectionate memories. In terms of having a rationale or sense of purpose, they signify marker points for a person’s progression (or otherwise) through a moving subculture whereby as the participant’s skills and involvements to the scene develop so too does the scene itself. [5]

Trowell’s observations are backed up by the reverential way in (more often male) British illustrators of my generation felt skateboard culture unlocked illustration as a forum for conspicuous display and creative thrills. Reminiscing in a 2017 interview, British Illustrator Marcus Oakley shares much in common with my own research position; my over-investment in these exotic commodities of play:

I grew up in a village where there wasn’t much to do, school became bearable with fingerboard sessions and ‘skate chat’ at break times... after school and weekends were dedicated to shredding time! Skateboarding came to me at a perfect time as young teenager who loved art, skateboarding slotted in perfectly. I feel slightly indebted to skateboarding. It had a huge effect on my creative life. [6]

This kind of evocative relationship to skateboarding is – my research contends – a symptom of not only the exciting kinetic potential of the object but also its pictorial manifestation upon the deck surface: its frequently lurid illustrations. My practice-led research has therefore embraced this amalgamation as a methodological position.

3. The Skateboard Toy

The skateboard is an unstable object resistant to quantification, occupying an ambiguous position between sport, dance, transport, and actant of resistance. However, without aiming to categorically define the object, my research is instead drawn to the toy as the term that most satisfactorily articulates the story I wish to tell: the neglected significance of the illustrated skateboard as a performing object. This assertion is neither controversial nor exclusive to my thesis but rather a common moniker used throughout skateboard cultural discourse (an obvious exemplar being the famous U.S. skateboard brand *Toy Machine*, 1993-present). Recent examples of this term's usage – its validity – can also be found within literary contemplations upon the skateboard experience; both *The Most Fun Thing: Dispatches from a Skateboard Life* [7] and *Chipped* (Vadi, 2024) [8] frequently meditate on the toyetic [9] nature of the absorbing implement the authors find under their feet:

(The skate board is) a toy that can travel across time and space, measure how fast my body can adjust to a crack before the take-off point at the top of some stairs, or muscle through a grind along a worn, chewed, concrete ledge...the toy evolves beyond a fad and becomes something more – a compass, a lens, a portal to joy only found by trying and failing along the way. [10]

As skateboard visual culture is the driver of my research, Giddings' theory has helped address the symbiotic relationship between deck graphics and the experience of skateboarding. In short, the physical skateboard object – open to decoration and customisation – becomes the primary site of my practice-led investigation. This methodological position allows me to express illustrated imaginings in a manner that cogently reflects my archival subject matter. *Toy Theory* positions the skateboard as a lens through which the reciprocal relationship between illustration and skateboarding can be understood: how visual art enhances the experience of skateboarding and skateboarding enhances our experience of visual art.

4. Material Semiotic Machines

Often cited as two of the most influential designers of the twentieth century, Ray and Charles Eames could almost be mistaken for designers of toys. Their approach to design problem-solving frequently drew upon the creative purposefulness and wide-ranging applications of the toys they privately collected. Many of their design innovations championed play as integral to creative thinking. This principle is evident across the furniture and *objets d'art* produced by the Eames Office – notably the House of Cards

modular construction set. In 1961 they declared: ‘Toys are really not as innocent as they look. Toys and games are the preludes to serious ideas’ [11]. However, rather than merely ‘preludes to serious ideas,’ *Toy Theory* by Seth Giddings [2] advances a more ambitious proposition: that toys constitute a sophisticated mode of cognitive engagement in their own right.

Giddings’ work compellingly stresses the transitional properties of the toy. His work reframes the toy as perceptual tool:

Toys are functional; they are used to do things, just not things with immediate practical ends. They are symbolic, communicative objects, like paintings and ornaments but...unlike the staid and fixed forms and images of sculpture and painting, the toy’s relation to its referent, especially in play, is generally either much looser or much closer. [12]

For Giddings, the absorbing, affective nature of toys has been neglected as an object of inquiry and mode of communication. Crucial to his book’s contention is a characterisation of toys as ‘material-semiotic machines’ that ignite cognition through play-work: ‘Toys are not...“read,” as we understand ornaments, books, or images as cultural texts; they are handled and manipulated, placed and juxtaposed, talked to and animated.’ [13]

In this definition, toys are unstable entities which possess the ability to not only delight and animate our imaginations but also reflect the cultural-historical consequences of thought that brought them into being. The book proceeds along two interconnected lines of inquiry: first, the interrogation of the ambiguous nature of the toy as an object; and second, the use of the toy as a lens to ruminate upon the evolution and application of human technological development.

Giddings’ study confronts the entrenched associations that have discounted toys from much conventional scholarly interpretation; the assumptions that confine the toy-form to frivolity, obscuring their transitional dimensions. The work upturns entrenched assumptions, drawing our attention to role the toy enacts in the cognitive sphere: an underexamined conduit for human curiosity and dialogue. Giddings rebuts the belittlements and derogations associated with the toys, instead, articulating the remarkable capacities of the toy as a site of technological speculation:

Children’s play brings the inanimate to life, collages together disparate material and semiotic fragments and effects all kinds of syntheses and transductions. It is utterly everyday, but marvellous and phantasmagorical [14].

In *Gameworlds* [15] Giddings hinted at how a maligned corner of material culture could be judged a transitional force, how objects carry an emotional charge within a child’s play performance. Because these objects are associated with childhood their empirical significance has been sidelined; however, for illustrators the methodology of play is inherent within our core practice. As Gannon and Fauchon note: ‘Play is...a familiar learning experience for many illustrators. Play involves suspending reality, and the

creation of imaginary scenarios or worlds, reinventing, new relationships and new ways of working.’ [16]

Giddings reveals the ‘spontaneous surrealism of children’s play, where toys are animated and objects transformed’ [17]. His work brings to light the toy’s capabilities as a communicative object – asserting their generative properties. The script implicit within this category of artefacts invites engagement – or rather, insists on engagement. Given the magpie, agile, even ‘fugitive’ [18] tendencies of illustrators (their proclivity for adopting felicitous, exploratory modes of creative production) the toy presents as a site of illustration research ripe for investigation.

5. Prior Meditations on Toy-Function

In one of the sparse early academic texts to examine the role toys perform in contemporary society, Brian Sutton-Smith’s *Toys as Culture* [19] asks whether toys simply reflect or create cultural discourse and imaginary playful constructs. Addressing the toy as a consumer contrivance, Sutton-Smith defines modern toy products as possessions through which children learn materialistic habits. Acknowledging their contribution to the cycles of consumption and planned obsolescence that occupy modern society, Sutton-Smith also hints at the symbolic literacy of these objects: ‘the external toy is, perhaps, the key to the inner character’ [20]. By suggesting that the toy ‘possesses the child’ [21], Sutton-Smith also begins to unpick the engrossing condition of toy-play, in which toys are reshaped by their players to suit their imaginative convenience.

This recognition of toys as an agency of the imagination is echoed in Marina Warner’s lecture *The Voice of the Toy* [22], in which she asserts the shaping power such artefacts can exert over their devotees. As Warner insists: ‘the toy is above all a plaything, and playthings take part in stories – stories scripted, quoted, and enacted by the play or players – which do not merely repeat experiences, but shape their possibilities through fantasy’ [23]. Throughout the lecture, Warner leans into enchantment as a way of understanding toys’ capacities. She extols the all-consuming condition of toy-play, in which novelty and fascination generate a temporal space – a bubble – somehow separate from the real world; a world that has to wait until the fun is over.

A toy’s appeal can be frivolous, ephemeral – momentary even – but as Sutton-Smith, Warner and Giddings attest, their emotional entanglement is transformative: it exceeds their utility as objects. All these thinkers point to the distinct emotional charge of the toy and its ability to reverse conventional subject-object relations as a crucial property of the toy implement. Anticipated by Sutton-Smith and Warner, Giddings’ *Toy Theory* illuminates the communicative potential of the toy: the reciprocal action we enact upon the toy and the toy’s potency upon us.

6. Toy as Talisman

Talismans are luminous forms of power [24] that employ pictorial, graphic aspects: things are inscribed onto them. Giddings’ work claims the toy has a ritualistic definition:

Like modern toys, ritual objects (objects with religious significance for example) can be the product of extensive expertise...realized as highly symbolic in form and decoration. But also like toys, they can be little more than a momentary grabbing and enchanting of material objects to hand. [25]

For Giddings et al., the ritual object is a category of artifact that crosses between art and functionality; a 'boundary object' [26] between temporal states and broad categories of things; things designed and fabricated to animate the imagination via performance. Such assertions as these hint at the anthropological necessity to manufacture ritual implements, providing symbolic functions in ancient times. Cognitive archaeologist Lambros Malafouris' *How Things Shape the Mind: A Theory of Material Engagement* [27] brings into focus the symbiotic contract between humans and ritualistic objects that exists within the historical record: 'sensual properties of things and the aesthetic experience of things permeate every aspect of our cognitive activities and permeate our social and emotional relationships.' [28] For both Malafouris and Giddings the reciprocal action of the symbolic artefact upon the mind – its 'sensuous presence' [29] – constitutes a fertile state of enchantment.

Compatible with these definitions, skateboarder and sociologist Paul O'Connor observes: 'They (skateboards) are artefacts imbued with magical powers, What Ostwalt (2012) refers to as 'spiritual talisman' in reference to the motorcycle, replete with supernatural powers that transform the rider. Thus, skateboard art connects to an embodied schema, a way of being in the world' [30]. This parallels ritual practice, where meaning is produced through engagement – through doing. In this light, the skateboard-toy becomes unavoidable for my own research motives: a methodological instrument whose ritual meaning is enacted through kinetic play rather than conventional fixed representation.

7. The Unimaginative Toy as Engine of Cognition

Toy Theory provides many examples of how toy-play and novelty could have driven societal and technological change. Giddings employs the simple four-wheeled toy (an Egyptian 2000 year-old wooden horse, in his example) as a pre-emptive manifestation of the most essential technological form – the wheel, arguing that '(this) technology was toylike before it was practical and instrumental' [31]. This perspective echoes the argument I first encountered in Steven Johnson's book *Wonderland* [32] that throughout history the cutting edge of innovation takes place wherever people are working the hardest to keep themselves and others amused.

A reoccurring category of toys and play objects that serve this function, but which do not rely on mimetic representation – unlike, for example, the Egyptian wooden horse – Giddings' classifies as 'unimaginative toys' [33]. These toys are 'unimaginative' not in a pejorative sense, but in the sense that they do not depend on the illusory or narrative dimensions characteristic of 'imaginative' play. Rather than serving as replicas of physical entities or commodities, unimaginative toys provide spontaneous

kinaesthetic experiences aimed at pleasure. Giddings places kites, tops, hoops, rattles, and balls within this category. Such toys appear in depictions of childhood throughout history and are distinguishable from other archaic technologies by their relationship to the dimensions of the human body and their orientation toward pleasure over utility, setting them apart from other mimetic toy forms.

My research embraces this notion of the unimaginative toy as a proposition from which to animate my illustration work and foster participation with its intended audience. I have therefore begun to generate my own bespoke skateboards: illustrated devices. My aim is to employ these machines to engage and reconstitute skateboard history in a way that reflects the skateboard experience. By interacting with and unraveling 1980s skateboard visual culture in this way, I aim to draw upon the emotional commitment and engrossing power of my own – and others – fascination with this creative toy: a shaping power that compels me to speak about the way they speak to me.

8. Toy Theory: A Practical Application

Drawing upon my own positionality in relation to illustration practice and skateboard culture, this research constructs a story embedded within skateboard history. It embodies an imaginary text identified from the vantage of the illustration practitioner – refracting 1980s deck graphics through the prism of illustration research [34]. Employing visual media, rather than written, the research intends to extract knowledge in a semblance to this stimulating preoccupation: via a practice-led methodology from which to attract an audience more viscerally and in alignment with the material in question.

The research firstly addressed the graphic vernacular of the skateboard object so as to illuminate why particular motifs are employed and how these visual forms were constructed. This process involved the development of a visual typology informed by existing academic scholarship, connoisseurly observations and archival sales data. Close readings of significant skateboard graphics from the 1980s, situated within this historical framework, enabled the material to be examined through a mode of analysis analogous to critical writing. The illustrator's reflective and meditative thinking process thereby became the crucial arena through which skateboard ephemera could be analysed, anchoring these objects within artistic grammatical terms in order to provoke visual experiments.

Working within the parameters established by the 1980s skateboard graphic archive, this practice-led research operates through the interrelated demands of action, intuition, and the diverse platforms that constitute the illustrator's workflow. Conceptual development thus emerges through a creative strategy in which ideas are formed "in-the-game," through processes of active making and engagement. Within this framework, the immediacy of toy-play provided a productive methodological approach through which to enact and direct practice-led speculation. As Gannon and Fauchon declare, 'Play is... a familiar learning experience for many illustrators. Play involves suspending reality, and the creation of imaginary scenarios or worlds,

reinventing, new relationships and new ways of working’ [35]. Play - and its precipitate, fun - are thereby integral to an expanded practice with ambitions to reposition the skateboard graphic as an artistic site of consequence.

Encountering Giddings’ work was pivotal in articulating the research goal, that by manufacturing my own ‘unimaginative toys’ I could address

the tacit relationship between skateboard deck art and the activity itself. Consequently, the practice has taken the form of bespoke customised skateboard objects which, through both physical interaction and participatory screen-based assets, embrace the frivolous and gimmicky attributes of the toy. In effect, the appropriation of the toy forms the creative nucleus of the entire project. This emerging research was displayed at London College of Fashion, UAL, London in May 2025 as part of the *Fashion Frequencies* exhibition (Figure 2).

Fig. 2. Fashioning Frequencies: PhD Vitrine Takeover, Vitrine installation comprising custom-painted skateboards, patterned backdrops, vinyl stickers, and historical skateboard ephemera. 2 m x 3 m. London College of Fashion, UAL, London. May 2025.



9. Conclusion

Toy Theory offers the curious illustrator a mode to mediate ideas and also directly engage an audience via our impulsion toward novelty. Toys – particularly the unimaginative variations that now consume my research – allow for the haphazard happenstance that can characterise illustration practice. In my own work, the toy functions as a communicative vessel from which to present an imagined narrative about skateboard history (Figure 2). A story activated through Giddings’ phantasmagorical definitions: ‘Toys are more or less mechanical objects (actual or virtual) that work on and with the body and imagination in broadly noninstrumental—and specifically playful—ways’ [36]. Giddings’ work reframes my own illustration product as a playful methodological position: a conceptually mobile toy-machine. I encourage the illustration research community to embrace Toy Theory as a mode of inquiry and intend this essay to invite fellow researchers to climb aboard and drop-in.

References

1. Fauchon, M.: *Illustration, Narrative and the Suffragette: An Illustrative Enquiry*, p. 10. Bloomsbury Visual Arts, London (2024)
2. Giddings S. *Toy theory: technology and imagination in play*. Cambridge, Massachusetts: The MIT Press (2024)
3. Giddings S. *Toy theory: technology and imagination in play*, p. 18. Cambridge, Massachusetts: The MIT Press (2024)

4. Gordon, B., Rogers, J.: *Four Wheels and a Board*, p. 51. 1st ed. Smithsonian Books, Washington, (2022)
5. Trowell Ian. *Bad Dress Sense – Thrash punk, skateboarding and surf wear as 80s subculture* (4 of 5) [Substack], 2025 [cited 14 Dec 25]. Available from: <https://substack.com/@iantrowell/p-181624780>
6. Oakley M. April 25, 2017.
7. Beachy K. *The Most Fun Thing: Dispatches from a Skateboard Life*. Grand central publishing. (2021)
8. Vadi J. *Chipped: writing from a skateboarder's lens*. First Soft Skull edition. New York: Soft Skull (2024)
9. Giddings S. *Toy theory: technology and imagination in play*, p. 8. Cambridge, Massachusetts: The MIT Press (2024)
10. Vadi J. *Chipped: writing from a skateboarder's lens*, p. 5-6. First Soft Skull edition. New York: Soft Skull (2024)
11. Eames R, Eames C. *Mathematica: The World of Numbers...and Beyond* [Exhibition catalogue] [Internet]. Published by IBM / International Business Machines Corporation, Armonk, NY; 1961 [cited 2026 Mar 31]. Available from: <https://www.eamesinstitute.org/collection/toys-and-eames-design-philosophy/>
12. Giddings S. *Toy theory: technology and imagination in play*, p. 219. Cambridge, Massachusetts: The MIT Press (2024)
13. Giddings S. *Toy theory: technology and imagination in play*, p. 7. Cambridge, Massachusetts: The MIT Press (2024)
14. Giddings S. *Gameworlds: virtual media and children's everyday play*, p. 147. New York: Bloomsbury Academic (2016)
15. Giddings S. *Gameworlds: virtual media and children's everyday play*. New York: Bloomsbury Academic (2016)
16. Gannon R, Fauchon M. *Illustration research methods*, p. 198. London New York Oxford New Delhi Sydney: Bloomsbury Visual Arts (2021)
17. Giddings S. *Toy theory: technology and imagination in play*, p. 6. Cambridge, Massachusetts: The MIT Press (2024)
18. Taylor RE. *Illustration and heritage*, p. 24. London: Bloomsbury Visual Arts (2024)
19. Sutton-Smith B. *Toys as culture*. New York, N.Y: Gardner Press (1986)
20. Sutton-Smith B. *Toys as culture*, 112. New York, N.Y: Gardner Press (1986)
21. Sutton-Smith B. *Toys as culture*, 75. New York, N.Y: Gardner Press (1986)
22. *The Voice of the Toy: Writing Magic and Enchanted States* [YouTube]. 2009 [cited 2024 Dec 25]. (Stanford Humanities Center Video Archive). Available from: <https://www.youtube.com/watch?v=Qr6OSCbVmQk>
23. *The Voice of the Toy: Writing Magic and Enchanted States* [YouTube], 35:25 mins. 2009 [cited 2024 Dec 25]. (Stanford Humanities Center Video Archive). Available from: <https://www.youtube.com/watch?v=Qr6OSCbVmQk>
24. *The Voice of the Toy: Writing Magic and Enchanted States* [YouTube]. 2009 [cited 2024 Dec 25]. (Stanford Humanities Center Video Archive). Available from: <https://www.youtube.com/watch?v=Qr6OSCbVmQk>
25. Giddings S. *Toy theory: technology and imagination in play*, p. 32. Cambridge, Massachusetts: The MIT Press (2024)
26. Giddings S. *Toy theory: technology and imagination in play*, p. 51. Cambridge, Massachusetts: The MIT Press (2024)

27. Malafouris L. *How things shape the mind: a theory of material engagement*. Cambridge, Massachusetts: MIT Press (2013)
28. Malafouris L. *How things shape the mind: a theory of material engagement*, p. 87. Cambridge, Massachusetts: MIT Press (2013)
29. Brown, Bill. *Thing Theory*, p. 5. *Critical Inquiry*, vol. 28, no. 1, 2001. Available from: <http://www.jstor.org/stable/1344258>
30. O'Connor PJ. *Skateboarding and religion*, p. 116. Cham, Switzerland: Palgrave Macmillan (2020)
31. Giddings S. *Toy theory: technology and imagination in play*, p. 26. Cambridge, Massachusetts: The MIT Press (2024)
32. Johnson S. *Wonderland: how play made the modern world*. New York: Riverhead Books (2016)
33. Giddings S. *Toy theory: technology and imagination in play*, p. 48. Cambridge, Massachusetts: The MIT Press (2024)
34. Taylor RE. *Illustration and heritage*, p. 27. London: Bloomsbury Visual Arts (2024)
35. Gannon R, Fauchon M. *Illustration research methods*, p. 198. London New York Oxford New Delhi Sydney: Bloomsbury Visual Arts (2021)
36. Giddings S. *Toy theory: technology and imagination in play*, p. 52. Cambridge, Massachusetts: The MIT Press (2024)

Insurgent Graphics: Editorial Illustration as Feminist Political Practice in the Brazilian periodical *Mulherio* (1981-1988)

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Abstract

This article examines the editorial illustration of *Mulherio* (1981-1988), one of the most significant feminist periodicals of the Brazilian alternative press, as a political practice in its own right. Drawing on Hoogslag's (2014) constellation model of editorial illustration — manifestation, translation, reflection and engagement — the analysis focuses on five illustrations selected from editions 1, 6 and 15, tracing three structurally distinct moments in the publication's trajectory: its inaugural proposition, its period of graphic maturity, and the onset of financial crisis following the end of its Ford Foundation contract. The article argues that *Mulherio*'s visual language was constituted by three interconnected conditions: the horizontal editorial structure that refused the hierarchical model of conventional press production; a collective and variable relationship to authorial attribution that enacted a feminist politics of shared making; and the material constraints of under-resourced production that generated, rather than limited, a graphic language of political urgency. Read together, the illustrations analyzed demonstrate that *Mulherio*'s editorial illustration did not accompany the periodical's feminist argument; it created it. The article contributes to ongoing efforts to recover and theorize women's graphic labor in Latin American alternative press history, and proposes *Mulherio* as a productive historical counter-model for contemporary debates about authorship, collective production and the political stakes of editorial illustration.

1. Introduction

In 1981, a group of women in São Paulo launched a feminist periodical that would survive for seven years — through the final throes of a military dictatorship, through financial precarity, and through the ongoing contest over what Brazilian feminist politics could and should look like. That periodical was *Mulherio* [1]. Its pages, as Silva (2018, p. 1) argues, are privileged sources for the study of the Brazilian political landscape of the 1980s from feminist and gender perspectives — sources that politicize the everyday. But they are also, as this article proposes, a visual archive: a sustained record of editorial illustration as feminist political practice. [2]

Keywords

Editorial Illustration;
Feminist Press; Alternative
Press; Brazil; Collective
Authorship; *Mulherio*.

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A crucial distinction underpins the analysis presented here. As Klafke and Braga (2018, p. 241) argue, while the study of the feminine press encompasses women's presence both as producers of content and as content itself, the feminist press is defined by its explicit alignment with social movements and left-wing political militancy — a distinction that resides not merely in subject matter but in the self-perception of its producers as part of a formal ideological project. *Mulherio* belongs unambiguously to the latter category. [2] [3]

Mulherio was an heir to the Brazilian alternative press — also known as *imprensa nanica* — a phenomenon that emerged in direct opposition to the military regime and its censorship of cultural and intellectual production deemed subversive. As Silva (2018, pp. 2–3) documents, the alternative press represented the appropriation of writing and information as a practice of social transformation, constituting one of the most important forms of resistance to military repression. Yet *Mulherio* occupied a particular position within this field. Unlike its feminist predecessors *Brasil Mulher* and *Nós Mulheres*, which depended entirely on contributions from members, hand-to-hand distribution and direct appeals to readers for financial and logistical support, *Mulherio* was founded with institutional backing from the Carlos Chagas Foundation — a condition that gave it greater material stability and, crucially, the capacity to develop a more self-conscious and elaborated graphic language (Teles & Leite, 2013, as cited in Silva, 2018, p. 3). [2]

It is this graphic language that this article examines. Applying Hoogslag's (2014) constellation model of editorial illustration — manifestation, translation, reflection and engagement — as an analytical framework, the article argues that the visual practice of *Mulherio* is intrinsic to its political activism, constituting rather than merely accompanying it. The selection of editions 1, 6 and 15 is elaborated in Section 3.

This article pursues three interconnected objectives. First, it recovers and analyzes the visual practice of *Mulherio* as a historically significant but understudied dimension of the Brazilian feminist alternative press. Second, it applies Hoogslag's (2014) constellation model of editorial illustration to a non-Anglophone, non-European feminist publishing context, testing the model's capacity to account for material precarity, collective authorship, and political urgency as determinants of visual language. Third, it proposes *Mulherio* as a productive historical counter-model for contemporary debates about the relationship between illustration practice, editorial hierarchy, and collective production. [8]

2. Context

2.1. *Mulherio* within the Brazilian alternative press

Mulherio (1981–1988) emerged at a particular inflection point in Brazilian political history — it was after the *anistia*⁴; when a slow and controlled

4 The Brazilian Amnesty Law (Lei n. 6.683/79), signed by President João Batista Figueiredo on August 28, 1979, granted amnesty to political prisoners, exiles, and those persecuted by the military regime since 1961 — while simultaneously extending the same pardon to state agents responsible for torture, enforced disappearances, and political killings through the mechanism of *crimes conexos* (connected crimes). Widely regarded as the primary clause of impunity of the period, the law marked the controlled limits of Brazil's democratic transition, effectively preventing accountability for human rights violations committed during the dictatorship. (Fico, 2017)

political opening marks the beginning of the end of the military dictatorship that had governed Brazil since 1964.

Silva (2018) argues that the rise of a feminist discourse within the alternative press, also known as *imprensa nanica* in Brazil, rose in 1975, which had been proclaimed by the United Nations as the International Women's Year. Prior to *Mulherio*, periodicals like *Brasil Mulher* (1975-1980) and *Nós Mulheres* (1976-1978) had already established the terrain of feminist alternative publishing in Brazil, operating under harsher repressive conditions. [2]

Goldberg's central thesis, as summarized by Cardoso (2004, p. 13), is that the hardening of the military regime in the early 1970s encouraged politicized women and sympathizers of the ideas proposed by international feminist movements to fight for the end of the dictatorship and for social justice. In other words, the brutality of the military dictatorship motivated the incorporation of women into the civil society alliance for political opening. This line of action, however, would have left feminism in the background of the political agenda of feminist leaderships — the state of exception led feminists to postpone the feminist agenda in order to align with the left, which called on women to strengthen the struggle for a better society for all (men and women alike), something that would be achieved with the end of the dictatorship and the establishment of a socialist society. Once that was accomplished, the feminist agenda would be automatically fulfilled, said the leadership of the left-wing parties of the time. This political and social situation formed the backdrop for the founding of the feminist newspapers of the period — *Brasil Mulher* (1975), *Nós Mulheres* (1976), among others. [4]

What distinguished *Mulherio* was not only the shifting political context but its organizational structure. Founded by a collective of journalists, academics and activists connected to the Carlos Chagas Foundation in São Paulo, *Mulherio* was therefore created in a context characterized by the emergence and development of what we might call “academic feminism” (Silva, 2018, p. 5) — which impacted directly its visual language. Unlike its predecessors, which operated under the immediate urgency of clandestine production — mimeographed, anonymously distributed, hand to hand — *Mulherio* had slightly more stable material conditions and, crucially, a more self-conscious relationship to its own form. [2]

2.2. Editorial illustration as a field

According to an ancient etymology, the word *image* is linked to the root *imi-tari* — to imitate. As Barthes (1977, p. 152) observes, this etymology places us immediately at the heart of the central problem facing the semiology of images: can analogical representation — the “copy” — produce true systems of signs, or does it produce merely simple agglutinations of symbols? [5]

The Industrial Revolution of the nineteenth century transformed the conditions under which this question was posed. New innovations in printing technology and the expansion of transportation networks allowed a wider demographic of the general population to be reached by illustrated publications for the first time. As Selby (2023, pp. 4–5) argues, the purposefulness of illustration as a powerful communication medium

was recognized and exploited as part of a broader movement looking to launch ideas, make persuasive cases for change, and create new collective identities. The image was no longer a luxury of the few but a political instrument of the many. [6]

This political dimension remains central to any understanding of editorial illustration as a field. Male (2019, p. 167) argues that editorial illustration is not merely adjacent to journalism but constitutes journalism itself — its primary function being visual commentary on political, economic and social matters. The best editorial illustration is inherently provocative: it challenges both mainstream and alternative opinion, poses questions without resolving them, and disregards conventional aesthetics in favor of work rendered with force and urgency. Building on this, Hoogslag (2014, p. 23) proposes that a successful editorial illustration does not simply provide additional information but invites the reader into a space of deliberation — a space situated between editorial intent and the reader's existing knowledge. Selby (2023, p. 61) adds that this space requires a negotiated position between publisher, contributors and readerships, where a shared understanding of the aims and objectives in communicating content is established. [6] [8]

This understanding of illustration as argument rather than ornament becomes particularly significant when read through a feminist visual cultures perspective. As Pollock (1988, p. 45) argues, “woman as a sign signifies social order; if the sign is misused it can threaten disorder.” The category of woman is not merely representational but regulatory — and it is precisely this regulatory function that feminist editorial illustration contests. When the female body appears in *Mulherio* as agent, worker or political subject rather than object of the gaze, it disrupts the sign system that patriarchal visual culture depends on. [7]

3. Visual analysis

The visual analysis presented in this section draws on covers and internal illustrations from three selected editions of *Mulherio*: issues 1, 6 and 15. The selection follows a developmental logic grounded in the periodical's own institutional history. As Klafke and Braga (2018, p. 239) document, these three editions mark distinct moments in *Mulherio*'s trajectory — its inaugural presentation and editorial proposition; the consolidation of its sections and contents as the publication reached editorial maturity; and the first major financing crisis that followed the end of its contract with the Ford Foundation. [1] [3]

This selection is deliberate within the scope of the present article. Rather than offering an exhaustive survey of the periodical's visual output across its seven-year run, the aim is to trace how the graphic language of *Mulherio* operated at three structurally significant moments — at its origin, at the height of its institutional stability, and under conditions of material precarity. This arc allows the analysis to move beyond description toward argument: to show not only what the illustrations look like, but how their visual choices responded to and produced meaning within shifting conditions of production.

The visual analysis is structured around the four attributes proposed by Hoogslag (2014, p. 23) in her constellation model of editorial illustration: *manifestation*, *translation*, *reflection* and *engagement*. These four attributes are not applied sequentially but as an integrated constellation: it is their simultaneous alignment in a particular configuration, rather than their successive fulfilment, that determines whether an editorial illustration successfully opens the reader into a space of deliberation. The analysis that follows attends to this constellation across each of the three selected editions, moving between the form, the political and the material without treating any of these dimensions as secondary. [8]

Manifestation refers to the material and technological conditions of the illustration's production — the offset printing process, paper quality, and the formal constraints and affordances of the periodical's layout. In the case of *Mulherio*, materiality reflects the graphic language of the publication, as it's inseparable from the conditions under which it was produced, and those conditions were themselves politically determined by resource precarity.

Translation addresses the relationship between the visual and textual content of each edition: how the illustration transforms the written argument into a poetic visual language while maintaining a dialectical proximity to the text. Here, attention is paid to compositional choices, line quality, use of space, and the treatment of the female body as a visual sign that both accompanies and exceeds the textual content it is placed alongside.

Reflection concerns the relay of intent between all those who have a stake in the image: the collective editorial structure of *Mulherio*, the illustrators (named or anonymous), and the intended readership. This attribute is particularly productive for analyzing the question of authorship in the periodical — the presence or absence of signatures, and what that absence reveals about the collective model of production that distinguished *Mulherio* from other alternative press publications of the period.

Engagement examines the rhetorical and ideological means by which the illustrations arrest the reader's attention and establish a bond between the image and the reader's existing knowledge and political experience. As Pollock (1988, p. 45) reminds us, the female body as visual sign carries a regulatory function within patriarchal visual culture — and it is at the level of engagement that *Mulherio*'s illustrations most directly contest that function, proposing alternative figurations of femininity, labor and political agency.

3.1. *Mulherio*, #1, May/June 1981

a) *Mulheres em Ação*



Fig. 1. *Mulheres em Ação* [Women in Action]. Internal illustration accompanying the article "Uma casa aberta para as nordestinas" [An Open House for Northeastern Women]. *Mulherio*, n. 1. São Paulo, 1981. Signed: Marlene. Ink on paper, offset print. [1]

Manifestation

The illustration is executed in ink, its visual language drawing explicitly from the Brazilian *cordel* tradition — the popular woodcut-illustrated chapbook form historically associated with northeastern working-class culture. It's a deliberate choice, as it positions the image within a visual genealogy of popular political communication that operates outside the conventions of mainstream press illustration. The offset printing process matches the line drawing and gives it more dimension, creating a texture and integrating it into the newsprint surface. Printed at A2 scale and positioned as a full-width header, the illustration inserts the reader into the text instead of acting as a mere ornament.

Translation

The seven women stand linked in a horizontal composition of strict visual equality; they appear to be in harmony, no figure is elevated. Together, and in motion, they form a community, extending sympathy to one another as they hold hands. The illustration translates the article's message of solidarity, both in political method and visual form. The integrated typography [*mulheres em ação*] is placed above the group as a shared banner rather than an external caption, fusing text and image into a single compositional argument. Therefore, it establishes the article, framing it as a collective subject before the text can contextualize it.

Reflection

The image is signed by Marlene Crespo, a Brazilian illustrator. This signature carries weight in a publication where much graphic work remains anonymous. The illustrator's authorial presence is placed prior to the text thus mediating the reader encounter with the article. Likewise the group of women depicted in the illustration relates to the imagined readership of *Mulherio*, hence diversity of physical types, hairstyles, headwear and body language, relating directly to a diverse working-class from the northeast of Brazil, to whom the *cordel* visual language is easily recognizable and carries cultural recognition.

Engagement

The raised fist of the leftmost figure introduces political agency with within community; it's a collective, rather than individual defiance. The group of women smiles, using joy as resistance. The use of illustration in this article portrays a collective of signs in a way that photography could not — the use of *cordel*, the plurality that does not represent a particular group, yet it manages to compress multiple identities and bodies. As Pollock (1988, p. 45) argues, woman as a sign signifies social order, and the disruption of that sign threatens disorder. Marlene Crespo's illustration disrupts deliberately: these women are not objects of the gaze but subjects of collective action, and their visual language — rooted in the popular, the handmade, the northeastern — contests the dominant representational conventions of both mainstream and alternative press of the period. [9]

b) Que Vivas



Fig. 2 & 3. *Que Vivas* [May You Live]. Internal illustration accompanying the article “Alaide Foppa: desaparecida. Guatemala, 19/12/1980.” *Mulherio*, n. 1 São Paulo, 1981. Unsigned. Ink on paper, offset print. [1]

Manifestation

Like Marlene Crespo’s illustration, *Que Vivas* relies on ink as its primary technique — a material choice conditioned, at least in part, by *Mulherio*’s limited resources. The line, however, reads differently here: ink bleeds from the pen at the edges of forms, causing fingers to fuse and strands of hair to merge into undifferentiated mass. This is not refinement compromised by constraint but urgency made visible through it. The illustration is positioned at the upper center of the page and enclosed within a frame — a compositional decision that resonates with the subject it depicts. The frame functions almost as a containment: it holds Alaide Foppa within the page, protecting her from disappearing completely, mirroring the levitating, suspended quality of the female figure it borders.

Translation

Placed immediately below the article title, the illustration directs the reader’s attention toward an image of a woman on the verge of disappearance. Her face is no longer visible; her body has been reduced to a shape without recognizable individual traits. The lettering *Que Vivas* appears to be leaving her body — like a departing spirit, or a name being called out into an absence — while simultaneously imposing a sense of order and insistence onto the composition. She is alive, wherever she may be. The typography does not caption the image; it emanates from it, transforming the illustration from a depiction of loss into a declaration of survival.

Reflection

This illustration carries no authorial signature — an absence that enters into direct dialogue with the text it accompanies, a news report on someone who cannot be found. The lack of attribution deepens *Mulherio*’s model of collective authorship: the image belongs to the editorial group rather than to an individual hand. It can, however, tentatively be attributed to Mari, the only illustrator consistently credited in the periodical. Whether by Mari or by the collective, the unsigned status of this image is itself meaningful: it

was produced within the editorial domain of *Mulherio*, a creation through shared commitment rather than individual claim — and in this, it formally mirrors the communal act of witnessing it performs.

Engagement

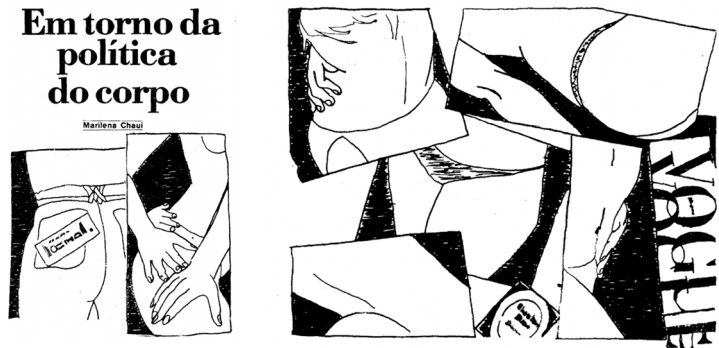
The woman depicted in *Que Vivas* persists. She may be missing, but the lettering erupting from her body functions almost as a collective chant — the voices of all the women demanding that she be found, rendered visible through the force of typography alone. The letters can also be read as having been traced in blood, their irregular, pressured strokes suggesting both urgency and wound. This reading positions the image not merely as a tribute but as a political response to gendered state violence — a response that cannot be contained, that keeps erupting from the bodies it marks, refusing to let disappearance be the final word.

3.2. *Mulherio*, #6, May/April 1982

By the sixth edition of *Mulherio*, a visible transformation in the periodical's graphic language had taken hold. As Klafke and Braga (2018, p. 247) document, graphic editor Marlene Rodrigues — tasked with redesigning what had been a conventionally academic layout — chose to subvert the publication's visual conventions by expanding white space, varying page rhythm, and introducing illustrations that broke from traditional geometric axes. Drawing on her experience with North American editorial publishing, Rodrigues brought a magazine sensibility to the periodical, alternating dense textual content with more open compositional arrangements and incorporating manual typography and ornamental graphic elements. The result was, in her own words, a graphic visualization that was “more joyful, more daring” — one that also served a political purpose beyond aesthetics: to expand the visibility of women artists and reach audiences beyond the academic readership the publication had initially addressed. It is within this transformed visual environment that the illustrations accompanying Marilena Chaui's article *Em torno da política do corpo* must be read. [3]

a) *Em torno da política do corpo*

Fig. 4 & 5. *Em torno da política do corpo* [On the Politics of the Body]. Opening illustration accompanying the article by Marilena Chaui. *Mulherio*, n. 6. São Paulo, 1982. Unsigned. Ink on paper, offset print. [1] [3]



Manifestation

The two illustrations accompanying Marilena Chaui's *Em torno da política do corpo* are executed in ink — likely pen and nib (*bico de pena*) — a technique that, under offset reproduction, intensifies the contrast between black and white: the darkest areas become denser, heavier, almost oppressive on the newsprint surface. The two images function as a visual sequence across two pages, the first still contained within the opening spread and the second expanding across the following page — a progression that mirrors the argument being made about the female body as a site of escalating appropriation.

Translation

The sequence moves from clothed to unclothed, from partial to total exposure — and this movement is the argument. In the first image, the female body is still dressed, still partially protected; objects press against it but have not yet fully penetrated its boundaries. In the second, that boundary has collapsed. Fragments of the female figure are layered and overlapping, hands advancing across the exposed body from multiple directions simultaneously. The body has been cut — literally, compositionally — because it does not need agency or a name. It is rendered as pure surface, available for consumption. In the lower right corner of the second image, the word *VOGUE* appears fragmented and partially obscured — a deliberate critical gesture toward the commodified visual language of the fashion industry, which packages the female body as aesthetic object and market product. The fragmentation is not formal experimentation for its own sake; it is a violent critique made through visual form. As Butler (1993, p.x) claims the notion of gender itself is a constraint constructed through relations of power that regulates various bodily beings, depriving them of agency. [10]

b) A dança do prazer e da morte



Fig. 6 & 7. Illustration accompanying the article “A dança do prazer e da morte” [The Dance of Pleasure and Death] by Inês Castilho. *Mulherio*, n. 6. São Paulo, 1982. Signed: Magliani. Ink on paper, offset print. [1]

Manifestation

Unlike the previous illustrations in *Mulherio*, Magliani's work for *A dança do prazer e da morte* employs a dense, heavily shaded technique — closer

to expressionism than to the clean line of the earlier images. The offset printing intensifies this darkness: hatching accumulates into shadow, shadow accumulates into mass, and the resulting image has a physical weight that the newsprint can barely contain, as the female figure literally escapes the frame. Her body is spilling beyond the illustration's borders into the white space of the page. The placement seems very intentional, as it's coming from the right side of the spread, like a fist punching the text column beside it; assaulting the article.

Translation

The central visual argument of the illustration is one that requires careful reading: the female body, compressed and contorted by the oversized hand that grips it, forms the shape of the *phallus*. The transformation of the woman's body into a phallic instrument enacts, visually, the very logic the article denounces: the rape culture that reduces the female body to an object of male pleasure, stripping it of agency, subjectivity and name. The monstrous hand — grotesquely large, rendered with detailed hatching that gives it an almost sculptural presence — is unmistakably masculine. It does not caress; it grips. The body it holds becomes, through this grip, an extension of phallocentric power — a visual argument about sexual violence as an act performed not on a person but on an object, for the exclusive pleasure of the aggressor.

Reflection

The illustration is explicitly credited 'Magliani' appears in the upper left corner — marking an unusual degree of authorial visibility for *Mulherio*'s visual archive. The presence of a name here, in an article about sexual violence, is politically significant: it refuses the anonymity that patriarchal visual culture imposes on women's bodies and women's labor simultaneously. Magliani signs her critique.

Engagement

What makes this illustration formally radical is the face of the woman being gripped. She is not afraid. She does not perform innocence or vulnerability. Her expression carries rage, exhaustion and defiance — wrinkles, an open mouth, eyes shooting flames to her perpetrator. She might suffocate, but that won't keep her from screaming. This refusal of victimhood within an image of violence is the illustration's most politically charged gesture: it insists on the woman's subjectivity at the precise moment that the phallocentric logic being depicted seeks to erase it. The woman is also fully clothed; the only element on this imagery that showcases subservience is the absence of her hand; a visual critique on patriarchy attempts strike out state tools to provide gender equality.

3.3. Mulherio, #15, September/October 1983

By the fifteenth edition of *Mulherio*, the first signs of financial instability were beginning to surface. As Klafke and Braga (2018, p. 250) document, it was at this point that the Ford Foundation contract — which had sus-

tained the publication since its founding — came to an end, inaugurating a period of material precarity that would increasingly shape the publication's graphic and editorial decisions — fewer pages and illustrations. The formal austerity visible in this edition is therefore not yet a fully consolidated response to crisis but rather its first inscription: a publication caught between the graphic confidence it had developed through its middle period and the constraints that were beginning to close in around it. And yet *Mulherio* persisted. Operating at the margins of the Brazilian editorial landscape of the early 1980s — under a dictatorship in its final, destabilized years, in a publishing market that remained structurally hostile to feminist voices — it continued to function as what it had always been: a rupture in the system.

a) Do querer para o perer para o poder



Manifestation

The page on which this illustration appears is not a cover but an editorial appeal — *Mulherio* addressing its readership directly, at the moment when institutional funding had ended and the publication's survival depended on the solidarity of the women who read it. The logotype *Mulherio*, ordinarily rendered in fixed typography, appears here hand-lettered; a shift that is materi-

ally and politically significant. The manual inscription of the publication's own name makes visible what institutional funding had partially obscured: that *Mulherio* was never a product of a press infrastructure but of multiple human, majorly feminine hands working collaboratively. The off-set printing, lighter and less dense than in the previous editions, reflects the material conditions of a publication under financial strain, showcasing the periodical's transparency regarding its current limited conditions.

Translation

The figures that surround and support the hand-lettered logotype are women reaching, leaning into one another across the letters. They do not merely decorate the title; they hold it up. This compositional argument is precise: the women are literally sustaining the name of the publication with their bodies, and in doing so, the illustration proposes that to support *Mulherio* is to support oneself and one another. The reader does not need to read the text column to understand the argument being made — the image communicates it entirely on its own terms. A feminist publication survives not through institutional patronage but through the community of women who keep it in circulation. Sorority, here, is not a sentiment but a structural condition.

Fig. 8. Illustration accompanying the editorial “Do querer para o perer para o poder” [From Wanting to Losing to Power]. *Mulherio*, n. 15. São Paulo, 1983. Signed: Lila Galvão Figueiredo. Ink on paper, offset print. [1]

Reflection

The illustration is signed and credited to Lila Galvão Figueiredo — a woman, named, accountable, present. In an edition that is explicitly about survival and collective responsibility, the presence of a credited female illustrator is itself a political statement: the feminist resistance being appealed to in the text is enacted in the image's own conditions of production. The relay of intent between the editorial collective, the illustrator and the reader is direct here — the image highlights the reader's own responsibility when it comes to *Mulherio*'s survival.

Engagement

This image places sorority at the center. The figures are harmonious, mutually supportive, celebratory even in a moment of institutional precarity; feminist resistance is sustained not by individual heroism but by collective care. Where the illustrations of edition 6 showed the female body under assault — fragmented, gripped, consumed — this image shows it in solidarity, holding something up together. All these women have individual traits, while still behaving as one single organism that keeps the whole publication structured. The hand-lettered logotype, sustained by many hands rather than produced by a single typographic system, is *Mulherio*'s most direct visual argument about what it is and how it survives.

4. Discussion

The five illustrations analyzed across three editions of *Mulherio* — from the collective solidarity of Marlene Crespo's *cordel*-inflected women in edition 1, through the visceral critique of phallogentric violence in Magliani's edition 6 illustration, to Lila Galvão Figueiredo's hand-lettered logotype sustained by many hands in edition 15 — together constitute something that exceeds the sum of their individual arguments. Read as a sequence, they trace the visual epistemology of a feminist publication that understood illustration not as decoration but as method: a way of expanding the written words, making it transcend the limits of the page and constitute political arguments; visual screams.

Horizontality as visual method

The analysis demonstrates that *Mulherio*'s rejection of editorial hierarchy — documented in the testimony of its editors and in the graphic redesign undertaken by Marlene Rodrigues for edition 6 — had direct and traceable consequences for the visual language of the publication. When graphic and discursive elements are treated with equal weight, when no image is subordinated to text and no illustrator is reduced to a service provider, the resulting visual language is structurally different from that of hierarchically organized publications. The illustrations of *Mulherio* do not illustrate arguments already made in text — they make arguments that the text then joins. This inversion of the conventional image-text hierarchy is, as Male (2019, p. 167) argues, the condition of possibility for editorial illustration at its most politically effective: work that constitutes journalism rather than merely accompanying it. [7]

For the contemporary field of illustration, this offers a productive provocation. The subordination of the illustrator to the editorial brief — what Male (2019) describes as the reduction of the illustrator to a “colouring-in technician” — remains a structural condition of much commercial editorial practice. *Mulherio* offers a historical counter-model: a publication in which the illustrator was a co-producer of meaning, operating within a collective editorial structure that distributed creative and political authority horizontally. The question this raises for illustration practice today is not nostalgic but methodological: what does illustration become when it is freed from the hierarchy of text-first production? [7]

Collective authorship versus individual authorship

As Buckley (2020, p. 54) argues, the monograph and the individual signature are the primary mechanisms by which design history has excluded collectively produced work — and by extension, much of what women have designed. *Mulherio*’s variable relationship to authorial attribution reflects both the material conditions of clandestine and under-resourced production and a deliberate feminist politics of collective making. The unsigned illustration is not a gap in the archive; it is a practice; one that refuses the individualist model of authorship that patriarchal design culture depends on. [11]

At the same time, the presence of named female illustrators — Marlene Crespo, Magliani, Lila Galvão Figueiredo — in a publication that could have remained entirely anonymous is itself politically significant. These names constitute a counter-archive: a partial but insistent record of women’s graphic labor in a period and context where that labor was systematically invisibilized. For the field of illustration today, recovering and naming these figures is not merely a historiographical task but a political one of constructing a more inclusive and accurate history of the discipline.

Material constraint as visual language

Across all three editions, the material conditions of *Mulherio*’s production — the ink technique, the offset printing, the newsprint support, the limited resources — function not as obstacles to visual quality but as constitutive elements of its graphic language. The bleeding ink of *Que Vivas*, the dense hatching of Magliani’s expressionist figure, the hand-lettered logotype of edition 15: none of these are refinement compromised by constraint. [1]

This argument has particular resonance for the field of editorial illustration today, at a moment when digital tools have largely eliminated the material traces of production from published images. The illustrations of *Mulherio* remind us that the *how* of making is inseparable from the *what* of meaning; the choice of technique, support and process is always already an ideological choice. In a publication produced collectively, under financial precarity, in explicit opposition to both the military dictatorship and the patriarchal structures of the mainstream press, every mark on the page carried the weight of those conditions. It was supposed to be raw, achievable.

A further dimension of *Mulherio*’s visual language that warrants sustained attention — and that the present analysis has only been able to

address obliquely — is its typographic practice. Across all three editions, typography, in addition to carrying the verbal practice, it serves the function of providing a visual argument, furthering the political subject of the publication. For instance, in Marlene Crespo's cordel-inflected composition, in edition 1; the erupting letters of *Que Vivas* that emerges from the victim's body; the fragmented *VOGUE* that critiques commodified femininity in edition 6, and finally, the hand-lettered logotype sustained by many hands in edition 15. In each case, typography and illustration are inseparable — the letterforms amplify the meaning portrayed in the imagery. Therefore, their materiality is continuous with the materiality of the image. A fuller analysis of *Mulherio*'s typographic choices, their sources, their political resonances, and their relationship to Brazilian popular visual culture, remains a productive direction for further research.

5. Final Remarks

This article set out to examine the editorial illustration of *Mulherio* as a feminist practice, irreducible to the texts it accompanied. The analysis of five illustrations across three structurally significant editions has demonstrated that this visual practice was shaped by, and in turn shaped, three interconnected conditions: the horizontal editorial structure that refused the masculine hierarchy of conventional press production; the collective and variable relationship to authorial attribution that both reflected material precarity and enacted a feminist politics of shared making; and the material constraints of under-resourced production that generated, rather than limited, a graphic language of political urgency.

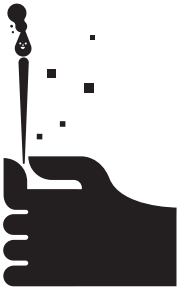
What the illustrations of *Mulherio* offer to the field of editorial illustration — beyond their historical significance as documents of feminist resistance under dictatorship — is a model of practice that remains provocative in the present. At a moment when the field continues to negotiate the terms of the illustrator's relationship to editorial authority, to collective production, and to the political stakes of visual language, *Mulherio* stands as evidence that these negotiations have a history — one that is feminist, Brazilian, and largely unrecovered.

The difficulty of identifying illustrators, attributing unsigned work, and locating complete archival collections is not incidental to this research but constitutive of its argument. The invisibilization of women's graphic labor that *Mulherio* contested in its own moment continues to operate in the historical record. To recover this archive — partially, imperfectly, with the gaps made visible rather than smoothed over — is to continue the work the publication began. As the hand-lettered logotype of edition 15 reminds us, sustained by the bodies of many women: a feminist publication survives through the solidarity of those who keep returning to it.

References

1. Mulherio. (1981, May/June). *Mulherio*, 1. Fundação Carlos Chagas. Mulherio. (1982, March/April). *Mulherio*, 6. Fundação Carlos Chagas. <https://www.fcc.org.br/repositorios/mulherio/> Mulherio. (1983, September/October). *Mulherio*, 15. Fundação Carlos Chagas. <https://www.fcc.org.br/repositorios/mulherio/>

2. Silva, R. C. (2018). As mulheres do Mulherio (1981-1982): imprensa, feminismo e política. In *Anais do XIV Encontro de História da Anpuh-MS*. ANPUH-MS.
3. Klafke, T., & Braga, J. (2018). Mulherio: estudo de caso de publicação da imprensa feminista brasileira nos anos 1980. *Projética*, 9(2 supl.), 237-254. <https://doi.org/10.5433/2236-2207.2018v9n2suplp237>
4. Cardoso, E. P. (2004). *Imprensa feminista brasileira pós-74* [Master's thesis, University of São Paulo].
5. Barthes, R. (1977). *Rhetoric of the image*. In R. Barthes, *Image, music, text* (S. Heath, Trans., pp. 152-163). Fontana Press.
6. Selby, A. (2023). *Editorial illustration*. Bloomsbury.
7. Male, A. (2019). *Illustration: A theoretical and contextual perspective* (2nd ed.). Bloomsbury.
8. Hoogslag, N. (2014). *On the persistence of a modest medium: The role of editorial illustration in print and online media* [Doctoral thesis, Royal College of Art]. RCA Research Online.
9. Pollock, G. (1988). *Vision and difference: Femininity, feminism and the histories of art*. Routledge.
10. Butler, J. (1993). *Bodies that matter: On the discursive limits of sex*. Routledge.
11. Buckley, C., & Serpa, B. (2020). *Made in patriarchy*. Bikini Books.



Composite Subjectivity and Female Experience in Animated Self-Narrative *Chocolate* (2021)

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Keywords

Female Animation;
Animated Autobiography;
First-person Animation;
Life Writing; Materiality;
Metaphor; Morphing.

Abstract

This article examines the experimental animated short film *Chocolate* as a case through which to explore how animation can give visible form to subtle and ambivalent dimensions of female experience. Framed by scholarship on female animated self-narratives, life writing, and autobiographical animation, it analyses how visual design, metaphorical construction, material choice, and sectional organization work together to translate sensations that resist straightforward verbal articulation into perceptible cinematic form. Rather than focusing on dramatic conflict, the film addresses more ordinary yet deeply gendered experiences, including the pleasure of being looked at, the investment in self-adornment, and the gradual internalization of evaluative attention. Through this case, the article argues that animation can do more than recount experience: it can shape, condense, and rework feeling into a shareable figuration of female experience.

1. Introduction

Academic discussions of autobiographical animation have long moved beyond questions of truthfulness and toward questions of construction [1] [2]. Scholars generally argue that animation is not simply an illustrative re-telling of lived experience, but a process through which life is reorganized by means of drawing, movement, and material transformation. Tuffery understands it as a form that assembles fragmentary memories into a new whole, while Hernandez shows that contemporary women's animated self-portraiture often extends beyond literal likeness toward broader modes of reflection and address [3] [4].

Within this context, I examine *Chocolate* (2021), an experimental animated short film developed through my own practice. At the core of the work is an attempt to render complex and ambiguous psychological states into visible cinematic form. Although an important strand of scholarship on women's autobiographical animation has focused on trauma, memory, and explicit forms of social confrontation [5] [6], more ordinary and ambiguous dimensions of female experience also merit attention. These include the pleasure of being looked at, the investment in self-adornment, and the subtle sense of self-surveillance that accompanies them. Such experiences may not produce dramatic conflict, yet they are deeply shaped

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by gendered norms. *Chocolate* seeks to enter this difficult-to-define terrain and to explore how animation can give material form, temporal structure, and affective weight to these nuanced gendered experiences.

Animation is particularly suited to this task because of its distinctive representational capacity. Since it does not depend on the evidentiary status of photographic recording, animation maintains a productive distance between the image and objective reality. As Honess Roe and Ward argue, animated documentary does not abandon fact but performs an interpretive rendering of it [1]. Wells likewise describes animation as a form of translation, capable of condensing and transforming source material through metaphor [7]. In the context of autobiographical practice, this means that the self on screen need not function as a visual replica of the self in lived reality. It can instead emerge as a self in process, produced through stylization, montage, and material transformation.

From this perspective, the article takes *Chocolate* as a case study in order to examine how animation can use visual design, material organization, metaphorical elements, and dynamic metamorphosis to transform subtle and ambiguous female emotional experience into a visible and affective cinematic form, while at the same time tracing the delicate shifts of subjectivity between being looked at, self-adornment, and self-surveillance.

2. The Origin Point and Refinement of the Experiential Subject

The creative origin of *Chocolate* was not a predetermined theme but an accumulation of subjective sensation. Over an extended period, I repeatedly received praise from men focused on my appearance, behavior, and a particular form of attractive femininity. At the same time, I found myself posting more photographs on social media, buying more clothes, and becoming increasingly concerned with outward presentation. I did not experience this simply as ordinary self-grooming, but as a gradual movement towards dependence on external validation. Goffman's dramaturgical model is also helpful here as a supplementary frame: social media self-presentation can be understood as a form of impression management, in which appearance is organized for an anticipated audience [8].

As this dynamic became clearer, I increasingly occupied a reflexive first-person position in which the self was both articulated and examined through its relation to others. This reflective practice extended into observing and speaking with friends about dating, grooming, self-portraiture, and the reception of praise from men. What emerged was not an isolated private problem but a wider psychological mechanism in which heterosexual attention and approval could become a primary means of confirming self-worth. This state rarely appears as overt conflict or explicit injury. More often, it is wrapped in the subtle pleasure of being liked and admired, and for that reason can be difficult to recognize critically at first.

At the same time, I encountered a large volume of online discourse centered on becoming more desirable, enhancing attractiveness, and performing cuteness more effectively. These materials are not treated here as sociological evidence in themselves. They matter because they formed

part of the discursive environment through which the experience was sharpened and named. Within the layering of personal sensation, others' experiences, and socialized templates, the film's initial impulse gradually condensed into a short poetic text:

*You are sweet
He said
Sweet
Is it a characteristic
Or a reward
Or
Perhaps
A desire
To become your favorite
Chocolate*

The project also became clearer when I considered more intensified scenarios repeatedly visible in public discourse: cosmetic alteration pursued in the hope of becoming more desirable, or intimacy entered into less from desire than from the wish to feel chosen. These examples are not presented here as representative social data. They function instead as amplified versions of the same reward logic already latent in everyday experience. The film develops this tension through contrast: the character begins in relative control of her self-presentation yet gradually becomes an object of selection.

Despite the work's evident personal sources, it is not a direct autobiographical transcript. The creative task was to condense dispersed feeling into an image able to carry a broader field of female experience. Gilmore is useful here because her account of autobiographies refuses the notion of a stable, transparent self simply transferred into representation [9]. That point is fundamental to *Chocolate*. The 'I' here is neither a reproduction of empirical selfhood nor a purely fictional surrogate. It is a composite subject formed through extraction, projection, and synthesis. It carries my own sensations, but it also incorporates friends' experiences and the feminized templates repeatedly circulated online. Once translated into animation, this 'I' shifts from singular autobiography toward a more shareable figuration of female experience.

3. Character Design, Materiality, and Color

Visual design forms the first layer of experiential articulation and the first site of iterative experimentation. The character's initial design remained close to a particular empirical self. The figure was thin, directly melancholic, and highly specific in proportion and facial detail. This made personal emotional projection easy, but it also encouraged viewers to read the figure primarily as the surrogate of a particular individual. As the work developed, I felt that this design remained too close to portraiture to bear the kind of experience the film was trying to articulate. It directed attention toward recognizing a person rather than grasping a psychological state.



The design was therefore systematically simplified, moving away from specificity and toward a more generalized female figure (Fig.1). Drawing on Matisse's handling of bodily contour and decorative rhythm, as well as on elements of classical Chinese figure painting, I increasingly emphasized softness,

Fig. 1. Selected character and visual style explorations. Left: an initial thinner version of the female character. Top right: a style test with more clearly articulated facial features. Bottom right: a more relaxed and simplified visual treatment.

fluidity, and posture in organizing the female body. In the final version, accurate proportion ceased to be central, and facial features no longer carried the primary burden of characterization. The body became rounder, looser, and more yielding. What appears on screen is no longer a sharply bounded individual but a figure more open to projection, pressure, and reshaping.

The change in painting technique was tied to the same aim. Early designs were more fully structured, with clearer shadow modelling and more complete local relations. Such a finished and stable body invites the viewer to recognize a concrete character. What the film needed instead was a schematic 'she' able to function as a shareable figuration of female experience. I therefore continually compressed detail, simplified contour, loosened edges, and made local areas more open to smudging, overpainting, and permeation. This incompleteness is central to the work because the film is concerned less with what a woman definitively is than with how she is gradually altered through continual adjustment and reward.

The male character is treated differently. He appears only twice, and his facial features and clothing remain largely unspecified. He functions less as a fully individuated person than as an abstracted figure of the other. Because the film remains anchored in female perspective and interiority, *Chocolate* is not organized as a narrative of two equivalent protagonists. The male character therefore operates primarily as a symbolic and relational presence.



Fig. 2. In the middle section of the film, the color palette becomes more saturated, shifting towards pink and orange tones.

Material choice reinforced this visual logic. I experimented with watercolor, colored pencil, ink wash, and gouache before selecting soft pastel. Soft pastel is powdery, erasable, and adhesive; it produces soft, dispersing edges while also leaving visible traces of covering, scattering, and layering. Here materiality is not neutral but active within the organization of meaning. Marks's account of haptic visuality is particularly useful because it describes forms of image-making that engage the viewer bodily as well

as optically [10]. In *Chocolate*, pastel's tactile qualities evoke the powder on the surface of chocolate, cosmetic powder on skin, and airborne particles moving across a surface. Material is therefore built into the film's meaning from the outset, helping to establish a visual condition of continual processing and reworking.

Color follows the same principle. Brown dominates the film because it grows out of the image of chocolate, yet it does not remain only a thematic color. More importantly, it develops into an emotional and evaluative environment that surrounds the character. In the context of this film, brown suggests sweetness, coating, residue, and accumulation. It does not work through abrupt visual assault. Instead, it encloses slowly, turning 'sweetness' from a verbal judgement into an environmental condition. To allow color to participate in the development of the character's state, I organized subtle shifts across the film. The early passages maintain a relatively restrained brown atmosphere. The middle section introduces more active and excited chromatic tendencies, reflecting deeper involvement in this logic (Fig.2). In the final section, the palette darkens and dulls. Across the film, color contributes to the organization of its emotional atmosphere.

4. Metaphoric Construction and Dynamic Morphing

In *Chocolate*, visual elements function metaphorically, but their meanings are not fixed in advance. They are generated through movement, transformation, and interpenetration within animation itself.

Chocolate is the film's central visual element. At first, it is held in the female character's hand and shaped through making. Later, it becomes a confection shared between the male and female figures at a table. In the final stage, it is repeatedly manufactured, extracted from molds, and displayed in a shop window. The changing morphology of chocolate traces the female subject's movement from relative self-control to negotiation, to a state in which subjectivity is increasingly displaced. The film's montage, especially the alternation and juxtaposition of shots of the female body and shots of chocolate, reinforces these associations (Fig.3).

Ants carry an equally important metaphorical function. As creatures drawn to sweetness, they evoke desire and pursuit, but not simply as a direct visualization of masculine gaze. More importantly, they reveal how reward structures gradually infiltrate the subject's interior. When they first appear, the man's hand morphs into ants, and the character responds with fear and discomfort; she first realizes that her 'sweetness' attracts pursuit. On their second appearance, the ants no longer function only as a threat but begin to bring with them a more complicated excitement. The character receives confirmation through being pursued and briefly imagines that she can control the process. This progression can be read through objectification theory: what begins as externally directed attention is gradually internalized as self-surveillance and self-modification [11]. On their third appearance, ants crawl across the vanity and gradually become cosmetic powder and the frosting on the surface of chocolate. The changing relation between ants and character therefore becomes a key means of expressing the character's altered attitude toward herself.

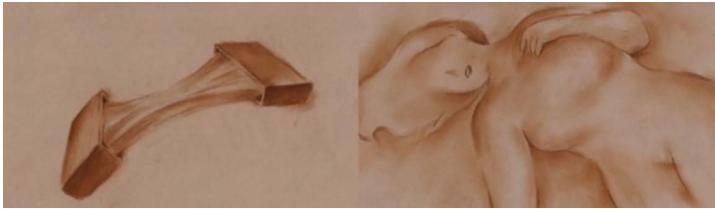


Fig. 3. Alternating montage and morphing transitions between chocolate and the female body.

Animation's dynamics are crucial to this metaphorical work. Hands, ants, powder, and frosting belong to different registers that would not naturally connect in ordinary reality. In animation, however, they can transform along a continuous visual chain. The viewer does not encounter a mere juxtaposition of concepts, but a relation that unfolds directly in the image. External regard does not remain an abstract social pressure imposed from outside. It gradually becomes the subject's own way of organizing, adorning, and remaking herself. Through this continuity of transformation, a female experience that initially resists direct articulation acquires visible and temporal form. Instead of being reduced to the statement that 'she becomes objectified', it becomes a process that can be followed and felt viscous, seductive, and increasingly difficult to control.

Sound also participates in metaphorical construction. Broadcast-like language repeatedly delivers prompts about modification, adornment, and the accommodation of preference, allowing gendered social discourse to move from environmental noise into interior experience. The problem addressed by the film is therefore not only visual but also sonic. Through the combination of morphing image and intrusive sound, psychological fluctuation, social expectation, and bodily surface are drawn into relation.

5. Narrative Construction

Although the work begins from lyrical sensation, it does not dissolve into complete stream-of-consciousness. I recognized that without some structure capable of carrying psychological transformation, the film would remain at the level of thematic suggestion. Viewers might notice a problem but not fully sense how it develops over time. The film therefore adopts a sectional mode of organization. It is not a conventionally strong plot-driven narrative, yet its sections retain a clear progressive relation. The character does not begin as a completed subject who later undergoes external events. Rather, she gradually becomes an image of herself through the development of different sections. What the film shows is less the story of a finished subject than the gradual formation of subjectivity through observation, self-modification, and reward.

This structure takes shape through three stages of transformation (Fig. 4). In addition to the three-part development of chocolate and ants, the female character's three moments of self-regard form the decisive pivots of the whole process.

In the first instance the character sees her face in the surface of a liquid. The image is unstable, refracted through the liquid and distorted

by its slight trembling. This moment carries exploratory uncertainty and establishes a premise that remains important throughout the film: self-image does not exist as a fixed object waiting to be viewed, but depends on medium, surface, and conditions of looking.

Fig. 4. Female character's three moments of self-regard.



The second occurrence, at the vanity, is the film's crucial turning point. The character spends an extended time studying her reflection, moving gradually from hesitation and surprise toward examination, modification, and confirmation. The mirror ceases to function simply as a reflective device and becomes a surface of calibration. The character does not come to know herself in the mirror in any transparent sense. Instead, she learns how to adjust herself there, how to make herself more consonant with external preference and more aligned with what is socially worth seeing [12].

In the third instance, she again sees herself in a small round mirror. Her attention has intensified, yet her image becomes more blurred and indistinct. She looks more intently but attains no greater stability. On the contrary, she grows more dependent on external standards to confirm herself. The significance of these repeated moments lies not only in their recurrence, but in the movement, they trace from being looked at, to learning to look at oneself, to internalizing that evaluative gaze as a permanent form of self-calibration.

Sound and action also contribute to this organization of material. In the cafe sequence, I deliberately avoided complete spatial description and instead used ambient sound to suggest location. This keeps attention on interpersonal dynamics and psychological state rather than allowing setting information to dominate the frame. In the vanity sequence, the broadcast-like soundtrack is even more important. Talk about adornment, attractiveness, and pleasing others does not function as ordinary background audio. It works instead as a persistent intrusion into consciousness and gradually becomes part of the character's own apparatus of self-management.

Action is organized in the same way. I did not pursue fully realistic movement, but emphasized delay, pause, repetition, and minor deformation. Hand gestures, hair adjustment, and movements toward the mirror are extended in duration, as though waiting for some form of confirmation. Transitions between sections are completed through the undulation of liquid surfaces, the glint of mirrors, the dispersal of powder, and the movement of ants, allowing one image to seep into the next. In this way, the film's progression is not carried only by plot, but by material, rhythm, and movement.

6. Conclusion

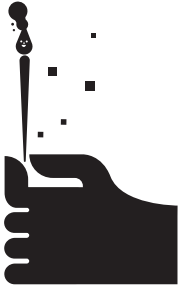
Chocolate begins from personal feeling, but it does not remain at the level of private autobiography. As the film develops, individual sensation is

selected, condensed, and reshaped through other women's experiences, online discourse, and the wider pressures surrounding femininity, attractiveness, and self-presentation. The 'I' that appears in the film is therefore not a stable self simply carried over into animation. It is a composite figure, formed in the process of making, through which a more shareable image of female experience gradually comes into view.

What this case makes clear is that animation is not only a medium for recounting experience, but also a way of forming it. In *Chocolate*, visual design, material texture, metaphor, and morphing do not simply decorate an already known theme. They are the means through which subtle and ambivalent feelings become visible, sensible, and temporally graspable. The significance of the film lies here: in showing how animation can give form to experiences that are difficult to fix in words, and, in doing so, move individual feeling toward a wider, though still open, figuration of female experience.

References

1. Honess Roe, Annabelle. *Animated Documentary*. Houndmills, Basingstoke, Hampshire, and New York: Palgrave Macmillan, 2013.
2. Ward, Paul. 'Animating with Facts: The Performative Process of Documentary Animation in The Ten Mark (2010).' *Animation: An Interdisciplinary Journal* 6, no. 3 (2011): 293-305. <https://doi.org/10.1177/1746847711420555>.
3. Tuffery, Dawn. 'The Construction of Identity in Autobiographical Animation.' *Axon: Creative Explorations* 5, no. 2 (2015).
4. Hernandez, Maria Lorenzo. 'A Film of One's Own: The Animated Self-Portraits of Young Contemporary Female Animators.' *Animation: An Interdisciplinary Journal* 5, no. 1 (2010): 73-90. <https://doi.org/10.1177/1746847709358638>.
5. Petryna, Brandon. 'Animated Life Writing.' *Imaginations* 14, no. 2 (2023): 233-259. <https://doi.org/10.17742/IMAGE29691>.
6. Young, Susan. 'Autoethnographic Animation and the Metabolism of Trauma: A Multimethod Investigation.' *International Journal of Film and Media Arts* 6, no. 3 (2021): 96-113. <https://doi.org/10.24140/ijfma.v6.n3.07>.
7. Wells, Paul. 'Thou Art Translated': Analysing Animated Adaptation.' In *Adaptations: From Text to Screen, Screen to Text*, edited by Deborah Cartmell and Imelda Whelehan, 199-213. London and New York: Routledge, 1999.
8. Goffman, Erving. *The Presentation of Self in Everyday Life*. Garden City, NY: Doubleday, 1959.
9. Gilmore, Leigh. *Autobiographics: A Feminist Theory of Women's Self-Representation*. Ithaca and London: Cornell University Press, 1994.
10. Marks, Laura U. *The Skin of the Film: Intercultural Cinema, Embodiment, and the Senses*. Durham: Duke University Press, 2000.
11. Fredrickson, Barbara L., and Tomi-Ann Roberts. 'Objectification Theory: Toward Understanding Women's Lived Experiences and Mental Health Risks.' *Psychology of Women Quarterly* 21, no. 2 (1997): 173-206. <https://doi.org/10.1111/j.1471-6402.1997.tb00108.x>.
12. Bartky, Sandra Lee. *Femininity and Domination: Studies in the Phenomenology of Oppression*. New York: Routledge, 1990.



Tears and Pearls: Value Construction in *The Girl Who Cried Pearls*

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Keywords

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Abstract

This article analyses the short film *The Girl Who Cried Pearls* (2025), directed by Chris Lavis and Maciek Szczerbowski and produced by the National Film Board of Canada, focusing on the relationship between narrative, materiality, and the symbolic construction of value in stop motion animation. The central research question is how the film combines oral fable, the expressive qualities of its puppets, set design, and the tension between craftsmanship and digital intervention to reflect on memory, authenticity, and the transmission of experience. Methodologically, the study adopts a qualitative, interpretative approach, combining film analysis, focused on mise-en-scène, lighting, texture, set design, objects, facial movement, and modes of expression, with a theoretical framework grounded in animation studies, visual culture, and art theory. It argues that the symbolic value of the pearl does not reside in the object itself, but in the narrative that surrounds it, thereby bringing the film into dialogue with Walter Benjamin's ideas on experience, storytelling, and craftsmanship. The analysis demonstrates that the film revisits debates on aura, materiality, and technical reproducibility by proposing a hybrid aesthetic regime in which handcrafted gestures, imperfection, and digital intervention coexist as expressive elements.

1. Introdução

– *Hang on!*

You made it all up?

That's your big secret?

– *It's all the story that gives something its value.*

Only the story, never the object.

And personally, I still find it beautiful.

– *But the girl, did she even exist?*³

O diálogo encerra *The Girl Who Cried Pearls*, curta-metragem canadiano de animação stop motion, com 17 minutos e 37 segundos de duração, rea-

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³ Diálogo final do filme *The Girl Who Cried Pearls*.

lizado por Chris Lavis e Maciek Szczerbowski e produzido pelo *National Film Board of Canada*, lançado em 2025. Depois de circular por festivais internacionais, incluindo *Toronto International Film Festival* e *Annecy International Animation Film*, o filme venceu o Óscar de Melhor Curta-Metragem de Animação nos *98th Academy Awards*, em 2026. “Um menino pobre se apaixona por uma garota cuja tristeza se transforma em pérolas. Ele as vende para um agiota implacável, que anseia por mais. Tentado pela ganância, o menino precisa escolher entre o amor e a fortuna. A escolha pode condenar sua alma. (...) Este filme meticulosamente elaborado é um testemunho da magia da animação stop motion. Com marionetes feitas à mão, narração hipnotizante de Colm Feore e uma trilha sonora inesquecível de Patrick Watson, *A Menina que Chorava Pérolas* é uma parábola atemporal sobre desejo, engano e o preço da inocência.” [1]

O artigo tem como objetivo uma análise híbrida da construção narrativa do filme, sobretudo à partir do *mise-en-scène*. Tal análise se dará, portanto, através de duas perspectivas: uma, como foco na própria narrativa e sua diversidade de temas: amor, ganância, pobreza, exploração, ética, moral, experiência, autenticidade, metalinguagem, materialidade e artesanaria, tem como referencial teórico Walter Benjamin. Por outro lado, é preciso também destacar sua materialização: personagens, cenários, adereços, iluminação e todos os elementos que compõem a visualidade e tensionam as questões propostas pelo filme. Para isso, mobilizam-se autores que permitem enquadrar aspectos específicos da análise: Paul Wells, para a especificidade da linguagem animada; Gaston Bachelard, para a dimensão simbólica do espaço doméstico; Rudolf Arnheim, para a função expressiva da luz e da composição; Tim Ingold e Richard Sennett, para a relação entre matéria, processo e artesanaria; Suzanne Buchan, para pensar a presença material na animação contemporânea.

A metodologia proposta busca uma primeira abordagem do filme, através de uma leitura do filme à luz de Walter Benjamin. Ela aproximação deu-se em função da temática apresentada pela narrativa ir ao encontro da temática discutida por Benjamin, em especial do texto *O Narrador*. Alguns aspectos importantes emergiram dessa primeira análise, em especial o aspecto da artesanaria e da materialidade. O que justificou um avanço para uma dupla análise que incluísse o aspecto visual do filme, sua materialidade. A esse respeito, foi importante o tensionamento entre diferentes autores que abordam a imagem, a materialidade e, em especial, alguns que observam na própria animação. Dessa forma, a leitura organiza-se em dois eixos complementares. O primeiro examina a narrativa oral, a transmissão intergeracional da experiência e a relação entre memória, objeto e valor simbólico, em diálogo com Walter Benjamin. O segundo analisa a materialidade do stop motion, considerando de que modo os cenários, os adereços, as superfícies, os bonecos e as intervenções digitais participam da produção de sentido. A metodologia não separa, portanto, narrativa e visualidade como dimensões autônomas, mas compreende ambas como instâncias articuladas na construção poética e conceptual do filme. As comparações com outras obras de animação e cinema são mobilizadas de forma pontual, não como corpus equivalente, mas como aproximações

críticas destinadas a esclarecer soluções visuais, narrativas ou expressivas específicas. Do mesmo modo, algumas observações relativas ao processo técnico do filme apoiam-se em fontes de produção e entrevistas dos realizadores, enquanto outras são assumidas como inferências analíticas feitas a partir da observação da obra. Essa distinção permite separar dados documentados de produção de interpretações críticas, reforçando a clareza metodológica da análise.

2. Experiência Narrativa

Esta parece ser uma história retirada de tradições orais, ou, nas palavras dos diretores: *“our initial impulse was to tell a story about value and belief and the astounding power of art and storytelling to create both. A stop-motion filmmaker creates life out of dead material (...) It’s been wonderful to finally get to screen the film after so much labour. We’ve been overwhelmed by the amount of thoughtful, emotional responses. Maybe the most interesting reaction has been from those who tell us the movie feels old, like an adaptation of some ancient or forgotten story. That’s your greatest hope with a fable, that people can’t imagine there’s an author involved. Myths and fables should feel like they emerged from the Prime Vibe, the collective muck of the unconscious. The awards feel great, mostly they help justify the enormous trust that our producer, the National Film Board of Canada, and our financier, the Canadian taxpayer, put in us.”* [2].

O resgate da narrativa oral é um dos temas da obra de Walter Benjamin [3]. Seus estudos apontam para questões relacionadas à narrativa e aos narradores, mas sobretudo, o alerta do seu risco de extinção. Pois, para o autor, estamos perdendo a capacidade de intercambiar experiências, ou ainda, mais pobres de experiências. “A arte de narrar está em vias de extinção. São cada vez mais raras as pessoas que sabem narrar devidamente. (...) É como se estivéssemos privados de uma faculdade que nos parecia segura e inalienável: a faculdade de intercambiar experiências.” (p.197,198). O avô, que narra a neta sua experiência precoce, parece descrito na obra de Benjamin: “Uma geração que ainda fora à escola num bonde puxado a cavalos se encontrou ao ar livre numa paisagem em que nada permanece inalterado, exceto as nuvens, e debaixo delas, (...) o frágil e minúsculo corpo humano” (p. 198) [3] Esse frágil e minúsculo corpo humano de um menino atordoado pela fome, pelo medo, pelo frio e pela precariedade da pobreza parece ter sido a referência dos diretores na construção do filme. Imerso em todas essas experiências, o menino enfrenta um dilema ético: o amor por uma jovem e o que parece ser sua única chance de sobrevivência: vender as pérolas (lágrimas) frutos do sofrimento da amada jovem. A história narra a experiência vivida na infância que agora é transmitida à nova geração. “A experiência que passa de pessoa a pessoa é a fonte a que recorreram todos os narradores. E, entre as narrativas escritas, as melhores são as que menos se distinguem das histórias orais contadas pelos inúmeros narradores anônimos. (p.198)”

A neta explora os objetos da casa até encontrar uma pérola, então esconde-se ao perceber a presença de alguém. O avô, percebendo a curiosidade da neta, narra a história posicionado atrás da secretária – lugar de au-

toridade e centralidade – associado ao domínio da palavra e da narração. A neta encontra-se junto ao chão, parcialmente protegida pela mesa – posição de escuta, vulnerabilidade e proximidade afetiva. Essa organização espacial reforça a dinâmica intergeracional e estabelece o avô como mediador da memória. No final, essa relação é reconfigurada: a neta ocupa uma posição ereta e mais ativa, e o avô permanece sentado. Essa inversão sugere uma transformação no eixo de poder e na dinâmica da escuta, com a criança assumindo uma postura mais questionadora. A organização espacial reforça, assim, uma hierarquia visual entre quem fala e quem escuta, fazendo do enquadramento uma extensão da própria relação de poder e transmissão entre as personagens. De forma bem contundente, sua neta contesta e pressiona seu avô a explicar certas passagens ou mesmo questiona a veracidade da narrativa. Mas, sem abalo, o narrador transforma os questionamentos em ensinamentos, muitos deles com apelo moral – cuja característica é, para Benjamin, “a dimensão utilitária da narrativa” (...) “o narrador é um homem que sabe dar conselhos” (p.200) [3]

O avô retira de si a experiência que conta à neta. Seus conselhos vêm de uma sabedoria que só pode ser conquistada pela experiência vivida. E essa experiência, esse apelo moral são propostos, tradicionalmente, em finais abertos ou que exigem certa explicação. A necessidade da explicação é condição da narrativa oral. E esse final característico, apontado por Benjamin, parece ter sido a escolha justa para o final do filme. Questões sobre a criação da história ou mesmo sua veracidade são também o gancho para um ensinamento moral que reforça a importância da narrativa – é ela que dá ao objeto algum valor, não o contrário. É essa característica que carrega a narrativa do seu potencial latente “Ela conserva suas forças e, depois de muito tempo, ainda é capaz de se desenvolver. (...) Ela se assemelha a essas sementes de trigo que durante milhares de anos ficaram fechadas hermeticamente nas câmaras das pirâmides e que conservaram até hoje suas forças germinativas.” (p.204) [3] Mantém em suspenso a curiosidade do ouvinte. Por isso, “Com efeito, numa narrativa a pergunta – e o que aconteceu depois? – é plenamente justificada.” (p. 203) [3]

Ainda sobre a natureza da história, temos seu tratamento metalinguístico. Inicialmente a narrativa é contada no momento presente, quando o protagonista é instigado pela neta a contar seu maior segredo. A partir desse momento há graficamente uma mudança de cenário, paleta de cor e materialidade, cujo intuito é deixar clara a mudança temporal da narrativa: trata-se de um momento passado, em que o protagonista era tão jovem quanto a neta que o escuta. Numa terceira camada dessa metalinguagem, o avô é questionado pela neta com relação ao objeto, ao seu segredo e sobretudo ao valor associado a aquele objeto – como quem exige a explicação necessária às narrativas tradicionais. Em resposta, avô afirma que a história dá valor ao objeto, nunca o contrário – ensinamento moral encerrando a narrativa. É, portanto, a narrativa que deixa a pérola valiosa. Assim, o uso da metalinguagem no filme não só constrói uma narrativa sobre o ato de contar histórias, como culmina numa valorização da história em si. Importa ainda considerar a materialidade da pérola, que, no desfecho, se revela ser de plástico. Segundo Donald Norman (2004) [4], o significado dos objetos

não reside apenas nas suas propriedades físicas, mas emerge das experiências, memórias e narrativas que lhes são associadas.

E nada é mais simbólico do que a referência à pérola quando se trata da valorização de uma obra de arte. É justamente essa a referência apontada por Benjamin (p. 206) [3] quando avança no seu debate sobre a reprodutibilidade técnica. Para Benjamin a narrativa de tradição oral tem nela um caráter essencialmente artesanal. Isso porque a narrativa – e sobretudo o ato de contá-la – traz em si uma existência única.

Para Benjamin, a narrativa é “num certo sentido, uma forma artesanal de comunicação”. (p.205) [3] Ela não está interessada em transmitir o puro em si da coisa narrada – pois que seria estéril – ela, ao contrário, mergulha na vida de quem a narra, para depois retirá-la. Onde assim possamos ver a presença do narrador, como a “mão do oleiro na argila do vaso” (p.205). [3] O valor da obra de arte, esse valor de tesouro associado à pérola, é, segundo o protagonista, que dá valor ao objeto. Nunca o contrário, reforça.

Nessa discussão ainda estão colocadas questões voltadas à reprodução mecânica, industrial, que, mesmo sendo uma cópia perfeita do original, não carrega sua existência única, sua autenticidade, essa autoridade própria das obras de arte. No filme, em dado momento são reveladas milhares de “pérolas” perfeitamente semelhantes à encontrada pelo protagonista. Mas sem o seu valor de obra. Sem narrativa. Sem a marca do oleiro na argila. Sem o desconforto da ostra. Sem, sobretudo, o testemunho, e por fim, sem valor.

A associação ao artesanato, ao valor da unicidade da obra proposta no filme e ressaltada por Benjamin ao citar Paul Valéry encontra na pérola, como exemplo perfeito: “Talvez ninguém tenha descrito melhor que Paul Valéry a imagem espiritual desse mundo de artífices, do qual provém o narrador. Falando das coisas perfeitas que se encontram na natureza, pérolas imaculadas, vinhos encorpados e maduros, criaturas realmente completas, ele as descreve como “o produto precioso de uma longa cadeia de causas semelhantes entre si” (p.206). O acúmulo dessas causas só teria limites temporais quando fosse atingida a perfeição. “Antigamente o homem imitava essa paciência”, prossegue Valéry. “Iluminuras, marfins profundamente entalhados; pedras duras, perfeitamente polidas e claramente gravadas; lacas e pinturas obtidas pela sobreposição de uma quantidade de camadas finas e translúcidas...– todas essas produções de uma indústria tenaz e virtuosística cessaram, e já passou o tempo em que o tempo não contava. O homem de hoje não cultiva o que não pode ser abreviado. “Com efeito, o homem conseguiu abreviar até a narrativa. Assistimos em nossos dias ao nascimento da *short story*, que se emancipou da tradição oral e não mais permite essa lenta sobreposição de camadas finas e translúcidas, que representa a melhor imagem do processo pelo qual a narrativa perfeita vem à luz do dia, como coroamento das várias camadas constituídas pelas narrações sucessivas. (p. 206)

Inevitavelmente, Benjamin propõe em suas obras um enfrentamento aos desafios propostos pelo sistema capitalista. Dentre esses desafios, a perda significativa da experiência, do valor simbólico, exemplificada pelo fazer artesanal. E é relativo ao valor artesanal, à materialidade, ao gestual,

à textura, à tessitura, à mão do oleiro marcada na argila do vaso que será fundamental analisarmos também a materialidade do filme.

3. Stop Motion: artesanato e valor

A análise estética distingue dois movimentos, tanto ao nível narrativo como visual. Esta bipartição além de estilística é o princípio organizador da obra, condicionando a apreensão, pelo espectador, de cenários, adereços e personagens. O filme organiza-se em um enquadramento narrativo centrado na relação entre o avô e a neta, como dispositivo de mediação entre presente e passado. Tal como observa Paul Wells (1998) [5], a animação não deve ser entendida como uma variação técnica do cinema, mas como uma linguagem com propriedades próprias de construção de espaço, tempo e representação. Assim, a pertinência de analisar esta bipartição como operador estético e narrativo reforça-se no âmbito do stop motion, técnica que evidencia texturas e materialidade dos elementos representados. Visualmente, o tempo presente corresponde a um regime estético marcado por maior fluidez expressiva. A cenografia remete a um ambiente burguês, com sinais evidentes de riqueza, estabilidade e refinamento cultural.

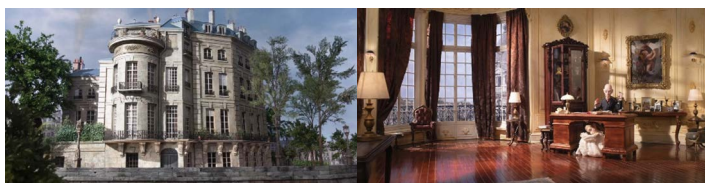


Fig. 1. Cenários em *The Girl Who Cried Pearls* (Dir.: Chris Lavis e Maciek Szczerbowski, 2025, 17').

O interior do escritório é amplo, com pé-direito elevado, destacando a profundidade espacial construída através de grandes janelas e abundante luz natural. Esta iluminação, suave e difusa, contribui para a criação de uma atmosfera de conforto material. A organização de adereços, mobiliário em madeira escura polida, elementos ornamentados e objetos decorativos sugere um elevado estatuto socioeconómico. A presença de um armário vitrificado, quadros emoldurados e objetos pessoais reforça a riqueza, mas também evidencia uma dimensão de memória e continuidade familiar. Gaston Bachelard (1994) [6] sublinha que o espaço doméstico não é apenas funcional, mas também depositário de lembranças, afetos e formas de intimidade: um espaço de condensação simbólica.

Em oposição, o espaço interior da casa do avô quando criança – momento passado – é fechado, degradado e com forte carga atmosférica. Este cenário traz sensação de clausura, intensificada pela ausência de aberturas significativas para o exterior. A iluminação é escassa, incidindo sobre a parede de madeira envelhecida, gerando sombras acentuadas que reforçam a ambiência sombria. O uso da luz aproxima-se da lógica barroca, onde o contraste entre luz e sombra (*chiaroscuro*) estrutura a experiência sensível da imagem, intensificando sua carga dramática e simbólica. Rudolf Arnhem (1974) [7] lembra que a luz, no cinema, não serve apenas para revelar os objetos, mas estrutura tensões, hierarquias dramáticas e emocionais.

A materialidade desempenha aqui um papel estruturante. As superfícies irregulares, gastas e perfuradas tornam visíveis desgaste e precariedade, inscrevendo as marcas do tempo e das condições de sobrevivência. Tim Ingold (2013) [8] propõe que os materiais devem ser entendidos como processos vivos e não como superfícies inertes; assim, desgaste, irregularidade e textura deixam de ser acidentes visuais e passam a constituir expressividade da matéria. Os adereços afastam-se de qualquer função ornamental e reforçam a privação. Neste contexto, a *mise-en-scène* deixa de funcionar como mero enquadramento e atua como dispositivo expressivo, materializando as condições de existência das personagens. A relação do corpo com o espaço, frequentemente próximo das superfícies, quase em fusão com elas, intensifica a sensação de confinamento e interiorização. Assim, o espaço não apenas contém a ação, mas torna-se agente ativo na construção de uma atmosfera íntima e opressiva.

A transformação da dor em matéria constitui o eixo simbólico da obra, revelando uma estética onde o sofrimento só adquire visibilidade ao ser convertido em objeto. Essa lógica aproxima-se de outras representações cinematográficas da escassez e da privação, como em *The Book Thief*, realizado por Brian Percival, cuja narrativa acompanha uma jovem durante a Alemanha nazista, marcada pela pobreza, pela guerra e pela precariedade da vida cotidiana. Outra referência estética é *Humo (Smoke)*, de Rita Basulto, que aborda a infância em contextos de violência e opressão. O filme acompanha um menino em viagem de trem rumo a um destino sombrio, evocando confinamento e morte. Em ambos os filmes, observa-se a construção de espaços interiores fechados e de reduzida dimensão com pouca iluminação.

Fig. 2 - 4. Frames de *The Girl Who Cried Pearls* (Dir.: Chris Lavis e Maciek Szczerbowski, 2025, 17'), *The Book Thief* (Dir.: Brian Percival, 2013, 131') e *Humo (Smoke)* (Dir.: Rita Basulto, 2023).



Assim, tanto no filme como nesses contextos históricos e narrativos, o espaço interior representa não apenas abrigo, mas também limitação e tensão psicológica. A obra organiza-se a partir de uma diversidade de núcleos espaciais relevantes, que incluem tanto ambientes exteriores, como as paisagens urbanas de Montreal, quanto espaços interiores distintos, como a casa do avô na infância, a residência da vizinha, o ambiente do comerciante e a joalheria Weisman e o espaço do escritório na vida adulta, explorados nas suas diferentes configurações internas e externas. Entre estes, espaço do comerciante, caracterizado pela acumulação de objetos e sobreposição de artefactos transforma o espaço num arquivo de vestígios. O piano, um, dos elementos deste contexto pode ser interpretado como remanescente de um passado mais sofisticado e alude ao filme *The Pianist*, dirigido por Roman Polanski, que narra a história de Szpilman, um pianista judeu que luta pela sobrevivência durante a ocupação alemã na Segunda Guerra Mundial. De forma análoga, no filme, o piano deixa de ser apenas um objeto funcional e passa a operar

como marcador material de memória, evocando trajetórias interrompidas e inscrevendo no espaço as marcas da perda.

Essa dimensão da memória, inscrita nos objetos e na materialidade do espaço, prolonga-se no próprio processo de construção dos cenários, onde o tempo, o uso e a ação da matéria passam a integrar a expressão estética da obra. Segundo Chris Lavis e Maciek Szczerbowski (2025) [9], os cenários, pelo contexto da pandemia de COVID-19, permaneceram montados por períodos prolongados, incorporando marcas de desgaste e alterações materiais decorrentes das condições de produção. Longe de serem corrigidas ou ocultadas, essas transformações foram incorporadas na linguagem estética da obra, passando a integrar o seu vocabulário visual. Essa incorporação do desgaste permite enquadrar o filme numa reflexão mais ampla sobre o fazer artesanal. Segundo Richard Sennett (2008) [10], o fazer artesanal implica uma negociação constante com a resistência dos materiais, o erro e a contingência, sendo precisamente nesse processo que se evidencia a relação entre corpo e matéria. Nesse sentido, a imperfeição deixa de ser entendida como desvio e passa a constituir um elemento inerente ao próprio fazer. Assim, o filme inscreve-se numa tradição que valoriza o trabalho manual não apenas como técnica, mas como forma de pensamento material.

A história narrada no filme apresenta um duplo regime de representação: por um lado, temos o plano da narrativa “real”, protagonizada pelo avô e pela neta; por outro, a história inventada, evocada pelo avô, que se constrói através de personagens fictícios representados por bonecos. Este segundo nível apresenta um menor compromisso com a veracidade, assumindo-se como um espaço imaginado, simbólico e subjetivo. Essa dimensão é especialmente relevante em stop motion, onde o boneco mantém sempre uma dupla condição: personagem e objeto. Como argumenta Wells (1998) [5], a animação frequentemente explicita o seu próprio estatuto de construção, em vez de o ocultar. A materialidade dos bonecos, suas texturas, imperfeições e presença tátil, também convida o espectador a uma percepção da imagem enquanto metanarrativa, sobretudo pela forma como a história contada pelo avô introduz uma consciência do próprio ato de narrar, operando uma espécie de “quebra da quarta parede” a partir da noção do boneco enquanto objeto animado. Nesta transição ao passado verifica-se uma mudança significativa no regime estético e expressivo. Os personagens passam a assumir uma estética mais próxima de bonecos, com maior rigidez e menor mobilidade facial.

No plano do presente, as personagens do avô e da neta apresentam mobilidade facial, o que intensifica a expressividade e facilita uma comunicação emocional direta com o espectador, revelando um processo técnico híbrido que ultrapassa o stop motion tradicional. Em vez de recorrer exclusivamente a técnicas clássicas como a *replacement animation* ou mecanismos internos de articulação, o filme combina marionetas físicas com intervenções digitais, especialmente ao nível da animação facial. O processo inicia-se com a filmagem das marionetas em *set*, preservando a materialidade do objeto, textura, iluminação e marcas do fazer manual. Posteriormente, na pós-produção, são inseridos *rigs* para animar a boca em 3D, sincronizadas com o diálogo. Esse procedimento produz um efeito

particularmente relevante: o personagem torna-se um corpo híbrido, simultaneamente físico e digital. Essa integração não busca ser completamente invisível; ao contrário, evidencia uma leve fricção perceptiva. Essa fricção é particularmente significativa no contexto do stop motion, uma vez que, como observa Suzanne Buchan (2013) [11], a animação contemporânea frequentemente explora a tensão entre artifício e presença material, em vez de procurar uma transparência ilusionista absoluta.

Fig. 5 - 7. Movimento facial em *The Girl Who Cried Pearls* (Dir.: Chris Lavis e Maciek Szczerbowski, 2025).

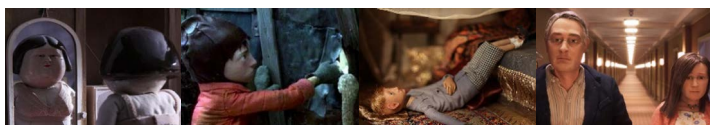


Reiterando o pensamento de Walter Benjamin [3], pode-se argumentar que a materialidade do boneco no passado preserva uma forma de aura, já que o objeto possui uma existência única anterior à sua reprodução cinematográfica. No entanto, a intervenção digital introduz um elemento de reprodutibilidade técnica que tensiona essa aura, sem a eliminar por completo. Simultaneamente, tanto a estrutura híbrida como os próprios bonecos aproximam-se da noção de simulacro de Jean Baudrillard [12], na medida em que deixam de corresponder a uma entidade estável e coerente, tornando-se composições de camadas de representação. O uso combinado de bonecos físicos com animação digital constituiu, assim, uma abordagem inovadora, que distingue os realizadores. Uma inovação similar já estava presente no filme *Madame Tutli-Putli*, dos mesmos autores, onde foi explorada a inserção de olhos humanos reais em personagens animados. Esse filme também está na origem temática da obra em análise. Em entrevistas, os realizadores relatam que a ideia surgiu a partir de um incidente ocorrido durante as gravações: uma marioneta caiu, quebrando o pescoço, e as pérolas do seu colar espalharam-se pelo chão. Essa imagem tornou-se uma semente visual e simbólica que viria a ser desenvolvida anos mais tarde. No plano do passado, as personagens passam a apresentar rostos fixos, assumindo a sua condição de bonecos. A expressividade torna-se reduzida e ambígua, deslocando a carga emocional para outros elementos, como o corpo, o espaço e a mise-en-scène. Esse desajuste é fundamental para compreender o efeito de estranhamento produzido pela obra. Conforme proposto por Masahiro Mori (1970/2012) [13], o *uncanny valley* emerge quando uma figura artificial se aproxima do humano sem alcançar plena verossimilhança. Neste caso, o rosto imóvel, quase escultórico, gera uma dissociação inquietante entre expectativa de vida e ausência de expressão.

As personagens assumem, assim, a sua condição de simulacro, reforçando a ideia de que a memória evocada não é objetiva, mas construída, fragmentada e mediada. Nesse contexto, pode-se afirmar que a rigidez facial e a reduzida mobilidade expressiva as aproximam de um estado de ataraxia, entendido aqui como uma suspensão visível da perturbação emocional. No contexto da análise fílmica, o termo é mobilizado de forma interpretativa para descrever uma expressividade reduzida ou neutra-

lizada, na qual o rosto deixa de funcionar como superfície privilegiada de comunicação emocional. Em vez de explicitar sentimentos de forma direta, a expressividade desloca-se para o corpo, para o espaço, para o ritmo da ação e para a própria materialidade dos bonecos. O espectador é, assim, convocado a projetar sentidos sobre uma superfície opaca, intensificando o envolvimento interpretativo. A ataraxia, nesse contexto, não é apenas uma característica estética, mas um dispositivo que desestabiliza os códigos convencionais de empatia no cinema.

Essa estratégia pode ser comparada a outras obras contemporâneas que exploram a contenção expressiva como forma de construção de sentido. No caso de *Bestia*, dirigido por Hugo Covarrubias, a narrativa acompanha uma torturadora durante a ditadura militar chilena que apresenta um rosto inexpressivo contrastante com a violência que executa, intensificando o horror ao sugerir dissociação psíquica. A ataraxia surge, assim, como vazio emocional diante da brutalidade. De forma distinta, em *The Girl and the Wolf* de Rocío Álvarez, a escolha por bonecos com expressões fixas desloca a expressividade para o movimento corporal e para a encenação. A emoção não é comunicada pelo rosto, mas pelo gesto, pela relação espacial entre os personagens e pelo ritmo da ação. Já em *Family Portrait*, de Lea Vidakovic, a rigidez facial contribui para a construção de um ambiente de tensão no contexto familiar, carregado de desconforto e conflito implícito. A ausência de expressões intensifica a sensação de repressão emocional, sugerindo dinâmicas familiares marcadas por silêncio. Por sua vez, *Anomalisa* dirigido por Charlie Kaufman e Duke Johnson, adota uma estratégia distinta, mas igualmente relevante. Embora utilize *replacement animation* para criar expressividade facial, o filme opta por não ocultar as linhas de divisão dos rostos dos bonecos, geralmente apagadas na pós-produção. Essa decisão torna visível a construção artificial dos personagens, reiterando a lembrança de que está diante de objetos manipulados



Assim, a imobilidade facial no filme não deve ser entendida como limitação técnica, mas como escolha estética e conceptual. Ao suspender a expressividade, o filme rompe com expectativas naturalistas e introduz uma experiência mais ambígua, na qual o espectador oscila entre identificação e estranhamento. Essa abordagem reforça a dimensão meta-narrativa da obra: ao evidenciar o caráter construído dos personagens, enquanto bonecos e simulacros, o filme sugere que também a memória, que estrutura a narrativa, é um processo de reconstrução, marcado por lacunas, distorções e mediações.

4. Conclusão

Ao encenar uma história sobre valor, sofrimento, autenticidade e memória, o filme ultrapassa a dimensão de fábula moral e transforma-se numa

Fig. 8 - 11. Personagens e regimes de expressividade em diferentes obras de animação: *Bestia* (Dir.: Hugo Covarrubias, 2021, 16'); *The Girl and the Wolf* (Dir.: Rocío Álvarez, 2020); *Family Portrait* (Dir.: Lea Vidakovic, 2023); *Anomalisa* (Dir.: Charlie Kaufman & Duke Johnson, 2015, 90').

meditação sobre aquilo que confere sentido às coisas: não o objeto em si, mas a história que o envolve, a experiência que o atravessa e a transmissão que o sustenta. É nesse ponto que o diálogo final adquire força decisiva. Quando o avô afirma que “é a história que dá valor a alguma coisa. Só a história, nunca o objeto”, o filme explicita o seu próprio princípio poético e teórico. A pérola deixa de ser apenas um elemento narrativo ou um símbolo do sofrimento convertido em matéria preciosa; torna-se uma figura da própria obra de arte, cujo valor não reside na sua existência material isolada, mas na espessura simbólica, afetiva e histórica que a constitui.

O questionamento da neta “Mas a menina, ela existiu mesmo?” não procura apenas verificar a veracidade dos factos, mas expõe a ambiguidade constitutiva da narrativa: a sua verdade não depende da comprovação objetiva, mas da sua capacidade de transmitir experiência, suscitar interpretação e produzir sentido. Nesse sentido, o filme confirma a atualidade do pensamento de Walter Benjamin. A narrativa oral, a transmissão intergeracional, a dimensão artesanal da criação e a tensão entre autenticidade e reprodutibilidade técnica atravessam a obra tanto no plano temático quanto no formal. O filme não apenas reflete sobre o valor: ele encarna-o, ao afirmar-se como objeto artesanal, marcado pela materialidade dos bonecos, pela visibilidade do gesto e pela expressividade das imperfeições. A incorporação de recursos digitais não dissolve essa materialidade; pelo contrário, tensiona-a, produzindo um regime híbrido em que o orgânico e o artificial coexistem sem síntese plena.

A divisão do filme em dois movimentos, estruturada pela contraposição entre presente e passado, pela variação entre mobilidade facial e rostos fixos e pelo estado de ataraxia que caracteriza os personagens no plano da memória, evidencia que *The Girl Who Cried Pearls* não busca uma transparência naturalista. Nesse contexto, o filme dialoga com outras obras que exploram a redução da expressividade facial e o deslocamento da emoção para além do rosto, nas quais a tensão entre imobilidade e intensidade produz estranhamento e densidade simbólica. Essa estratégia é aqui aprofundada pela articulação entre diferentes regimes de representação, reforçando o caráter construído, instável e interpretativo da memória.

A contribuição deste artigo consiste, portanto, em propor que *The Girl Who Cried Pearls* seja lido não apenas como uma fábula sobre ganância e inocência, mas como uma reflexão sobre os modos pelos quais a animação stop motion constrói valor por meio da articulação entre narrativa, matéria e tempo. Ao relacionar a pérola ao gesto artesanal, à transmissão oral e à materialidade dos bonecos, a análise evidencia que o filme transforma a própria técnica em argumento: o stop motion não é apenas o meio pelo qual a história é contada, mas uma dimensão essencial do seu sentido.

Dessa forma, o filme reinscreve o stop motion, afirmando a materialidade, a imperfeição e a narrativa como formas de resistência num contexto marcado pela aceleração e pela serialização. A pérola condensa esse princípio: formada a partir de uma ferida, transforma matéria em valor ao longo do tempo. Como a narrativa que nasce da experiência e

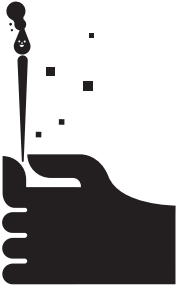
adquire permanência na transmissão. Assim, não é o objeto que contém valor em si, mas o processo lento, imperfeito e profundamente humano que o constitui.

References

1. National Film Board of Canada. *The Girl Who Cried Pearls*. NFB. Disponível em: <https://www.nfb.ca/film/the-girl-who-cried-pearls/>. Acesso em: 20 mar. 2026.
2. Murphy, J. (2026). *INTERVIEW: The Emotions Of “The Girl Who Cried Pearls”*. Animation Scoop, 2 jan. 2026. Disponível em: <https://animationscoop.com/interview-the-emotions-of-the-girl-who-cried-pearls/>. Acesso em: 20 mar. 2026.
3. Benjamin, W. (1987). *Magia e técnica, arte e política*. São Paulo: Editora Brasiliense.
4. Norman, D. A. (2004). *Emotional Design: Why We Love (or Hate) Everyday Things*. New York: Basic Books.
5. Wells, P. (1998). *Understanding Animation*. London: Routledge.
6. Bachelard, G. (1994). *The Poetics of Space* (M. Jolas, Trans.). Boston: Beacon Press. (Original work published 1958)
7. Arnheim, R. (1974). *Art and Visual Perception: A Psychology of the Creative Eye*. Berkeley: University of California Press.
8. Ingold, T. (2013). *Making: Anthropology, Archaeology, Art and Architecture*. London: Routledge.
9. Duhaime-Morrisette, M. (2025). *Anarchists of Animation: How the Creators of The Girl Who Cried Pearls Broke Every Rule—and Made Magic*. NFB Blog, 11 dez. 2025. Disponível em: <https://blog.nfb.ca/blog/2025/12/11/anarchists-of-animation-how-the-creators-of-the-girl-who-cried-pearls-broke-every-rule-and-made-magic/>. Acesso em: 20 mar. 2026.
10. Sennett, R. (2008). *The Craftsman*. New Haven: Yale University Press.
11. Buchan, S. (Ed.). (2013). *Pervasive Animation*. New York: Routledge.
12. Baudrillard, J. (1994). *Simulacra and Simulation*. Ann Arbor: University of Michigan Press. (Original work published 1981)
13. Mori, M. (2012). The uncanny valley. *IEEE Robotics & Automation Magazine*, 19(2), 98–100. (Original work published 1970)

Referenced Filmography

1. *The Girl Who Cried Pearls* (Dir.: Chris Lavis e Maciek Szczerbowski, 2025, 17', CA, National Film Board of Canada, animation short)
2. *The Book Thief* (Dir.: Brian Percival, 2013, 2:11', DE, USA, feature film)
3. *Humo (Smoke)* (Dir.: Rita Basulto, 2023, MX, animation short)
4. *The Pianist* (Dir.: Roman Polanski, 2002, 2:30', FR, DE, UK, PL, feature film)
5. *Madame Tutli-Putli* (Dir.: Chris Lavis e Maciek Szczerbowski, 2007, 17', CA, National Film Board of Canada, animation short)
6. *Bestia* (Dir.: Hugo Covarrubias, 2021, 16', CL, animation short)
7. *The Girl and the Wolf* (Dir.: Rocío Álvarez, 2020, animation short)
8. *Family Portrait* (Dir.: Lea Vidakovic, 2023, animation short)
9. *Anomalisa* (Dir.: Charlie Kaufman e Duke Johnson, 2015, 1:30', USA, animation feature)



Tracing the Unspoken: Early Development of an Analog Drawing Framework for Women's Health Advocacy

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Keywords

Analog Drawing; Women's Health Communication; Trauma-Informed Design; Art-Based Research.

Abstract

This paper presents the iterative development and three-phase methodological assessment of an analog drawing framework designed to facilitate externalization of women's unspoken health experiences. The framework, termed *Affective Systemic Mapping*, brings together *critical fabulation* [1], *graphetic empathy* [2], and the body mapping tradition in arts-based health research. Situated within illustration and participatory design research, this study investigates how analog drawing can function as a designer-facilitated, trauma-informed tool complementary to conventional health documentation. Three sequential studies were conducted: a collaborative design session for protocol prototyping (n=12), a remote pilot of a two-minute bilateral drawing exercise with women recruited through Prolific (n=15), and an expert review with practising clinicians (n=9). Across the three phases, the framework showed instructional clarity, somatic resonance, and conditional clinical relevance. In the pilot phase, eight of fifteen participants (53.33%) reported that the same sensation became more understandable after drawing, while seven of nine clinicians (77.78%) judged at least one example as contributing information beyond verbal conversation alone. Findings suggest that bilateral drawing can support body-to-paper mapping and may offer a low-tech means of exploring somatic and affective experience in care-adjacent design contexts. In line with the project's decolonial commitments, the paper does not interpret participants' embodied narratives as thematic data. The framework is proposed primarily as a reflexive tool for illustrator preparation, emphasizing the facilitative role of analog mark-making in visually oriented health inquiry, and it is offered as a methodological rather than a diagnostic contribution.

1. Introduction

In contemporary visual culture, the archive is understood not merely as a neutral repository of evidence but as a regulatory system of power that determines what can be knowable and articulated [3]. Within medical history, the documentation of the female body has historically prioritized clinical precision and scalability, often reducing the individual to a record of symptoms while suppressing the nuanced, emotional, and traumatic reality of lived experience - a dynamic Hartman identifies in the broader

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archive of racial and bodily subjugation [1]. A growing body of work in graphic medicine demonstrates that sequential illustration and analog mark-making can register clinical and traumatic experiences that official health records systematically exclude [4]. Where prior research has mapped the decolonial and arts-based dimensions of this problem [5], this paper focuses on what the hand-drawn mark uniquely contributes: a physical presence, the felt trace of the hand, that institutional documentation cannot replicate [2].

This paper aims to bridge the theory and practice of illustration by showing how physical practice of drawing can be operationalized as a method for social and systemic advocacy in women's health. Between November 2025 and May 2026, the framework was iteratively developed and tested through three sequential studies: a collaborative design session with peers from a postgraduate design programme, a remote pilot administered through Prolific to a small international cohort of women, and an anonymous expert review with practising clinicians. Together, these studies constitute the validation strategy that forms the methodological contribution of this paper. The objective is to validate whether the analog mark-making protocol can be communicated, completed, and recognised as professionally meaningful when tested with both lay participants and clinicians. The paper proceeds by first establishing the theoretical foundations (Section 2), introducing the Affective Systemic Mapping framework (Section 3), presenting a three-phase validation (Section 4), and concluding with the findings (Section 5) and broader implications for future intervention (Sections 6 and 7).

2. Theoretical Background

The framework draws on four bodies of literature: indexical and embodied accounts of the drawn mark in both practice and scholarship, critical fabulation as a method for engaging archival silence, decolonial and trauma-informed orientations to research with women, and the body mapping tradition in arts-based health research.

2.1. The Drawn Mark as Indexical and Embodied

The material basis for this framework is in the analog mark as a non-verbal form of embodied knowledge. Johannessen et al. theorise this through the concept of *graphetic empathy*: viewers of hand-drawn traces are attuned to the gestural movement of their making and reconstruct the body that produced them, perceiving the emotion and care intrinsic to the act of drawing [2]. In plain terms, the hand-drawn mark carries a felt presence the viewer can sense. Unlike mechanical or digital output, the manually drawn mark serves as a physical record of the body's presence and attention [2]. Luzar [6] tempers this by warning that a too-literal vitalism, where the trace is read as a direct deposit of presence, risks slipping into mysticism. The framework holds both positions in tension: the indexical reading is operationally useful, but treated as a relational and testimonial property of the mark rather than a metaphysical one.

2.2. Critical Fabulation and Archival Silence

Hartman's notion of *critical fabulation* [1] proposes a method for working with archives whose records are cold, missing, or designed to omit. Rosner [7] extends this into design research, using fabulation to explore the margins of practice. In this project, critical fabulation is treated as a methodological orientation that justifies why hand-drawn marks are gathered at all, because they articulate what standardised documentation was not designed to hold. To reduce the risk of turning experiences of pain into images that are moving but detached from their structural causes, speculation is grounded in a physical mark made by the participant, rather than by the researcher.

2.3. Decolonial Orientation and Trauma-Informed Care

The decolonial orientation of the framework follows Trinh T. Minh-ha's principle of *speaking nearby* rather than speaking about. Nassiri-Ansari et al. argue that persistent failures to centre women's lived experience in health research constitute an ongoing form of epistemic violence [10]. Torretta et al. argue that decolonial design requires the continuous dismantling of design's Eurocentric allegiances [5]. Trauma-informed care, summarised by Levenson [11], frames physical and psychological safety as the precondition for any therapeutic engagement. This principle is translated here into the design of the drawing exercise: brief, bilateral, abstract, and conducted in the participant's own environment, with no requirement to disclose the content of what is felt.

2.4. Analog Drawing as Advocacy

Kahlo's handmade diary, documented by Lowe [12], was produced during years of chronic physical pain and reproductive trauma. It stands as one of the most sustained historical records of a body using analog drawing as a tool of self-advocacy and survival, a medium through which experience was processed and made legible to others. This lineage of drawing as testimony and sense-making informs the framework's focus on analog mark-making as a way of registering women's health experience beyond standardised documentation.

2.5. The Body Mapping Precedent

The most directly relevant precedent, however, is the body mapping tradition developed in South Africa. Solomon [13] describes how facilitators invited women living with HIV to draw life-size outlines of their own bodies and fill them with hand-drawn images, symbols, and text representing their health journeys, fears, and hopes. These were analog marks made by the subjects themselves, acts of testimony, care, and community [13]. De Jager et al.'s systematic review confirms that body-mapping consistently generates forms of embodied self-knowledge that conventional qualitative methods do not reach [14]. Coemans and Hannes identify embodiment, accessibility, and ethical reflexivity as the recurring affordances of arts-based methods in community inquiry with vulnerable populations [15]. The present framework is not a body map in the original life-size

sense, but a time-bounded act of analog mark-making designed to retain the indexical and testimonial logic of the tradition while remaining feasible for a single illustrator-researcher on a research budget.

3. The Affective Systemic Mapping Framework

Affective Systemic Mapping reimagines systemic mapping [16] as a hand-drawn, metamorphic process. Where a conventional systems map represents a chronic pain journey as a sequence of clinical touchpoints, an Affective Systemic Map is drawn by hand over several sessions, with line-weight that thickens at points of medical dismissal and thins to near-invisibility during periods of pain without diagnosis. The gestural quality of those line-weight shifts carries information that a standardised node-and-arrow diagram generally does not encode. Baron’s argument that the indexical trace generates a felt sense of historical authenticity that manufactured imagery cannot replicate [17] supports the choice of the hand over the rendered image. Tekin and Urbano Gutiérrez [18]’s biophilic design framework informs the visual register by pointing to the role of non-institutional visual codes in supporting psychological safety in care environments. The completed map can be used as an advocacy artifact by the participant for self-understanding, by researchers for cross-case pattern analysis, and in clinical or teaching dialogue as a visual complement to the clinical record.

The current paper focuses on the iterative development of the first four stages of the ASM framework (Fig. 1). These stages prioritise the researcher’s preparation and the participant’s somatic grounding as the foundation for later systemic advocacy.

Step 1 - Body as Archive (Somatic Site Identification). The process begins with the body: the participant identifies a specific point of tension, pain, or emotional load, locating where that sensation “lives” before any marks are made.

Step 2 - Analog Mark as Inquiry (Bilateral Drawing). This sensation is externalised through a time-limited bilateral drawing, using both hands to produce a raw, affective mark.

Step 3 - Externalisation as Co-witnessing (Naming and Observing). The drawing is treated as a shared artefact; by naming its visual features together, participant and facilitator engage in co-witnessing and anchor meaning in the participant’s own terms.

Step 4 - Reflexive Learning (Illustrator Preparation). The primary outcome of this phase is the reflexive growth of the designer-researcher, ensuring that the illustrator is somatically and ethically prepared to handle the complexity of the participant’s story before it is layered into a larger systemic map.

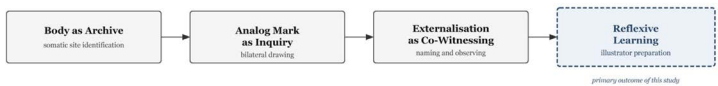


Fig. 1. Framework flow: analog drawing as a designer-researcher preparation process, positioning the body as archive, the analog mark as inquiry, externalisation as co-witnessing, and reflexive learning by the illustrator as the present study’s primary outcome (author’s own, 2026).

4. Methodology: Three-Phase Validation

The validation is structured as three sequential phases, each addressing a distinct question about the framework’s communicability, completion, and professional recognition. Table 1 summarises the design. Following a preliminary pilot (Phase 1) to refine the drawing prompts, the primary validation stages (Phases 2 and 3) were administered through Prolific [19]. Informed consent was obtained from all participants, with specific permission granted during the pilot phase for the collection and academic retention of visual artifacts.

Table 1. Three-Phase Validation: study design overview.

Phase	Method	Participants	Primary question
Phase 1	In-person collaborative session, postgraduate design programme, Nov 2025	n = 12 (peers)	Protocol feasibility and analog constraint refinement
Phase 2	Remote pilot via Prolific, May 2026	n = 15 (women, international)	Instructional clarity and somatic resonance
Phase 3	Expert review via Prolific, May 2026	n = 9 (clinicians)	Clinical utility and conditions for use

4.1. Phase 1. Reflective Field Notes and Protocol Prototyping (n = 12)

The framework’s analog constraints were first prototyped in a peer learning session held in November 2025 within a postgraduate interdisciplinary design programme. Co-facilitation contributed three key protocol constraints: bounding the drawing to two minutes, forbidding figurative content, and requiring simultaneous bilateral mark-making. Three refinements shaped the later phases: the end-of-drawing alarm was replaced with a soft visual cue; the writing prompt was decoupled from any explicit reference to trauma; and choosing to disengage from the drawing was reclassified as a valid response. All twelve participants engaged with the bilateral drawing; field notes are treated as design documentation, not as data.

4.2. Phase 2. Remote Pilot with Women on Prolific (n = 15)

Phase 2 within a remote digital space tested whether the refined exercise could be communicated and completed without facilitator presence. A short survey was distributed through Prolific in May 2026. Of eighteen who began, seventeen consented and fifteen completed all steps, including uploading a photograph of the drawing. Participants ranged from 19 to 53 years of age across ten countries in South America, North America, Africa, Asia, and the Middle East. Participants were instructed to take a mo-

Fig. 2. The Phase 2 mapping silhouette, used by participants to relate the physical resonance of their drawings back to specific body zones (author’s own, 2026).



ment to notice points of tension and sensation in the body, hold a pen or marker of their own choice in each hand, and draw simultaneously for two minutes on blank paper. They then answered six short questions: a body map (Fig. 2) to relate the drawing back to a somatic site, a brief sensation description, a before-and-after comparison, a one-word title, a mark-observation note, and an optional comment. Total task time was capped at twelve minutes. Participation was voluntary, with informed consent obtained online, and respondents could skip any question or exit the study at any point.

4.3. Phase 3. Expert Review with Clinicians (n = 9)

Phase 3 examined the framework’s potential clinical utility by inviting practising clinicians to evaluate Phase 2 outputs. A separate Prolific-recruited cohort reviewed six anonymised Phase 2 examples, each presented as a drawing alongside the participant’s one-word title and brief sensation description. Eleven reported their professional role, identifying as general practitioners (six), clinical psychologists (three), therapists or counsellors (one), and social workers (one), with experience from two to twenty-six years. All eleven (100%) found the materials clear enough to give an informed opinion. Nine completed the full structured review task.

For each example, clinicians selected one of four utility judgements and answered an open question about clinical relevance. Cross-cutting items addressed resonance with clinical experience, plausible placement in practice, conditions for use, populations to avoid, and overall added value. The design of the Phase 2 survey (Fig. 2) embedded trauma-informed digital hospitality as a protocol constraint: anonymous completion, optional withdrawal, and a visible exit pathway throughout.

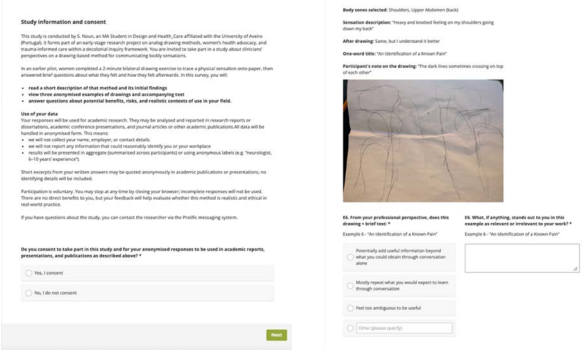


Fig. 3. Phase 3 study interfaces, showing the initial consent process (left) and the drawing evaluation layout with optional response fields (right) (author’s own, 2026).

5.Validation Findings

5.1. Phase 2. Instructional Clarity and Somatic Resonance

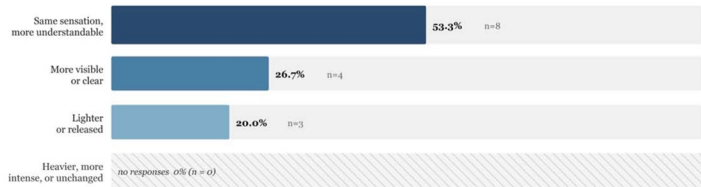
Phase 2 demonstrates that the refined exercise can be completed without facilitator presence: fifteen of seventeen consented participants (88.24%) completed all steps within a single online session. Participants located their tension predominantly in the upper body: eight of fifteen (53.33%) in the

shoulders, six (40.00%) in the head or neck, and six (40.00%) in the upper abdomen or core. The most frequent sensation descriptors were heaviness, tightness, and pulsation. The following response illustrates the pattern:

‘Heavy and knotted feeling on my shoulders going down my back. Both hands kept going to the same place on the paper. I didn’t plan it, they just met in the middle.’ title: *My Unspoken Pain* (somatic site: shoulders)

On the before-and-after comparison: eight of fifteen (53.33%) reported the sensation felt the same but more understandable, four (26.67%) that it felt more visible or clear, and three (20.00%) that it felt lighter or released. No participant reported feeling heavier, more intense, or unchanged. Other one-word titles named concealed or compacted experience: *Tangled, Congested, My Hidden Parts, Corrente*. When asked what they noticed in their marks, participants pointed to spontaneous symmetry between the two hands, repetition, pressure variation, and the convergence of lines at the centre of the page.

Fig. 4. Phase 2 self-reported change after the two-minute bilateral drawing (n = 15): 53.3% found the sensation more understandable, 26.7% more visible or clear, and 20.0% lighter or released. No participant reported feeling heavier, more intense, or unchanged. (author’s own, 2026).



5.2. Phase 3. Clinical Utility and Conditions for Integration

Clinician judgements varied across the six examples but converged on the view that the method can add information alongside a participant’s own framing. For three of six examples, seven or more of nine clinicians judged the drawing plus text as potentially informative beyond conversation alone (77.78% for examples one and three, 55.56% for example six). For the remaining three, up to 44.44% found the material too ambiguous. None of the nine clinicians rated the method as having no added value overall: four (44.44%) rated it 4/5, three (33.33%) rated it 3/5, and two (22.22%) rated it 5/5, giving eight of nine (88.89%) at 3/5 or higher.

All nine clinicians (100%) affirmed that the upper-body heaviness pattern matches their clinical experience; several cited patients who described tension as weight or pressure. Five of nine (55.56%) identified a standalone reflective task between sessions as the most plausible placement. Conditions for use clustered around brevity, optionality, and integration outside routine appointments. Two clinicians cautioned against use with acutely distressed or dissociative patients. Eight of nine indicated openness to a follow-up study. The combined picture is one of conditional clinical acceptance: the method is recognised as potentially informative, bounded by clear conditions of use.

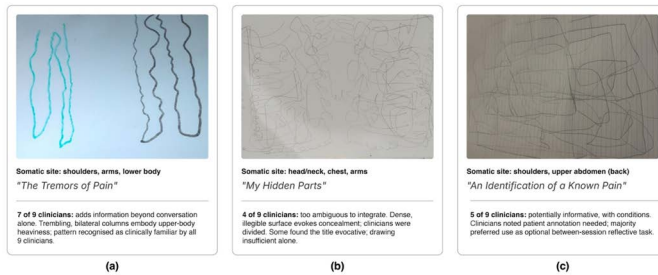


Fig. 5. Clinician evaluation samples from Phase 3 (n = 9). These examples illustrate the range of expert responses, from patterns recognized as clinically familiar (a) to those found more ambiguous without participant narration (b) or conditioned on further annotation (c) (author's own, 2026).

6. Discussion

This framework positions the illustrator as a researcher-advocate, one who does not merely visualize a problem but creates a platform for collective meaning-making and systemic critique. Nassiri-Ansari et al. argue that the persistent failure to centre women's lived experiences in health research constitutes an ongoing form of epistemic violence [10] which is a challenge this framework positions design as both capable of and responsible for addressing. The decolonial reorientation that Torretta et al. [5] argue demands a continuous dismantling of design's Eurocentric allegiances requires precisely the kind of slow, embodied, analog attentiveness this framework enacts: not the acceleration of data visualization, but the slow, analog of the listening hand.

A tension worth acknowledging is the one between a researcher-designed protocol and the subject-led origins of the body mapping tradition [14, 15]. The framework addresses this through the co-production logic of the Affective Systemic Map: the participant holds the pen and the researcher holds a witnessing role, and Phase 2 extends this by removing the researcher from the room entirely. The principle of *speaking nearby* [8, 9] is operationalised as procedural restraint: somatic locations, titles, and descriptors are reported as recorded and not interpreted. Limitations include small self-selecting samples (n = 12, 15, 9), Prolific-recruited clinicians, and the brevity of the exercise relative to the body mapping tradition from which it draws [14]. Phase 3 measures clinician reception, but not participant accuracy. Expert agreement is treated as witnessing rather than diagnostic *speaking about* [8, 9]. Notably, clinical ambiguity (Fig. 5b) represents a resistance to being known, preserving the participant's right to opacity and preventing their experience from being flattened into a clinical data point.

The three phases together support a modest but specific claim: the proposed exercise is feasible as a self-administered designer-researcher tool, communicable across cultural and linguistic contexts, and recognised by practising clinicians as potentially informative under bounded conditions. These are methodological findings, not therapeutic ones. Situating this within illustrator preparation rather than patient outcome is a deliberate choice: design research without clinical partners cannot responsibly claim patient benefit, but it can attend to the conditions that prepare a designer to engage with difficult material with less imposition. The relevant question is not whether the drawn mark heals the partici-

pant, but whether attending to the participant's mark prepares the illustrator to design subsequent communication more attentively [2, 7].

Several limitations must be acknowledged. These pilot phases are small-scale and non-clinical. Phase 1 took place as a peer-learning facilitation in an educational context, without ethics board approval or the involvement of a qualified art therapist. Phase 2, while using a structured survey instrument and a recruited sample, was a 15-participant remote pilot, so no causal claims about wellbeing are appropriate at this scale. Both phases should therefore be treated as exploratory, proof-of-concept work. A further tension concerns the researcher-facilitator role. The framework requires an illustrator to facilitate and interpret drawn marks, which can risk reinstating the researcher-subject hierarchy it seeks to disrupt. The framework addresses this in part through the co-production logic of ASM, in which the participant holds the pen and the researcher adopts a witnessing role. Even so, questions of consent, authorship, and the conditions under which participant-produced marks are circulated beyond the workshop context require careful attention in future phases, and in clinical or therapeutic contexts this includes formal ethical review and collaboration with qualified professionals.

Finally, the scope of this paper across drawing theory, decolonial practice, trauma-informed design, and women's health advocacy is broad by design, because the problem it addresses is genuinely interdisciplinary. At the same time, scope must be accompanied by precision. The pilot study therefore focuses on two specific, testable questions: does bilateral drawing produce somatic engagement, and does it do so without a facilitator? Future phases will address clinical legibility, cultural specificity, and therapeutic ethics.

7. Conclusion

The Three-Phase Validation demonstrates that a short bilateral drawing exercise is feasible as a self-administered designer-researcher tool, communicable without in-person facilitation, and recognised by practising clinicians as potentially informative when bounded by brevity, optionality, and emotional safety. The contribution is deliberately narrow: the proposed analog mark, treated as a tool for the illustrator's preparation rather than a clinical intervention, is transferable and professionally legible to clinicians and designer-researchers. As a theoretical and methodological contribution, this work lays the foundation for a future practice-based phase in which the full Affective Systemic Mapping process will be empirically piloted with appropriate ethical oversight and collaboration with health professionals.

The analog drawn mark holds a capacity for empathic, complementary documentation that standardized clinical records were not designed to replicate. In restoring the trace of the hand to health communication, illustration helps make visible what institutional documentation is structurally inclined to leave out.

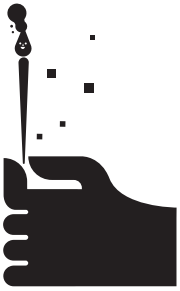
8. Acknowledgements

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References

1. Hartman, S.: Venus in Two Acts. *Small Axe* 12(2), 1--14 (2008).
2. Johannessen, C.M., Longcamp, M., Stuart, S., Thibault, P.J., Baber, C.: The Look of Writing in Reading: Graphetic Empathy in Making and Perceiving Graphic Traces. *Language Sciences* 84, 101363 (2021).
3. Derrida, J.: *Archive Fever: A Freudian Impression*. University of Chicago Press, Chicago (1996).
4. Czerwicz, M.K., Williams, I., Squier, S.M., Green, M.J., Myers, K.R., Smith, S.T.: *Graphic Medicine Manifesto*. Pennsylvania State University Press, University Park (2015).
5. Torretta, N., Clark, B., Redström, J.: Reorienting Design Towards a Decolonial Ethos: Exploring Directions for Decolonial Design. *Design and Culture* 16(3), 309--332 (2024).
6. Luzar, R.: Rethinking the Graphic Trace in Performative Drawing. *Theatre and Performance Design* 3(1--2), 50--67 (2017).
7. Rosner, D.: *Critical Fabulations: Reworking the Methods and Margins of Design*. MIT Press, Cambridge (2018).
8. Trinh, T. Minh-ha: *Woman, Native, Other: Writing Postcoloniality and Feminism*. Indiana University Press, Bloomington (1989).
9. Chen, N.N., Trinh, T. Minh-ha: Speaking Nearby: A Conversation with Trinh T. Minh-ha. *Visual Anthropology Review* 8(1), 82--91 (1992).
10. Nassiri-Ansari, T., Gall, A., Oti, S.O., Abdulrahim, S., Rhule, E.L.M.: Decolonising Women's Health Innovation. *BMJ* 391, e085683 (2025).
11. Levenson, J.S.: Trauma-Informed Social Work Practice. *Social Work* 62(2), 105--113 (2017).
12. Lowe, S.M.: *The Diary of Frida Kahlo: An Intimate Self-Portrait*. Harry N. Abrams, New York (1995).
13. Solomon, J.: *Living with X: A Body Mapping Journey in the Time of HIV and AIDS*. REPSSI, Johannesburg (2007).
14. De Jager, A., Tewson, A., Ludlow, B., Boydell, K.: Embodied Ways of Storying the Self: A Systematic Review of Body-Mapping. *Forum Qualitative Sozialforschung* 17(2), Art. 22 (2016).
15. Coemans, S., Hannes, K.: Researchers Under the Spell of the Arts: Two Decades of Using Arts-Based Methods in Community-Based Inquiry with Vulnerable Populations. *Educational Research Review* 22, 34--49 (2017).
16. Jones, P., Bowes, J.: Rendering Systems Visible for Design: Synthesis Maps as Constructivist Design Narratives. *She Ji: J. Des. Econ. Innov.* 3(3), 229--248 (2017).
17. Baron, J.: *The Archive Effect: Found Footage and the Audiovisual Experience of History*. Routledge, London (2014).
18. Tekin, B.H., Urbano Gutiérrez, R.: Human-Centred Health-Care Environments: A New Framework for Biophilic Design. *Frontiers in Medical Technology* 5, 1219897 (2023).
19. Palan, S., Schitter, C.: Prolific.ac, A Subject Pool for Online Experiments. *Journal of Behavioral and Experimental Finance* 17, 22--27 (2018).



Drawing in Dialogue: Collaborative Authorship and Stylistic Polyphony in Comics Illustration

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Keywords

Stylistic Polyphony;
Stylistic Variation; Comics;
Collaboration; Authorship;
Visual Narrative.

Abstract

Comics rely on the relationship between words and images to create their narrative voice, which is, in turn, interpreted by the reader as a unified image and read as a visual narrative. The application of dual artists working in tandem across a visual narrative creates a position of stylistic difference and proposes the concept of stylistic polyphony as a methodology in comics practice. Through the analysis of Maus, Asterios Polyp, Dirty Laundry Comics, and the practice-based project The Jar, this paper argues that co-authorship and shared workflows can produce a unique narrative voice by limiting creative negotiation and positioning stylistic polyphony as both a visual and procedural condition.

1. Introduction

This paper argues that style in comics serves as an embodied narrative voice rather than a unified aesthetic system. This is true for an artist who might use multiple styles within their work for narrative effect. The application of dual artists working in tandem across a narrative piece, a visual narrative, creates tension and actively positions the stylistic differences of each as a narrative mechanism through which the individual authorship becomes visible and operational within the image. In this collaborative context, dual authorship generates a dialogic structure in which multiple visual voices coexist and create meaning.

Comics and sequential illustration have long been understood as frameworks in which meaning is constructed through the collaboration of separate systems: word and image, form and sequence, author and reader (Gavaler, 2022; McCloud, 1993). Within these frameworks, variations in expression—in writing, art and format—can be defined as style, and, given the immersive quality of comics, can be used as a tool to shape narrative construction, tone, perspective and interpretation (Postema, 2013). Further approaches within comics studies have demonstrated how structure and authorship interact to produce meaning (Smith & Duncan, 2012), while distinctions between caricature and realism establish style as a carrier of narrative mode (Witek, 2012). However, these accounts predominantly examine style and stylistic variation within the work of

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a single author, where additional visual registers are orchestrated and controlled through a unified authorial system.

This paper, therefore, addresses an under-theorized condition in which the condition of stylistic polyphony, stylistic duality, is not simulated by a single illustrator, but is present as an emerging mechanism through the collaboration of multiple illustrators within a shared visual field. It asks: how might distinct style approaches, authored by different illustrators, operate simultaneously within the same panel to construct a narrative voice with unified, yet parallel readings? In contrast to the familiar single-author models, where stylistic difference is internally managed, collaborative co-illustration introduces a situation in which authorship is materially embedded in the resulting image, and stylistic contrast is not resolved but sustained through author to reader.

This condition is examined through case studies including *Maus* (Spiegelman, 1986/1991), *Asterios Polyp* (2009), and *Dirty Laundry Comics* (Crumb and Kominsky-Crumb, 1974–1977), alongside an ongoing collaborative project, *The Jar*. While works such as *Asterios Polyp* demonstrate how stylistic duality variation can be deployed as a mechanism within a single authorial framework, *Dirty Laundry* presents a more explicit methodology in which two illustrators retain distinct visual languages within the same narrative space: the page and the panel of comics. Here, stylistic duality variation is not a planned narrative strategy, but a manifestation of co-authored subjectivity, thus creating stylistic polyphony.

The concept of polyphony, as proposed by Mikhail Bakhtin, allows the multiple voices within a narrative to retain their individual perceptions, ideologies and realities, while coinciding inside the singular reality of the text (Koçak & Sarıkaya, 2023). Although the term has engendered several new names to encompass visual works such as visual polyphony or polygraphy (Koçak & Sarıkaya, 2023), this paper has taken a similar approach to Koçak & Sarıkaya's study of graphic polyphony in Shaun Tan's *The Arrival* (2006). While Smolderen's concept of polygraphy describes the intertextual interplay between multiple graphic systems within a visual text (Smolderen, 2009), Bakhtin's theory, expressed through co-existing and collaborating art styles, more accurately captures the thematic duality of the paper's adapted text.

The Jar, developed between collaborators based in Aotearoa New Zealand and the United Arab Emirates, explores and extends this condition through a divided workflow, in which geographic separation further accentuates stylistic distinction and limits the harmonisation of visual language within the narrative. This approach technique, punctuated and emphasized by distance and time zone, enables each artist's individual stylistic and thematic approaches to remain intact, positioning polyphony as a considered dialogue with equal narrative worth in the same panel, rather than a process of unification.

Through these examples, the paper proposes stylistic polyphony as a framework for understanding collaborative illustration, and as a dialogue method of visual narrative practice, where meaning is intended to be expanded through the interaction of multiple authored visual voices. In

doing so, it can reframe comics and sequential illustration not as a single visual system, but as a ground for negotiated authorship, in which stylistic collaboration polyphony operates as both a structural and narrative agent.

2. Visual Style as Narrative Structure in Comics.

Visual style is a key mechanism in comics, and sequential illustration is central for illustrators of comics as a key mechanism through which narrative meaning is constructed. Postema identifies style as a means of distinction by which one artist may distinguish themselves from another, or a studio develops unified cohesion through many properties of the same license. She argues that style in comics is more complex than style in literature, given the constitutive elements of a comics page are defined not only the way they might sound, read or look, but also by the way they can operate as signifiers in the narrative form (Postema, 2013). Thus, beyond aesthetic choice, style operates as a system that informs tone, genre, perspective and characterization. Through the mechanical manipulation of this system, particularly line, form, and visual language, illustrators can communicate complex narrative information, which also engages the reader's prior knowledge of visual conventions. As Gavalier (2022) and McCloud (1993) argue, comics rely on a reader's active engagement in the text: that is, on the reader's ability to interpret visual signs in sequence, drawing upon their own experience or tacit knowledge to construct meaning from stylized representation. In this sense, style is not incidental but fundamental to narrative comprehension.

Mazzucchelli's *Asterios Polyp* (2009) provides a clear example of style working as a structured narrative system. Throughout the work, distinct visual styles are applied to a range of characters, with obvious and intentional variations in line quality, colour, compositional form, including and supported by dialogue fonts: visually reflecting their differing manner of perception and thought. These systems styles can interact with each other, overtake each other, or combine to create narrative meaning, such as the blending of Asterios' blue geometric structure with Hana's pink, gestural forms to create the homogenous purple of their harmonious marital position (Duncan, 2012). As discussed in the analyses of the text, these stylistic distinctions function as a coherent system of stylistic variation, through which subjectivity is communicated and orchestrated, enabling the reader to differentiate between perspectives— not only through dialogue or action in the narrative, but through the visual form itself. This aligns with Eisner's assertion that comics depend on the reader's stored visual memory and prior knowledge to interpret meaning, enabling stylistic cues to signal shifts in character, tone, and narrative position (Eisner, 1996). In context, style becomes a mechanism for articulating multiple viewpoints within a single authorial framework.

Another use of stylistic variation can be observed in Spiegelman's *Maus* (1986/1991), where the "Prisoner on Hell Planet" section (pp. 104–105) indicates a shift in diegesis as Spiegelman's character "Artie" and his stepmother discuss the comic he'd drawn as a reaction to his mother's suicide. Here, Artie's grief is explored as a comic nested within the narra-

tive itself, in which the art style departs from anthropomorphised animals and simplified linework to distorted human figures rendered in heavily rendered, expressionist-like images. This abrupt, sudden shift concentrates Artie's grief trauma, distinguishing his intensely personal account of his mother's suicide from the metaphorically mediated narrative of his father's experiences during the Holocaust. The Holocaust, which focused on his father's experiences as a prisoner of war and the inherited trauma that continues to affect his family. While *Prisoners* had been published independently to *Maus*, the inclusion of the work within the prevailing narrative only strengthens the distinction between Spiegelman's inner, personal suffering, and the outer, comprehensive trauma of the Holocaust, that both he and his father relate within the metanarrative (Kruger). The change in style functions to disrupt reader expectation and signal a different mode of engagement, foregrounding the emotional immediacy of Artie's account and reminding the reader of the intentional metaphoric system present throughout the rest of the narrative, signaling a different mode of engagement. As with *Asterios Polyp*, this demonstrates how a single author can deploy multiple style systems to differentiate perspective and intensity within a narrative.

However, in both cases, stylistic variation remains authored and internally controlled by a single illustrator. This simulated form of stylistic variation demonstrates. As examined here, that multiple visual voices constructed within a single authorial system are shaped by orchestration rather than negotiation. This distinction is important. While these examples demonstrate indicate that style can function as a narrative system capable of indicating numerous perspectives, they do not account for situations in which stylistic difference variation emerges through the interaction of more than one illustrator. In contrast, collaborative works such as *Dirty Laundry Comics* (Crumb & Kominsky-Crumb, 1974–1977) present a condition in which distinct stylistic voices coexist within the same compositional and narrative space as a result of co-authored collaboration. It is within this shift, from internally controlled stylistic variation to externally produced stylistic interaction, that the conditions and opportunities for stylistic polyphony begin to emerge.

3. Dirty Laundry and the Shared Narrative

Comics as a collaborative practice, where two or more artists contribute to the panels, is evident in comics practice, but there are few examples of works which retain the individual styles of the artists as separate narrative voices, rather than a factor of internally controlled co-creation. Some inspiration may be found in projects which stem from collaborative art experiences, such as the influence of the surrealist *Corps exquis* on Art Spiegelman's *Narrative Corpse* (1995), with the idea that an artist might assert partial control over a shared, yet fragmented, narrative (Boyd).

While many artist duos such as Kerascoët and Gurihiru use divided labour to create an efficient pipeline, others such as Max Andersson and Lars Sjunnesson use co-creation methods for speed as well as creative experimentation. Retaining the individual artist's drawing style as a

mechanic for storytelling is less common —even Andersson’ and Sjunnesson’s work on *Bosnian Flat Dog* (2006) had been reworked and redrawn by each artist to the point where their styles had become inseparable (Invicta Indie Arts), while Dominique Goblet and Kai Pfeiffer’s *Plus si entente* (2014) used indirect collaborative methods to allow their complex, abstract narrative to evolve (Broken Frontier).

Dirty Laundry Comics (Crumb & Kominsky-Crumb, 1974–1977) is a collaborative, autobiographical series of comics in which both authors reflect on their lives together, where each illustrator depicts themselves in the same narrative space, retaining their distinct stylistic identities. While collaboration is a common component of comics production, particularly in the context of larger commercial productions, it is unusual for co-authors to embrace stylistic difference as an intentional counter to lack a sense of unification. In *Dirty Laundry Comics*, both Crumb and Kominsky-Crumb maintain their own distinct visual voices, resulting in a narrative space in which stylistic divergence is not harmonized, but sustained. While both fall subjectively into Witek’s concept of the cartoon mode—that is, an ability for both the art and the narrative to subvert reality, employing stylised forms, redefining physics or logic, usually for the convenience of a story-driven gag— their discrepancies beget an inability to form cohesion, which in turn strengthens the continued dichotomy of two distinct voices embedded in a singular narrative (Witek 2012). In every panel, each artist draws themselves, reflecting their personal style and personality, establishing a direct relationship between stylistic approach and narrative subjectivity. This produces an explicitly autobiographical framework in which visual style suggests personal perspective. Witek frames this relationship as a source of visual tension, where stylistic contrast reflects differing viewpoints, not only in the diegetic narrative, but also toward the individual artists themselves. This inward-outward flow and contributes to the complexity of the narrative text.

There is a clear distinction in the collaboration within the comic and variance is evident in the contrast of the two styles across the page (see Page 32, *Dirty Laundry Comics*, 1974). Crumb’s drawings reflect his characteristic style: they demonstrate a controlled, highly rendered approach with consistent anatomy and detailed environments. In contrast, Kominsky-Crumb’s style is drawings are relaxed, her forms exaggerated and less consistent. Witek notes suggests that aspects of her character’s costume are often utilized as identifying features as her stylized form seems to morph and change freely between panels (Witek, 2012). Crumb’s figures are, rendered consistently and emphasize form, texture and spatial clarity. In comparison, Kominsky-Crumb’s figures are more erratic in line, shading, and proportion and use less variation of pose in their design—, tending to stand either front on or in perfect profile. Backgrounds also bear a distinction in style, with Crumb’s demonstrating greater attention to detail, while Kominsky-Crumb’s remain comparatively minimal.

These differences are not confined to separate sections as with Maus, but appear on the same page, often in the same panel as the character engage converse in dialogue naturally with each other, resulting in

the co-presence of distinct visual systems within a shared compositional space. This tactic brings to the fore a tension suggests a dialogue forming between the contrasting styles, which can then be used to underscore tensions differing perspectives between the characters and the situations they encounter in the narrative. These competing perspectives create a stylistic tension that adds to the comic's autobiographical and intimate nature. Through these stylistic approaches, each collaborator communicates a distinct persona and accompanying perspective, reinforcing the alignment between style and subject position.

Throughout the work, this variance is evident in the contrast of the two styles across the page (see Page 32, *Dirty Laundry Comics*, 1974). Crumb's figures rendered consistently and emphasize form, texture and spatial clarity. In comparison, Kominsky-Crumb's figures are more erratic in line, shading, and proportion and use less variation of pose in their design, tending to stand either front on or in perfect profile. Backgrounds also bear a distinction in style, with Crumb's demonstrating greater attention to detail, while Kominsky-Crumb's remain comparatively minimal. Through these stylistic approaches, each collaborator communicates a distinct persona and accompanying perspective, reinforcing the alignment between style and subject position.

In contrast to the clear stylistic divergence established in that example, another scenario (see on page 28 *Dirty Laundry Comics* (1974)) introduces a more nuanced interaction between the two visual systems. Here, we see a negotiation of stylistic amalgamation occurring. While Crumb and Kominsky-Crumb maintain their distinct styles, their shared use of ink line and repeated figure treatment produces moments of visual cohesion across the page. Kominsky-Crumb's treatment rendering of her own figure now closely resembles Crumb's stylistic approach to drawing women, particularly in the rendering of facial structure and proportion, suggesting instances of stylistic convergence or perhaps influence, rather than separation. This complicates the stylistic tension by conceding visual voice. The correlation between the two styles can be read not solely as a contrast to differentiate one another, but as a form of negotiation within a shared compositional space of the panel and page. Stylistic boundaries are clearly evident, yet they are not hard rules, and there is capacity for adjacency, influence, and space between the two approaches.

Witek (2012) interprets this fluctuating contrast as a form of autobiographical tension, a subjective perception that emphasizes the cartoonish nature of the autobiographical content. Crumb and Kominsky-Crumb are representing themselves; the autobiographical complexity in the narrative is obvious, highlighted by the exaggerated nature of the situations (and the characters' subsequent reactions) to make the comic entertaining. Working within the same space not only differentiates character but also suggests that stylistic variance can operate as a compositional condition.

Unlike works such as *Maus* (Spiegelman, 1986/1991), where stylistic shifts are used sequentially to register a change in the narrative inflection, *Dirty Laundry Comics* (Crumb & Kominsky-Crumb, 1974–1977) handles stylistic difference as simultaneous: where multiple visual voices operate

within the same temporal and spatial frame, rather than only across separate narrative moments. This distinction is important, as it demonstrates that stylistic variation can function as a visual device, and also as part of the sequential progression and the visual condition of the panel.

This simultaneity also foregrounds the question of authorship. In contrast to works such as *Asterios Polyp* (Mazzucchelli, 2009), where stylistic variation is orchestrated by a single illustrator and their vision of the narrative, the differences in *Dirty Laundry Comics* (Crumb & Kominsky-Crumb, 1974–1977) are produced by separate illustrators. As such, the visual contrast is not pre-determined or simulated, it evolves and, then simulated, it becomes embedded in the page as the artwork develops. Authorship then becomes visible through stylistic distinction and the interaction between the two styles directly shapes the narrative.

In this paper, stylistic polyphony is understood as the coexistence of multiple distinct visual languages within a shared compositional space, where each operates as an independent narrative voice with its own formal logic. Unlike stylistic variation within a singular authorial system, these voices are not harmonized but remain in dialogue, producing meaning through their simultaneous interaction. Within *Dirty Laundry Comics* (Crumb & Kominsky-Crumb, 1974–1977), these voices are embodied through the distinct visual language of each illustrator. The panel and page become a site of dialogue in which multiple authored perspectives coexist and interact, continually negotiating without being resolved into a unified style.

As such, *Dirty Laundry Comics* (Crumb & Kominsky-Crumb, 1974–1977) demonstrates how collaboration across stylistic differences, stylistic polyphony, can generate a narrative structure in which meaning emerges through the interaction of multiple visual voices. While moments of negotiation are apparent, stylistic differences remain a defining condition of the work. This raises the question of how workflow divergence affects varying degrees of stylistic negotiation and might shape the relationship between visual voices in collaborative practice.

The collaborative project *The Jar* extends this condition by functioning under a shared workflow in which geographic and process-based separation limits direct stylistic negotiation. In this context, stylistic differences and variances are not moderated by shared production processes but are instead maintained across distance. The result is a more pronounced and sustained divergence between the two visual systems. Collaboration is then positioned through interpretation and dialogue, repeating the process throughout the layered structure through a panel-based approach to create a system where difference is preserved as a narrative strategy.

4. Background to the Study

The study was conceived as an opportunity to collaborate and develop a body of research that celebrates stylistic choices and differences. Both collaborators studied illustration and animation in Aotearoa, New Zealand, and are familiar with each other's work. The clear contrast in their respective work became the focus of the research, exploring how stylistic variation may be leveraged to explore the illustrator's voice and its effect

on a visual narrative, as a polyphony through illustrative styles. One illustration style is brightly upbeat, classically cartoonish, and technically polished with clean graphics; by contrast, the other illustrator uses rough pencil work, textural and atmospheric color, and celebrates the imperfect. It was this contrast that established the spine of the research exploration.



Fig. 2. The Guardian. Illustration by the author (Messam, 2016).



Fig. 1. Crossed Lines, Illustration by the author (Hackett, 2025).

The work of Messam, (fig.2) establishes a moody, atmospheric character intensity which errs on the cusp of malevolent. The work relies on rough sketch work, amalgamated with strong, rendered, and observed detail, to elicit detail and contrast, with sometimes uncomfortable distortion. This work hopes to bring a dark edge to the visual narrative and translate a visual perspective unseen by the characters in the story.

Hackett's work (fig. 1) is diametrically opposed to Messam's. Strong definitive line work, expressive characterizations with a playful nod to classic animation. Hackett's solid-color treatment and clean line work create a distinctive disconnect between the two styles. As such, Hackett's work would convey the characters' assumed innocence and serve as a counterpoint to Messam's grittier translation.

With these guidelines established, finding a subject that aligned with the collaborators' interests and exploration. The mutual interest in Southern Gothic tales led to Ray Bradbury's work. Bradbury's *'The Jar'* tells the tale of Charlie, who purchases a mysterious jar. The jar contains an unknown creature and brings Charlie notoriety and status amongst his peers. The fascination of the jar fuels speculation and culminates in a commentary on envy, obsession, and social power. The story was selected as an adaptation for its ambiguity of character roles and shifting perspectives; the jar manifests and reflects darker themes of human curiosity. As an adaptation, it would support the dialogue and contrast in stylistic treatment between Messam and Hackett.

The adaptation sets the story in rural New Zealand—a familiar landscape to both Messam and Hackett. It sets up a conflict between 13-year-old twins, Charlie and Marty, as they encounter the jar and leverage its fascination to gain social empowerment. The New Zealand rural setting offers the opportunity to juxtapose moody, dark landscapes with the innocence of discovery and the honesty of hard work. It was within this agreement that the story and conceptual development began.

5. The Jar: Process as a Condition

The Jar became a collaborative illustration project developed by the authors of this paper as a practice-based investigation into how graphic polyphony operates within a shared production framework. The project draws on Ray Bradbury's short story *The Jar* (Bradbury, 1963) as a narrative structure, rewritten and reinterpreted through a collaborative visual approach.

Building on the conditions identified in *Dirty Laundry Comics* (Crumb & Kominsky-Crumb, 1974–1977), this project examines how sty-

listic polyphony functions under further collaborative constraints. While *Dirty Laundry Comics* demonstrates co-present collaboration, where artists share both the panel and the page. The shared production conditions allow for a moment of concurrent stylistic negotiation—where differences are maintained but partially mediated through co-presence (Witek 2012). By contrast, *The Jar* operates across geographic separation, with one illustrator based in Aotearoa, New Zealand, and the other in the United Arab Emirates. This distance limits opportunities for direct negotiation and reduces the potential for convergence between visual styles. During this project, a distributed workflow is used, where imagery is developed independently and exchanged asynchronously, while the restriction of real-time correction or adjustments limits the harmonisation between styles. As a result, stylistic differences variations are further preserved, and the interaction between visual systems becomes more pronounced.

Another advance in this method is the participation of two separate authors on a fictional narrative, as opposed to Crumb and Kominsky-Crumb's autobiographical skits. While *Dirty Laundry Comics* may include some fantastical elements and hyperbole in their stories' hijinks, the stories are still predominantly about their own characters, their own selves. In *The Jar*, the characters are interpreted by the individual illustrators and drawn through their own imagining, anchored only by a character sheet as a guideline to ensure there is some form of recognition when the characters shift between artists and positionalities.

Fig. 3. *The Jar*, pp. 2–3. Illustration by the authors (Messam & Hackett, 2026).



This condition of production also supports the authorship within the image, as evident in Figure 3. Each style operates as a mark of its respective contributor, enabling authorship to remain visible and constant throughout the work. Rather than being mediated through a unified visual language, even across medium

(digital vs. traditional) or palette (bright vs. subdued), stylistic differences denote both shifts in the narrative and separate ideas of individual authors. These visual voices coexist within the same narrative space, contributing equally to the story's development.

Through the parameters of this framework, *The Jar* extends the concept of graphic polyphony by demonstrating that collaboration is not only a visual condition but also a process of interaction. The structure of how this project develops – specifically, maintaining stylistic treatment through distributed production—amplifies the presence of multiple visual voices. Meaning emerges from the intentional interaction and the tension these stylistic differences create, rather than from their unification. In this sense, polyphony does not require that unification be effective, but rather operates through the intent to preserve stylistic distinction within the narrative structure.

Conclusion

This paper has argued that when illustrators collaborate and seek to retain distinct stylistic identities within the same panel space, in which style can operate as a visually collective narrative voice. This, which establishes a form of visual stylistic polyphony. In this context, stylistic difference variance is present in comics, not only aesthetic preference, but operates as a method through which authorship becomes visible and active within the image and as a narrative device.

The use of stylistic variation as a narrative device is evident in works such as *Maus* (Spiegelman, 1986/1991) and *Asterios Polyp* (Mazzucchelli, 2009). These examples demonstrate shifts in stylistic treatment that signal changes in emotional register, perspective, or character identity. However, in both examples, these variations are controlled within a single authorial system, simulating multiple visual voices for narrative effect.

By contrast, *Dirty Laundry Comics* (Crumb & Kominsky-Crumb, 1974-77) presents a distinct system in which two illustrators retain their individual stylistic approaches within the same narrative space. Here, stylistic difference variance is not simulated but authored, allowing multiple visual voices to coexist within the same panel. While moments of negotiation are evident, the work demonstrates how collaboration can sustain stylistic distinction while still producing a coherent narrative structure.

The collaborative project *The Jar* extends this framework by introducing distributed production as a determining condition. With a physical geographic separation and a resulting fragmented workflow, opportunities for stylistic negotiation are reduced. This condition leads to a more pronounced and sustained divergence between the visual systems' style and aesthetic treatment. In this context, stylistic polyphony is not only a visual condition methodology but a process that embraces the challenge, emerging through the structure of collaboration itself.

The contribution of this paper lies in reframing stylistic variation as a form of embodied authorship and in proposing stylistic polyphony as both a visual and a process-driven condition-methodology within collaborative illustration. This shifts the understanding of the role of style in comics and sequential illustration from a controlled narrative device to an active site of interaction between distinct visual voices.

Broadly, this paper offers implications for illustration practice, suggesting that collaboration does not require stylistic unification to be effective. Instead, the deliberate preservation of stylistic difference can generate narrative tension, explore perspective, and retain an authorial presence within a shared visual field. As this study progresses, there is potential for pedagogical application, where collaborative drawing and storytelling may enable students to explore style as a form of narrative voice and engage with difference as a productive element of visual storytelling.

References

1. Gavalier, C.: *The Comics Form: The Art of Sequenced Images*. Bloomsbury, London (2022)
2. McCloud, S.: *Understanding Comics: The Invisible Art*. HarperCollins, New York (1993)
3. Eisner, W.: *Comics and Sequential Art*. Poorhouse Press, Tamarac (1996)
4. Mazzucchelli, D.: *Asterios Polyp*. Pantheon, New York (2009)
5. Spiegelman, A.: *Maus*. Pantheon, New York (1986/1991)
6. Crumb, R., Kominsky-Crumb, A.: *Dirty Laundry Comics (1974–1977)*
7. Witek, J.: *Comics Modes: Caricature and Illustration in the Crumb Family's Dirty Laundry*. In: Smith, M.J., Duncan, R. (eds.) *Critical Approaches to Comics: Theories and Methods*. Routledge, New York (2012)
8. Bradbury, R.: *The Jar*. In: *The October Country*. Doubleday, New York (1956)
9. Andersson, M., Ahonen, L.: *Bosnian Flat Dog*. Fantagraphics Books, Seattle, WA (2006)
10. Boyd, B.: *Art and evolution: Spiegelman's The Narrative Corpse*. *Philosophy and Literature* 28(2), 329–353 (2004)
11. *Broken Frontier: Plus si entente – Dominique Goblet and Kai Pfeiffer*. Available at: *Broken Frontier review* (Accessed 12 May 2026)
12. Goblet, D., Pfeiffer, K.: *Plus si entente*. FRMK, Brussels (2014)
13. *Invicta Indie Arts: Exclusive interview to Swedish artist Kai Pfeiffer*, 2 November (2017). Available at: *Invicta Indie Arts interview* (Accessed 12 May 2026)
14. Koçak, K., Sarıkaya, İ.: *Graphic Polyphony in Shaun Tan's The Arrival*. *Journal of Graphic Novels and Comics* 14(3), 396–407 (2023)
15. Kruger, L.: *Panels and faces: Segmented metaphors and reconstituted time in Art Spiegelman's Maus*. *Critical Arts* 29(3), 357–366 (2015)
16. Postema, B.: *Narrative Structure in Comics: Making Sense of Fragments*. RIT Press, New York (2013)
17. Smolderen, T., Beaty, B., Nguyen, N.: *The Origins of Comics: From William Hogarth to Winsor McCay*. University Press of Mississippi, Jackson, MS (2014)
18. Spiegelman, A., Mouly, F. (eds.): *The Narrative Corpse*. Raw Books and Graphics, New York (1995)
19. Duncan, R. (2012). *Image functions: Shape and color as hermeneutic images in Asterios Polyp*. In M. J. Smith & R. Duncan (Eds.), *Critical approaches to comics: Theories and methods* (pp. 43–54). Routledge.
20. Tan, S.: *The Arrival*. Lothian Books, Melbourne (2006)

Textile Support as a Repository of Memories and a Storytelling Medium in the Context of Illustration Practice

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Abstract

Contemporary authors, such as illustrators and visual artists, explore the expressive potential, as well as the symbolic load and connotations associated with textile processes, in order to enrich their artistic projects with the visual and semantic possibilities that this medium offers. This article reflects on the discursive and expressive potential of the textile medium when applied in the context of illustration practice. Building on a brief historical contextualization that will examine the connotations and meanings that have been associated with the technique over time, it will analyze contemporary artists and projects in an attempt to understand how the textile medium benefits artistic processes when used as a means of storytelling. To fully grasp the medium's artistic potential, artistic projects in various formats will be analyzed. The main goal, however, is to further comprehend the usage of this medium in the context of illustration practice, particularly when used for the picture book format. The theoretical framework presented in this article is part of research for the master's degree in Illustration and Animation at IPCA on the discursive qualities of textile processes when applied to illustration practice.

1. Introduction

O livro-álbum possui mecanismos de comunicação muito específicos ao formato, já que “a produção de sentido [no contexto do livro-álbum] apenas se realiza na convergência de duas linguagens - a verbal e a visual” [12]. O material e o meio técnico em que as ilustrações são realizadas têm um papel preponderante na comunicação visual e produção de sentido deste formato. Partindo da premissa de que os suportes materiais e técnicos se colocam como importantes agentes de produção de discurso da ilustração, surge a questão: tendo em conta a natureza específica deste formato, como o suporte têxtil determina o processo significante da ilustração?

De modo a responder a esta questão, o artigo propõe uma reflexão crítica sobre o potencial discursivo do suporte têxtil no contexto da ilustração, analisando de que forma a materialidade, os processos técnicos e

Keywords

Livro-álbum; Arte Têxtil;
Produção de Discurso;
Metáfora Visual; Memória.

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as narrativas simbólicas associadas ao têxtil contribuem para a construção de significado nas narrativas visuais.

Deverá ter-se em conta que, ao longo da reflexão teórica desenvolvida no presente artigo, as expressões utilizadas, tais como “suporte têxtil” ou, simplesmente, “têxtil” se referem a práticas artesanais como o bordado, a costura, o *tricot*, a renda e o *patchwork* [10]. Entende-se por arte têxtil a prática artística que explora o potencial concetual e estético de técnicas e ferramentas artesanais como as listadas acima, de um modo que transcende as suas aplicações meramente funcionais, ressignificando estas técnicas artesanais associadas ao contexto doméstico [10].

O enquadramento teórico exposto neste artigo fundamenta a componente prática da investigação. De modo a aprofundar as possibilidades de resposta à questão que deu o mote à investigação, o projeto prático conta com o desenvolvimento de um livro-álbum que tira partido do suporte têxtil, recorrendo a técnicas como a costura, o bordado e o *patchwork* para o desenvolvimento das ilustrações, como ferramenta de produção de discurso na ilustração.

Assim, o principal contributo da investigação, ainda em desenvolvimento, consiste na articulação entre enquadramento teórico, análise de práticas contemporâneas e desenvolvimento de um projeto autoral, permitindo compreender o suporte têxtil não apenas como meio técnico, mas como agente ativo na produção de discursos, através da construção de um livro-álbum.

2. O Suporte Têxtil como Meio de Contar Histórias

Ao longo da História, práticas artesanais associadas ao universo têxtil, como por exemplo, o bordado, foram tradições presentes nas mais diversas culturas, adquirindo diversas linguagens, propósitos e conotações culturais, conforme o contexto cultural e sociopolítico em que se inseriam. Foi-se consolidando como expressão material do imaginário coletivo de povos e contextos sociais [11], bem como de vivências e de memórias familiares [7].

Analisar as diferentes conotações e os significados que o artesanato têxtil carregou, bem como os processos de ressignificação e adaptação que o foram configurando ao longo do tempo, vem demonstrar o potencial expressivo e discursivo deste suporte, o qual tem vindo a ser explorado por parte de autores contemporâneos.

Intimamente associadas também ao universo feminino, à vivência quotidiana e ao lar, práticas artesanais têxteis tornaram-se um espaço de reflexão de experiências e histórias de vida. Segundo Queiroz [7], o bordado materializa “a afetividade, a memória e a subjetividade”, sendo um espaço de liberdade expressiva que permitia a produção e expressão de memória.

Segundo Queiroz [7], o que designa de “oratória da materialidade” (isto é, a qualidade discursiva do suporte têxtil) não reside apenas no objeto produzido. O processo de criação já adiciona expressividade e implica a produção

Fig. 1. Bordado nos lenços de namorados, originários de Vila Verde.



de discurso. “O bordado artesanal é (...) resultado de um momento em que aquela pessoa que o produziu esteve corporalmente e subjetivamente interagindo com os pontos e os fios de tecido.” [7]



O caso dos lenços de mão bordados, originários da localidade portuguesa Vila Verde, exemplificam como o processo de criação também influencia a produção de discurso de um objeto artesanal.

Os lenços dos namorados, como também são conhecidos, “eram bordados por raparigas e dedicados aos

seus namorados” [11] e parte do vestuário masculino, sendo usados em contextos religiosos ou cerimoniais. Apesar do seu fim decorativo, o lenço revelava-se mais do que um adorno, era como um “repositório de memórias” [7]. Além de simbolizar sentimentos de amor e pertença, o bordado do lenço tem uma outra conotação implícita: materializa o tempo e dedicação despendidos na sua execução, bem como o carinho empregue no gesto.

“Os lenços eram bordados pelas namoradas tendo cada ponto um significado romântico (...). Quando vemos um lenço dos namorados (...) o que deve ficar presente é que aquela materialidade documenta, logicamente, o afeto presente no tecido, mas também documenta o recato, o tempo (vivido no lar) que demandou a execução do trabalho e que aquela mulher esteve no espaço privado durante esse tempo” [7].

Outro exemplo digno de nota são os bordados característicos de Buarcos, povoação de pescadores do Município de Figueira da Foz. Eram aplicados sobre aventais, sendo que as suas referências naturalistas “revelam vivências dos povos locais ligadas principalmente à pesca, mas também às salinas e hortas” [11]. Estes bordados são exemplo significativo de como o artesanato têxtil é responsável por “traduzir culturas e modos de viver” [11], tornando-se símbolo de hábitos e vivências de um povo ou região e, por isso, da sua identidade cultural.

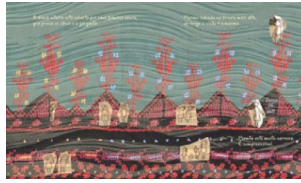
A compreensão destas manifestações históricas do têxtil como repositório de memória e fonte de discurso torna-se fundamental para analisar a forma como artistas contemporâneos se apropriam, ressignificam e expandem esse legado no contexto das artes visuais e da ilustração. De modo a refletir sobre como artistas visuais e ilustradores têm tirado partido do potencial discursivo e expressivo do suporte têxtil, segue-se uma análise de álbuns ilustrados. Analisar-se-ão também obras artísticas de outros formatos, que, por abordarem temas, enunciados e problemáticas relevantes ao nosso campo de atuação, serão de auxílio a fundamentar a investigação que se levará a cabo e a aprofundar a compreensão da sua problemática.

3. O Suporte Têxtil em Obras Contemporâneas

Como primeiro exemplo consideremos o livro *Loose Threads*, da ilustradora Marisol Misenta (1972). A obra segue a história de uma menina que perde muita coisa. Como habita num mundo feito de bordado, tenta encontrar

Fig. 2. Bordados característicos da Figueira da Foz.

Fig. 3. Marisol Misenta, *Loose Threads* (2022), Enchanted Lion.



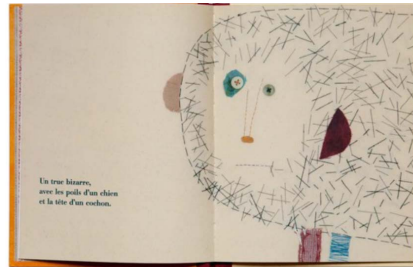
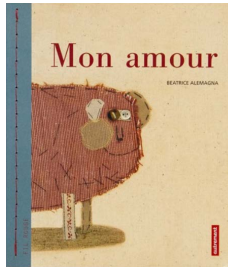
uma explicação para o facto de não encontrar o que perde, imaginando que o mundo em que vive tem algures rasgões, por onde os seus objetos se escapam.

Misenta realizou as ilustrações sobre um xaile tradicional da Palestina, apropriando-se das costuras abertas que

a peça já possuía como ponto de partida para um universo narrativo que gira em torno de alegorias para as noções de subconsciente e imaginação. Mais do que uma escolha estética, esta decisão material introduz uma camada narrativa adicional: o suporte têxtil, já marcado por uma história e identidade cultural própria, funciona como extensão do universo ficcional.

Misenta afirma que no seu trabalho de ilustração procura “uma qualidade expressiva e plástica responsável por evocar algo, comunicar, criar um forte impacto e pela procura de soluções estéticas pessoais, sempre em harmonia com a história que [quer] contar.” [2] A sua obra *Loose Threads*, atingiu estes objetivos graças à utilização do suporte têxtil.

Fig. 4. Beatrice Alemagna, *My Friend* (2008), Night Sky Books.



A obra *My Friend* segue a história de uma personagem que procura enquadrar-se entre os pares e sentir-se amada, refletindo sobre questões de identidade, aceitação pessoal e o que significa ser amado. O seu suporte é inteiramente têxtil, tendo recorrido às técnicas de costura, bordado e colagem têxtil. A personagem que procura ser entendida e reconhecida pelos outros é feita de retalhos de tecido, o que acentua a sua diferença face às restantes personagens. Em determinadas imagens, o seu aspeto assemelha-se ao verso de um bordado realçando a sua estranheza. A pertinência do tecido neste universo narrativo também reside no modo como o calor, a ternura e o aconchego de que falam os tecidos auxiliam a autora a contar a história de uma personagem que procura o sentimento de pertença e de aceitação no seu meio. Neste caso, a costura assume uma função dupla: enquanto técnica, constrói a imagem e enquanto gesto, opera simbolicamente como mecanismo de reconstrução e reparação de identidade.

Atentemos sobre o trabalho autoral de Maria Motyleva como exemplo prático de como a escolha do suporte técnico e material estão diretamente ligados à produção de discurso de uma obra artística. O bordado e outros processos têxteis a que a artista recorre são parte da voz da sua obra, que reflete sobre temas como ligação às raízes familiares, procura pelo sentimento de pertença, identidade e reparo. Já que uma das princi-

pais referências para o seu trabalho artístico é o imaginário que associa a memórias familiares e de infância, recorre maioritariamente a tecidos que já tiveram um passado na sua família como suporte técnico. Assim, em muitas das suas obras, a técnica de bordado coloca-se como fio de ligação ao passado, que conecta os seus imaginário e memórias pessoais às histórias e vida do material com que trabalha, como que colocando passado e presente em diálogo.

O protagonismo que o têxtil tem no seu trabalho também se deve ao vínculo deste material com o universo feminino (pelo passado histórico desta prática artesanal). O suporte têxtil, enquanto processo de produção de imaginário, está implicitamente ligado à vivência, a memórias e a sonhos femininos, já que práticas têxteis representaram para muitas mulheres, ao longo do tempo, um espaço de expressão e liberdade criativa [7]. A prática artística de Motyleva evoca todo este imaginário associado ao objeto têxtil.

A “oratória da materialidade” [7] de que nos fala Queiroz também reside nas qualidades hápticas do têxtil. As texturas de um tecido, como o rugoso, o macio ou o amarrotado são fatores que contribuem para a criação de narrativas visuais. Motyleva tira partido destas qualidades do tecido no seu trabalho artístico que trata de temas relacionados com o corpo feminino, identidade, lar e memória. Um tecido áspero, rugoso ou rasgado pode falar-nos de revolta ou de sentimentos de injustiça, enquanto o macio de uma seda nos remete para o conforto do lar.

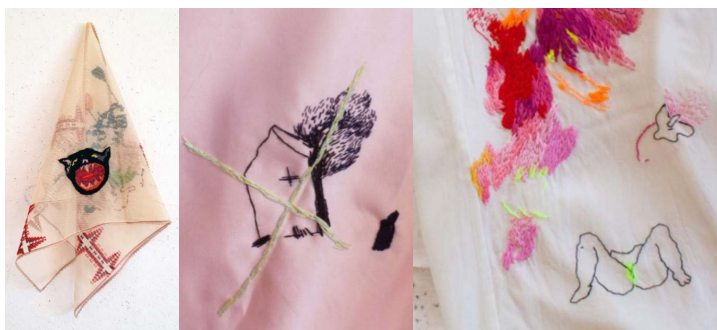


Fig. 5. Maria Motyleva, *Esther's Song* (2021-2022).

Debrucemo-nos sobre a série denominada *Esther's song*. A obra reúne uma série de intervenções de bordado sobre tecidos domésticos e peças de vestuário que pertenciam a mulheres de diferentes gerações e lugares. Uma destas mulheres era uma mulher portuguesa de nome Ester, a que o título da obra faz referência, que removeu o nome do seu marido, após a sua morte, de toda a documentação que tinha em sua posse.

Já que o trabalho reflete sobre questões de desigualdade de género, misoginia e estigmatização do corpo feminino, a escolha do têxtil como suporte técnico, bem como o uso de tecidos que já tiveram um passado, foi crucial. Dado que o bordado está implicitamente conotado com o trabalho doméstico feminino, a presença desta técnica na obra, implicou uma ressignificação da prática do bordado - o processo têxtil, em *Esther's song* incorpora uma metáfora para questões de reparo emocional e reconstrução do passado.

Fig. 6. Xosé Ballesteros, *O Fato Novo do Rei* (2003), Kalandraka.



Atentemos ainda sobre o livro-álbum *O Fato Novo do Rei*, de Xosé Ballesteros (1956), com ilustrações de João Caetano (1962). A introdução de elementos têxteis e outros objetos relacionados ao universo da costura (como botões, fitas-métricas, molas, etc.) nas ilustrações, acionam leituras complementares da imagem, cruzando significados e criando metáforas [6]. A introdução do têxtil nas ilustrações que materializam um

universo que gira em torno de uma peça de vestuário, convoca cenários e ambientes e relaciona conceitos e narrativas, adicionando uma nova camada expressiva e comunicativa às ilustrações. Uma fita-métrica no lugar do bigode do protagonista tem um potencial expressivo diferente do que um bigode desenhado a grafite, por exemplo.

Os exemplos analisados demonstram que o suporte têxtil não atua apenas como superfície ou meio técnico, mas como elemento estruturante da narrativa, capaz de gerar significados através da sua materialidade, das suas conotações culturais e dos processos envolvidos. Esta forma de ver o material será relevante no desenvolvimento do nosso projeto prático.

4. O Projeto Prático

A presente investigação insere-se na investigação baseada na prática artística (*practice-based research*), articulando revisão teórica, análise de obras contemporâneas e experimentação material. A abordagem combina métodos qualitativos, incluindo entrevistas e recolha de materiais de arquivo familiar, com o desenvolvimento de um projeto prático, um livro-álbum, que recorre a processos de assemblagem, colagem e técnicas têxteis. O processo criativo é entendido como espaço de experimentação e reflexão crítica, permitindo analisar o papel da materialidade na produção de discurso na ilustração.

Assim, a criação do livro-álbum parte de um estudo sobre o trabalho de costura e respetivo processo criativo da avó da autora, costureira de profissão, sendo uma investigação também de cariz qualitativo e autobiográfico. Com o intuito de recolher histórias de vida e memórias da avó da autora e, assim, adquirir uma base sólida para a construção da narrativa, realizaram-se entrevistas semiestruturadas e não estruturadas com a avó da autora e recolheram-se também outros materiais de herança (como revistas e acessórios de costura, álbuns de fotografias de família, cartas e cadernos de receitas).

Entre os seus trabalhos de costura, destacam-se aventais e sacos criados com tecidos reaproveitados de peças de vestuário e têxtil-lar, em fim

de vida útil ou que já não se adequam ao seu propósito original. Tal como os lenços dos namorados, estas peças de costura são objetos funcionais que carregam histórias invisíveis. Estão altamente associadas às ideias de ecossistema de memórias, renovação e assemblagem, já que, por serem criadas a partir da recontextualização e renovação de material que já teve uma vida, são agentes portadores de memórias e histórias da família que passam de geração em geração.

No contexto desta fase de investigação de campo, também se recolheram tecidos da avó da autora, que serão o material a utilizar na conceção das ilustrações. Deste modo, o processo de criação do álbum associará processos de assemblagem a processos têxteis, como agentes de criação de discurso e significado.

4.1 Produção de discurso em processos de colagem e assemblagem

O processo de criação do álbum também reflete sobre o potencial discursivo em processos de assemblagem e descontextualização de material, já que, por um lado, processos de assemblagem e descontextualização marcam o processo criativo dos trabalhos de costura da avó da autora, alvo de estudo desta investigação. Por outro lado, o desenvolvimento das ilustrações para o livro-álbum apoia-se em processos de recolha, descontextualização e assemblagem de material como ferramentas de produção de discurso visual e “enriquecimento estético e semântico” [4] - o uso de tecidos de herança da avó da autora reforçará a dimensão alegórica da narrativa sobre memória, herança e ligação às raízes familiares.

As autoras Gannon e Fauchon [5] referem como atividades tais como colecionar, arquivar e combinar objetos e materiais encontrados são processos relevantes para a prática da ilustração. Coleções e arquivos podem tornar-se repositórios de ideias que, mais tarde, irão alimentar processos criativos. [5] Ao discernir o potencial narrativo de objetos e materiais, um ilustrador poderá questionar-se sobre como a sua assemblagem e justaposição pode informar processos de experimentação e pesquisa visual.

Martins explica como colecionar e arquivar objetos pode ser importante para alimentar um processo criativo, referindo o exemplo da poetisa Szyborska (1923-2012). [8] Conhecida pelas suas grandes coleções de “postais antigos e muitos recortes” [8], a poetisa reconhecia este tipo de práticas como crucial para impulsionar processos criativos. Martins, Gannon e Fauchon estão de acordo ao afirmarem que recolher e acumular objetos e materiais são atividades que têm o potencial de fomentar processos de associação livre, justaposição e combinação de elementos e, por isso, enriquecer processos de significação, desenvolvimento concetual e experimentação material [8], [5].

Gannon e Fauchon adicionam ainda outro motivo por que este tipo de processos são relevantes à prática da ilustração. Segundo estas, objetos descontextualizados removidos da sua função original, quando incorporados num trabalho de ilustração, segundo processos de colagem e assemblagem, têm o potencial de evocar conceitos, emoções ou narrativas, trazendo à ilustração novas dimensões de significado e influenciando

a forma como comunica [5]. Como foi demonstrado na análise das obras *O Fato Novo do Rei* (2003) e *Esther's Song* (2021-2022).

Diane Waldman define a técnica de colagem como o ato de colar vários materiais numa superfície plana e a assemblagem como o processo de justapor ou agregar materiais orgânicos ou pré-fabricados, bidimensionais ou tridimensionais, que se projetam para fora do plano da superfície [13].

Waldman vai de encontro ao pensamento de Gannon e Fauchon no modo como descreve o processo signifiante das técnicas de colagem e assemblagem. Fragmentos da vida e do quotidiano, quando incorporados numa obra, podem sobrepor diferentes camadas de significado. Transportam para uma narrativa, primeiro, a sua identidade original; segundo, o significado que adquirem em associação com outros objetos ou elementos e, ainda, o significado que geram como resultado da sua metamorfose numa nova entidade. É desta forma, justapondo elementos de diversos contextos, que processos como a colagem e a assemblagem remetem para o que é temporário e efêmero e sugerem deslocamentos de tempo e espaço [13].

O projeto prático utiliza estes processos de assemblagem e colagem em associação a processos têxteis como ferramentas de produção de discurso. Processos têxteis são muitas vezes associados aos processos descritos por Gannon e Fauchon de recolha, coleção e assemblagem, como no caso da obra *Esther's Song*, de autoria de Maria Motyleva. Nesta obra, o imaginário associado ao têxtil, que reúne ideias de cuidado, memória e identidade, combinado com as ideias de recuperação e remendo presentes no processo de assemblagem geram uma nova camada de significado na obra sobre reparo emocional e recuperação do passado.

A componente prática desta investigação concretiza a seguinte reflexão: que significados e conotações se pode gerar nas ilustrações de um livro-álbum quando se associam processos têxteis a processos de assemblagem?

Conclusão

Neste artigo, refletimos sobre a pertinência da aplicação do suporte têxtil no contexto da prática da ilustração, considerando as suas qualidades expressivas e semânticas. Com base na análise de diversos autores e projetos artísticos e considerando o imaginário e as ideias a que este material é associado, constatámos que através de metáforas e alegorias que permite acionar, tem o potencial de reforçar narrativas e exponenciar o carácter comunicativo nas imagens de um livro-álbum.

Esta investigação também veio revelar que, em parte, as conotações e imaginário de que o têxtil é dotado, e dos quais autores contemporâneos tiram partido, se deve ao passado histórico de técnicas e processos associados ao universo têxtil. Assim, a compreensão de manifestações históricas do têxtil, bem como as diversas linguagens, propósitos e conotações culturais que a técnica foi adquirindo ao longo do tempo, foi fundamental para analisar a forma como artistas contemporâneos ressignificam e se apropriam da técnica no contexto das artes visuais e da ilustração.

A par do progresso do projeto, contamos ainda aprofundar a pesquisa e a revisão bibliográfica no sentido de continuar a enriquecer a investiga-

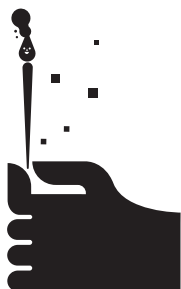
ção e a sustentar os seus desenvolvimentos futuros. Com o desenvolvimento do projeto prático, iremos explorar como processos associados ao universo têxtil, através das metáforas e alegorias que as suas qualidades discursivas e expressivas têm o potencial de desencadear, poderão contribuir para a criação de uma narrativa de um livro-álbum que aborda temas de herança, memória e ligação às raízes familiares e que representa a vida como uma extensão das histórias de quem nos antecedeu.

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Referências

1. Alemagna, B. (2010). *My Friend*. Night Sky Books
2. Arteaga, M. Á. P. (2023). *How Ideas are Born: Illustrators on Creative Processes* (1ª ed.). Hoaki Books.
3. Ballesteros, X. (2003). *O Fato Novo do Rei* (1ª ed.). Kalandraka.
4. Batista, C. (2021) *Construção de personagens em materiais têxteis: performance em animação stop motion*. [Dissertação de mestrado, Instituto Politécnico do Cávado e do Ave]. Recuperado de cienciapca.ipca.pt.
5. Gannon, R., & Fauchon, M. (2021). *Illustration Research Methods* (1ª ed.). Bloomsbury Visual Arts.
6. Godinho, J., & Filipe, E. (2008). *Ilustrações.pt: Ilustração Portuguesa para a Infância* (1ª ed.). Direção Geral do Livro e das Bibliotecas.
7. Queiroz, K. (2011). *O Tecido Encantado: o quotidiano, o trabalho e a materialidade no bordado*. [Tese de Doutoramento, Centro de Estudos Sociais da Faculdade de Economia da Universidade de Coimbra].
8. Martins, I. M (2021). *Como Ver Coisas Invisíveis* (1ª ed.). Planeta Tangerina.
9. Misenta, M. (2023). *Loose Threads*. Enchanted Lion.
10. Searle, K. (2008). *Knitting art: 150 innovative works from 18 contemporary artists* (1ª ed.). Voyageur Press.
11. Silva, L. (2021). *Do bordado tradicional ao contemporâneo: processos de ressignificação*. [Dissertação de Mestrado, Departamento de Artes da Faculdade de Artes e Letras da Universidade da Beira Interior]. Recuperado de ubibliorum.ubi.pt.
12. Sobral, C. (2012) *A gramática no álbum ilustrado* [Dissertação de mestrado, Universidade de Évora].
13. Waldman, D. (1992) *Collage, Assemblage, and the Found Object* (1ª ed.). Harry N Adams



Grotesque: The Encounter of Violence and the Erotic in an Original Ero-Guro Comic

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Keywords

Ero-Guro; Banda-Desenhada; Violência; Erotismo; Intensificação; G. Bataille.

Abstract

The search for the connection between violence and erotism is born out of the curiosity regarding how both are themes with a strong presence in the horror genre, more specifically erotic horror. Recognising the importance of these elements as well as of their context, an analysis is made to create an understanding of Ero-Guro, both of its existence in its historical and sociocultural context as well as in its artistic genre, more specifically in manga. With this idea established, the research work presented focuses on a state of the art on what Ero-Guro represents and how it can be inspiring for an artistic work that intends to question what makes the images shown and seen attractive and, simultaneously, repulsive, and what are the moral and visual limits that can exist in the creation of an artwork of this kind. The final objective of the research underway will be the creation of a comic/manga that will express the connection between violence and erotism in an original way and that reflects the investigation now presented.

1. Introdução

Quando se pensa em horror, no espaço artístico e numa visão generalizada, existe um universo de múltiplas abordagens dentro do género pela sua abrangência, universalidade e longo contexto histórico. Podemos referir, como exemplos mais imediatos, as pinturas cruas e grotescas de Francis Bacon (1909-1992), o filme *O Gabinete do Dr. Caligari* (1920), como exemplo paradigmático no expressionismo alemão, ou, mais recentemente, o trabalho cinematográfico de Guillermo del Toro (1964-) com a sua adaptação de *Frankenstein* (2025).

Procurando por outros subgéneros dentro do género de horror, encontra-se o Ero-Guro Nonsense, um termo japonês que se encaixa dentro do horror erótico por abordar os temas, como o seu próprio nome indica: o erótico, o grotesco e o *nonsense*. A partir deste universo, procuraremos entender o que ele representa no seu contexto histórico e sociocultural, especificamente o que se destaca dentro do universo do mangá, e que possibilidades existem quando se analisam estes trabalhos artísticos através de uma visão fundamentada pela teoria da economia libidinal de Georges Bataille (1897-1962).

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Este estudo pretende também criar não só um entendimento sobre o erótico, o grotesco e *nonsense* (do potencial dos termos considerados individualmente para uma melhor compreensão da sua junção), como também relacionar estes termos de maneira a desdobrá-los, levando à criação de novas possibilidades/propostas de um corpo produzido a partir de transgressões (no sentido da ideia de um *pós-corpo*) e como essas podem ser aplicadas num trabalho criativo original que está em desenvolvimento.

2. Erotismo e Violência através de uma visão Bataillana

O erotismo é, por definição, a “Qualidade do que é erótico; Manifestação explícita da sexualidade; Grau de excitação ou de prazer sexual⁴.”, passando o termo erótico a ser definido, por sua vez, como sendo “Do amor sensual ou a ele relativo; Licencioso; Libidinoso⁵”. Esta primeira procura de definir diretamente os dois termos, erotismo e erótico, serve para abrir caminho para um melhor entendimento sobre os dois termos (que estão relacionados de maneira intrínseca, visto que “erotismo” engloba o “erótico”, este último, associado como adjetivo, indica tudo o que caracteriza um objeto/coisa como despertador de desejo sexual). Para criar essa abertura, George Bataille (1962) [2] serve como fonte primeira para discorrer sobre o erotismo e a sua origem, bem como sobre os modos da sua manifestação no humano. Através desta abertura conceptual, passar-se-á ao reconhecimento da ligação existente (e inerente) entre a violência e o erótico.

Para George Bataille o erotismo é um aspeto da experiência interior do Homem, contrastada com a sexualidade do animal por trazer ao de cima o questionamento do “ser” do Homem à sua consciência; assim sendo, afirma que a atividade sexual do ser humano não é necessariamente erótica, mas torna-se erótica quando não é rudimentar e puramente animal. (George Bataille, 1962, p.29) [2]

Neste ponto de vista, Bataille explica que o erotismo nasce quando o Homem começa a trabalhar tecnicamente (através da criação de ferramentas e do seu uso como modo de sobrevivência). Esta função, que o faz consciencializar-se da sua existência distanciando-o do animal e, por consequência, essa tomada de consciência fá-lo aperceber-se do limite da sua longevidade – e da morte como fim.

Da ideia de trabalho Bataille identifica restrições impostas pelo Homem a si mesmo – o tabu, que implica quer a morte, quer a atividade sexual. Tal é a força que regula e limita a sexualidade, fazendo o ser humano deslocar-se de uma sexualidade *sem vergonha* para uma sexualidade *com vergonha*. Neste sentido, o tabu é um mecanismo que se intromete com o consciente do ser humano e só pode funcionar se for observado com o sentimento de medo (o medo de transgredir, de quebrar e ultrapassar o tabu) para balançar a função de desejo: a função principal do tabu é, em suma, combater a violência. (*Ibidem*, pp.30-37)

4 Definição do dicionário Priberam (<https://dicionario.priberam.org/erotismo>), consultado a 24 de março de 2026.

5 Definição do dicionário Priberam (<https://dicionario.priberam.org/er%C3%B3tico>), consultado a 24 de março de 2026.

A violência, para Bataille, é definida como “o que o mundo do trabalho exclui com os seus tabus (...) implicando a reprodução sexual e a morte” (*Ibidem*, p.42), sendo as ferramentas de trabalho a prova da oposição do ser humano contra a violência, os indícios de civilização, com tudo o que isto implica: controle, limite, regra, lei.

No entanto, o trabalho não é a única prova de uma oposição contra a violência – o ato de enterrar um morto também a combate. A morte foi e é reconhecida como uma forma de violência, de uma força *terrível, assustadora e sobrenatural*, que consciencializa essa transição do corpo vivo para o corpo morto. Desta maneira, o tabu apodera-se do Homem vivo que observa o corpo morto, impondo uma distância entre os dois através do horror da morte e, por consequência, leva à preservação do corpo, evitando que mais violência seja imposta sobre ele (o enterro de um corpo protege-o de ser consumido e destruído por animais selvagens e ferozes) ao mesmo tempo que protege quem ainda vive da contaminação, da decomposição e do horror de observar o morto. Por fim, o tabu também tem a função de ser uma barreira contra o desejo destruidor do ser humano, o de matar outro sobrevivente, eis o tabu sobre o homicídio, com grande poder universal sobre a violência. (*Ibidem*, pp.42-47)

É através dessas restrições (da proibição) que a violência é eliminada, pois os impulsos violentos (contando os que correspondem às pulsões sexuais) destroem a ordem e a paz do ser humano, essenciais para o conhecimento em comunidade. O ser humano tem de sofrer angústia quando viola o tabu com vista a uma transgressão completa. Concluiu-se, assim, que a experiência do erotismo obriga, da parte do sujeito, a uma sensibilidade interiorizada para com a angústia, sentimento que é central ao tabu, e igualmente relevante para o desejo que o leva a infringi-lo, sendo este desejo de infração sempre fortemente ligado ao terror, prazer intenso e angústia (*Ibidem*, p.38).

3. Ero-Guro (Nonsense)

O *Ero-Guro Nonsense*, ou encurtado para *Ero-Guro*, é, de uma forma direta e simples, um termo japonês que se encontra dentro do género do horror-erótico por abordar e misturar temas dentro do erótico, do grotesco e do

nonsense (absurdo e sem sentido). É preciso, no entanto, desdobrar esta definição simples para melhor compreender as camadas existentes quando se fala deste termo.

De acordo com April Goehrke (2018) [8], o termo *Ero-Guro Nonsense* tem uma história longa e complicada, cujas conotações se alteram mediante o interlocutor; no entanto, afirma Goehrke, para um certo grupo de entusiastas, o termo *Ero-Guro Nonsense* irá recordar um grupo de artistas e *mangakas* cujo trabalho artístico expõe uma estética visual grotesca e um humor bizarro. (Goehrke, 2018, p. 1)

Fig. 1. “Murder of Ohagi by Saisaburô”, Twenty-eight famous murders with verse (1867).



Corroborando esta posição, Camille Bertherat (2017) [3] afirma que nos dias atuais existem duas definições: Ero-Guro Nonsense como um conceito abrangente que expressa um período e as suas transformações nos tempos modernos, sendo esta definição mais utilizada no Japão; a segunda definição, de um modo mais restrito, refere-se a Ero-Guro como um movimento artístico e foca-se nas produções artísticas do período *Showa* e *Heisei* – na literatura, com os romances de Edogawa Ranpo, nos desenhos de Toshio Saeki ou Suehiro Maruo, e também no cinema e no teatro com os trabalhos de Teruo Ishii. (Bertherat, 2017, p. 6)

Para poder facilitar a distinção deste termo enquanto fenómeno cultural e representação de um tempo de grandes mudanças somente específico do Japão e o uso do termo enquanto género artístico nos dias atuais, passar-se-á a utilizar a forma curta - Ero-Guro - em referência ao género e vice-versa.

3.1. Contexto histórico-social – Japão



De acordo com Camille Bertherat (2017) [3], há registos de que as origens do Ero-Guro terão sido influenciadas pelas obras eróticas do Período Edo (1603-1868), mais especificamente nos *Shunga*⁶ (Fig. 2), enquadradas na produção artística dos *Ukiyo-e*⁷ – um elemento essencial no erotismo dentro da sociedade japonesa daquela

Fig. 2. Katsushika Hokusai (1815) “Os Dois Amantes”.

época (tanto homens como mulheres de várias faixas etárias procuravam e tinham o prazer de ver este tipo de imagens eróticas e/ou pornográficas). Com os avanços técnicos da xilogravura durante este período, a produção de tais imagens não só se tornou mais fácil de concretizar como também facilitou e permitiu a sua reprodução em maior escala e respetiva distribuição para todas as classes sociais. Os *Shunga* tinham também uma vertente humorística, sendo possível encontrar elementos de paródia nas situações representadas, sendo estes *Shunga* então também denominados *Warai-e*⁸. (*Ibidem*, pp. 10-11)

De acordo com Verônica Guimarães Brandão (2015) [4], mais para o final do Período Edo surgem os *Muzan-e*⁹ (Fig. 1), de natureza violenta, integrando ainda uma outra vertente – os *Chimidoro-e*¹⁰ –, sendo que é na união destas duas facetas que assenta a base do Ero-Guro. (Brandão, 2015, p. 4)

Dado este contexto prévio demonstrativo das raízes artísticas do género, o Ero-Guro Nonsense, enquanto terminologia, surge e caracteriza-se histórica e socioculturalmente a partir de dois períodos-chave: as décadas de 1920 e 1930 (Período *Taisho* e começo do Período *Showa*) e entre 1926 até 1989 (Período *Showa*).

6 Em japonês 浮世絵 – Traduzido para “Retratos do mundo flutuante”, e foi utilizado para descrever um género de arte entre o século XVII e o século XIX.

7 Em japonês 春画 – Traduzido literalmente para “Imagens da Primavera”, e refere-se a pergaminhos, xilogravuras, esculturas e desenhos eróticos.

8 Em japonês 笑い絵 – Traduzido para “Retratos engraçados” ou “Retratos de riso”.

9 Em japonês 無残絵 – Traduzido para “Imagens cruéis” ou “Gravuras sangrentas”.

10 Em japonês 血塗絵 – Traduzido para “Imagens manchadas de sangue”.

De acordo com April Goehrke (2018) [8], o Ero-Guro Nonsense destaca-se nas décadas de 1920 e 1930 como um fenómeno cultural parcialmente resultante do influxo da importação de produtos ocidentais para o Japão depois da Iª Guerra Mundial. Esta “ocidentalização” do país revolucionou a forma como a sociedade japonesa adotou a “*exploração do depravado, do bizarro, e do ridículo*” (Reichart, 2001, p.114, citado em Goehrke, 2018, p.22), com os cidadãos a participarem nos clubes de dança, a ouvirem *jazz*, a lerem obras de romance policial *nonsense*, e ainda o nascimento dos *salaryman* e das *modern girls*, que deambulavam pelas ruas de Ginza sem rumo. O foco não estava então centrado em possuir roupas ou outros produtos, ou até mesmo em desfrutar do filme que foi visto, mas sim no ato de comprar, na prazerosa habilitação de poder consumir, em especial, e ativamente, consumir o que era estrangeiro (mais especificamente, proveniente dos Estados Unidos da América) (*Ibidem*, p. 22).

Verônica Guimarães Brandão (2015) [4] observa que é no começo de 1930 que o conceito de Ero-Guro Nonsense começa a manifestar-se no Império Japonês, com os temas erótico-grotescos a ganharem relevância em ilustrações, movimentos artísticos e literários. O uso artístico de Ero-Guro, nesta década, era uma resposta às pressões económicas e políticas que haviam começado a ser impostas ao Estado japonês, que, por outro lado, estava cada vez mais militarizado.

Como sublinha ainda a autora [4], durante o Período *Showa* o Japão caracterizava-se pelo seu totalitarismo político, ultranacionalismo e pelo imperialismo militar. Ao mesmo tempo, o país tornou-se altamente mercantilista, e o sexo, um produto: mulheres e crianças eram vendidas. Como tal, o Ero-Guro surge como reflexão deste período de total degradação. Foi durante a Guerra do Pacífico (1932-1945) que se viu o quão longe este “produto” foi explorado: tanto jovens japonesas, como, principalmente, jovens oriundas de países sob domínio imperial japonês foram raptadas/enganadas com ofertas



Fig. 3. Suehiro Maruo (2003) Capa do livro “Mr. Arashi’s Amazing Freakshow” (versão japonesa).

de trabalho, sendo brutalmente exploradas sexualmente nos denominados *postos de conforto* (sendo que as mulheres aí estabelecidas eram designadas como *mulheres de conforto*). (*Ibidem*, pp. 1-3)

O Período *Heisei*, que vai de 1989 a 2019, época onde o mangá Ero-Guro ganha relevância, com o surgimento de obras de Suehiro Maruo (Fig.3) e Shintaro Kago (Fig.4 e 5), criadores que começaram a trabalhar no circuito *underground*, em revistas pornográficas ou publicações independentes, cujas obras se encontram hoje reconhecidas e expostas em galerias. (Goehrke, 2018, pp. 32-33) [8]

Surge, por fim, o Período *Reiwa*, o momento contemporâneo no qual nos enquadrámos actualmente. Deixaremos o estudo deste período em aberto neste artigo para posterior análise.

3.2. Caso de Estudo – Suehiro Maruo e Shintaro Kago e os seus mangás Ero-Guro

Existem dois artistas que se destacam por moldarem o género como o conhecemos: Suehiro Maruo e Shintaro Kago.

Suehiro Maruo nasceu em Nagasaki, em 1956, sendo criado em Shimahara, uma cidade então conhecida como sendo desprovida de cultura. Mudou-se para Tóquio assim que terminou o terceiro ciclo escolar. Aos dezassete anos fez as primeiras tentativas de entrada no mundo do mangá ao submeter o seu trabalho na *Shonen Jump* (Revista de mangá popular para rapazes jovens), sendo, no entanto, rejeitado, o que o levou a desesperar e pensar que o seu estilo nunca seria aceite por um público não especializado. Em 1980, Maruo publica na revista pornográfica *Eros 81* uma pequena banda-desenhada intitulada “*Ribbon Knight*”. Por ter iniciado o seu trabalho num espaço *underground* e independente, teve a possibilidade de se expressar num estilo próprio e de experimentar narrar histórias sem ter de se preocupar em criar para um público específico. O seu trabalho mais famoso é *Shoujo Tsubaki* (fig.3), mais conhecido internacionalmente como *Mr. Arashi's Amazing Freak Show*, de 1984, que teve múltiplas adaptações, tanto em filmes de animação como em filmes *live-action*, sendo a obra que inscreveu o nome de Maruo como representante da subcultura dos anos oitenta no Japão. Maruo continua a publicar, mas as suas obras mais reconhecidas são as do início da sua carreira (Goehrke, 2018, pp.31-33).



Para compreender de um modo mais aprofundado o trabalho de Suehiro Maruo, é imperativo voltarmos a George Bataille, que é uma das grandes influências deste mangaká, particularmente pela visão que Bataille partilha sobre o erotismo e a violência. Esta ligação entre os dois autores é explícita quando comparamos o primeiro capítulo de *A História do Olho* (1928) [1] de Bataille com o conto *Receita para uma sopa de merda* (1982) de Maruo.

As duas obras assemelham-se em vários aspetos: ambas têm personagens jovens que estão à procura de intensificar os atos sexuais e perversos, elevando o prazer a cada transgressão que cometem para combaterem uma angústia presente; ambas utilizam o prato como objeto transgressivo (na história de Bataille, a personagem feminina senta-se sobre ele para deixar leite escorrer pelas suas nádegas e pernas enquanto o personagem masculino observa e masturba-se; já no conto de Maruo os três personagens principais defecam e degustam das suas fezes com prazer); E, principalmente, o olho apresentado como objeto de primazia.

Fig. 4. Shintaro Kago (2004) Páginas do conto “Collector 1” do livro *Fetus Collection*.

Este uso recorrente do olho e da sua simbologia em ambas as obras é inteiramente intencional, não só porque este olho se torna num objeto erótico de primeiro plano que tenciona intensificar o prazer da transgressão feita e apresentada (aproximando-se ou até chegando ao ápice da morte), mas também porque é o elo de ligação que permite entender o poder da *transcrição* de Maruo (tradução/ transdução imagética) da obra de Bataille (o original escrito), dando ao leitor/ observador um novo sentido do objeto que, antes do seu *uso* transgressivo, imoral, obsceno, pervertido – o seu novo significado – era um objeto que carenciava de poder erótico: era um signo sem significado (Drummond, 2015) [7].

O outro exemplo de referência é Shintaro Kago, que nasceu em Tóquio, em 1969, tendo publicado o seu trabalho pela primeira vez na revista *COMIC BOX*, em 1988, oito anos depois de Maruo ter feito a sua estreia. Desde então, Kago publicou vários tankoubon¹¹ e realizou (e continua a realizar) pequenas exposições em galerias nas áreas de Kantou e Kansai, participando ainda na organização de eventos como o *Ero-Guro Illustration Battle*, onde ele e outros participantes “competem” para desenhar ilustrações baseadas nas propostas aleatórias dadas pelo público. Para além destes, Kago é responsável pela organização de um festival de cinema competitivo semianual intitulado *Unko Festival* (Festival da Merda), que vai de encontro ao foco que o artista coloca na coprologia no seu trabalho artístico. (Goehrke, 2018, pp.33-34) [8]

No capítulo “*Collector 1*”, do livro *Fetus Collection* (2004), o autor conta a história de uma rapariga que coleciona tudo aquilo em que a sua *paixoneta* toca, a coleção começa com objetos comuns (um giz, a haste de uma caneta, o cabo de um guarda-chuva), aumentando gradualmente o grau de absurdo no que toca à qualidade colecionável desses objetos (alças de mão de um comboio, a parte almofadada de um plinto, o manípulo de uma torneira), até chegar ao auge na faceta mais grotesca da narrativa (extrair um pedaço de um gato e retirar pedaços de pele das namoradas da sua *paixoneta*).

Destaca-se aqui o movimento erótico-violento evidenciado na figura 4: a fantasia da rapariga que precisa de talhar a pele para conservar e colecionar aquilo onde a sua *paixoneta* tocou (ou, como se pode ver mais adiante, onde deseja ser tocada), aumentando a ideia batailliana de transgressão como fim para a exaltação do erotismo da cena. Existe angústia, não pela parte da personagem que se mutila, mas sim pelo leitor que observa o ato, e a constante quebra do tabu (correspondendo ao que são ações socialmente aceitáveis) faz com que a violência expressa através dos desenhos sangrentos a preto e branco, a abertura e fissura da carne apresentada diretamente ao leitor intensifique o desejo que a personagem sente e expressa, intensificando a sua carga emocional.

3.3. Erótico, Grotesco e Nonsense como Intensificação

Havendo estabelecido anteriormente uma visão do erótico através de Bataille (ou, pelo menos, uma passagem sobre a sua definição no con-

¹¹ Em japonês 単行本, traduzido para livro independente; refere-se a um livro que não faz parte de uma antologia, sendo mais frequentemente utilizado para referir volumes individuais de uma série de mangá (Gravett, 2004, p. 8, citado em Teixeira, 2023, p.53) [11].

texto do erotismo), é interessante perceber de que modo o erótico, o grotesco e o nonsense se relacionam, procurando deslindar primeiramente o significado individual de cada termo.



Fig. 5. Shintaro Kago (2009) *How to Suicide*.

Anthony Burgess (1986) [5] descreve o *nonsense* como o que falta de sentido, explicando que “por sentido, não queremos dizer o que o sentido aceita, mas o que parece lógico para o cérebro”, sendo o sentido “a organização lógica de itens que são conhecidos por alguém, senão por todos”. (*Ibidem*, p.17) Por outras palavras, entende-se que, numa primeira abordagem, o *nonsense* parece ilógico, mas não o é, e, na verdade, está dependente de que o *sentido* do *sem sentido* seja algo reconhecível por um todo para a identificação do que está a faltar da lógica e da coerência sistemática que o ser humano

faz. De acordo com o mesmo autor, o próprio termo *nonsensical* equivale ao termo *surrealistico* para os franceses – como o próprio termo aponta, é algo que ultrapassa o real, a realidade vivida –, referindo-se ao movimento surrealista do século dezanove e ao ato de os surrealistas colocarem a lógica a dormir “permitindo que o cérebro liberado crie estruturas a partir de uma associação livre” (*Ibidem*, pp.18-21). Ou seja, o ato de criar *nonsense* é uma escolha – feita de um modo livre, onde existe uma habilidade de criar associações (palavras, imagens) desprovidas de uma linha lógica de sentido entre si, mas que acaba por conceber algo que terá algo a dizer na própria colisão dos termos, algo a analisar, como o próprio Burgess afirma:

“Nonsense, sim, mas há algo no fundo do meu cérebro inconsciente que não (me) permite que o sentido fique totalmente ausente. (...) Não acho que seja tão fácil produzir nonsense genuíno.”¹²

O autor conclui que nonsense é, então, “a forma bizarra de fazer sentido”, o absurdo a trabalhar por si e em si para produzir novos significados. (*Ibidem*, p.21)

Quando se volta o olhar para a definição de grotesco, existe uma ampla história à volta do termo e uma grande abrangência do seu uso (principalmente na arte). Para simplificar e poder utilizar uma definição direta, entende-se que grotesco se refere, etimologicamente, à caverna ou à gruta (“*grotto*” é a raiz latina, que tem origem no grego “*krypte*”, que significa lugar oculto): criptografia. [10]. No entanto, o uso corrente (moderno) do termo “grotesco” está frequentemente associado ao absurdo, ao excesso, à desfiguração e à crueldade, ou ainda ao hibridismo das formas que causam repulsa a quem as observa. De acordo com Júlia Almeida de Mello (2020) [10], citando Harpham (2006), o grotesco aparece como

¹² Tradução para português livre. Originalmente: “Nonsense, yes, but there is something at the bottom of my unconscious brain that will not allow meaning to be altogether lacking. (...) I do not think it is all that easy to produce genuine nonsense.” (Burgess, 1986, p.21)

fenómeno em várias vertentes como “o maneirismo, o decadentismo, o barroco, a metafísica, o absurdo, o surreal, a ironia, a sátira, a caricatura, a paródia, o carnaval e a dança dos mortos” (Harpham, 2006, p.58), sendo possível entender a sua dimensão e a dificuldade em situá-lo apenas num espaço ou numa definição fixa. O objetivo do grotesco (visto através do género Ero-Guro) pode ser definido, pelas palavras de Júlia Mello, como o que “incomoda, chacoalha o senso comum, a moral, a civilidade e os bons costumes, reverberando os excessos, tomando novas formas, assumindo a anomalia e a estranheza”, onde se criam “corpos desobedientes, desenquadrados, desarticulados, que insistem em comprometer a harmonia da «perfeição», os modelos de representação, o autoritarismo das formas, os fascismos em todas as suas extensões” (Ibidem, p.69).

Estando estabelecida uma abertura de ligação entre as definições, volta-se o olhar para as entrevistas que April Goehrke (2018) [8] realizou com os dois artistas aqui destacados, onde a autora perguntou como ambos definiriam os termos Ero, Guro e *Nonsense*, sendo que a resposta que ambos deram é exatamente a mesma: o seu trabalho tenta intensificar (*escalate*).

‘Kago: “Intensificar gradualmeeeeente, é daquela tendência, o que é chamado eroguro é encenar esse tipo de coisa extrema/radical...é só que desta vez, intensifica para o riso/humor.”

Maruo: “Primeiramente, considero que o meu mangá é geralmente humorístico... Para além disso, se (tu) tens imagens/expressões extremamente exageradas, por exemplo num mangá ou até num filme, se as imagens se tornarem tão horríveis, (a situação) muda e não dá para evitar rir...acho que se aproxima disso, o meu mangá.”¹³

Integrados nesta linha de intensificação, o erótico e o grotesco são levados a tais extremos que se tornam ridículamente cómicos. Esta comédia sem sentido – o *nonsense* – é justamente o foco das obras destes autores, e o que define o género, em contraste com contos meramente eróticos, ou apenas grotescos e sem sentido, é a procura de atormentar a “peculiaridade particular da psique humana que se ri das coisas mais inapropriadas” (Ibidem, p.29). Sendo assim, a intensificação, como termo definidor do Ero-Guro Nonsense, age para criar mudança e quebrar os limites previamente estabelecidos, tornando-se, então, em algo diferente. Este tipo de humor utiliza também a ironia para apontar (e, virtualmente, criticar) aspetos e normas sociais, espelhando o que é considerado comumente aceitável para o espectador, possibilitando o repensar dos seus quadros ideológicos, mesmo que numa primeira abordagem apenas vislumbre o que é absurdo. (Ibidem, pp. 28-30).

¹³ Tradução para português livre. Originalmente: ‘Kago: “To steeeeadily escalate, it’s from that trend, what is called eroguro is enacting that sort of extreme/radical thing...it’s just this time, it escalates towards laughter/humor.” Maruo: “First off, I consider my manga to generally be humor... Furthermore, if you have overly extreme imagery/expression, for example in a manga or even in a film, if the imagery becomes so horrible, it switches and you can’t help but laugh... I think it is close to that, my manga.” (Goehrke, 2018, p. 29)

4. Pós-Corpo – Transgressão Para A Criação De Novas Corporalidades

Os corpos vistos nos mangás Ero-Guro existem, por um lado, como representações da carne e da vida do ser humano, esta carne que é exposta com a intenção de ser dilacerada de maneira brutal, animalesca, grotesca (como é visível na figura 5), com o propósito de chocar e intensificar as emoções existentes do espectador; como também, por outro lado, como forma de ir para além do que é visto superficialmente, encontrando o contexto em que a transgressão alimenta as ideias impostas nas narrativas de um conto do género.

Partindo deste pressuposto, e para uma melhor delimitação terminológica e conceptual, levanta-se a seguinte questão: tornar-se-ão estes corpos aproximações ao conceito de Corpo sem Órgãos, de Gilles Deleuze e Félix Guattari, ou irão antes ao encontro do corpo ciborgue, descrito por Donna Haraway?

Deleuze e Guattari (2007) [6] empreendem a criação de um “um exercício, uma experimentação inevitável”, um Corpo sem Órgãos, conceito em devir pois “não se chega lá, não se pode lá chegar, nunca paramos de lá chegar, é um limite”, ou seja, um corpo que está sempre em gestação, que não se completa e que o corpo humano não alcança. (Ibidem, p.199). Tal corpo existe para ser preenchido, principalmente por intensidades produzidas em si, assimilando-se a um ovo “antes da extensão do organismo e a organização dos órgãos” (Ibidem, p.203). Deleuze e Guattari ainda descrevem o Corpo sem Órgãos como “o campo de imanência do desejo, o plano de consistência próprio ao desejo (aí onde o desejo se define como processo de produção, sem referência a nenhuma instância exterior, carência que viria a escavá-lo, prazer que viria saciá-lo)”. (Deleuze e Guattari, 2007, p. 204).

Pode então dizer-se que, no género Ero-Guro, este tipo de corpos trabalham sobre tal ideia de movimento intensivo, pois tornam-se objetos eróticos que estão sempre em criação (este movimento intensivo sendo ele próprio produção de desejo erótico), sempre a gerar intensidades dentro de si que são expostas e expelidas através dos atos violentos aplicados sobre os próprios corpos, acabando também por gerar mais, e novas, intensidades num todo fechado (chegando ao observador através das emoções e pulsões que foram estimuladas por este movimento de observação: *trabalho do olhar*). É também um corpo conceptual que está sempre em *involução*: a dilaceração e a abertura de feridas que podem expelir todo o tipo de *coisas*, como se vê na figura 4 (a explosão da materialidade não comum ao interior do corpo, ou seja, tudo o que não se assemelhe ao conhecimento geral do corpo orgânico, isto é, a organização dos órgãos, que acaba por entrar no campo do *nonsense* quando vemos prédios, canos, pontes, entre outros objetos fragmentários em vez dos anteriormente mencionados órgãos organizados num corpo convencional). Surge assim uma visualidade em constante movimento, com dispersão de várias forças, centrífugas e centrípetas, fora e dentro do(s) corpo(s) (im)possível(eis).

Já com Donna Haraway (2016) [9], o corpo ciborgue define-se como “um organismo cibernético, um híbrido de máquina, um organismo, uma

criatura da realidade social e também uma criatura da ficção” (Ibidem, p.5), existindo como “criaturas simultaneamente animal e máquina” e a sua replicação “está desacoplada da reprodução orgânica” (Ibidem, p.6), sendo o ciborgue uma criatura que sai do espectro do género (não está presa a uma ou mais sexualidades e identidades, é algo posterior a essas noções), tornando-se uma unidade superior. O ciborgue também “está resolutamente comprometido com a parcialidade, ironia, intimidade e perversidade. É oposição, utópico e completamente sem inocência” (Ibidem, p.9).

Partindo deste fundamento, pode então afirmar-se que os corpos observados em mangás Ero-Guro são também eles ciborgues: por um lado, animais na sua efemeridade, no expelir de sangue, de entranhas, de gordura, urina, fezes, lágrimas e voz; por outro lado, máquinas, quando sobrevivem aos atos violentos, quando se juntam e acoplam nas transgressões, quando se metamorfoseiam de uma representação de corpo *real* para uma apresentação *ficcional*, quando exprimem convenções e transgressões sociais pelo que representam (aquém e além de dualidades identitárias quer de género quer biológicas) por via do humor e a da (des) construção de membros e órgãos para corpos sempre por vir.

Em suma, a mistura destes dois termos delineados para entender os corpos vistos em mangás Ero-Guro resulta num início de uma hipótese de um *pós-corpo* – que existe depois de a violência ser exercida sobre si, para sofrer e criar desejo, enquanto está domado por convenções sociais, ao mesmo tempo que serve para as criticar, expandir e sobre elas manifestar o absurdo ou até mesmo o jogo das emoções e sensações de quem entre em contacto com estes mangás, descobrindo novas formas de pensar um corpo, (um) a sociedade e modos de ver que vão além do espectro binário de uma identidade cristalizada.

5. Conclusão

Esta investigação teórica pretendeu demonstrar a potencialidade e a relevância do género Ero-Guro como fenómeno artístico, o seu profundo contexto histórico japonês e como este género pode criar novas relações e modos de olhar para elementos que, de um ponto de vista ocidental e convencional, não são facilmente associáveis sem o recurso a um movimento de intensificação erótica, por via da transgressão e do tabu.

O uso de tal intensificação, não só na destruição (e consequentemente reconstrução) de corpos observados nos mangás Ero-Guro, como também numa representação satírica e crítica da sociedade (por via do absurdo), acaba por criar novas possibilidades de criação de narrativas e imagens (neste caso, com enfoque na banda-desenhada) para um desenho sempre por vir e livre mas com intenção – ou seja, não procurar criar sentido (diretamente) lógico mas antes sensações. Abrir a possibilidade de passagem de uma *lógica do sentido* para uma *lógica da sensação*, isto é, procurar sair do ovo condicionado por uma moral e libertá-lo para ética do desejo.

Deve ressaltar-se que a proposta apresentada de um pós-corpo não pretende fechar as suas possibilidades de criação num quadro bataillano, mas antes abrir hipóteses e especulações cruzadas entre as terminologias de Deleuze e Guattari e Donna Haraway. A noção de pós-corpo aqui pro-

posta afirma a intenção de ser desenvolvido modo prático e criativo e sem se reduzir a uma proposta analítica e conceptual.

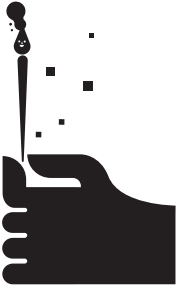
Por fim, por via dos elementos abordados (e pelo desenvolvimento da sua investigação), o trabalho prático em desenvolvimento acabará por ser não apenas uma demonstração das ideias formuladas, mas também uma possibilidade de caminho para a produção de bandas-desenhadas enquadradas dentro do género por artistas fora do Japão.

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Referências

1. BATAILLE, G. (2003). *A História do Olho*. São Paulo: Cosac Naify
2. BATAILLE, G. (1962). *Erotism: Death and Sensuality*. Estados Unidos da América: Walker and Company
3. BERTHERAT, C. (2017). *Ero Guro And Macabre Eroticism: Eros, Thanatos and the Hybrid Body*. Shinjiku, Japão: academia.edu
4. BRANDÃO, V. G. (2015). *Ero-Guru: O Corpo Abjeto Na Erótica E Grotesca Literatura De Suehiro*. 5º Congresso De Literatura Fantástica De Pernambuco (p. 13). Recife, Brasil: Academia.edu
5. BURGESS, A. (1986). *Nonsense*. Em TIGGES, W. (1987), *Explorations in the field of nonsense* (pp. 17-21). Amestardão: Rodopi
6. DELEUZE, G., & GUATTARI, F. (2007). *Mil Planaltos: Capitalismo e Esquizofrenia 2*. Lisboa: Assírio & Alvim
7. DRUMMOND, L. L. (2015). *Ero-Guro De Suehiro Maruo: Uma Transcrição Do Erotismo De Georges Bataille*. Revista Inventário. Salvador, n. 16 (p. 11). Brasil: UFBA
8. GOEHRKE, A. (2018). *Ero ka? Guro nanoka?: Erotic Grotesque Nonsense and Escalation in Mass Culture*. Ann Arbor, Estados Unidos da América: ProQuest LLC
9. HARAWAY, D. J. (2016). *A Cyborg Manifesto: science, technology and socialist-feminism in the late twentieth century*. Estados Unidos da América: University of Minnesota Press
10. MELLO, J. A. (Janeiro de 2020). *Revisitando o Grotesco: O Indefinível como Transgressão na Arte*. Todas as Artes. Revista Luso-brasileira de Artes e Cultura, 3(2), pp. 55-70.
11. TEIXEIRA, M. C. (2023). *Tiro&Queda: Um Western-Spaghetti Seinen Português em Banda-Desenhada*. Barcelos: IPCA



Drawing out Ideas

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Keywords

Instructional Drawing;
Cognition; Imagination;
Education.

Abstract

This paper presents an overview of pedagogical strategies towards the instruction of drawing in a university environment. It situates practical based learning activities pertaining to observational drawing as a key contributor to cognitive development. The research offers a historical and contemporary account of proponents of drawing and situates the practice as central to the fostering new ways of thinking. The 'problem of seeing' is identified as the persistent core issue from antiquity to present day approaches to observational drawing. A theoretical framework is adopted from neurology and the study of higher brain function. These concepts are reinforced by practical case studies from the past and present-day artists and designers. An overview of the instructor's syllabus is presented where the appreciation for drawing is central to personal growth and human capacity for change. The technical instruction of drawing is proposed to extend beyond pictorial image making and reverberate with latent powers of perception, potential for abstract thought and creative concept problem solving. The findings conclude that the traditional principles of drawing remain central to reshaping how students observe and interpret the visual world.

1. Introduction

Art critic, novelist, and poet John Berger believed that the way an artist looks at the world is one of their most valuable contributions to society. He proposed that their imaginative capabilities intersect with visual perception to allow them to decipher the complexity of reality. He redefined the imagination as not just means of escapism but as a tool to uncover truths about the world, and he situated the act of drawing as central to this ability where *it is the actual act of drawing that forces the artist to look at the object in front of him, to dissect it in his mind's eye and put it together again*².

From a pedagogical perspective, the imaginative capability of the artist cannot be assumed as preexisting, it needs to be learned. The assignment of practical exercises to encourage alternative methods of association takes inspiration from Betty Edwards brain lateralization theory. In her pioneering work *Drawing on the Right Side of the Brain*, she proposes that drawing

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² John Berger, *Drawing is Discovery*, New Statesman, 1953, pg. 3

should be taught as the fundamental basis for thinking. The instruction of drawing facilitates a mental shift reshaping the functionality of the brain.

Her views are complimented by the reportage of role models from antiquity to present-day advocates of drawing. It is revealed that their ability is not naturally occurring but is the product of diligent patient enquiry of looking. Contemporary relevance is connected to the success stories of our foremost artists, designers, writers, architects and musicians who maintain drawing as central to their practice.

The Renaissance advances in thinking, looking and drawing have changed little. The mechanical application and conceptual thinking developed in this period still underpin how to draw today. While significant technological advances have occurred since, the enquiring human mind remains the same and is still the most sophisticated tool at our disposal.

The structure of the paper consists in the following sequence: a comparative analysis of Betty Edward's R-Mode Theory proposing that through specified instruction one can learn to associate differently and advance their drawing practice. The next section consists of an investigation of classical and contemporary approaches to drawing and the artists' efforts to continually perfect pictorial representation and the enquiring mind of the artist. Advocating an unchanged syllabus, a practical methodology of drawing instruction regarding copying, observational, and journaling is explored.

The central argument of the paper advocates the importance of technical drawing instruction to equip the next generation of artists and designers with the intellectual capacity to command future creative modes of expression. The concluded findings serve as a call to education authorities to return to grass roots education with a focus on academy style lessons balanced with contemporary exploration. Emphasis should be placed on the facilitation of free thinking not just for artists, designs, but as the foundation for a future society of enquiring minds.

2. Lateral Thinking

But one must learn to read, just as one must learn to see³
Vincent Van Gogh

Betty Edward's 1979 book *Drawing on the Right Side of the Brain* responded to emerging neuroscience of the time, where left sided brain hemisphere dominance was being explored. She authored a series of drawing exercises that paused our logical, verbal, and symbolic processing to allow the right hemisphere an opportunity to respond to visual problem solving.

She advocates that just as left hemisphere logical thought receives formal training through instruction of reading, writing and arithmetic so too should right hemisphere skills be encouraged through drawing. In her view, teaching how to read is the twin to teaching how to draw where the latter instruction provides the bedrock for creative thinking.⁴

³ Ronald de Leeww, *The Letters of Vincent Van Gogh*, Penguin, 1990, pg. 134

⁴ Why Art Matters, An Interview with Betty Edwards, 2019

Psychologist and linguist Karl Bühler explains in *The Mental Development of the Child*, 1930, that the young student *abandons his graphic efforts and relies almost entirely on words. Language has first spoilt drawing and then swallowed it up completely.*⁵ Dominant left-sided cognition blocks the processing of visual perception by word association and symbolic language as the primary mental framework, rendering the original, non-verbal graphic language obsolete.

In the context of drawing the problem of an embedded symbol system in memory is that symbols automatically spring to mind where the *efficient left brain says “oh yes, eyes. Here’s a symbol for eyes, the one you’ve always used”*.⁶ That results in a stylized representation that is not realistic. Edward’s drawing exercises present the brain with tasks that the left brain will reject, such as navigating negative space, upside down copying, slow placed application, and paradoxical perspective. It might seem unusual that one should have to learn to see, but these drawing exercises do just that and encourage the process of looking and association.

John Berger’s extensive discourse on visual aesthetics positions drawing as not exclusive to the replication of visual form. Drawing is an active, meditative process of investigation and examination that involves a simultaneous deconstruction and reconstitution of the world. *To draw is to look, examining the structure of appearances. A drawing of a tree shows, not a tree, but a tree being looked at.*⁷ This problem-solving element of drawing is concerned with the imaginative enquiry of what lies beneath surface appearance. The artist’s *imagination is not, as it is sometimes thought, the ability to invent; it is the capacity to disclose that which exists.*⁸

Edward’s approach to the instruction of drawing supports a cognitive shift towards right-sided nonverbal and intuitive processing that will stimulate the imagination and release the student artist from stereotypic stylized expression.

3. Classical to Contemporary Thought

All intervening steps, scribbles, sketches, drawings, failed work, models, studies, thoughts, conversations, are of interest. Those that show the thought process of the artist are sometimes more interesting than the final product⁹

Sol LeWitt

Familiar as we are with the artistic prowess of Leonardo DaVinci, 1452-1519, the cannon example of painting, drawing, invention and writing. DaVinci is idolized as a genius whose skill is unsurpassed and generally it is believed to be unobtainable by today’s standards. His career was one of a intellectual enquiry and artistic experimentation, with drawing as central to his practice.

5 Karl Buhler, *The Mental Development of the Child*, Routledge, 1930, pg. 120

6 Betty Edwards, *The New Drawing on the Right Side of the Brain*, Harper Collins, 2001, pg. 81

7 John Berger, *The White Bird: Writings*, Chatto & Windus, 1985, pg. 150

8 John Berger, *Permanent Red: Essays in Seeing*, Verso Books 1960, pg. 61

9 Sol LeWitt, *Paragraphs on Conceptual Art*, Artforum, vol 5, no.10, 1967, pg. 81

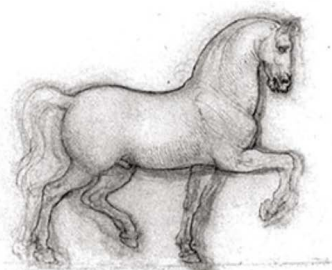


Fig. 1. Leonardo DaVinci, *Designs for an Equestrian Monument*, c.1517-18, Black chalk, pen and ink, Royal Collection, UK.

An examination of DaVinci's drawing "Designs for an Equestrian Monument" indicates the multiple adjustments he made to the position of the horse's legs. He spoke of the power of 'confused things' to stimulate the mind to new ideas¹⁰. This is evident in the explorative nature of this study and DaVinci's own struggle to apprehend the subject.



Fig. 2. Left Leonardo DaVinci, *The Hemisection of a Man and a Woman in the Act of Coition*, c.1490-92, pen and ink, Royal Collection, UK.

Fig. 3. Right Leonardo DaVinci, *The Muscles and Tendons of the Lower Leg and Foot*, c.1510-11, pen and ink over traces of black chalk, Royal Collection, UK.

A pivotal juncture in the development of DaVinci's practice is identified by Martin Clayton, Head of Prints and Drawings for the Royal Collection Trust. He identifies a shift in the artist's thinking and drawing application. DaVinci undertook countless dissections of the human body. The changes are evident in his rejection of prevailing scientific illustration to rely purely on his own observations. His anatomical investigations facilitated a transition from a preconceived representational model to rely on explorative drawn observations, where *before 1510, Leonardo's method had been to interpret what he saw in light of what he knew (or thought he knew), recording this interpretation; the drawing was the end product of his reason*

¹⁰ Isabel Selgman, *Lines of Thought*, The British Museum, 2016, pg.23

ing. After that date the drawing usually came first, and was the basis for his investigation of the functions of the observed form.¹¹

Fig. 4. Right Federico Zuccaro, *Taddeo Drawing by Moonlight in Calabrese's House*, Pen and brown ink, brush with brown wash, over black chalk, 1594, J. Paul Getty Museum, Los Angeles



Fig. 5. Left Federico Zuccaro, *Taddeo Copying Raphael's Frescos in the Loggia of the Villa Farnesina, Where He Is Also Represented Asleep*, Pen and brown ink, brush with brown wash, over black chalk and touches of red chalk, 1594, J. Paul Getty Museum, Los Angeles

Fig. 6. Luca Cambiaso, *The Deposition of Christ*, c.1527-85, Gall ink, Uffizi Gallery, Florence.



Fig. 7. Stan Lee & John Buscema, *How to Draw Comics the Marvel Way*, 1977, Simon & Schuster.

The draftsmanship of Taddeo Zuccaro, 1529-1566, as documented by his brother Federico is a visual memoir that goes beyond homage but serves as an inspirational example for all artists up to this day. Taddeo's difficult career is captured in snapshot moments that illustrate his success despite the great adversity he experienced. It is through persistence, dedication to drawing, the copying of 'modern masters' of his day and the architecture of

the Eternal City that provided a source of renewal and inspiration for him, and likewise provides inspiration for the contemporary graphic student.

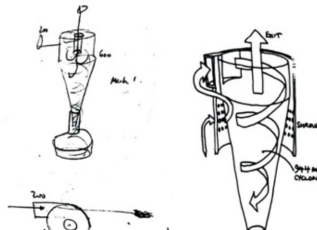
Luca Cambiaso, 1527-1585, the Italian Mannerist painter, is celebrated for his perfection of the squared figures drawing technique¹². His drawings were a reduction of human anatomy into geometric shapes. His explorative enquiry revealed an underlying structure that lies beneath the complexity of the human form as an imagined, simplified blocked in form.



Now, some four hundred years later, the very same foundations hold true. *How to Draw Comics the Marvel Way* reiterates the block-in process. This

echoes Edward's ideas, with its focuses on the creative thinking that informs our decision-making capacity. The student is encouraged to "think through the object"¹³, to observe its dimensionality, and to imagine its most simple form. This simplification relies on the imaginative capacity of right sided lateral

Fig. 8. Sir James Dyson, An early design of a Dyson cyclone, c.1978.



11 Martin Clayton, *A Curious Vision: Drawings from the Collection of Her Majesty the Queen*, Merrell Holberton, 1996, pg.11

12 Erhard Schön, *Manual of Proportions and the Positioning of Jointed Mannequins*, 1538

13 Stan Lee & John Buscema, *How to Draw Comics the Marvel Way*, Simon & Schuster, 1977, pg. 16

thinking. To acquire this capability requires practice, and a rigorous re-training of the mind to foster a new habit of imaginative looking.



In 1993, Sir James Dyson unveiled *DC01*, the world's first bagless vacuum cleaner. It's invention relied on his learning from mistakes, dealing with failure, and making over 5000 prototypes. His countless designs are an exploration of the unknown through drawing, where error is accepted as an essential stepping-

Fig. 9. Kenya Hara, *Draw*, Birkhauser Verlag, 2025.

stone to propel the work forward. Even today, he maintains that *drawing is still the best way to communicate ideas quickly*¹⁴ and insists that his engineers carry with them sketchbooks, as means to develop and record ideas.

In his publication *Draw*, Kenya Hara, art director of Muji since 2002, explores drawing as the primary means for observing everyday life and visual ideation. He illustrates how drawing connects abstract thought with creative concept development. Hara regards drawing as not limited to representation, but rather as the fundamental medium for thought, memory, and creative inquiry. Drawing by hand provides evidence of moments where the imagination is in a state of flux before settling on a solution. He describes sketching as a practice where unstable ideas come and go through the mind to eventually enter the dimensions of this world.

4. Methodical Transitions

*Drawing, properly taught, is the best way of developing intelligence and forming judgement, for one learns to see, and seeing is knowledge*¹⁵

Eugene-Emmanuel Violler-le-Duc

The principles of Edward's R-Mode theory are conveyed through the teaching of observational drawing in the subject areas of life drawing, portraiture and still life, as well as perspective study. The instruction of drawing is concerned with representational image making and establishing new cognitive associations.

The mechanics of how to draw are taught in tandem with encouragement of the student's enquiring mind. The instructor's practical advice is coupled with examples and demonstration of the different ways of looking, alternative modes of perception, and manipulation of drawing materials.

The act of looking requires a suspension of left hemisphere function as the necessary condition to allow imaginative constructs to be superimposed onto the subject. Measurements and abstract shapes are conjured into existence to provide the structure for a realistic rendering. From the student's perspective, this concept of the abstract in the real is a difficult phenom-

¹⁴ Alex Hammond & Mike Tinney, *The Secret Life of the Pencil*, Laurence King, 2017, pg.13

¹⁵ Eugène-Emmanuel Violler-le-Duc, *Histoire d'un dessinateur, comment on apprend à dessiner*, Paris, Bibliothèque D'éducation et de Recreation, 1879, pg.305

enon to grapple with intellectually, much less put into practice when tasked with the creation of scaled, proportioned and realistic drawing.

This method of instruction, the reductive abstract block-in process, takes inspiration from notable figures in the instruction of drawing such as John Asaro -the planes of the head, Andrew Loomis -the divided sphere, Ernest W Watson and Joseph D'amelio -perspective systems and Charles Bargue -figurative drawing course. While their methodology differs these experts all agree that the theoretical concerns of drawing become secondary when putting into practice, but it remains ever important that one must know the rules before breaking them.

To alleviate frustration the focus of attention is shifted from the resultant artwork to an awareness and appreciation of what is occurring in the moment. The drawing is considered a byproduct of the primary process of observation and conceptual thinking. Students are encouraged to adopt a phased approach where the drawing application gradually increases in complexity. With repeated exercise, the struggle to figure out a new approach to an already familiar activity alleviates, and new habits develop. The student gradually reinterprets the instruction and makes sense of it on their own terms.

Occasionally a eureka moment is experienced where something has 'clicked' into place. On inspection of their drawings, it appears that somebody else has mistakenly drawn on the last pages, someone who sees things differently. The immediacy of learning how to draw and its relationship to seeing situate this process as significant to 'learning how to learn'. The honing of our sense faculties and deductive powers of perception is an essential life skill¹⁶. The ability to see beyond surface appearances has far reaching effects that go beyond illustration but resonate with our capacity for abstract thought and connection making.

5. Alternative Associations

Catch the thought of the artist in all its freshness, at the very moment of manifestation, with perhaps even more truth and sincerity than in the works that require arduous hours of labour¹⁷

Charles Ephrussi

Drawing remains a key conceptual tool at every stage of the artist's process, from initial ideation right thought to a final realized art object. It is evident that the concerns of contemporary artists and designers differ from the practitioners of the past, but the way they conceive and develop their ideas remains ever the same. Drawing is not solely concerned with the replication of nature, but it is rather an active, meditative process of orientation oneself in an examination of the world.

¹⁶ Drawing Texts, Bob Baker, Is Drawing an Anachtonsim?,pg.43

¹⁷ Edmund de Waal, The Hare with the Amber Eyes, Chatto & Windus, 2010, pg. 85

Joseph Beuys describes drawing as providing a “reservoir” of ideas where the activity behaves like a “thinking medium”¹⁸. The duality of drawing is evident, where it is simultaneously a thought process and a record of decisions. It provides the opportunity to synthesize complex information by way of abstraction. In the moment the artist makes decisions as to what to leave out and what to put to develop an internal coherence. Drawing strengthens the relationship between the hand and eye where deductive powers of observation and control are sharpened. Each stroke of the pencil leads the artist into areas of previously unknown correspondence.

The problem remains that previously stored knowledge inhibits our efforts to see things as they are, and to simply observe. The logical mind must be suspended, and with it our tendency towards symbolic assumption. The definition of creative is the perception of ordinary sense data in new unforeseen ways. A state of mind capable of discovering the unknown resonates with visual metaphor and is equipped to dismantle complexity, combine ideas and arrive at originality¹⁹.

In recent years the popularity of drawing and the keeping of visual diaries has declined. The once stringent pedagogical rule that art and design students should maintain the practice of journaling has lapsed. The activity of record keeping and engagement with drawing has succumbed to the Duchampian ready-made. Art making has reduced to photographic collage, illustration, doodling and text, and there is little evidence of observational notation or the generative drawing necessary to facilitate the development of lateral thinkers.²⁰

Creative thinking, and the imaginative capability of students is often presumed as pre-existing, and of little concern to educators. Often the instruction of drawing is deemed antiquated in comparison to the new and varied means of digital expression. Drawing is mistaken for mere pictorial representation rather than the facilitating environment necessary to equip students to see and think for themselves. Drawing’s rightful position as the forerunner to invention and artistic expression is overlooked. As the dominance of digital tools escalates, the practice and instruction of drawing must endure, not for sentimental reasons, but to preserve our capacity to in the first place to see the world as it is and then possibly imagine it as it could be.

6. Conclusion

The paper positions the practice of drawing as central to the intrinsic cognitive development necessary for an inquiring mind and subsequent creative expression. It identifies the approach of Betty Edwards as central to foster creativity and the ability to draw realistically. She proposed that premature symbol formation inhibits our capacity to observe external reality or conjure up imaginative impressions. The writings of John Berger further support the claim that drawing is the primary lens of enquiry

18 Isabel Selgman, *Lines of Thought*, The British Museum, 2016, pg.10

19 Betty Edwards, *The New Drawing on the Right Side of the Brain*, Harper Collins, 2001, pg. 38

20 Deanna Petherbridge, *The Primacy of Drawing*, Yale University Press, 2010, pg. 217

where the world is dismantled and reconstituted in the observant eye of the artist. From the outset it is proposed that it is necessary to provide specific instructions and exercises intended to suspend automated response and to encourage alternative modes of thinking.

A selection of artists and inventors are presented as paradigm examples of the importance of maintaining a drawing practice. Canonical artists support Edward's claim with evidence of observational drawing, imaginative enquiry and the continual pursuit of new forms of representation. Contemporary practitioners, experts in their field, are revealed to continue the tradition of drawing from life, spontaneous persistent ideation and analogue processes.

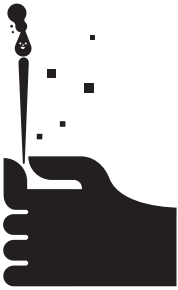
There follows a note on teaching with respect to the encouragement of lateral thinking and observational drawing instruction. Modern and present-day sources are identified as providing professional structure, step-by-step direction and additional theoretical rationale to assist student progress. Observations from drawing activities in the classroom mirror aspects of Edward's hypothesis and practical method of approach.

The closing section reiterates drawing's direct connection to cognitive development and alternative means of observation and expression. Despite our technological sophistication the consequence of learning how to draw, and the malleability of the human mind remain unaltered. There is cause for concern in shifting attitudes to the discipline of drawing and the assumption of preexistent knowledge of art and design students.

References

1. Alex Hammond & Mike Tinney, *The Secret Life of the Pencil*, Laurence King, 2017
2. Andrew Loomis, *Drawing the Head & Hands*, Viking Press, 1956
3. Betty Edwards, *The New Drawing on the Right Side of the Brain*, Harper Collins, 2001
4. Deanna Petherbridge, *The Primacy of Drawing*, Yale University Press, 2010
5. Edmund de Waal, *The Hare with the Amber Eyes*, Chatto & Windus, 2010
6. Erhard Schön, *Manual of Proportions and the Positioning of Jointed Mannequins*, 1538
7. Ernest W. Watson, *Creative Perspective for Artists and Illustrators*, Dover, 1955
8. Gerald M. Ackerman & Graydon Parrish, *Charles Bargue: Drawing Course*, ARC, 2003
9. Harold Speed, *The Practice & Science of Drawing*, Dover, 1972
10. Isabel Selgman, *Lines of Thought*, The British Museum, 2016
11. Jim Savage, *Drawing Texts*, Occasional Press, 2001
12. John Asaro, *Planes of the Body*, 2016
13. John Asara, *Planes of the Head*, 1967
14. John Berger, *Berger on Drawing*, Occasional Press, 2005
15. John Berger, *Drawing is Discovery*, New Statesman, 1953
16. John Berger, *Permanent Red: Essays in Seeing*, Verso Books 1960
17. John Berger, *The White Bird: Writings*, Chatto & Windus, 1985
18. Joseph D'Amelio, *Perspective Drawing Handbook*, Dover, 1964
19. Julian Brooks, *Taddeo and Federico Zuccaro Artist-Brothers in Renaissance Rome*, J. Paul Getty Museum, 2007

20. Karl Buhler, *The Mental Development of the Child*, Routledge, 1930
21. Kenya Hara, *Draw*, Birkhauser Verlag, 2025
22. Martin Clayton, *A Curious Vision: Drawings from the Collection of Her Majesty the Queen*, Merrell Holberton, 1996
23. Ronald de Leeww, *The Letters of Vincent Van Gogh*, Penguin, 1990
24. Sol LeWitt, *Paragraphs on Conceptual Art*, *Artforum*, vol 5, no.10, 1967
25. Stan Lee & John Buscema, *How to Draw Comics the Marvel Way*, Simon & Schuster, 1977
26. Eugène-Emmanuel Viollet-le-Duc, *Histoire d'un dessinateur, comment on apprend à dessiner* (French), Paris, Bibliothèque D'éducation et de Recreation, 1879
27. *Why Art Matters*, An Interview with Betty Edwards, 2019
28. <https://www.youtube.com/watch?v=GwqqsHxBAd4>
29. James Dyson Foundation, *Sketching*, 2012
30. https://www.youtube.com/watch?v=laU_oXtUU-E



Found Object Animation and Its Role in Exploring Movement and Material

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Keywords

Found Object; Stop Motion
Animation; Animation
Education; Creative
Methodology.

Abstract

Found object animation is animating using everyday objects. Although widely practised by artists across the globe, its role in developing foundational animation skills remains under-explored. The study analyzes how object animation exercises with certain material-based constraints help novice animators explore movement, basic time-space relationships, and material behavior and how process-based constraints influence creativity and focus.

The paper, moreover, discusses how artists and filmmakers use ‘found items’ to create meaning, feeling, and narrative in animation. It discusses the benefits and limitations of using this low-resource method to learn animation. It enables direct engagement with movement, timing, and space without requiring prior technical proficiency. However, animating with existing objects can have limitations, such as limited motion flexibility, unlike control and exaggeration possible with other techniques.

This pilot study adopts a qualitative, constraint-based methodology through a classroom exercise conducted at a design school. In this exercise, eighteen design students, third-year undergraduate and first-year postgraduate animation students, participated. Participants with minimal prior knowledge of animation worked in pairs and created nine short stop-motion films during a half-day session. They were given a fixed set of five objects: a dried leaf, two dominos, a sticky note, a one-meter satin ribbon, and a dried jungle pod. These were selected based on their different affordances for movement and distinct material qualities like form, texture, and flexibility. The students worked with the following constraints: fixed camera setup with a black background, two-member teams, and a restricted time frame. The films were then analyzed using the thematic and observational approach, examining their creative problem-solving, engagement with movement and material, and natural narrative emergence.

The insights contribute to animation education by providing significance and effectiveness as preliminary learning exercises. The research can help educators and researchers design similar exercises and, in the future, explore the potential of introducing the animation fundamentals to wider learner groups with varied constraints.

1. Introduction

The term ‘animation’ is derived from the word ‘animate,’ meaning ‘to give life.’ It is the illusion of movement created in inanimate lines and forms [1]. While the medium has undergone several technological advancements, its core concept is to create expressive movement. Chong (2008) observes that technology can evolve, but ultimately it is the animator’s creativity that makes an animation [2]. Thus, while tools and software are important, it is the artistic decision-making that brings animation to life.

Stop motion is a type of animation in which objects or materials are manipulated physically and captured frame by frame. When played in sequence, these frames create motion. There are different types of stop motion animation- object animation, claymation, light animation, material animation (clay, paper, sand etc.), puppet animation, and pixilation. Stop motion Animation is regarded as one of the most tactile media for bringing a handcrafted quality to the screen. Over time, production techniques have evolved, although the raw motion of this technique remains one of its defining characteristics. As Purves notes in his book, the distinct quality of movement indicates the animation technique employed, whether 2D, 3D, or stop motion. The raw motion of stop motion animation has its own appeal and is visually identifiable [3].

This paper discusses a type of stop motion animation called “object animation,” discusses its application by early animators, and explains why it has been used in contemporary times. It explores the role of these everyday objects in animation education. In this paper, the term ‘found objects’ refers to readymade or discarded objects that we use in our daily lives.

History of Object Animation. To challenge the art world, some artists have made the world perceive everyday objects through a unique lens. During the Dada movement in the early 20th century, Marcel Duchamp was among the revolutionaries whose famous Fountain sculpture challenged traditional ideas of art by presenting ordinary objects as artworks. As Goldsmith states in his paper, “The found object is art because an artist of special sensibility felt he could convey an important aesthetic idea through it” [4]. Another Indian sculpture artist, Subodh Gupta, also uses found objects to express his art. Some of his famous sculptures include utensils used by Indian households. For him, they present a pronounced visual paradox: shiny exteriors and empty interiors [5]. These objects let us reflect deeply on what we usually take for granted and question the complex relationship among culture, identity, and consumerism today [6].

This reimagining of found objects also influences animated history. In 1896, a sudden camera jam during the filmmaking of Georges Méliès led to the discovery of the stop-trick effect. This camera glitch became the foundation of a new technique later known as stop motion. Initially, many experiments were conducted using objects such as toys, matchsticks, and Russian dolls. Melbourne-Cooper, an England-based animator, animated matchsticks in a playful manner, demonstrating how simple objects can create expressive movement and character. Emile Cohl, an animator from the United States, explored the idea of animating dancing matchsticks in a live-action film, ‘Bewitched Matches’ (1913) [3].

Czech surrealist animator Jan Švankmajer and the American Quay Brothers produced several films from 1960 onward. Their films, though not entirely based on found objects, brought many inert objects to life. In Švankmajer's films, such as 'Dimensions to a Dialogue' (1982), objects are used creatively to foster imagination. Everyday objects, such as a sharpener, a brush, and shoes, are portrayed as animated figures that argue and interact. By presenting the objects in such an unexpected way, he urges the audience not to consume things unthinkingly but to activate their imagination [7]. Similarly, the Quay Brothers animate screws, worn-out dolls, and mundane, forgotten objects, creating surreal and gothic worlds in their films. However, in their practices, objects are not directly animated; rather, they are used to develop puppets with narratives. In both practices, objects are used beyond their regular utilitarian purpose [8].

Animation, as an art form in motion, has featured several other strong filmmakers in the 21st century who have used found objects with clarity and intention. The highly believable fight between a cassette and a vacuum cleaner pipe in Aardman Animation's *Stuff vs. Stuff* is an example of how recognizable objects, when animated with specific movement, can evoke strong emotions.

PES, an American-based animator, is one among them. He is known for creating short animations using everyday objects. Constructing meaning and developing strong concepts from simple materials led to his film's international recognition, including Academy Award nominations. In his short film *Western Spaghetti* (2008), he transformed inedible objects into visuals that evoke the sensory experience of food, such as a sticky note behaving like melting butter. In another film, *DEEP*, he noted that he has spent 5 years collecting tools and metal scraps to construct an undersea-themed world, portraying fluidity using rigid and industrial objects. Turning an avocado into a grenade or a baseball into an onion, reflecting on his other practices, he states that "we base things on familiarity, but when we tweak that familiarity just a couple degrees, it becomes something fresh and new" [9].

Kevin Parry is another contemporary stop-motion animator who has been working in this field for over 15 years and frequently uses found objects. In one of the videos, he creates the illusion of a spoon transforming into a fork. His practice contributes to an expanded understanding of how found objects, in conjunction with the animator's presence, can create playful, powerful visual narratives. When developed and practised rigorously, it is also used to create advertisements. A short, innovative, eye-catching idea can communicate the brand message memorably [10].

While the artists have extensively explored found objects as expressive tools. Its pedagogical use with constraint-based animation exercise remains less explored. Animation pedagogy has explored science-based experiments, using stop motion to explain science or medicine to students. Another study by O'Byrne uses tablets in classrooms to teach stop motion filmmaking by pre-service teachers. Stop motion here was a tool to teach creativity, divergent thinking, and collaborative and exploratory learning of storytelling [11]. This was similar to our study in its approach of how the author encouraged experimentation and focused on minimal

instructions. Specifically, the study asks, “*How can material and procedural-based constraints in found object animation be used to engage with movement and understand animation basics by the foundational design students of animation?*” Thus, the author, being both a practitioner and educator in this area, sought to contribute to this area.

2. Found Object Stop Motion as a Pedagogical Tool

Animation is generally associated with drawing or creating characters using computer tools. However, at its core, it is associated with rhythm, timing, and movement. Even with the well-designed characters and detailed concept art, the work falls flat if the animation fails to convey emotion effectively. This raises an important question: Will anything we move be called animation? Maybe not; animation occurs when an object is moved intentionally within the frame with a specific objective in mind. As an educator, it became important to challenge the student’s mindsets regarding animation. Therefore, this exercise was introduced as a foundational activity in the stop motion course to help students understand movement, timing, and intentionality.

This isn’t the first instance in which educators have employed found objects to teach the fundamentals of animation. There lies a significant gap in the rigorous academic documentation and critical analysis of student learning outcomes emerging from such object-animation exercises. In addition, three additional pedagogical and contextual reasons led to the development of this exercise for animation students.

2.1. Affordance and Low-Resource Methodology

Learning 2D animation often requires a certain level of drawing proficiency, including an understanding of volume and consistency across frames. Similarly, 3D animation demands technical, software-based skills. Before students can begin animating, there is a prerequisite of drawing or modeling; this process can delay the intuitive impulse of the movement that an animator initially imagined.

Stop motion using a found object offers a more immediate approach. Because objects already possess physical form and texture, students can begin experimenting with movement without prior prerequisites. The results are visible in real time, enabling rapid iteration with immediate feedback. Furthermore, as this approach does not require advanced infrastructure or specialized equipment, it can be implemented in institutions with limited resources.

2.2. Learning Movement and Basic Animation Fundamentals

This approach may initially help students in comprehending movement-based concepts, particularly timing, spacing, arcs, and slow in-and-out. In this way, supporting them to develop confidence at the beginner level of animation learning. Physical motion of an object helps in understanding timing and spacing, and the learner is directly occupied with the movement in a three-dimensional space. This embodied interaction allows students to comprehend weight, resistance, and balance more naturally and intuitively.

The SWOP project also explained this by mentioning that movement is the core of any animation. Even when the students perform a stop motion, their bodies are engaged in movement too; adjusting the camera and bending to fix positions requires the application of both fine and gross motor skills. There is an embodied engagement through manipulating objects and coordinating bodily action with imagination. This may help the learners engage with movement and understand the timing, spacing, and weight intuitively [12].

Furthermore, the rest of the principles of animation can be taught at an advanced level through gradually complicated and intricate exercises using found objects.

Remark 1. Principles of Animation, as per the book ‘The Animator’s Survival Kit’ by Richard Williams, are the fundamentals that help in achieving believable and appealing movement [13]

2.3. Challenge in Original Thinking

When it comes to learning animation today, particularly in the context of widespread access to tutorials and the work of other artists, a major challenge lies in generating fresh and original ideas. As Ivaskevich observes, there are greater challenges in creating something unique, as the distinction between consumption and production is increasingly blurred due to the easy accessibility of such media online. Students work within this ecosystem, saturated with multiple ready-made references [14]. There is, therefore, a need for structural frameworks and introductory exercises in foundational animation education. These exercises can challenge learners to generate ideas within defined time and resource constraints.

2.4. Limitations

Along with the advantages, found object animation also presents certain limitations. When working with rigid objects, the scope of exaggerating their form is restricted. On the other hand, maintaining the form of a flexible object, such as a ribbon or thread, is difficult. Maintaining consistency across frames is challenging.

Moreover, the physical setups with proper lighting and camera knowledge can be time-consuming and may demand spatial resources. The exercise demands careful attention and technical control, as a subtle shift in lighting or camera can disrupt the continuity.

3. Experiment Design

Participants: The experiment was conducted with the first-year Master of Animation Design and the third-year Bachelor of Design students. Some of them had prior exposure to the basics of animation, while others had limited or no training. As an exploratory activity, the exercise was conducted at the beginning of the course to assess student’s prior understanding of movement, space, and time and observe how they work under constraints. There was no formal demonstration or theory explained before this exercise. Following the exercise, feedback or a demonstration was provided to the students to determine how movement could be better.

Exercise Design: Each team received five identical objects—a dried leaf, two dominos, one sticky note, a one metre satin ribbon, and a dried jungle pod, as shown in Figure 1. The students were asked to create a short animated video of around 15-30 seconds using those objects. Develop a concept, animate, edit, and add sound. Though the narrative may emerge during the process, it is not mandatory. Several process-related constraints were also identified, in addition to the material constraint.

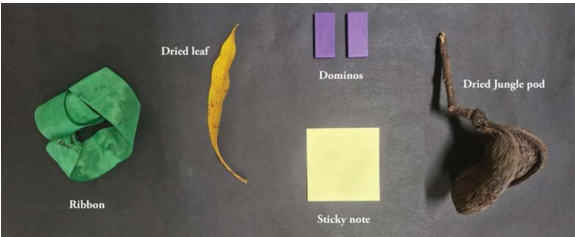
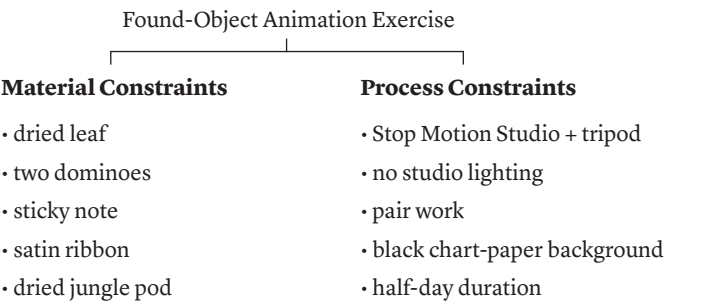


Fig. 1. Objects provided for the Animation.

Object	Type Material	Nature	Category	Shape Alteration Possibility
Dominos (2)	Wood	Solid, fixed shape	Manmade	Fixed shape
Dried Leaf (1)	Organic	Fragile, slightly flat	Natural	Can crumble
Dried Jungle Pod(1) (<i>Sterculiaa petala</i>)	Organic (Seed)	Solid, compact	Natural	Fixed shape
Sticky Note (1)	Paper	Flat, flexible	Manmade	A shape can be folded or altered
Green Satin Ribbon (1 meter)	Cloth	Flexible, flowing	Manmade	Shape can be tied or altered

Table. 1. Materials provided and their nature.

4. Observations and Analysis

The student's films produced during the experiment can be accessed [here](#).

4.1. Role of Constraints and Participant's background

Due to the constraints caused by the materials (as shown in Table 1), the students attempted to think of the provided objects from a fresh perspective. Within the allotted time, students were encouraged to develop inventive ideas grounded in their experiences. The decision to make them work in pairs was made to provide additional cognitive and practical support. It helps in generating multiple new ideas, allows mutual exchange of perspectives, and helps in the efficient execution of the animation process.

The students in Film 03 had an engineering background and initially found it difficult to complete the exercise. The object's movement appeared random and lacked clarity. As a result, they stepped back and were thus asked to reshoot. The author demonstrated a basic slow-in-slow-out principle of animation, after which they developed a clearer understanding and made another attempt that showed noticeable improvements in the movement's quality and intention. In contrast, group 04 had prior knowledge of basic animation principles, as evidenced by their effective application of timing, spacing, and other techniques. Because of this, they were also able to develop the narrative aspect of the exercise along with expressive movements.

4.2. Film Analyses

Once completed, the films were studied individually. Initially, the role, behavior and movement of each given object was studied in every film. Later, themes were formed based on the recurring patterns observed across the exercise, movement of the object, and narrative construction. These themes emerged inductively rather than through predefined comparative categories after repeated observations and analysis.

Chase and Consumption. Several films explored the themes of pursuit and survival—for example, films 01, 02, 03, and 09. In Film 02, one object becomes prey and the other a predator. There is a conflict, and tension is built through the slow revelation of what will happen. In Film 09, it again begins with a play of chase and consumption. Later, the objects playfully engage with one another, flowing intuitively without narrative burden.

Personification. Some groups attempted to attribute character traits to the objects. Film 04 presents a brief narrative of a pair who appear to be friends, jumping playfully. They are attacked by a bee-like creature, which is struck and destroyed. The emotions of playfulness and fear are well depicted through exaggerated movements. The intelligent use of stretch-and-squash animation principles helped add humor and liveliness to the rigid objects. In film 06, a hen-like character is created using the jungle pod and a sticky note. It is then given a narrative where it is made to walk across a hurdle, scared initially, but then crushes it and crosses. A personality and narrative are playfully added to the inert objects. The latter part of film 07 endows the objects with character by having them act and express emotions.

Abstract and conceptual. Some films like 05, 07, and 08 explored pure movement and played and attempted to add a visual rhythm rather than a narrative. In Film 08, the team began by selecting music first and choreographing the movement accordingly. The full scenario unfolds like a dance floor where each object becomes an active participant, performing rhythmically to the beats. Each one is a star performer and responds to the rhythm, pauses, and sense of weight. Film 05 interprets the objects in a direct, plant-like setting. Through subtle movements, the objects suggest the organic growth of a plant.

4.3. Animation Principles Reflected in the Films.

One of the main objectives of this exercise was to make them explore the movement and material. Although it was not mentioned in the brief to apply animation principles, some of the films can be seen through the lens of the following principles.

Timing and Spacing. The timing of the objects helped in shaping feelings and behaviors in the films. Variations in timing helped in conveying different emotional states; the faster movements suggested a state of hurry or excitement, like the dried leaf carrying the two dominos in Film 01 or the paper plane of the sticky note in Film 04. The slower movements conveyed a relaxed or sometimes uncertain, scared state. Strategic holds of certain objects enhanced anticipation and heightened surprise.

To suggest a sudden hit/crash, spacing played an important role. The objects moved in closely spaced increments, suggesting slow movement and a controlled buildup. For example, in Film 03, the dried jungle pod's slow entry added an emotion of suspicion, and in Film 07, its slow movement, which felt like floating, depicted the state of relaxation. A sudden increase in the spacing between frames intensifies the impact, as in the dried jungle pod hitting the dominos in Film 09. Manipulation of spacing amplifies the collision.

Arcs. An arc is another principle of animation, referring to the visual path an object or drawing follows during movement. It is believed that movement along a curved path will appear more natural than a linear one. In the student's film, using an arc in the movement prevented random or mechanical motion of the objects, and defining their paths better communicated the idea. Film 02, *Dominos*, followed an arc rather than a linear path, which enhanced the movement's appeal and lent it a worm-like character. Trajectory adds expressiveness to the movement. In film 08, the choreographed dance between the dried leaf and the dominos, vitality and rhythmic flow were achieved due to the effective use of an arc.

Stretch and Squash. It is one of the fundamental principles of animation: a form elongates vertically during motion (stretch) and compresses horizontally upon impact (squash). This principle enhances the illusion of weight and energy. Film 04 thoughtfully applied this principle while animating the domino, which jumps playfully like friends. To suggest a stretch, the domino was made to stand on its narrow edge, creating a visual illusion of vertical elongation. Squashing was depicted by placing the domino horizontally in contact with the ground. It's interesting to note that the object is rigid; the manipulation of orientation enables it to

appear bouncy. This inventive handling of objects in the film depicts that flexibility can be achieved in inflexible materials. Found-object animation has immense expressive potential.

Anticipation. It is the preparation of the action before the main action, guiding the viewer's attention and enhancing the clarity of the action. Film o9 depicted the use of anticipation as the two dominos transformed into helicopters and rotated. The movement was reversed before the actual rotation occurred, guiding viewers to notice the subsequent motion. In Film o6, the hen-like form shows anticipation before it actually jumps over the dried leaf and crushes it. This preparation added greater impact and force to it.

4.4. Narrative Elements.

Although adding narration was not mandated in the brief assigned to the students, identifiable narrative elements emerged across several films. Three of the nine films featured an underlying structure centred on themes of chasing and escaping/being consumed. Another film constructed a narrative around an obstacle and its overcoming through its defeat. One film reflected the idea of 'survival of the fittest,' suggesting conflicts. There were two outlier films. In one case, the team chose to divide thirty seconds equally, independently animating fifteen seconds based on their separate ideas. This resulted in minimal interaction between the objects and fragmented narrative continuity. In another case, the student realized the potential of a narrative after animating a few seconds of the video and then attempted to introduce character attributes to one of the objects. The recurrence of conflict-based films and attempts to attribute a character trait to the object suggest an intuitive need to give a story, even in short exploratory exercises.

5. Discussion

Students explored the objects in distinctly different ways. Films highlight how meaning and emotion were conveyed through pure movement, juxtaposition, and imagination and, at times, how objects can be converted into recognizable characters. This exercise using found objects focuses on the development of a convincing and emotive movement rather than representational detail. A key learning from this exercise was that consistent movement leads to monotonous films; variation in timing and spacing proved to play an important role in enhancing the emotion and expressiveness of the films. The inventive use of materials suggests that an everyday object can be interpreted in a new way simply by changing perception. Hence, changing their perceived identity. Some of the films used music to reinforce movement and enhance the believability of the objects as characters. In Film o8, the decision to plan movement on the music allowed the students to choreograph the objects in rhythm with the beat. The constraints, such as working within a specified time frame and in pairs, encouraged students to remain present and attentive and fostered rapid decision-making. Also, restricted material with its special qualities limited the possibility to exaggerate, which further pushed the students to

convey their ideas through better timing and controlled movement itself. In a few cases, however, the constraints led to the animation of a clichéd idea with limited conceptual exploration. In some pairs, prior knowledge of animation added to the confident execution of controlled movement and the addition of narrative elements.

6. Conclusion

This exploratory research examined the use of found object animation in the introduction of movement and creative exploration among the undergraduate and postgraduate students of animation design. The findings suggest that constraint-based exercise encourages students to learn timing, spacing, and creative use of the provided objects.

As a pilot study, the research provides preliminary insights into the potential of found objects as a pedagogical tool. A limitation of this study is the absence of a post-exercise survey among the students, which could have provided deeper insight into understanding the basis on which decisions were made and how objects were interpreted. The future scope of this research could include additional experiments with comparative pedagogical frameworks and exercises with fewer objects, such as 1 or 2. Taking inspiration from the projects of the Animated Learning Lab, Denmark, implementing similar exercises in workshops for younger children may open new possibilities for imaginative learning in animation education.

Thus, integrating constraint-based found-object exercises can be an effective introductory animation teaching approach. Further self-directed, practice-based exploration and additional class experiments may provide valuable direction for future research.

7. References

1. P. Wells, *Understanding Animation*, 1st ed. Routledge, 2013. doi: 10.4324/9781315004044.
2. Andrew. Chong, *Digital animation*. AVA Publishing SA, 2018.
3. B. J. Purves, “Stop-motion Animation: Frame by Frame Film-making with Puppets and Models - Barry JC Purves - Google Books.” Accessed: Apr. 15, 2026. [Online]. Available: https://books.google.co.in/books?hl=en&lr=&id=r1DiAAQBAJ&oi=fnd&pg=PA8&ots=Q1S2NxCBUh&sig=zBOFxrCnmHw017E-IUI3UndjcU&redir_esc=y#v=onepage&q&f=false
4. S. Goldsmith, “The Readymades of Marcel Duchamp: The Ambiguities of an Aesthetic Revolution,” Winter, 1983.
5. Gnyp Marta, “Interview with Subodh Gupta.” Accessed: Apr. 15, 2026. [Online]. Available: <https://www.alejandradeargos.com/index.php/en/all-articles/21-guests-with-art/390-interview-with-subodh-gupta>
6. Mattei Selena, “Sculpting Identity: Subodh Gupta and the Power of Everyday Objects | ArtMajeur Magazine,” Art Majeur. Accessed: Apr. 15, 2026. [Online]. Available: <https://www.artmajeur.com/en/magazine/8-meet-and-discover/sculpting-identity-subodh-gupta-and-the-power-of-everyday-objects/337786>
7. Peter. Hames, *Dark alchemy : the films of Jan Svankmajer*. Greenwood Press, 1995.
8. Ivins Laura, “Touching Animation: The Extraordinary Object - Establishing Shot,” Establishing Shot Indiana University. Accessed: Apr. 15, 2026. [Online]. Available:

<https://blogs.iu.edu/establishingshot/2017/02/23/touching-animation-the-extraordinary-object/>

9. Madge Jamie, "PES: The Way I See It | shots," Shots. Accessed: Apr. 15, 2026. [Online]. Available: <https://shots.net/news/view/pes-the-way-i-see-it>
10. Gönczi Petra, "Stop-motion animator Kevin Parry: 'Videos just mysteriously show up in my head,'" The Creator's Diary. Accessed: Apr. 15, 2026. [Online]. Available: <https://thecreatorsdiary.com/stop-motion-animator-kevin-parry/>
11. W. I. O'Byrne, N. Radakovic, T. Hunter-Doniger, M. Fox, R. Kern, and S. Parnell, "Designing spaces for creativity and divergent thinking: Pre-service teachers creating stop motion animation on tablets," *International Journal of Education in Mathematics, Science and Technology*, vol. 6, no. 2, pp. 182-199, 2018, doi: 10.18404/ijemst.408942.
12. Johnston Kirk, H. Pederson, and L. Isaksen, "Storytelling Workshop Online Project (SWOP)," The Animation Workshop/VIA University College Kasernevej 5 DK-8800 Viborg. Accessed: May 28, 2026. [Online]. Available: <https://animatedlearning.dk/wp-content/uploads/2023/06/finalSWOPreport.pdf>
13. R. Williams, *The Animator's Survival Kit*. London: Faber and Faber, 2001.
14. Ivashkevich Olga, "Engaging a prosumer: Preservice art teachers interrogate popular toys through stop-motion animation," 2015.

Giroflé: Transmediation in the Editorial Design of an Illustrated Magazine for Children

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Abstract

Technological growth has triggered a phenomenon of transmediation, which is a transition from content presented in one format to another. Nowadays, the most prominent transitions are those that begin in analog media and move to digital platforms, as observed in some newspapers, magazines, and correspondence itself (conversion of letters to emails), among others. Illustration and animation are also not unrelated to these conversions and, as such, the techniques and challenges related to digital creation and this transition, in these two areas, increase every day. Although transmedia approaches are frequently discussed from theoretical and media studies perspectives, their implications for the practice of children's editorial design remain largely unexplored, particularly in the context of illustrated publications aimed at Portuguese children. This article explores transmedia in the process of editorial design for children, specifically through the *Giroflé* project, an illustrated magazine for children aged 5 to 10, designed for both print and digital formats. Based on practice-oriented research, the study analyses how narrative, illustration, and interaction transform when migrating between physical and digital media. Rather than viewing transmedia as a simple process of adaptation or digitisation, the project approaches it as a reimagining of the reading experience, requiring new strategies for visual communication, interaction design, and narrative continuity.

Keywords

Giroflé; Portuguese Illustrated Magazine; Illustration for Children; Transmediation; Interactivity.

1. A Revista ilustrada para crianças

1.1. Contexto histórico

Em Portugal, no século XIX, a produção de literatura infantil era escassa e de linguagem complexa. Esta era dirigida, maioritariamente, às elites. As edições voltadas para a infância começaram a surgir, assim, no final do século XIX em periódicos, com destaque para a temática da criança [1], em vez de serem voltadas para elas como público, refletindo o contexto europeu.

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Fig. 1. Primeiro número do *Jornal da Infância* (4 de janeiro de 1883). [1]

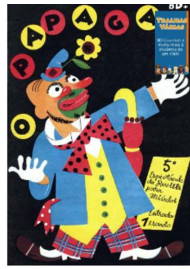
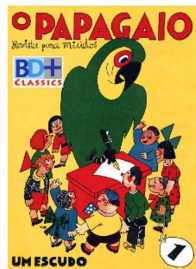


Fig. 2. Primeira caricatura do Zé Povinho (à direita) via Museu Bordalo Pinheiro (2024).



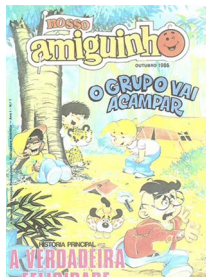
ainda predominantemente dirigidos ao público adulto [1], como demonstra a popularidade da famosa personagem “Zé Povinho” (Fig. 2), criada por Rafael Bordalo Pinheiro para *A Lanterna Mágica* (1875).

Fig. 3. Exemplos das capas de *O Papagaio - Revista para Miúdos*. Edição Nº1, Nº5 e Nº6 (da esquerda para a direita). [4]



Ao longo do século XX, as revistas ilustradas para crianças consolidaram-se enquanto objeto editorial autónomo. Destacam-se publicações como o suplemento *Pim-Pam-Pum!* (1925), um dos projetos infantis portugueses de maior longevidade [3], e *O Papagaio - revista para miúdos* (1935) (Fig. 3), considerada uma das primeiras revistas infantis portuguesas a articular de forma consistente texto, ilustração e composição gráfica [4].

Fig. 4. Primeiro número da revista *Nosso Amiguinho* em português europeu (outubro de 1986). [7]



Durante o período do Estado Novo, várias publicações infantis refletiram também os valores ideológicos e pedagógicos do regime, como o *Lutas* (1943) e o *Camarada* (1947) [5]. Já no período pós-25 de Abril, revistas como *Nosso Amiguinho*

(1986) (Fig. 4) expandiram o modelo editorial infantil através da integração de jogos, passatempos e produtos complementares, aproximando-se de estratégias de circulação multimédia [6].

Nos anos 2000, as revistas ilustradas infantis passaram a afirmar-se também através de formatos editoriais independentes e de periodicidade mais flexível. Destacam-se projetos como a *Triciclo* (2017-2021), a *Dois Pontos* (2020-2022), a *Aguça* (2021) ou a *Dólitá* (2021), que revelaram uma crescente preocupação com a experimentação gráfica e a diversificação da experiência de leitura.

Apesar da multiplicidade editorial destas publicações, a sua presença digital permanece frequentemente limitada a estratégias de divulgação, ficando, assim, pouco exploradas as potencialidades interativas e narrativas específicas dos meios digitais. Sincronicamente, a integração progressiva do digital no quotidiano infantil transformou não apenas os modos de produção editorial, mas também as expectativas do leitor relativamente à interação com os conteúdos [8].

Neste contexto, a aproximação entre o universo impresso e os meios digitais permitiu a exploração de experiências de adaptação, expansão e circulação de conteúdos entre diferentes suportes.

1.2. Passagem para o digital e processo de transmediação

O apogeu das novas tecnologias que se iniciou nos finais do século XX trouxe inovação em diversas áreas; na ilustração, em particular, surgiram experiências que permitiram a fusão de diferentes formas de arte e o uso de ferramentas digitais [9]. Além disso, o desenvolvimento tecnológico banalizou o uso de computadores e *softwares* como ferramentas de ilustração, por exemplo, tornando possível que a ilustração explorasse novos suportes. [8]

Graças a este crescimento dos meios digitais, nos dias de hoje as revistas, de um modo geral, tendem a criar sinergias e a fundir diálogos de convergência entre o universo analógico e o mundo virtual. Contudo, esta transição também se deve ao facto de o seu público-alvo ser um utilizador ávido de produtos digitais de entretenimento e, como tal, as marcas procuram, cada vez mais, criar material direcionado para esta faixa etária [10]. Com esta janela de oportunidade, é possível observar revistas ilustradas que tiram proveito desse tipo de suporte com ecrã e, graças ao fenómeno da transmediação, agregam os seus conteúdos aos formatos além-papel.

Podemos, então, definir o conceito de *transmediação* enquanto um “processo em que uma história, um assunto ou um tema é divulgado por vários canais de distribuição, com o objetivo de criar uma experiência de entretenimento única, unificada e coordenada” [11, p. 142; tradução livre]. O conceito de transmediação, portanto, é um ato de adaptação do mesmo conteúdo e/ou narrativa para um suporte diferente [12].

Importa, ainda, distinguir transmediação de conceitos como remediação ou digitalização. A digitalização corresponde, geralmente, à conversão técnica de um conteúdo analógico para um formato digital, sem alterações significativas na experiência de utilização. Já a remediação compreende a repetição de conteúdo/narrativa de um *media* para outro. A transmediação, sim, é um ato de adaptação do mesmo conteúdo e nar-

rativa para um suporte diferente, com as suas especificidades e mutações inerentes [11]. Neste contexto, a transmediação não corresponde apenas à transferência de conteúdos entre suportes, mas à reformulação da experiência narrativa e interativa de acordo com as características de cada meio. Neste artigo, a transmediação é entendida como um processo mais amplo de reformulação da experiência editorial, no qual os conteúdos são reorganizados de acordo com as especificidades narrativas, interativas e sensoriais do novo suporte [11].

Algumas revistas internacionais contemporâneas ilustradas para a infância tais como *CLIJ* (1987), *Petit Sàpiens* (2016), *Kiwi* (2016), entre outras, destacam-se por uma ligação sincrónica e evidente com o virtual, devido às características do público-alvo que querem cativar. Apesar de o consumo do material da publicação através de um suporte digital (ainda) não ser possível, nos casos acima elencados, alguns deles enveredam pela complementaridade do digital, isto é, possuem conteúdos *online* que suplementam a versão inicialmente impressa. Estes conteúdos não implicam necessariamente uma repetição do conteúdo presente na revista impressa. Assim, pode tratar-se de uma matéria ou conteúdo extra, ou até de uma continuação da publicação, como artigos ou ilustrações que não apareceram no periódico análogo. Estes meios digitais introduzem novas formas de interação, temporalidade e navegação, alterando profundamente a experiência de leitura tradicional do objeto ilustrado.

Entre os exemplares portugueses inscritos no universo em análise, encontram-se títulos como *A Casa do João* (2017-2021). Contudo, esta comparação é mais ténue, visto que a adaptação que é feita consta na digitalização ou exportação do ficheiro de impressão para um



Fig. 5. Visualização online da revista “A Casa do João”. [13]

formato de leitura digital, como um *pdfreader* que simula o movimento de viragem de página (Fig. 5).

Através desta breve análise da evolução da revista ilustrada, é possível compreender que a ilustração editorial está a sofrer uma mudança na maneira como é apresentada em termos de conteúdo e de informação [14]. Além disso, é evidente que “os ilustradores já não podem esperar que uma imagem seja considerada concluída apenas na sua forma impressa publicada, mas sim que haja um diálogo contínuo entre criadores e leitores ou público nos ambientes digitais emergentes. [15, p. 23; tradução livre].

Já é possível verificar esta transição nos formatos de *audiobooks* e nos *ebooks*, em subscrições de jornais *online*, entre outros. Quanto à revista, ela não passa de “um artefacto que continua a cumprir a sua função tradicional, mas, ao mesmo tempo, revelando-se como um palco para a inovação, que assegura a sua evolução e reafirma a sua importância social e cultural” [16]. Todavia, é importante salientar que Portugal ainda apresenta um vasto potencial a ser explorado no que diz respeito à publicação de revistas ilustradas para a infância, especialmente no contexto do universo digital.

2. Giroflé: uma revista ilustrada para crianças dos 5 aos 10 anos

Após uma breve revisão da evolução histórica destas publicações destinadas à infância, no universo editorial português e do processo de transmediação, o projeto da *Giroflé* principia com a análise das singularidades de cada suporte e com o reconhecimento de que cada um implica uma gramática própria de interação, antes mesmo da conversão dos diferentes conteúdos. Em Portugal, existem poucas revistas ilustradas autorais que explorem novas formas de leitura. A versão digital, muitas vezes, limita-se a copiar o papel, através da digitalização [17], por exemplo, em vez de expandir a experiência de leitura. Isto é, existe uma oportunidade para repensar o design editorial português para a infância não como uma substituição, mas através de uma abordagem dialógica.

Esta lacuna relativa à escassez da prática da transmediação em revistas infantis portuguesas foi o motor para que esta iniciativa ganhasse forma. A *Giroflé* apresenta-se como uma revista ilustrada para crianças dos 5 aos 10 anos, de teor lúdico-pedagógico, concebida desde a origem como um projeto transmediático. Assim, trata-se de uma revista analógica na qual os seus conteúdos são adaptados para uma aplicação sustentada por suportes portadores de ecrã móveis como um *iPad*. Em termos estruturais, podemos compreender as funções partilhadas entre os componentes do suporte através da Tabela 1.

Analogico	Digital
Capa	Ícone de Aplicação
Guardas	Ecrãs de Arranque
Primeiras Páginas	Dashboard
Miolo	Restantes Ecrãs
Contracapa	-
Índice	Menu de Navegação
-	Botões de Navegação

Tabela 1. Equivalências de propriedades narrativas (elementos estruturais) entre a edição analógica e a digital. [18 p. 131]

Contudo, estas equivalências não correspondem a uma simples tradução estrutural, mas antes à reformulação das funções narrativas e interativas de cada elemento no novo suporte. Com estas analogias em mente, o desenvolvimento da *Giroflé* também se baseou em estudos de outras revistas da mesma natureza, bem como em levantamentos de *feedback* provenientes de testes de usabilidade realizados com alunos do 1º e do 4º ano de escolaridade.

Estes testes de usabilidade foram realizados com 40 crianças, com idades compreendidas entre os cinco e os dez anos, pertencentes ao 1º ciclo de escolaridade. A seleção dos participantes procurou corresponder ao

público-alvo definido para a revista, centrando-se em crianças com hábitos regulares de contacto com publicações ilustradas e dispositivos digitais. Esta recolha obteve autorização prévia da instituição envolvida e consentimento informado dos encarregados de educação dos participantes.

As entrevistas tiveram um registo não estruturado, onde a investigadora manteve a postura participante para a turma do 1º ano (para a leitura dos conteúdos) e não participante para a do 4º ano. Estes testes decorreram em contexto escolar, através da observação direta e captação em vídeo da interação das crianças com os protótipos analógico e digital da revista. Esta recolha de dados procurou compreender aspetos qualitativos relacionados com a intuitividade/dificuldade de navegação, a clareza dos elementos gráficos, assim como o envolvimento e tempo de resposta dos participantes com as experiências interativas.

2.1. Processo de desenvolvimento da revista analógica

Ao longo do processo de desenvolvimento da revista e da adaptação dos respetivos conteúdos para os dois suportes, foi possível estabelecer analogias entre as características de cada formato. Desta forma, este breve estudo apresenta algumas dessas duplas páginas, elaboradas após a recolha e planificação da informação das secções presentes nesta edição.

Fig. 6. Ilustração da dupla página N.º 2 e N.º 3 da edição analógica da Giroflé.



Destaco a primeira dupla página por possuir, do lado esquerdo, um espaço para colocar o nome da criança como proprietária da revista (Fig. 6), o que, na nossa opinião, promove um sentimento de pertença e fortalece a fidelização do público-alvo. Em contraste, do lado direito, apesar de pouco comum, adicionamos um Índice, com o intuito de estudar a sua

transmediação para um Menu de Conteúdos, na versão digital.

Na secção “Em Portugal”, o leitor tem à sua disposição um momento de leitura com base na relação entre os animais e o folclore português, aproveitando a lenda do “Galo de Barcelos” [19]. Este foi um dos casos em que as respostas das crianças revelaram a necessidade de avançarmos com alterações. Importa dizer que na primeira versão (Fig. 7), a ordem de leitura seguia a forma da letra “U”. Como tal, no momento da testagem e da leitura dos conteúdos de forma autónoma, algumas crianças seguiram a ordem correta da história, com o auxílio dos números presentes nos car-

Fig. 7. Ilustração da dupla página N.º 6 e N.º 7 antes dos testes de usabilidade (esquerda) e depois (direita), da edição analógica da Giroflé.



tuchos; contudo, outros leitores olharam para a parte superior da página direita e consideraram que se tratava de um erro de edição. Posto isto, foi necessário ajustar o *layout* desta dupla página.

Ainda na secção “Em Portugal”, mas na dupla página seguinte referente às “Expressões com animais”, uma grande parte das crianças revelou-se confusa e não conseguiu compreender qual o comportamento a adotar. Assim foram, novamente, estes testes de usabilidade que impulsionaram a reformulação das páginas deste separador, visto que a disposição dos grafismos e a competição de elementos visuais tornavam-se confusas para os leitores. Esta observação motivou a simplificação do *layout* e o reforço da separação visual de diferentes componentes.



Fig. 8. Exercício de ligações do livro de Fichas de Avaliação para o 1º ano *A Grande Aventura* (2011) e replicação da sua disposição na dupla página N.º 8 e N.º 9, da edição analógica da *Giroflé*.

De modo a procurar algum elemento familiar ao público-alvo, analisou-se o modo como os Manuais Escolares (Fig. 8) costumam apresentar exercícios de ligações, transpondo a presença de molduras para haver uma separação nítida entre os grafismos. Comprovou-se, também, que as ligações apenas ocupam uma página, não ultrapassando o limite da espinha do livro. Esse princípio foi também aplicado à revista analógica.



Fig. 9. Recorte das cartas presentes na secção “Joga” realizado por duas crianças do 4º ano (2024).

De modo a que a dinâmica entre o leitor e a edição se estendesse para além do papel, procurou-se implementar exercícios que elevassem o processo de interação. Como tal, há momentos nos quais se convida a criança a deixar a sua pegada na folha, outros em que está prevista a concretização do jogo do peixinho presente nas páginas 14 à 18 (coincidindo com o meio da revista), onde a criança é incentivada a arrancar e cortar o papel para obter as cartas necessárias para jogar (Fig. 9).

Além disso, importa lembrar que a revista *Giroflé* também possui mais do que uma orientação de leitura, visto que as edições para a criança “(...) utilizam uma variedade de paginações para realçar o ritmo da narrativa (...)” [20, p. 4; tradução livre]. Ao longo do desenvolvimento dos conteúdos para este projeto foi tida em consideração a necessidade de incrementar um ritmo variado para manter a criança intrigada, alternando entre um teor informativo e um tom lúdico-didático.

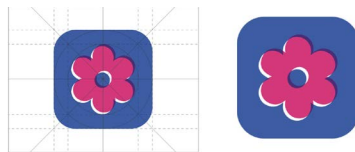
2.2. Processo de desenvolvimento da revista digital

A transição da revista analógica para o suporte digital implicou, também, uma transformação do papel da criança perante o objeto editorial. Na versão impressa, o leitor interage, sobretudo, através da manipulação física da revista, da observação das ilustrações e da realização de exercícios propostos pelas páginas [20]. No contexto digital, a criança assume simultaneamente o papel de leitor e utilizador, uma vez que a experiência passa a depender da sua ação direta sobre a interface [19].

O toque, a navegação e a ativação de sons, animações e respostas visuais/sonoras transformam a leitura numa experiência mais dinâmica. Neste contexto, o utilizador deixa de apenas interpretar conteúdos e passa também a desencadear interações que influenciem o ritmo e o percurso da experiência editorial, reforçando o diálogo entre o leitor e a imagem em ambiente digital [15].

No processo de transição da revista analógica para a versão digital, foram selecionadas algumas páginas para a sua respetiva conversão e análise no que se refere ao processo de transmediação. Ou seja, a aplicação não existe na sua totalidade, mas sim como uma proposta conceptual de adaptação representada através de um vídeo de simulação que mostra as soluções apresentadas. Deste modo, apresentaremos uma seleção de duplas páginas adaptadas, bem como daremos nota de alguns elementos que suscitam reflexões e análise comparativas. Importa, então, referir que os testes de usabilidade realizados centram-se sobretudo na análise das potencialidades interativas e na perceção da experiência de utilização, não permitindo avaliar integralmente aspetos técnicos associados à utilização contínua da aplicação.

Fig. 10. Grelha do ícone da aplicação (esquerda) segundo as guias *Apple* (2024) e ícone da aplicação digital da revista ilustrada *Giroflé* (direita).



Em primeiro lugar, a transformação do logótipo num ícone da aplicação (Fig. 10) foi fundamental. À luz do fenómeno da transmediação, consideramos que a capa de uma revista e o ícone de uma aplicação digital desempe-

nham um papel fundamental na criação da primeira impressão do consumidor. Servem como ponto de entrada para a experiência que o público terá, podendo influenciar a decisão de leitura ou interação.

Na nossa ótica, o *storyboard* e o *flowchart* são duas ferramentas de estudo e de planificação que desempenham um papel crucial na organização e visualização das narrativas. Este paralelismo reside no objetivo comum de facilitar a fase preparatória, através de mapas visuais que auxiliem a compreensão do produto final. Enquanto que o *storyboard* enfatiza a representação visual e narrativa, o *flowchart* realça a interatividade e a experiência do utilizador.

Na edição analógica, como abordado anteriormente, existe o espaço para colocação do nome do leitor. Este foi substituído por uma caixa de texto para inserção do nome do usuário. Apesar de não suscitar a mesma perceção de posse e materialidade da escrita manual, esta função permite a personalização dinâmica da experiência, integrando o utilizador na

narrativa ao longo da navegação, visto que o nome da criança vai surgindo pontualmente ao longo da leitura dos conteúdos da revista, destacando-se cromaticamente em relação ao restante texto.



Nesta mesma linha de adaptação de características e elementos presentes na edição analógica, merece destaque a transição do Índice para o Menu de Conteúdos (Fig. 11). Nesta listagem, eles possuem objetivos semelhantes. Contudo, este ecrã também pode ser justaposto ao movimento de viragem das páginas, na medida em que ambos

visam permitir ao leitor navegar nos dois suportes.

Porém, ao contrário do índice impresso, o menu de conteúdos permite uma navegação não linear e imediata entre ecrãs, oferecendo ao utilizador maior autonomia sobre o percurso de leitura. Os testes de usabilidade revelaram que as crianças tendiam a explorar primeiro os elementos navegáveis e interativos antes de seguirem uma leitura linear dos conteúdos, demonstrando uma relação mais exploratória com a interface digital.

Sobre a secção “O que é?” importa dizer que a edição digital e analógica tem ilustrações semelhantes, mas há pequenas variações nas poses dos animais (Fig. 12). Estas assumem o objetivo de mudar a posição do animal assim que o utilizador toca na imagem em causa, emitindo o respetivo som da sua onomatopeia acompanhado desta mudança visual. A versão digital transforma a ilustração de um elemento contemplativo num elemento responsivo. A imagem deixa de ser apenas observada e passa a reagir à ação do utilizador, criando uma experiência multimodal baseada em toque, som e movimento. Consideramos isto como um ganho em termos sensoriais quando se efetua a transmediação do suporte analógico para o digital. A necessidade de ação direta do utilizador transforma a relação com a ilustração, que deixa de ser exclusivamente contemplativa e passa a depender da interação para revelar comportamento e som.

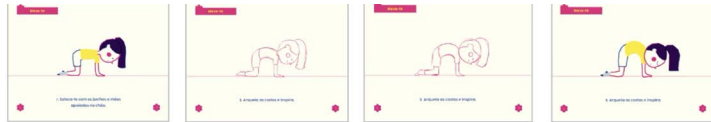


Fig. 11. Menu de Conteúdos da edição digital da *Giroflé*.

Fig. 12. Primeiro ecrã da secção “O que é?” (esquerda) e o mesmo ecrã quando se carrega no gato (direita), ambos da edição digital da revista *Giroflé*.

Efetuuou-se a escolha de desenvolvimento da secção “Mexe-te” visto que foram debatidas, pelos elementos envolvidos neste projeto, as analogias entre as ilustrações da revista deste segmento em específico e o conceito de *keyframes* (Fig. 13). Partindo das ilustrações da versão analógica como

Fig. 13. Exemplo de *keyframes* (*extremidades*) retiradas da versão analógica e desenvolvimento dos *in-betweens* (*rascunhos no meio*) para a secção “Mexe-te”, da edição digital N.º 1 da revista *Giroflé*.



3. Considerações finais

Este artigo procurou analisar de que forma a transmediação pode expandir a experiência editorial de uma revista ilustrada infantil para além da digitalização do suporte impresso, tomando como estudo de caso o projeto *Giroflé*. Para além da concretização prática do projeto da revista ilustrada em formatos analógico e digital, este estudo contribui para a reflexão sobre princípios de transmediação aplicados ao design editorial infantil, exigindo uma reformulação da experiência de leitura de acordo com as possibilidades narrativas e sensoriais do novo suporte.

O contexto analógico suscita habitualmente um sentimento de posse do objeto, bem como foi possível constatar que este facultava múltiplas modalidades de interação, graças à sua materialidade. Em contrapartida, o meio digital pode ser considerado um pouco mais “distante”, mas essa caracterização é combatida com mecanismos interativos que acabam por proporcionar um sentimento de pertença, como o caso de colocação e surgimento pontual do nome da criança.

A materialidade do suporte analógico permite formas de interação física mais livres e imprevisíveis, contrastando com as interações condicionadas pela programação da versão digital, como no caso do incentivo à concretização de cortes de páginas ou até mesmo ao exercício da criança pisar a própria revista para deixar a sua pegada. Se no processo analógico se observa a eternização da leitura, no suporte digital podemos constatar uma reprodução infinita, ou seja, a criança pode ler, brincar e interagir com o suporte um número ilimitado de vezes e de modos diferentes, embora limitados ao intervalo fixo de ações determinado antecipadamente no momento da criação da versão digital.

Em termos sensoriais, o tato predomina na versão analógica, dada a fisicalidade do suporte e até o tipo de material que a criança utiliza para fazer os seus registos, como lápis, marcadores, tinta, entre outros. Adicionalmente, é possível, igualmente, o recurso a diferentes odores através do uso de tintas, papéis ou técnicas de impressão distintas. A audição está igualmente presente, contudo, encontra-se restrita aos custos de produção ou à disponibilidade de mecanismos sonoros, conforme abordado anteriormente. Esta valência sonora, por sua vez, é significativamente mais acessível no contexto digital, onde os sons diegéticos e não diegéticos podem ser implementados no momento da programação. A animação e a interatividade (não exclusivas deste suporte, mas mais fáceis de implementar, na verdade)

permitem que as ilustrações estáticas previamente conhecidas ganhem movimento e tenham uma resposta mediante a ação do leitor.

Apesar das potencialidades observadas durante os testes de usabilidade, algumas interações dependeram de mediação inicial para serem plenamente compreendidas pelas crianças, evidenciando a importância da clareza visual e da intuitividade em projetos editoriais digitais dirigidos ao público infantil. Em suma, consideramos que todo este processo de criação proporcionou uma compreensão e um estudo intensivo sobre as vertentes digitais e os meios de conversão associados ao formato impresso, através de uma abordagem prática e da concretização de uma proposta de publicação dirigida à infância.

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References

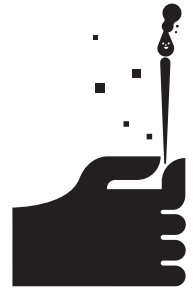
1. Bastos, G.: *A Escrita para Crianças em Portugal no Século XIX. Caminho* (1997)
2. Santos, G. S. M. M.: *Ilustração de Livros de Literatura Infantojuvenil em Portugal [2000-2009]: tipificação, tendências e padrões de recetividade do público-alvo* (Tese de Doutoramento, Instituto de Educação da Universidade do Minho). Repositório Institucional da Universidade do Minho. <http://repositorium.sdum.uminho.pt/handle/1822/38467> (2014)
3. Mendes L. M. L. F.: *Ler em Tempo Livre Durante o Estado Novo: a função do Suplemento Infantil Pim-Pam-Pum na Formação da Criança* (Dissertação de Mestrado, Instituto de Educação da Universidade Lusófona de Humanidades e Tecnologias). Yumpu. <https://www.yumpu.com/pt/document/view/12638004/ler-em-tempo-livre-durante-o-estado-novo-recil> (2010)
4. Tralhas Várias: *O Papagaio – Todos os Números*. <http://tralhasvarias.blogspot.com/2017/11/o-papagaio-todos-os-numeros.html> (2018)
5. Pinto, R. L. L.: *A Censura e as Publicações Periódicas Infanto-Juvenis no Estado Novo: o papel da Comissão Especial para a Literatura Infantil e Juvenil e da Comissão para a Literatura e Espetáculos para Menores (1950-1968)*. (Tese de Doutoramento, Faculdade de Letras da Universidade de Lisboa) Repositório da Universidade de Lisboa. <https://repositorio.ul.pt/handle/10451/37925> (2019)
6. Bellotti K. K.: “‘Delas é o Reino dos Céus’: Mídia Evangélica Infantil e o Supermercado Cultural Religioso no Brasil (Anos 1950 A 2000)”. *História*, 28 (1), 621- 652. (2009)
7. Publicadora Atlântico: *Nosso Amiguinho N.º 1 – O Grupo vai Acampar*. <https://web.archive.org/web/20241214081214/https://www.nossoamiguinho.pt/> (1986)
8. Silva, S., Madureira M., Tavares P.: *O Livro Ilustrado Digital e o Livro Ilustrado Impresso. Possibilidades de Transição. CONFIA* (2012)
9. Morais, L. N.: *O Design Editorial de Revistas Para Crianças: A ‘Nova’ Infância*. (Dissertação de Mestrado, Faculdade de Belas Artes da Universidade do Porto). Repositório Aberto da Universidade do Porto. <https://repositorio-aberto.up.pt/bitstream/10216/109094/2/233082.pdf> (2017)
10. Ferreira J.: *O Papel da Criança no Processo de Decisão de Compra da Família*.

- (Dissertação de Mestrado, Faculdade de Economia da Universidade do Algarve).
Repositório Online da Core. <https://core.ac.uk/download/pdf/61510611.pdf> (2013)
11. Bulibaša, A. L.: In-Between Worlds: A Complex Transmedia Universe about Myths, Creatures and Traditions. *Studia Ubb Dramatica*, LXVIII (1). pp. 141-157. Babeş-Bolyai University (2023)
 12. Salmoose N. & Elleström L.: *Transmediations: Communication Across Media Borders*. Routledge (2020)
 13. Trinta por uma Linha: A Casa do João https://issuu.com/geraltrintaporumalinha.com/docs/a_casa_do_jo_o_-_revista_de_litera/2 (consultado pela última vez a dezembro de 2024, ficheiro arquivado)
 14. Wand, E.: *Interactive Storytelling: The Renaissance of Narration*. BFI. (2002)
 15. Shelby A.: Editorial Illustration: Audience Interaction through Time and Space. Conferência Internacional em Ilustração e Animação [International Conference on Illustration & Animation]. pp. 23-36. Instituto Politécnico do Cávado e do Ave. (2021)
 16. Santos, R. P. V.: O Influxo da Mudança do Álbum Ilustrado: A Influência da Gramática Digital (Tese de Doutoramento, Faculdade de Belas Artes da Universidade do Porto). Repositório Aberto da Universidade do Porto. <https://repositorio-aberto.up.pt/handle/10216/80137> (2015)
 17. Miller, C.: *Digital Storytelling: A Creator's Guide to Interactive Entertainment*. (2014)
 18. Pinto, B.: Álbum Narrativo Digital: uma Nova Forma de Edição. (Tese de Mestrado, Faculdade de Engenharia da Universidade do Porto). Repositório Aberto da Universidade do Porto. <https://hdl.handle.net/10216/68657> (2013)
 19. Frade, R.: Lenda do Galo de Barcelos. Portugal num Mapa. <https://www.portugal-nummapa.com/lenda-do-galo-de-barcelos/> (2016)
 20. Al-Yaqout, G. & Nikolajeva, M.: Re-conceptualising Picturebook Theory in the Digital Age. *Nordic Journal of ChildLit Aesthetics*, 6. <http://dx.doi.org/10.3402/blft.v6.26971> (2015)

Gods, Kings and Demons - Reviewing Image making in Indian Classical Temple Art for Character Design

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Abstract

The texts that prescribe guidelines for creating sculptures in Indian temples consist of a range of depictions of characters ranging from gods to demons. These images are constructed as per the directions given in *Shilpa Shastra* which provides a prescriptive grammar for image-making. The sculptural knowledge offers opportunity in image making through the *Talamanam* system (measurement) depicting figures in various *Asanas* (posture), *Mudra* (hand gestures) and *Bhava* (expressions). This paper has delved into the *Talamanam* system of image making in Indian classical temple art that gives precise measurements for a wide range of sculptures. The objective is to study this system from the perspective of character design for animation. While the system offers opportunities for character design, its prescriptiveness and rigid scale presents limitations for character design in two-dimensional mediums. There are various ways in which this system is used starting from the use of exact measurements to devising a scale inspired from the *Talamanam* system to create characters of varied proportions. The creation of three different scales serves as a guide for internal measurements of a character, a guide for relative heights between characters and characters with different head sizes. Use of these scales isn't mutually exclusive as the scales have the potential to be used simultaneously to accommodate different requirements for a style.

1. Introduction

One may find references across various cultures for prescriptive guidelines for character design. In India there is a tradition of codifying prescriptive knowledge about artforms such as *Shilpa* (sculpture), *Natya* (dance) and *Vaastu* (architecture) in the form of scriptures [1]. This codified knowledge is transferred from generation to generation by the master apprentice model. Due to this classical traditional knowledge transfer, there is consistency in depiction of characters, gestures, postures and other details in temples and other sites like Ellora across the Indian subcontinent. The texts on Indian sculptures talk about image-making that represents figures in various *Asanas* (postures) with different *Mudras* (hand gestures) and *Bhava* (expressions) [2].

Keywords

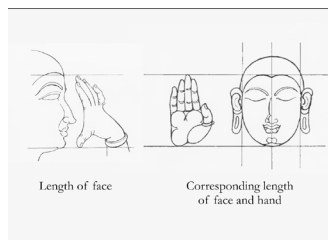
Character Design;
Animation; Talamanam
System; Indian
Sculptures; Proportion
Drawing Systems.

These images were created primarily in stone and metal for worship within temples and on their walls, depicting characters such as deities, sages, *yakshas*³ and demons. Such diverse depiction demands a visual language that allows for variations within these categories and effectively depicts the action and personality of these characters. For this study, this image-making art form is reviewed to identify the ways in which it can inform character design for animation. Animation production all around the world has informed its practice through various art forms of its time and the past. Lamarre talks about the language of Anime being informed by the Ukiyo-e woodblock prints in his book 'The Anime Machine' [3]. Disney's *Illusion of Life* talks about the role of theatre in shaping the performance of characters in Disney and even the very principles of animation, especially anticipation [4]. In this paper we focus on the *Talamanam system*, a system of measurement in sculpture making and its implication in image making of human figures. Character design for animation employs a method similar to the *Talamanam* system of measurement but without the prescriptiveness of scale and shape, but it requires a coherent style which can be achieved through the given proportions and shape language [5].

The focus on proportions is evident in various image making practices, like fine arts, animation, etc where consistency is emphasized. Anime productions employ a wide variety of body proportions like Chibi (1:2 or 1:3 head to body ratio) or mature looking characters (1:5 or greater head to body ratio) [6]. The image making guidelines given by Loomis [7] point to a simple yet effective proportion system for male and female figures through different ages where the head sizes differ from baby to fifteen years of age. The use of head to body ratio, though in different ways, is a common practice informing all of these image making practices including character design for animation that employs size relationships for creating interesting characters[5].

2. The Talamanam System

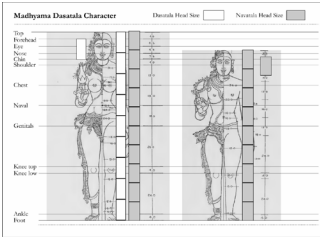
Fig. 1. The measurement of one Tala in Navatala image as per the Talamanam system. [2]



The *Talamanam* system mentioned in the *Manasara shastra* [8] as discussed by Ganapati (2002) prescribes in detail the relative measurement of characters with respect to each other as well as the parts of the body on an individual character. The basic unit of measurement is a *tala* which is the length of the span of the palm (Fig. 1) or the length of the face from the

upper level of the forehead to the lower level of the chin in *Navatala* images. A *Navatala* image is nine *tala* high. This serves as a standard for all other images, namely *Dasatala* (ten *tala*), *Ashtatala* (eight *tala*), *Saptatala* (seven *tala*), *Shattatala* (six *tala*) and *Panchatala* (five *tala*). It is important to note here that a *Dasatala* doesn't mean the character is 10 faces tall. If one were

³ A category of spirits that serve the gods



to measure the length of its face and compare it to the overall height, it would be closer to nine and a half faces (Fig. 2).

A *Dasatala* image is as high as 10 *Navatala* faces. A *Dasatala* face is therefore longer than one *tala*. It is only in *Navatala* that the face is one *tala* in length. The faces are then ad-

justed in height to suit the height of the character. This is done to maintain the aesthetic appeal of the image while keeping their hierarchical heights intact. As we get to *Shattatala* and lower *tala* images the head to body ratio goes to larger heads in comparison. A typical *Shattatala* image has a head to body ratio of one to eight (Fig. 3).

A *tala*⁴ derived from *Navatala* is divided into a smaller unit called a ‘*viral*’ which is one-twelfth of a *tala*. The *viral* is further divided into a subunit called ‘*yavai*’ which is one-eighth of a *viral*. These measurements form the basis of the *Talamanam* system as mentioned by Ganapati (2002). Each *Talamanam* category of image has further three variations in size which is the actual *tala* measurement (*Madhyama*), 4 *viral* more than actual (*Uttama*), and 4 *viral* less (*Adhama*). So a *Dasatala* image can be *Madhyama Dasatala*, *Uttama Dasatala* or *Adhama Dastala*. The *Talamanam* system is not just limited to sculptures, they are a part of flat image(*chitra*) making practices as mentioned in the *Vishnudharmottar purana* [9].

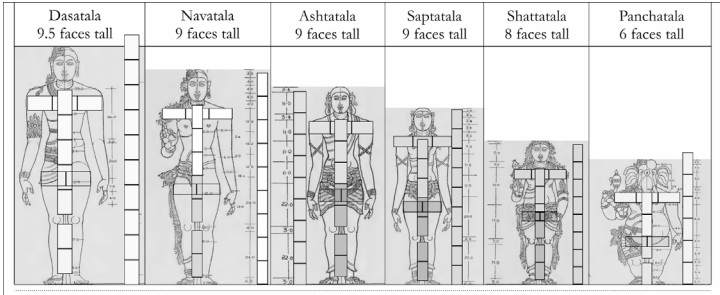


Fig. 2. 10 *Navatala* heads is almost as high as 9 *Dasatala* heads. [2]

Fig. 3. Face to body ratio in different *tala* images with each box representing their face length. [2]

3. Designing Characters Using Talamanam

There are some key distinctions in approach to image-making through *Talamanam* system as compared to character design for animation where a ten heads tall image has a head to body ratio of one to ten and conversely a seven heads tall image has a head to body ratio of one to seven, which brings a few considerations while using the *Talamanam* system in character design for 2D hand drawn medium.

Another key issue that comes up is that although the *Talamanam* system allows for a range of characters with different size relationships on the height measurements, the relative width in each *tala* system is quite fixed

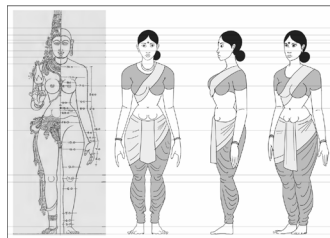
⁴ Tala is a unit of measurement whereas the word *Talamanam* is used as a system of measurement

and needs to be altered to explore other size relationships in the same *tala*. For instance, almost all male figures irrespective of their height have 3 face lengths in shoulder width (Fig. 3). The images fashioned in such prescriptive measurements often lack diversity of description in body types typically adhering to conventional albeit exaggerated standards of aesthetics.

In order to apply this information into character design for animation one must consider how to correspond these findings to practice without having to adhere to the prescriptive measurements. As per Tom Bancroft's *Creating Characters with Personality* [5] the basics of character design starts with shapes and size relationship or proportions. The sculptural art form would help one to use either the measurements, or the idea of the *tala* as a scale using head size [5]. If one follows the measurements from the texts on sculptures, the character will follow the proportion of the characters prescribed in the sculptural text. If one uses the idea of head's length as interchangeable with *tala*, it aligns with the well established size relationship practiced in character design for animation; for example, babies are usually 3 heads tall, an adult male usually 6 to 7 heads and an adult female as 6 heads tall as per Bancroft's style [5]. One can exercise a different size relationship as per one's own style. While the *Talamanam* system uses the *Navatala* as the anchor for size relationships, it would help to compare this method with other head size proportions systems. The following section will show the use of the scale through character design led approach to capture the ways in which the *Talamanam* system can be used and compare its utility with other scales.

3.1. Using Talamanam measurements

Fig. 4. Character made with the measurements of the *Talamanam* system (*Madhyam Dasatala*).

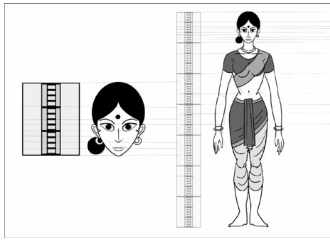


Designing a character through the exact measurements leads to an image very similar to the images constructed in sculptural form. One can take freedom with shape language and visual elements like eyes, toes, fingers, head, feet, limbs, etc.

As one can see in figure 4, even though the body measurements are used for almost all parts, one can exercise freedom in the shape language and create characters while using the measurements of the *Talamanam* system to the fullest. This style, for instance, exhibits longer arms which is an inherent part of the measurements prescribed in the *Shilpa shastra* [2].

3.2. Creating the Scale

While the guidelines of the *Talamanam* system give precise measurements for image making, they are meant for a specific sculptural style. To apply the idea of a scale for different parts of the body, one can devise a scale for their own style using the intent of the *Talamanam* scale. One may create subdivisions and subunits as per their own style and requirements. Each character may have their own scale or follow a universal scale. As

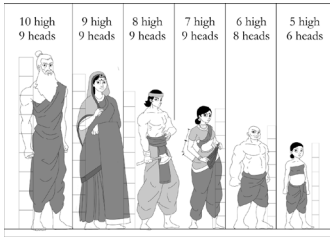


seen in Fig. 5, the character has been designed with their head as a unit of measurement. This unit is further divided into a subunit that is one third of the length of the head and tracks their forehead, eyes and nose. Further subdivision of each subunit into 4 sections helps with tracking the eyebrows, lips and ears. This

Fig. 5. Character made with one's own scale.

scale, when used to construct a character, can help with precise measurements for the rest of the body as well.

3.2.1. Using the Talamanam Proportions



Using the *Talamanam* approach one can create characters which have essentially the same head to body ratio but different heights. Here one can use the head size of a nine head tall character and define the heights of the rest of the characters. Here '10 high' means 10 units of height compared to 9 units of height of the second character (Fig. 6). Here the head

Fig. 6. Using only the scale of Talamanam to create a set of characters of different size and age.

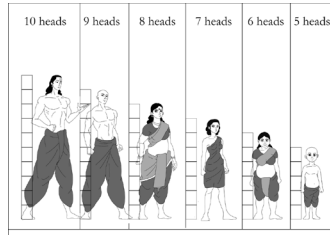
to body ratio is what is followed in the *Talamanam* system. For dwarves and children, the body to head ratio is observed as 8 and 6 respectively. This is similar to the face to body proportions used in Fig. 3. where the *Shattatala* image was 8 faces high and the *Panchatala* image was 6 faces high.

Along with the position of the waist, the knees, the length of the hand and various other parts of the body one may notice measurement lines around the right arm of the 7 high female character which measures the appendages in terms of the head length (Fig. 6). This method allows for character designs with varying measurements both in head sizes and body size, while providing reference for relative measurements of the key body parts like torso, head and limbs. This also functions well for the first four characters which have the same head to body ratio but different age, height and gender. This method exhibits parallels with the Loomis' proportions where the ideal male or female proportions are set first and the other heights are variations of head sizes and head to body ratio [7]. The key distinction to note is that the height difference here is in multiples of the head length on one character that acts as an anchor for other characters. This results in a huge difference in heights of subsequent characters.

3.2.2. Keeping the same head size as a scale

If one decides on a particular head size as a standard one can try out different characters with different head to body ratios. This is a standard method of character design for animation as mentioned in Bancroft (2006) where head proportions for different characters are compared with kids having a larger head to body ratio than an adult and a similar

Fig. 7. Using the same head measurement for all characters of different size, age and gender.



larger head to body ratio for women as compared to men. This scale also allows for uniformity of characters in a way that they look like they belong to the same style or family of characters (see Fig. 7). This allows for variation among the same type of characters and leaves enough room for experimentation on size,

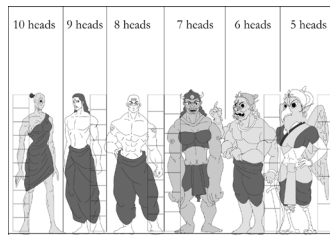
age, gender and body type while still allowing for exercising consistent language within a family of characters. This is an approach similar to Manga character design where the head size is constant for a character category and the variations are presented through different head to body ratios with two to four heads as chibi characters and the ones above as more mature [6].

3.2.3. Same height but different head to body ratio

This can be used for making characters that belong to different categories of the cast in the same style. In Fig. 8 the character with 9 heads is treated as a standard character and the rest of the characters are deviations from that scale. The height of all characters is kept the same. Here a 10 head long body would have a very small head, one can create a character that is almost human in anatomy but somewhat non-human. An 8 head character can have a strength based build with a larger torso comparative to 9 heads.

This proportion is pushed further as we go with larger heads and can lead to more diverse characters with human-like anatomy but a completely different family of characters as one can see the design of demons from 7 heads and 6 heads. The 5 head high creature with the same height would have a lower centre of gravity for balance. This leads to a

Fig. 8. Using different head sizes to create different characters of the same height .



lower waist and shorter legs. As one can see, the larger the head, the lower one can place the torso. This isn't a prescriptive guideline. One can make characters with a very large head, long legs and a short torso, very similar to a slender man or spider-like appearance. As seen in Fig. 8, the possibility of creating a diverse range of characters within a style and a height constraint is possible through varying head to body ratio.

Thus these scales can be used for different purposes to create characters with wide variations while still following a consistent scale internally and within the same style. The *Talamanam* proportion accommodates different heights of characters with same or varying age which draws parallels to Loomis [7], except that here the anchor height is 9 heads tall and the head sizes of the rest of the characters adjust in relation to this anchor. The constant head size for all characters finds its appeal in ease of application while giving way to representing all ages and heights which is very

similar to the method used in manga [6]. The more interesting application of the proportion finds way in the same height with different head sizes where one can accommodate entirely new categories of characters while following the same style. Such applications are not exclusive to any one style of character design and can be used simultaneously to create a wide variety of characters within the same story if the need arises.

Scale Type	Utility in Character Design	Similarity
Talamanam Proportion	Different heights, age, gender	Loomis
Same Head Size	Simplified, consistent, convenient	Manga
Same Height Different Head Size	Different categories/species of characters	-

Table 1. Comparison and uses of the scales employed in the study.

4. Conclusion

Indian Sculptural text prescribes in great detail each part of the body with-in major characters. It has a fixed hierarchy of characters with the smallest part of the body such as the pupil of the eye being measured. While the text offers precise measurements for the characters, taking inspiration from the *Talamanam* system in character design one can devise one’s own scale of image making which can help in bringing similar cohesion in the style while leaving enough room for exploration.

Despite the nine heads being used as a standard in most of these character designs, one can construct their own measurement system in the same fashion and define the images with similar precision. This allows for a conscious usage of an existing system to make characters for a large cast of different families of characters. There is a possibility of making 6 different variations of demons, while obeying the internal proportions, of the scale in section 3.2.1 is used where the first 4 characters have the same internal proportion of 9 heads.

This however demands one figure which is 9 heads here in our exploration as an anchor for the rest of the heights. The *Talamanam* system allows for minor height variations through Uttama, Madhyam and Adhama categories in each *tala* which is yet to be explored through the scale. The three approaches to the scale can be used simultaneously for different purposes. The first 4 characters of section 1 ensure the construction of characters within the same internal proportions with 4 different sizes and genders. The second section explores the possibility of creating characters with the same head size but different age, gender and build, whereas the third section gives the possibility of making characters with stark differences, belonging to a category within themselves. Such scales can be constructed as per one’s own style if one decides on a standard character to anchor the scale on.

There are other aspects of the knowledge on Indian sculptures that can be used to embed further stylistic and structural details in a large cast. The Bhanga (flexion) in the posture can define the personality while

Chayal (likeness to natural objects) can lend contextual adaptation of shape language (eyes shaped like lotus, fish) that makes the characters rich with metaphorical and narrative based details.

The use of knowledge about the *Talamanam* system in *Shilpa shastra* has offered an interesting method for determining proportions and if it is used along with the other two scales discussed in 3.2.2 and 3.2.3 can create a wide variety of characters comprising of gods, demons, *yakshas* and humans of different body type, age and gender. The system thus exhibits potential to inform the proportions of character design in animation.

References

1. K.Vatsyayan. The Square and Circle of the Indian Arts. (1997)
2. V. Ganapathi. Indian Sculpture & Iconography. Mapin Publishing Pvt. (2002).
3. Lamarre, T. The anime machine : a media theory of animation. University Of Minnesota Press. (2009).
4. Thomas, F., & Johnston, O. The illusion of life : Disney animation. Hyperion. (1995). (Original work published 1981)
5. Bancroft, T. Creating characters with personality. Watson-Guption. (2006).
6. Hayashi, H. Sketching Manga-style: Logical proportions. Graphic Sha Publishing. (2007)
7. Loomis, A. Figure drawing for all it's worth. Titan Books. (2011)
8. Panda, N. C. Architecture of Mānasāra. (2011).
9. Priyabala Shah. Vishnudharmottara-Purana : Pauranic legends and rebirths : English translation of first khanda. Parimal Publications. (1999)

Surrealism in the oneiric representation in digital games

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Abstract

This study examines how Surrealism has influenced the representation of dreams and the act of dreaming in digital games in order to aid the development of a demo and pre-production version of a game with two distinct phases: one where the player is awake and another where the player enters the dreams of NPCs – non-player character’s. Surrealism is an artistic, literary and cultural movement that emerged in Europe around the 20th century. It rejects rationalism and classicism, opting instead for an expression of the unconscious, madness, dreams and feelings. Oneiric refers to everything related to dreams, their atmosphere, logic and imagery. It is a concept that describes subjective, symbolic and often surreal experiences that simulate the sensation of dreaming. Given the close relationship between the two concepts this paper aims to seek if there are benefits of using Surrealism language in the development of a game, whether visually, narratively or mechanically and how to apply this influence. In order to carry out this analysis this paper first analyzed the separated presence of Surrealism and the Oneiric in digital games, followed up by the connection between the two with a visual and game design analysis. It also presents three games as cases of study: *AI: The Somnium Files*, *Back to Bed* and *LSD: Dream Simulator*, that were selected for their relevance and different approach to represent the Oneiric, being analyzed through direct experience by playing them and indirect experience from playthroughs/gameplays and reviews. And it was concluded that our game would benefit from the creation of an original visual surrealist language, rather than using direct references to well-known Surrealist works, and the overall use of Surrealistic techniques in various stages of the development of the game, in order to better represent the strangeness, disorientation, unreal and illogical feelings of dreams, and separating the Oneiric representation from the awake one.

1. Introduction

This paper is part of an ongoing project, at Polytechnic Institute of Cávado and Ave (IPCA) in the Master’s degree in Illustration and Animation

Keywords

Surrealism; Oneiric;
Digital Games; Character
Design; Game Design.

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(MIA). The project aims at exploring how Surrealism has influenced the representation of dreams and the act of dreaming in digital games, in order to aid the development of a demo and pre-production version of a game with two distinct phases: one where the player is awake and another where the player enters the dreams of NPCs – non-player character's. This paper delves into the early research of the master's project and the theoretical underpinnings as ground for the development of a game and making the difference between the 'awake world' and the 'dream world' as distinct as possible for the player, prioritizing the feeling of being inside a dream when entering the Oneiric.

The decision to study the Surrealist Movement and its influence on the representation of the Oneiric – everything related to the act of dreaming, and dreams themselves – in digital games came from a natural association, given the close relationship between the two. Therefore, the research analyzes the use, or not, of Surrealist imagery in digital games that clearly represent the Oneiric and the act of dreaming to find out if there are benefits to the use of Surrealism and how to use it. In order to carry out this analysis, we reviewed several digital games and selected a few titles that are relevant to this paper for a more in-depth analysis through direct experience of playing them and indirect experience from playthroughs/gameplays and reviews.

The paper is structured as follows: the first section of this paper covers Surrealism and Oneiric representation with a brief contextualization of them and analysis of the separate presence of Surrealism and the Oneiric in digital games. Then, we present the visual and game design analysis of four digital games - *AI: The Somnium Files* [1], *Back to Bed* [2] and *LSD: Dream Emulator* [3] - that present relevant content for our project. Finally, the paper concludes by reflecting on the results and potential future developments for this research.

2. Surrealism and Oneiric representations

2.1. The Surrealist Movement and its representation in digital games

Surrealism is an artistic, literary, and cultural movement that emerged in Europe in the early 20th century in the context of post-World War I, led by André Breton, who consolidated the term by publishing the *Surrealist Manifesto* in 1924 [4]. This movement, like Dada, was a lifestyle [5] and it is a derivative of it. However, despite being Dada's heir, Surrealism contradicted Dada's core philosophy as Breton accused Dada of 'insolent negation' and a taste for 'scandal for its own sake' [6]. While Dada was a chaotic movement that heavily criticized modern society's rigid systems and was waiting to overturn them, Surrealism was trying to re-enchant life by building a connection between artists and their inner thoughts, exploring the unreality of them. In Breton's *Surrealist Manifesto* Surrealism was said to be 'based on the belief in the superior reality of certain forms of previously neglected associations, in the omnipotence of dream, in the disinterested play of thought.' [4]. And while Surrealism differed

from Dada in many ways it retained its attention to irrationality, but the influence of the theories of psychoanalyst Sigmund Freud, specially by the book *The Interpretation of Dreams* [7] and Psychoanalysis set them apart by being a guiding light to the movement [8].

Surrealism then provides the tools to express the mind's true thoughts without the limitations of moralities or aesthetics, aiming to represent the unconscious, madness, dreams and repressed desires [9] while rejecting rationalism and classicism. It also argues that, when artistic expression is freed from the expectation of recreating a faithful depiction of reality, it achieves a state of new profoundness and authenticity. Therefore, being in contact with their dreams, their Oneiric, is the best way for the artists to create meaningful art [10]. With the evolving of the movement, from primary literary, with 'automatic writing', to visual arts, with painters searching for the ideal of 'painting poetry' and 'dream painting', painting started to play a prominent role in Surrealism [6]. However, since transcribing dreams to something visual and static, as a painting, requires careful and conscious consideration it sparked some debate between the Surrealist members as the process of a painting countered the ideal of bypassing the control of reason. This criticism prompted the creation of techniques like the frottage - the technique or process of taking a rubbing from an uneven surface to form the basis of a work of art - in order to produce visuals equivalent to the automatism of the movement's poets. As such, revisions and constant re-evaluation of Surrealism principles became part of the norm of the movement while it evolved to other branches of the arts.

In regards to the representation of Surrealism in games, there is already a compilation of techniques used in Surrealism that are also applied to games, and the titles of them, in the book *A Book of Surrealist Games* [11] by Alastair Brotchie written in 1995. He describes how Surrealist games aid in creating free words and images by removing the constraints of rationality, supporting Brenton's vision that the Surrealism Movement would recover humanity's imagination. However, while some principles remain true for digital games, this book does not cover the influence of Surrealism in digital games. Digital games are immersive digital experiences that have many genres and mechanics and they can simulate a fictional and often fantastical reality, containing unreal elements that defy rational logic. When this happens, their core becomes close to the principles of Surrealism, and its influence can be found in visual, narrative, and mechanical aspects of digital games [12], as we observe in the following three examples.

First, we can look at *Surrealidade - Definitive Edition*⁴ [13] released in 2022 and produced by Dimitri Kozma and Orbe Filmes. This game showcases how Surrealism can influence the visual aspect of digital games, since it contains formal elements of the movement, such as distorted scenarios, impossible architectures, and the combination of incoherent elements. We can also observe metaphorical scenarios with bizarre characters combined

⁴ There are two versions of this game, the original one being released in 1999 by the same authors, however since it was not possible for us to access the original version, we decided to only consider the 2022 online version for this paper.

with a vivid and contrasting color palette, with key elements highlighted, that evoke a feeling of strangeness, disorientation, or unreality in the player, typical of Surrealism. Moreover, it draws direct inspiration from the works of Salvador Dalí with melting clocks, doors that lead to emptiness, strange humanoid creatures and even showcasing the film “*Un Chien Andalou*” (1929), by Dalí and Luis Buñuel, in its integrity.

Second, we can consider the game *Anodyne 2: Return to Dust* [14], produced by Melos Han-Tani and Marina Kittaka and released in 2019, as an example of how Surrealism can influence the narrative of digital games. The narrative of *Anodyne 2* focuses on the main character, Nova, as she tries to free herself from the influence of a religious entity known as The Centre. This internal struggle is depicted through allegorical scenarios, abandoning the linear storytelling and adopting a more fragmented and ambiguous approach, where the interpretation of events is left to the player and rejecting a fixed reading. Moreover, this game employs the use of metaphors and symbolic associations to advance its narrative, where the themes, characters, and scenarios are presented entirely from the unreal and in a fragmented way bringing the whole experience of playing the game closer to the principles of Surrealism [15].

Finally, we can examine the game *Antichamber* [16] produced by Alexander Bruce and released in 2013, as an example of how the mechanics of digital games themselves can take on a surrealist character. In order to solve the game’s puzzles, the corridors transform and reconfigure themselves without warning, creating doors to places that were previously inaccessible. This creates a fluidity and illogical perception of space that aligns Surrealism, since it changes unexpectedly pre-established ‘rules’ by reorganizing the scenarios, giving a distorted perception of reality and space to the player.

2.2. The Oneiric and its representation in digital games

Oneiric is a term to refer to everything related or suggestive of dreams, and the study of them, their meaning, and purpose has been a topic of debate since the beginning of scientific research [17], but it was Freud’s work, *The Interpretation of Dreams* [4], that led to the modern research in this area and influenced the creation of the Surrealist Movement, as mentioned earlier. Freud interprets dreams as the representation and realization of the unconscious, of desires and wishes that are suppressed in real life due to social, legal or moral norms. It is from this perspective that we will study the connection between these two areas, the Surrealism and the Oneiric in digital games, although there are other interpretations of what dreams are and their purpose, such as the proposal by John Allan Hobson and Robert McCarley in 1977, known for perceiving dreams as a defense mechanism of our brain to prepare us for future challenges [18].

This fascination that humanity has with the act of dreaming and the uncertainty why we do it is reflected in various forms of art and studies. In regards to digital games we see the use of the Oneiric in many ways,

for example: we can consider a narrative dream sequence, where the dreams are used as literary devices to advance the plot, explore character psychology or reveal backstories like in the digital game *Batman: Arkham City* [19], produced by Rocksteady Studios and released in 2011; or we can consider dreams as a representation of a hallucinatory or altered state of mind [20], where the use of dreams is to simulate psychological conditions like psychosis or near-death experiences, blurring the lines between what is real and what is oneiric like in the game *Dreamscape* [21], produced by Speedbump Studios and released in 2011; or even a more literal representation of dreams, where the digital game has interactive/ lucid dreaming mechanics like in the game *Dreams* [22], produced by Media Molecule and released in 2020. However, since our aim is to produce a game where there are two distinct phases: one where the player is in the 'awake world' and another where is in the 'dream world' we restricted our analysis on the literal representation of the act of dreaming and the dream itself in digital games and how they are influenced by Surrealism.

3. The Surrealism and the representation of the Oneiric in digital games - a visual and game design analysis

3.1. Research method and selection criteria

As previously stated, for this research we decided to select digital games that feature a literal representation of the act of dreaming and of dreams themselves. In order to select which titles we could use in our research, we compiled a list of various digital games that contain references to the dreamlike in their title, description or gameplay mechanics. From this overview of 79 digital games, we compiled a table analyzing the use of Oneiric, highlighting only those games that were relevant - that feature a literal representation of the act of dreaming and of dreams themselves. For example, consider the game *Ace Combat: Assault Horizon* [23] released in 2011, and produced by Kazutoki Kono and Hiroyuki Ichiyanagi, that uses occasional 'dreams' to show the player unaltered memories with a visual and audio filter in order to advance the narrative. In this case, since it could be argued that the 'dream' is in fact a memory - given that even the game description calls them memories and depicts real and unaltered events from the character's past - it does not meet our selection criteria.

From the titles that meet our selection criteria, we selected for this paper four titles to a more in-depth analysis. They are the following: *AI: The Somnium Files* since it depicts clearly the main character in the 'wake world' and in the 'dream world', being this feature a crucial part of the game; *Back to Bed* since it is a game that was stated in its information that is influenced by Surrealism [24] and shows the inside of a dream of an NPC while the player controls a character that represent his subconscious; and *LCD: Dream Emulator* since it's an unconventional game that grew out of a dream journal and attempting to bring it to life. In terms of how to conduct this analysis, we focus whether we could identify some direct elements of the Surrealist Movement in the visual, narrative and mechanical aspects of the games, whether by visual comparison with works of Surrealism or

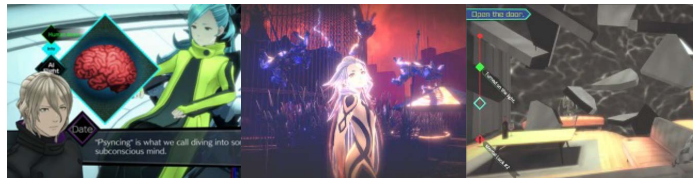
by looking out for some elements of the movement used in digital games such as: the use of juxtaposition when unrelated objects or ideas are paired to create surprising and thought-provoking compositions; the use of illogical and/or irrational scenarios and objects; the use of symbolism and metaphors instead of a logic representation or linear narrative, adopting a more fragmented and ambiguous approach; the use of transformation and metamorphosis of elements creating a fluidity to pre-established ‘rules’; contradictory perspectives and architectures with warped, optical illusions, gravity-defying and impossible elements that distort space and time.

In order to carry out this analysis, we watched playthroughs/gameplays, reviews and took screenshots of relevant scenes of these games. In addition, we played the games directly – for *AI: The Somnium File* and *Back to Bed* we used the *Steam* platform, and *LSD: Dream Simulator*, we used the *Retrogames* online game archive – in order to gain a deeper insight into the games.

3.2. AI: The Somnium Files

The game *AI: The Somnium Files*, produced by Yasuhiro Iizuka and released in 2019. This visual novel adventure is set in near-future Tokyo and follows the main character Kaname Date, a detective that investigates a string of serial killings by using a technology called Psync that allows him to enter the dreams of the suspects to gather information with the help of an AI companion, Aiba. By manipulating the dreamscape of the suspects, the player finds out the truth being the murders. The game then has two distinct sections: a first-person visual novel segment in the ‘wake world’ and a third-person exploration of the ‘dream world’.

Fig. 1. Frames from the game *AI: The Somnium File* (2019): in all of these frames, we have scenes from the game. In the first one we have a scene in the awake world and in the second and third one we have scenes inside the dreams of NPCs.



In this game, we couldn’t find any elements that we could say were clearly influenced by Surrealism, even within Somnia – the name given to the dream world in the game. Whilst the player is inside a Somnia, they have 6 minutes to solve a Mental Lock – a mechanic that acts as a barrier between different levels within the dream – and the Somnias are inspired by elements from the memories and dreams of the NPCs, providing clues as to their innocence or guilt in the murders. Whilst there are some elements within the Somnias that might remind us of Surrealism, such as the use of floating eyes throughout them, most of the elements turn out to be merely a montage of memories and could possibly be categorized as fantasy, if anything. The settings themselves do not undergo any alteration of reality; for example, we have horses impaled in the background of one of the Somnias, but these are neither altered nor bizarre; they are merely an element that adds gore to the setting – and narrative context. Or even when the setting falls apart, there is a certain method to this deconstruction,

with walls simply crumbling and no juxtaposition of elements. In terms of gameplay and narrative, even the aspect of accessing the subconscious is presented through technology and artificial intelligence – by using the Psync –, thereby bringing us closer to the real world and giving us a sense of reality and the possibility that this could be a scenario set in the future rather than a surreal one.

Therefore, all these elements—and the absence of others—mean that we cannot say this game exhibits the presence or influence of Surrealism. As for the feeling of being inside a dream, this game features mechanics and design choices that help to separate the dream world – Somnias – from the real world. For example, the use of a more muted, sombre, and limited colour palette; the time limit on each dream; and the change in sound and music all help to create this distinction. However, the fact that the Somnias represent very real elements with easily identifiable meanings – in order to provide perceptible clues to the player – and are repetitive, that is, an NPC's Somnia is always the same and the elements appear in the same way regardless of how many times we try to solve the puzzle, ultimately spoils the effect of being inside a dream. Of course, this mechanic makes sense from the point of view of the game's design; but because of this, we wouldn't say we actually feel as though we are experiencing the act of dreaming while playing the Somnias, only that we have a conscious awareness of being a player who is playing a game where our character is inside a dream.

3.3. Back to Bed

The game Back to Bed, produced by Bedtime Digital Games studio and released in 2014. This 3D puzzle-game started as a student project in which the NPC Bob, a character who suffers from narcolepsy, has a habit of falling asleep in his office and sleepwalking into the city. The player controls Bob's guardian “angel”, Subob, in the dream world, with the objective of preventing Bob from falling off the edge or colliding with hazards that would wake him up. To achieve this, the player manipulates the environment, by placing objects and structures in order to steer Bob safely back to bed.

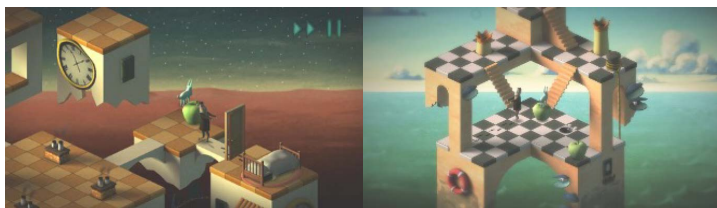


Fig. 2. Frames from the game Back to Bed (2014): in both of these frames, we have puzzle levels from the game. In the first frame, we have a color palette in earthy and desert tones with a twilight lighting, and in the second frame, we have more beach and summer colors, with blues, beiges, and a clear sky.

Back to Bed shows a clear influence from the Surrealist Movement in its visuals, especially from the works of surrealist artists Dali, René Magritte, having in fact direct references of their paintings. It also presents an obvious reference to the work of Maurits Escher, and although the artist was not part of the Surrealist Movement, some of his works overlap with Surrealism, even though they are based more on mathematics, particularly the mathematics used as a reference in this game. In addition, we find a

bit of surrealist influence in the game mechanics, although in this case the influence is predominantly visual, as the narrative and mechanical aspects of the game are not explored in great depth.

Fig. 3. Paintings from the artists Escher, Dali and Magritte. The first work is *Relativity* by Escher in 1953 [25]. The second one is *The Persistence of Memory* by Dali in 1931 [26]. The third one is *Son of Man* by René in 1946 [27].



The structure of the puzzle levels in this game draws direct inspiration from Escher's work *Relativity*. *Relativity* is a lithograph by the Dutch artist first printed in December 1953, depicting a world where the laws of gravity as we know them do not apply. In this work, we see an architectural structure with three sources of gravity, each orthogonal to the other two, in a community where most of its inhabitants are carrying out daily activities in one of the gravity wells, where normal physical laws apply. This results in an image that bears similarities to the architecture and structure of the levels in the game. In terms of inspiration from the works of Dali, we see clear references to his painting *The Persistence of Memory* at various levels through the use of the melting clock. Another reference to the most famous works of Surrealism is Subob's use of green apples to guide Bob to change direction. Magritte's painting *Son of Man* depicts this same green apple in front of the face of a man in a suit. In addition to these direct references to the Surrealist Movement, the colour palette, framing and textures of the levels refers to the movement, reaffirming its influence during the development of the game. In terms of game mechanics, there is a slight influence of Surrealism in the way we can control Subob and solve some of the puzzles. Subob has access to transparent ladders and optical illusions, in order to make, for example, a hole that seems impossible to cross be possible. These mechanics give the player a slight sense of unreality, something typically surrealistic.

However, although this game clearly depicts the act of being inside a dream and contains clear references to Surrealism, we cannot say that it conveyed the sensation of actually being inside the dream and experiencing it. Perhaps this is because we have no basis for comparison as to what the game would be like outside the dream world, but when you put all its elements together – including even the use of serene music – it ultimately fails to give us that sensation of dreaming. It ends up being extremely similar to the game *Monument Valley* [28], produced by Dan Gray and released in 2014, with just a few more visual elements that draw direct inspiration from surrealist works.

3.4. LSD: Dream Emulator

The game LSD: Dream Emulator, produced by Osamu Sato and released in 1998. This non-traditional game was conceived by the Japa-

nese artist Osamu Sato and it is based on the dream diary of over a decade of Hiroko Nishikawa, an employee of the company. This game is divided into 365 days and the player is dropped into each day for ten minutes, where he can explore various surrealistic scenarios representative of these dreams. There is a limit to the number of locations that players can explore, which are: a village, a port and a shrine. By interacting with certain objects or using the tunnels, the player can teleport between these locations. Apart from this aspect of exploration, there are no other objectives in this game, making it a non-traditional game as mentioned [29].

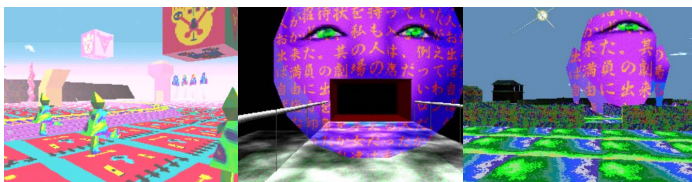


Fig. 4. Frames from the game *LSD: Dream Emulator* (1998): in all of these frames, we have scenes from the game. The first frame shows a street with red rectangles in light blue strips, with objects drawn in yellow and divided by a purple stripe. On the street, there are three bright green geometric characters with yellow, purple, and blue spots. In the sky are two cubes with drawings, and in the distance are multiple structures of various colors. The second frame shows the interior of a building, with a bridge connected to the open mouth of a purple creature with green eyes and yellow Japanese writing on its face. The third frame shows a garden with bushes and a green purple and blue grass with a purple and green eye creature with yellow Japanese writing in its body, similar to the creature shown in the second frame.

In this game, we find the influence of Surrealism in its visual aspect, being able to make comparisons with the works of the artists Max Ernst and Joan Miró while the game retains a unique visual language, and in the mechanics of it. Since there isn't exactly a narrative to this game, as referred above, the narrative aspect is not something we can analyze to determine whether it has been influenced by Surrealism.

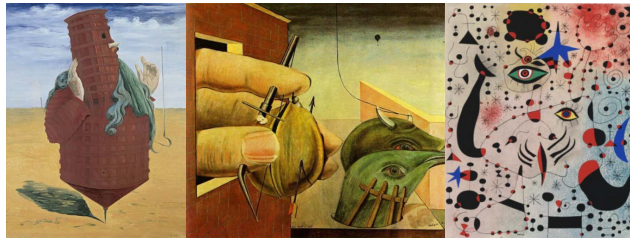
Focusing on the visual aspect, *LSD: Dream Simulator* is a game that features a number of characters that appear recurrently in the dreams. A few examples of these characters are a fish floating in the sky, a baby with an old man's face, giant demon-like persons or even lions. This style of creatures, which are often deconstructed and reinvented, are reminiscent of Ernst's works. As we can observe in the examples *Ubu Imperator* and *Oedipus Rex*, the artist creates a new creature from parts of other animals or objects, with a focus on evoking a sense of unreality that the game also seeks to convey. Besides that, in the game all of the creatures and buildings have in common the use of random textures and bold colors, for example the textures of buildings suddenly change and a door and windows become the faces of different characters from the games or unblinking eyes. These textures ultimately evoke Miró's works, where the artist creates pieces with seemingly random patterns in intense colors, incorporating abstract forms, with a particular emphasis on the use of eyes, as demonstrated by the example from the artist's illustrated book *Constellations*. These characteristics, combined with the fact these characters can sometimes appear as only a part of the body or, even when we approach them, undergo transformations, such as losing their heads, give the visuals a surrealistic feel and a direct connection to the Surrealism Movement. It evokes the madness and feelings of strangeness typical of the movement, where the bizarre prevails furthering the disconnect from what 'would make sense' and giving the player a surreal feeling.

In addition to this visual aspect, the game mechanics are truly important in creating the surrealist character that is so prominent in this game.

The fact that during the ‘days’, which last only 10 minutes, when you touch anything in the game, be it a wall, a creature or a flower, you are teleported to another scenario, creating a feeling of being inside a surrealist dream with several layers. Almost like in real life, when we are dreaming and the scenario seems to change from minute to minute and we feel the confusion of what it is to dream. This dreamlike and surrealist character of the game is further enhanced by the fact that, as in real life, we can be suddenly awakened, for example, if we die in the game, the ‘day’/‘dream’ ends immediately, and that all of this seemingly pre-established ‘rules’ of the game change without warning and become increasingly randomized as we progress through the game further confusing the player.

Fig. 5. Works from the artists Max Ernst and Joan Miró. The first work is *Ubu Imperator* by Ernst in 1923 [30].

The second one is *Oedipus Rex* also by Ernst in 1922 [31]. The third one is part of an illustrated book called *Constellations* by Miró in 1959 [32].



All these traits make the game *LSD: Dream Simulator* a game that truly conveys the sensation of dreaming, through the use of Surrealist techniques. Furthermore, although we can draw parallels with certain artists and works from the movement, the game retains a distinctive and unique visual style, which may help to give the player the feeling of experiencing Nishikawa’s dreams. Another important aspect is the use of sound, which proved key to conveying this sensation, as the music changed to suit different moods - ranging from light, happy music to eerie and terrifying - or was enhanced, for example, by the footsteps of people who were not visible on screen. Finally, the mechanics used in the game have sealed the deal for us that we’re inside the Oneiric.

4. Discussion of findings

Although this work is part of ongoing research that is not yet complete, and consequently we cannot draw definitive conclusions, through the digital games that we have selected and analyzed, we can draw a few early results. Firstly, in the sample we analysed, we noticed a positive difference in the sensation players experience of being in a dream whilst playing a digital game when it draws clearly influence from the Surrealist Movement, compared to when it does not. Furthermore, we can say that there is scope for discussing whether the creation of a distinct surrealist and authorial language, rather than being underpinned by direct references to well-known works of Surrealism, adds another layer of surrealism that helps the player enter the world of the Oneiric. Bearing in mind James Magrin’s words on how the best way for artists to create meaningful art is when they are in touch with their dreams, their Oneiric [10], the creation of our own surrealist language, based of course on the Surrealist Movement, seems to us to be the best approach for creating our game’s demo,

from an artistic point of view and in order to provide our players with the closest sensation we can achieve of being within the Oneiric. Aside from the visual aspect, the use of surrealist mechanics and the sound design were also crucial in giving us the feeling of being inside a dream whilst playing our selection of games. In this respect, the game *LSD: Dream Simulator* stood out as a prime example of the use of all of these techniques, which is hardly surprising, given that the purpose of the game was to represent and simulate the act of dreaming and Nishikawa's dreams. However, we cannot dismiss what we have learnt from other digital games: from *AI: The Somnium Files* we can conclude that the use of two distinct colour palettes for the 'real world' and the 'dream world' will help the player to separate the two and perceive them differently, and that it is best to avoid creating any mechanisms that suggest realism, such as the use of technology and artificial intelligence to justify entering the dreams of NPCs, as this somewhat undermines the dreamlike experience; from *Back to Bed* we have realized that, although we can make strong references to Surrealist works, if the rest of the visuals and gameplay do not work together to create a dreamlike experience, these references can actually end up being counterproductive, as they are from such well-known works that they end up breaking the dreamlike atmosphere.

All in all, it seems clear that this apparent symbiotic relationship between Surrealism and the Oneiric representation in digital games, present visually, narratively or mechanically, is a path that will benefit our game demo, especially if we employ a combination in all the elements of the game, as it will help us create the feeling being inside a dream, evoking an atmosphere of strangeness, disorientation, unreal and illogical typical of dreams for the player. In terms of future work, we intend to deepen and complete the research so that we can better understand and demonstrate the benefits of using Surrealism in the development of games with dreamlike themes, in order to apply this knowledge to the Oneiric part of the game to be made, as the practical component of this project..

Acknowledgements

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References

1. Spike Chunsoft. (2019). *AI: The Somnium Files* [Digital Game]. Spike Chunsoft.
2. Bedtime Digital Games. (2011). *Back to Bed* [Digital Game]. Bedtime Digital Games.
3. Asmik Ace Entertainment. (1998). *LSD: Dream Emulator* [Digital Game]. OutSide Directors Company.
4. Breton, Andre. (1972). *Manifestoes of Surrealism*. Richard Seaver and. Helen R. Lane (Trans.). Ann Arbor: University of Michigan Press.
5. Eimert, Dorothea. (2001). *Art and architecture of the 20th century*. Parkstone Press. Pg. 104
6. Hopkins, David. (2004). *Dada and Surrealism: A Very Short Introduction*. Oxford University Press.

7. Freud, Sigmund. (1900). *The interpretation of dreams*. Reprint 2008. Oxford: Oxford University Press. Signor.
8. Ali, Shireen. (2021). *Dada and Surrealism, in Brief*. Independent Research.
9. Klingsöhr-Leroy, Catherin. (2020). *Surrealism*. Taschen GmbH.
10. 10. Magrin, James. (2009). *Surrealism's Revisionist Reading of Freudian Psychology: Surreal Film and the Dream*. Philosophy Scholarship. Brotchie, A. (1995). *A Book of Surrealist Games*. Shambhala Publications Inc.
11. Brotchie, Alistair. (1995). *A Book of Surrealist Games*. Shambhala Publications Inc.
12. Signor, Rachel. (2020). *Dreamlike Play: The Wonder of Surrealism in Games*. h <https://videoda.me/dreamlike-play-the-wonder-of-surrealism-in-games-a6ec36e42a8e>
13. Dimitri Kozma. (2022). *Surrealidade - Definitive Edition* [Digital Game]. Dimitri Kozma, Orbe Filmes.
14. Analgesic Productions. (2019). *Anodyne 2: Return to Dust* [Digital Game]. Melos Han-Tani, Marina Kittaka.
15. Evans Thirlwell, Edwin. (2019). *Anodyne 2: Return to Dust review Zelda and Psychonauts combine in a bewitching formal experiment*. <https://www.eurogamer.net/anodyne-2-return-to-dust-review>
16. Demruth. (2013). *Antichamber* [Digital Game]. Alexander Bruce.
17. Gottesmann, Claude. (2010). *The development of the science of dreaming*. In: Clow, A. and McNamara, P., eds. *Dreams and dreaming*. Amsterdam: Academic Press, 1-29.
18. Bosman, Frank (2020). *To dream a game: Dreams as Interactive-Narrative Devices in Digital Games*. *Gamevironments*, vol. 12, 1, pp. 1-48. <https://doi.org/10.26092/elib/177>
19. Warner Bros. Interactive Entertainment. (2011). *Batman: Arkham City* [Digital Game]. Rocksteady Studios.
20. Kraehenmann Rainer (2017). *Dreams and Psychedelics: Neurophenomenological Comparison and Therapeutic Implications*. *Curr Neuropsychopharmacol*. <https://pubmed.ncbi.nlm.nih.gov/articles/PMC5652011/>
21. Speedbump Studios. (2011). *Dreamscape* [Digital Game]. Speedbump Studios.
22. Sony Interactive Entertainment. (2013). *Dreams* [Digital Game]. Media Molecule.
23. Bandai Namco Games. (2011). *Ace Combat: Assault Horizon* [Digital Game]. Project Aces.
24. *Back to Bed*. (2026, 27 Maio). On *Steam*. https://store.steampowered.com/app/308040/Back_to_Bed/
25. Escher, Maurits. 1953. *Relativity* [Lithograph print]. Escher in The Palace, Hague, Netherlands. <https://www.nga.gov/artworks/54256-relativity>
26. Dali, Salvador. 1931. *The Persistence of Memory* [Oil on canvas]. The Museum of Modern Art, New York. <https://www.moma.org/collection/works/79018>
27. Magritte, René. 1953. *The Son of Man* [Oil on canvas]. <https://www.renemagritte.org/the-son-of-man.jsp>
28. Ustwo Games. (2014). *Monument Valley* [Digital Game]. Ustwo Games.
29. McSwain, Ryan. (2017). *LSD: Dream Emulator*. <http://www.hardcoregaming101.net/lsd-dream-emulator/>
30. Ernst, Max. 1923. *Ubu Imperator* [Oil on canvas]. Musée National d'Art Moderne, Paris, France. <https://www.max-ernst.com/ubu-imperator.jsp>
31. Ernst, Max. 1922. *Oedipus Rex* [Oil on canvas]. <https://www.max-ernst.com/oedipus-rex.jsp>
32. Miró, Joan. 1959. *Constellations* [Illustrated book with one lithograph and twenty-two pochoir reproductions after gouache]. The Museum of Modern Art, New York. <https://www.moma.org/collection/works/29082>

Stories in Science: Comics as a Tool for Scientific Communication

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Keywords

Comics; Fungi; Scientific Communication.

Abstract

This paper presents the conceptual framework and early-stage development of a Master's thesis project, focused on the creation of an educational comic about fungi, whose target audience is middle school aged children, while contributing to ongoing discussions about alternative approaches for science communication and the educational potential of visual narratives in comic format. It examines how comics can function as communicative and pedagogical devices, bridging the gap between complex scientific concepts and non-expert audiences. The paper utilizes interdisciplinary literature on science communication, coupled with qualitative interviews from experts in comics, science comics and education, arguing that the effectiveness of science comics/communication lies in the combination of two complementary modes: narrative and explanation. While narrative structures foster engagement and emotional resonance, [5] explanatory elements ensure accuracy and conceptual understanding. [3] The project further proposes both quantitative and qualitative evaluation in classroom settings to assess the impact of comic-based learning on student engagement and comprehension.

1. Introduction

Storytelling has faced criticism as a method for science communication, with some scholars cautioning that it carries “the potential to perpetuate misinformation and inaccuracies about science” [8] and comics and animated cartoons, in particular, were regarded with skepticism as well, seen as offering only “distorted views of science”. [18] However, the question is not whether storytelling is inherently flawed, but rather how it is used as a communicative tool.

As evidence suggests, attitudes are shifting. In an interview conducted with Matteo Farinella, a science communicator and comics artist, talks of a new reality: researchers and scientists are increasingly open to collaborating with artists and to embracing storytelling, particularly through comics. This reflects a broader cultural change noted by Tatalovic (2009), who observed that “scientists and educators are becoming more aware of the

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appeal that comics hold for young people and are starting to use them more as a vehicle to communicate scientific ideas.” [15] (p.4) What was once dismissed as a distortion of science is now being reconsidered as a bridge to it.

In a more recent study, the use of comics has highlighted the increased students’ motivation and retention of the content taught. [6] The study suggests that, not only the mix of text and image, but the story structure in particular was a point of interest for both the students and teachers, which helped them follow the scientific concepts more easily. According to the authors, students described comics as a “different,” “interactive,” and “fun” way of learning, while teachers emphasized that embedding scientific concepts within a visual narrative made the material easier to follow and more appealing. At the same time, the study notes an important limitation: some students and teachers felt that comics may simplify scientific concepts too much if not supported by further classroom discussion or teaching.

These findings align with earlier work arguing that science comics can foster engagement and positive attitudes toward science [7], and with broader discussions of the potential of comics in science communication. [5][15]

It is, therefore, important to understand that integrating comics into educational environments offers immense potential for improving literacy, engagement and greater inclusion. By combining the best elements of visual storytelling and traditional literature, comics provide a dynamic medium that encourages students to learn a variety of more complex concepts. [2][9] As educational institutions continue to explore innovative approaches to teaching, the role of comics in promoting a love of reading and critical thinking will likely become increasingly significant. [4][15] And, while comics are explored here as a tool for science communication and education, the aim is not to propose them as a replacement for traditional learning materials such as textbooks. Rather, they are considered as a complementary approach that may foster engagement and provide an accessible entry point into more complex scientific concepts.

2. Narratives + Explanations: A Combination That Helps You Understand

Narratives and explanations represent two distinct [12] but **complementary** [5] approaches to communication. To understand this, it is important to differentiate between a narrative and an explanation, and how it could be beneficial to combine the two, in order to have a comic that is both engaging and educational. The key differences lie in how the information is communicated. A narrative guides the audience through a story, it relies on the emotional connections a reader has towards the journey of a character(s), it has sequence, tension, and emotional arcs. It is context-dependent [13][16], as it needs to follow specific structures that describe cause and effect, but it can be present in any communication form. [12] Explanations, or logical-scientific forms of communication, by contrast, rely on analytical content that prioritizes clarity and comprehension. [12] In visual form, they can look like diagrams, charts, and infographics that break down complex systems into legible, structured information. This

combination of communicative methods is especially critical in science communication, where the gap between expert knowledge and public understanding is wide. [7] Studies suggest that general audiences find stories more engaging and easier to comprehend than traditional rationale-based approaches to science communication. [12] The narrative gives the audience an entry point, the explanation ensures **accuracy**. [3]

Similar ideas emerged in Matteo Farinella's interview, particularly around the role of narratives in science communication. Farinella reflects on how he navigates the balance between narrative and explanation depending on his audience: "The younger the audience, the more important the storytelling aspect becomes, the more I try to introduce characters and a little bit of adventure." While he mentions that adults may be more willing to engage with direct, straightforward explanations, he argues that storytelling retains its value across all audiences, because "(...) it's just something we naturally understand." [4]

While narratives and explanations differ in structure and function, they are not limited to verbal or textual forms. Both can be effectively conveyed through visual means, which play a crucial role in enhancing comprehension and engagement. This becomes particularly relevant in science communication when we recognize that visual representation offers inherent benefits when the goal is to explain, engage, or communicate knowledge. Jay Holster and K.B. Boomer argue that science educators "cannot dispute the explanatory power of images and figures in traditional textbooks" [7] (p.310), highlighting the long-established role of visuals in supporting understanding. This view is reinforced by more recent empirical work, such as a 2025 study, which found that the inclusion of illustrations alongside text can improve students' performance in science learning contexts. [10]

In this sense, comics, as a distinctly visual medium that integrates images and text [11], offer a particularly promising format for communicating scientific ideas.

Visual narratives: Visual narratives, or visual storytelling, consist of visual elements such as composition, lighting, symbolism, framing, character design, etc... This is particularly noticeable in comics, where, rather than functioning as mere illustration, these visual elements actively guide the reader's attention and help shape their interpretation. [11] Beyond serving as a means of transmitting knowledge, narratives play a crucial role in creating an emotional connection with the reader. By following the

protagonist's journey and sharing in their discoveries and curiosities, readers are given the opportunity to identify with the character, which facilitates greater empathy and deeper engagement with the presented content. [5]

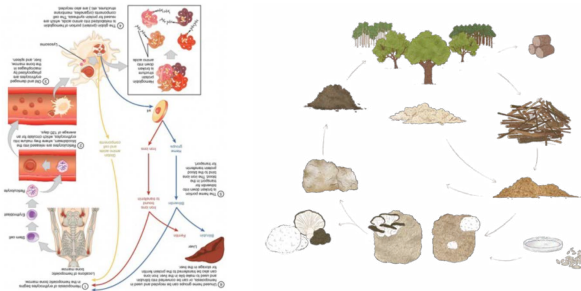


Fig. 1 & 2. (left to right) Comic strip from "Cor-to Maltese, Under the Sign of Capricorn" by Hugo Pratt / Manga panels from "Vagabond" by Takehiko Inoue.

Visual explanations: Visual explanatory elements are crucial for enhancing a viewer’s understanding of the data story you’re presenting in your visual narratives. Tufte argues that visuals are not merely decorative but can function as powerful analytical tools to explain concepts that might remain obscured in text formats. He emphasizes the importance of clarity and precision when presenting visual information as “Good design brings absolute attention to data.” [3] (p.48) Which is done through structured visual elements such as diagrams, arrows, labels, charts, and informational tables, which organize and clarify relationships, processes, or data.

Fig. 3. Erythrocyte lifecycle by Lumen Learning.

Fig. 4. “Casca, cogumelos e composto” by Sofia Quaresma and Anabela Marisa Azul, Illustrated by Luísa Santos.

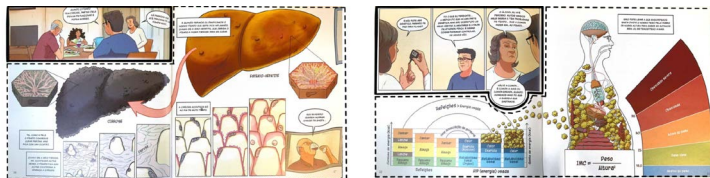


By combining visual narratives with visual explanations, communicators could harness the strengths of both: the clarity and specificity of explanatory visuals and the engaging, relatable structure of storytelling.

This is particularly valuable in science communication, where sequential storytelling can break down complex ideas into digestible segments while embedding them within meaningful contexts, making scientific content more accessible and emotionally resonant for diverse audiences. [5]

This dynamic can be observed in the strategies used in science comics to improve both engagement and understanding. These include decisions about target audience, the balance between narrative and exposition, and the use of visual elements to guide interpretation and articulate concepts.

Fig. 5 & 6. Pages from the book “A Healthy Liver Will Always Deliver!” written by Mireia Alemany i Pagès and illustrated by Rui Tavares, highlighting explanatory content (Dotted Lines) and narrative/character fueled content (Solid Lines).



A relevant example is the comic “A Healthy Liver Will Always Deliver!” [1], previously mentioned, and written by Mireia Alemany i Pagès and illustrated by Rui Tavares. The work adopts a context-dependent narrative structure [16], focusing on liver health and the prevention of non-alcoholic fatty liver disease (NAFLD). While the subject matter could have been presented through a purely explanatory, sequential depiction of cellular processes with minimal narration, the comic instead introduces characters and elements of everyday life. By situating scientific information

within a familiar narrative context, it fosters reader engagement while simultaneously supporting comprehension.

The use of visual metaphors and anthropomorphized elements is also employed, making concepts such as metabolism and insulin resistance less complex and more approachable, thereby supporting improved reader comprehension. These approaches render scientific concepts more accessible and engaging, transforming a subject that might initially seem abstract or highly technical into something relevant and closely connected to the audience's personal experience. [5]

Another compelling example is “Optical Allusions” by Jay Hosler, which the author describes as a “comic-book textbook”. [7] The work was developed as part of a study involving non-science majors to evaluate the effectiveness of comics in supporting scientific learning and engagement. Rather than presenting scientific concepts exclusively through either comic or traditional text, “Optical Allusions” combines both approaches. The comic initially introduces biological concepts through an accessible and attention-grabbing narrative format, using characters to simplify complex ideas and encourage reader engagement. These comic sections are then unified with more detailed explanatory passages presented in textbook style.

This structure allows the comic narrative to function as an entry point into the scientific material, familiarizing readers with concepts before they encounter more technical explanations. [5] According to this study, this approach helped students remain engaged with the content and made the scientific text easier to understand and

digest, suggesting that comics can support comprehension by increasing motivation and accessibility.

3. Creating The Comic with Intent

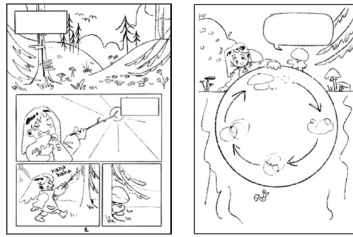
Comics are constructed through a complex mixture of visual and narrative elements, where meaning emerges from the relationship between image, text, and sequence. This sequential structure shapes how readers interpret time, causality, and narrative progression, requiring active participation in filling the gaps between panels. [11] These characteristics are particularly relevant in the context of science communication, where abstract or complex concepts must be accessible and engaging. [5][7] In addition, the use of visual strategies such as metaphors, spatial representation, and anthropomorphism can further support understanding by translating abstract processes into more concrete and familiar forms. [5]

Comprehending how comics are made, and what makes them work, is therefore not merely a theoretical exercise, it is the foundation upon



Fig. 7 & 8. Pages from “Optical Allusions” written and illustrated by Jay Holser.

Fig. 9 & 10. Early sketches from the Masters Project Fungi Comic.



which the communicative and scientific ambitions of this project rest. Within this framework, the creation of a comic centered on fungi provides an opportunity to explore how storytelling, character construction, and scientific accuracy can be deliberately combined. Creative decisions related

to layout, pacing, and the balance between simplification and precision play a central role in shaping how scientific content is communicated, highlighting the importance of both theoretical understanding and practical application in the development of science comics.

4. Next steps: The classroom studies

After developing the fungi-focused educational comic, the next step is to evaluate its pedagogical efficacy in real classroom contexts. Although growing research suggests that science comics can increase student engagement, interest, and conceptual understanding, empirical data remains limited and often qualitative. [5][6]

By implementing a structured evaluation with both quantitative and qualitative measures, this next phase of research can provide evidence on whether science comics effectively support student learning, engagement, and science literacy. Rather than treating these methodologies as opposing, educational research emphasizes their complementarity, as quantitative methods allow for the measurement of learning outcomes while qualitative approaches provide insight into students' experiences, interpretations, and engagement.

In this context, a comparative study may be implemented in which one group of students engages with a comic-based learning resource while another uses a traditional textbook covering the same scientific content. Quantitative data can be collected through pre- and post-tests to assess knowledge acquisition, while qualitative methods such as classroom observation, student feedback, and teacher interviews allow for a deeper understanding of how the material is perceived and experienced in practice. [14]

These findings would contribute meaningfully to the growing literature on science education and support more informed discussions about the role of comics in classroom instruction.

Conclusion

This paper has served as an exploration of the potential of comics as a tool for science communication by integrating storytelling with analytical visual elements, which can make complex scientific concepts more accessible and relatable for diverse audiences. It demonstrates that comics can be used as more than illustrative tools, but as communication device capable of creating an understanding while fostering curiosity and emotional engagement. At the same time, the proposed classroom evaluation emphasizes the importance of empirically assessing comics value,

contributing to a more evidence-based understanding of their role in education. As this paper represents the early stages of a Master's research project, more in-depth comparative studies are necessary to further inform and optimize the development of the proposed fungi-focused comic, especially regarding the effectiveness of different paneling strategies and the proposed effectiveness of the combination of “narrative” and “explanation”. More importantly, this research does not position comics as a replacement for traditional learning materials such as textbooks. Rather, it proposes them as an approach that can serve as an accessible entry point into complex scientific topics.

By bridging the gap between scientific accuracy and the target audience engagement, comics hold considerable promise as part of a more inclusive and multimodal approach to science education and communication.

Acknowledgements

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References

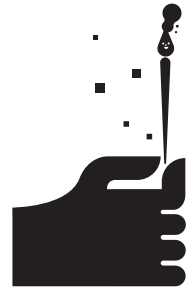
1. Alemany-Pagès, M., Tavares, R., Ramalho-Santos, J., Azul, A. M. (2020). *A Healthy Liver Will Always Deliver*. Coimbra University Press, Coimbra. <https://doi.org/10.14195/978-989-26-2040-4>
2. Crawford, M. (2018). *A novel approach: Using graphic novels to attract reluctant readers and promote literacy*. East Carolina University Library. Retrieved from: https://library.ecu.edu/networkingsummit/wp-content/pv-uploads/sites/267/2018/06/2007-LMC_Fe04_Crawford.pdf
3. Edward R. Tufte (1997). *Visual Explanations: Images and Quantities, Evidence and Narrative*
4. Farinella, M. (2026, January 30). Interview on comics and science communication [Personal interview].
5. Farinella, M. (2018). ‘The potential of comics in science communication’. JCOM17(01), Yo1. <https://doi.org/10.22323/2.17010401>.
6. Faria, C., Valente, B. and Torres, J. (2024). Potentialities of science comics for science communication: lessons from the classroom JCOM 23(08), No2. <https://doi.org/10.22323/2.23080802>
7. Hosler, J., & Boomer, K. B. (2011). Are Comic Books an Effective Way to Engage Nonmajors in Learning and Appreciating Science?1. CBE—Life Sciences Education, 10(3), 309–317. <https://doi.org/10.1187/cbe.10-07-0090>
8. Katz, Y. (2013). Against storytelling of scientific results. *Nature Methods*, 10(11), 1045–1045. <https://doi.org/10.1038/nmeth.2699>
9. George, S. (2024b). *Graphic Novels in the School Library: Bridging the Gap Between Reluctant Readers and Literature*. INTERNATIONAL JOURNAL of SOCIAL SCIENCE HUMANITY & MANAGEMENT RESEARCH, 03(9). <https://doi.org/10.58806/ijsshm.2024.v3i9n15>
10. Lei, H., Chen, L., Chiu, M. M., Fang, L., & Ding, Y. (2025). Effects of Adding Illustrations to Texts on Students' Science Achievement: A Meta-Analysis. *Educational*

- Psychology Review, 37(3). <https://doi.org/10.1007/s10648-025-10053-z>
11. McCloud, S. (1993). *Understanding Comics: The Invisible Art*. William Morrow Paperbacks.
 12. Michael F. Dahlstrom (2014). Using narratives and storytelling to communicate science with non-expert audiences.
 13. Michael F. Dahlstrom (2012) The persuasive influence of narrative causality: Psychological mechanism, strength in overcoming resistance, and persistence over time.
 14. Sherman, R. R., & Webb, R. B. (Eds.). (2004). *Qualitative research in education: focus and methods*.
 15. Tatalovic, M. (2009). 'Science comics as tools for science education and communication: a brief, exploratory study'. JCOM 8 (4), A02. URL: <https://jcom.sissa.it/archive/08/04/Jcom0804%282009%29A02>.
 16. Trabasso T, Sperry LL, (1985). Causal relatedness and importance of story events.
 17. Tufte, E. R. (1997). *Visual explanations: images and quantities, evidence and narrative*. Graphics Press.
 18. Vílchez-González, J. M., & Palacios, F. J. P. (2006b). Image of science in cartoons and its relationship with the image in comics. *Physics Education*, 41(3), 240–249. <https://doi.org/10.1088/0031-9120/41/3/006>

Between Touch and Algorithm: Drawing and Ceramics in Dialogue With AI

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Abstract

This article examines the intersection between human art-making and artificial intelligence through a practice-based investigation grounded in drawing and ceramics. The research emerges within a cultural moment marked by rapid technological change and an increasing presence of AI-generated visual content. In this context, the project seeks to understand how tactile, intuitive, and emotionally driven processes, such as hand-drawing and clay work, operate alongside algorithmic image production, and what forms of meaning arise from this coexistence. The purpose is not to oppose AI, but to explore its role as a tool and collaborator in relation to human embodied experience.

The methodology combines studio-based experimentation with theoretical and case-study analysis. The practical component involves producing drawings and ceramic objects that translate inner states, memories, and personal perceptions into physical form. These works are then placed in dialogue with AI-generated variations developed from the artist's existing imagery, allowing for comparative reflection on presence, gesture, and material specificity. The article also analyzes key case studies, including the TU Delft "Crafting Reflection Through AI and Clay" project[11], Boldtron's AI-enhanced digital practice[12], Rachel de Jooede's interplay between sculptural matter and digital surface[13], and ARTin-RARE's institutional discourse on artistic intelligence[14]. Together, these examples highlight different approaches to integrating computational tools within materially oriented practices.

Preliminary results suggest that while AI effectively extends visual vocabulary and supports generative exploration, it does not replicate the embodied qualities of human making, such as touch, resistance, and emotional trace. Instead, AI introduces a complementary layer of interpretation and provocation. The article concludes that the convergence of AI, drawing, and ceramics forms a productive site for reflecting on contemporary creativity, raising questions about authorship, materiality, and the evolving role of the artist in an increasingly algorithmic world.

Keywords

Ceramics; Drawing;
Artificial Intelligence;
Materiality; Embodiment;
Authorship; Craft.

1. Making under accelerated images

To talk about AI in art is often to talk about images: how quickly they appear, how easily they circulate, how convincingly they imitate established visual languages. Yet the pressure AI introduces is not only a change in image production; it is a change in expectations around making. When an image can be generated instantly, the conditions of attention that once framed artistic labour, time, repetition, doubt, revision, can begin to feel optional, even old-fashioned. As Yuval Noah Harari argues, technological acceleration does not simply increase production but reshapes the conditions through which humans relate to knowledge, labour, and meaning [5]. The question that follows is broader than whether AI can produce “art”: what happens to artmaking as a lived process when visual outcomes become cheap, abundant, and detached from the circumstances of their formation? In this context, working through slower, materially constrained processes can also be understood as a form of resistance, not in opposition to technology itself, but as a way of preserving conditions for attention, reflection, and artistic freedom within an accelerated visual culture.

This article approaches that question from within studio practice. Ceramics and drawing are not treated here as isolated disciplines but as lenses, ways of observing how meaning forms through the body, through time, through resistance, and through decision-making under uncertainty. Drawing offers immediacy and responsiveness; ceramics makes consequence unavoidable. Clay does not merely receive an idea; it answers back. It slumps, cracks, dries too fast, stiffens too soon, warps in firing, and transforms under glaze chemistry. A ceramic object therefore carries an embedded timeline: a history of pauses, corrections, and thresholds the maker had to cross.

AI enters this field as a contrasting tempo. It can return variations rapidly and propose forms that feel coherent without the labour of testing them. That contrast, rather than being a threat by definition, can become a method. By setting algorithmic image generation alongside material processes, especially clay, this inquiry asks what each mode of making reveals about the other, and what becomes visible when the artwork is understood less as an output and more as a record of how it was arrived at.

2. Materials, time, and “thinking through making”

A key difference between material practice and algorithmic generation is not aesthetic; it is temporal. Ceramics is structured by waiting. Drying time is not negotiable without consequence. Firing introduces irreversible transformation. Glaze results cannot be fully predicted from intention alone, and the kiln becomes an active participant in the work’s final state. These constraints create a particular kind of attention: one that is patient, interactive, and responsive to what the material allows. These constraints do not limit artistic freedom; rather, they redefine it. Freedom emerges not from the absence of limits, but through the negotiation with them, as the artist responds to material conditions that cannot be fully controlled or predicted.

Craft theory gives useful language for this kind of attention. Glenn Adamson describes craft as a mode of thinking embedded in manual engagement rather than separated from it [1]. In this view, making is not a lower

stage of creativity; it is where cognition and sensation meet. Tim Ingold similarly frames making as a correspondence with materials, a process of following and adjusting rather than imposing form from a distance [6]. As Ingold further argues in *Making* [7], material practice operates through ongoing negotiation rather than fixed execution. Both perspectives emphasise that form emerges through contact: the maker learns what a line can be by drawing it, and learns what a vessel can be by meeting clay's limits.

This emphasis on encounter also echoes Susan Sontag's argument for restoring sensorial experience in how we approach images [9]. If contemporary visual culture trains viewers to consume images as content, ceramics can interrupt that habit by insisting on presence: scale, weight, texture, and the bodily reading of fragility or solidity. Even a photographed ceramic object tends to signal that it is a thing in the world, not only an arrangement of pixels.

Taken together, these ideas situate art-making as a way of thinking that happens in time, with consequences. That framing becomes important once AI enters the studio, because AI can generate a visual proposition without inhabiting the process that gives that proposition weight.

3. Studio practice

This section is framed as practice-based research, where knowledge is generated through the act of making rather than solely through theoretical analysis. Within this approach, the studio operates both as a site of production and as a method of inquiry, allowing material processes to function as forms of thinking. The autobiographical and situated nature of the work is therefore central to the research, as meaning emerges through embodied engagement, repetition, uncertainty, and reflection developed over time through studio practice.

The work presented in this research emerges from a self-directed artistic practice initially developed outside formal academic structures. Prior to entering an institutional context, drawing and ceramics functioned as parallel ways of processing emotional states, memory fragments, bodily perception, and internal atmospheres that were difficult to articulate verbally. Rather than beginning from predefined concepts or planned compositions, the practice evolved through repetition, intuitive experimentation, and continuous interaction with materials. Making became a way of understanding thought through action, where meaning gradually emerged through the physical process itself rather than being fully determined in advance.

Drawing occupies an important role within this process because of its immediacy and responsiveness. Drawings are usually produced rapidly and repeatedly, often beginning as loose accumulations of lines, unstable silhouettes, distorted figures, or ambiguous object-like forms. They function less as preparatory sketches for ceramic works and more as spaces for registering emotional intensity, tension, vulnerability, and shifting psychological states before these become translated into material form. Certain gestures, textures, and recurring morphologies later reappear in clay, allowing drawing and ceramics to operate in dialogue rather than as separate disciplines.

Ceramics gradually became the central medium of the practice because it introduced resistance, temporality, and consequence into the

work. While drawing allows quick transformation and revision, clay slows decision-making and requires sustained negotiation with material conditions. Most objects are hand-built through intuitive processes of pinching, assembling, layering, glaze testing, experimental painting, and surface manipulation, prioritising material exploration over strict technical planning. Forms frequently remain asymmetrical, unstable, or partially unresolved, preserving traces of adjustment and bodily interaction. Cracks, deformations, collapsing structures, glaze irregularities, and firing transformations are not treated simply as technical imperfections but as active contributors to the final meaning of the work. The ceramic object therefore becomes a physical record of accumulated decisions, delays, corrections, and negotiations between intention and material behaviour.

The present project builds on this existing studio methodology while introducing artificial intelligence as an experimental collaborator within the process. AI is not approached as a replacement for making or as a generator of final works, but as a reflective and experimental tool capable of reinterpreting the visual language already present within the studio practice. The AI-generated images included in this research were developed using Google Gemini through an image-based prompting process. The source material consisted exclusively of photographs of the author's own drawings and ceramic works, which were introduced into the system as visual references. The prompt was formulated in simple terms, asking Gemini to generate objects that could appear as possible continuations of the existing series based only on the uploaded images of the author's work.

Rather than using AI to create an unrelated or autonomous visual language, the process was intentionally restricted to a closed set of references drawn directly from the studio practice itself. The generated images were then selectively curated according to how clearly they extended, distorted, or displaced existing formal tendencies within the work. Their value lies not in functioning as final artworks, but in acting as speculative variations that expose tensions between material making and algorithmic continuation. AI-generated outputs frequently proposed impossible balances, exaggerated morphologies, seamless transitions, or overly perfected surfaces that could not physically exist within ceramic processes. Their significance lies precisely in this mismatch, as it reveals what algorithmic systems amplify, overlook, or simplify when translating materially grounded practices into synthetic image production.

The works were presented within the annual MAP CHECK-IN Exhibition and Seminar, organised by the Master in Fine Arts (MAP) at the Faculty of Fine Arts of the University of Porto (FBAUP) in January, 2026. The event functions as an academic platform for the public presentation and discussion of practice-based artistic research developed across the programme's specialisations in Sculpture, Drawing, Painting, and Intermedia. Within this context, the project was presented as an ongoing studio-based investigation developed in the curricular unit Studio Practice and Research. The exhibition combined ceramic objects produced through analogue processes with AI-generated prints derived from photographs of the author's own drawings and ceramic works. The

installation was arranged to emphasise the contrast between materially produced objects and algorithmically generated image-objects, allowing viewers to move between physical presence and synthetic reinterpretation within the same spatial context.

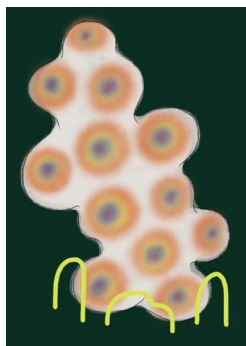


Fig. 1 & 2. Drawing (watercolor, pastels) and digital drawing (Procreate).



Fig. 3 & 4. Ceramic object - analogue studio practice (clay, engobes, glazes).



Fig. 5 & 6. AI-generated variation based on the ceramic source objects (Gemini).

4. Case studies: research and practice in material - AI dialogue

Several contemporary examples help situate this research within a broader field where artificial intelligence is increasingly explored in relation to

material practice, image production, and artistic authorship. Although these projects differ in methodology and medium, they collectively demonstrate how AI can operate not simply as a tool for automation, but as a reflective system capable of generating new relationships between digital processes and embodied making.

The TU Delft project *Crafting Reflection Through AI and Clay* [11] is particularly aligned with the concerns of this research because it approaches AI not as a replacement for craft, but as a reflective tool operating alongside material processes. The project combines computational image generation with hands-on ceramic experimentation, allowing digitally proposed forms to be tested against the physical realities of clay. Rather than treating material deviations as failures, the project emphasises how cracking, collapsing, drying behaviour, and structural instability become meaningful parts of the process. This approach closely relates to the present research, where AI-generated forms gain significance precisely through their confrontation with the limitations and resistance of ceramic materiality.

Boldtron's [12] practice demonstrates a different relationship between AI and authorship, emerging primarily from a digital and graphic context. Their work integrates generative systems into broader workflows of image selection, editing, manipulation, and visual curation. AI operates not as an autonomous creator, but as one element within a controlled artistic process shaped through human decision-making. This becomes relevant to the present research because it suggests that artistic identity can remain present through acts of selection, rejection, and constraint, even when generative systems are involved. Unlike the materially grounded nature of ceramics, however, Boldtron's work remains situated largely within digital image culture, highlighting an important difference in how material resistance functions within the current project.

Rachel de Joode's [13] practice offers an important precedent for understanding the movement between object, image, and digital mediation. Her work frequently combines sculpture, photography, printed surfaces, and installation, creating unstable relationships between physical materiality and its photographic representation. Rather than opposing digital processes, de Joode explores how material surfaces persist, transform, and become reinterpreted through technological mediation. This resonates strongly with the present research, particularly in the way ceramic objects are translated into AI-generated image forms. However, while de Joode's work often collapses distinctions between image and object, the current project maintains the ceramic object as a material anchor against which algorithmic reinterpretations can be critically compared.

ARTinRARE/i2ADS [14] contributes a broader institutional and theoretical framework for understanding "artistic intelligence" as a distributed relationship between human creativity, technological systems, embodied knowledge, and material processes. Rather than focusing exclusively on technical innovation, the project frames AI as part of a larger ecology of artistic production involving collaboration, experimentation, and critical reflection. This perspective is relevant to the present research because it shifts the discussion away from questions of novelty

or replacement and toward the conditions through which artistic meaning is produced. Within this framework, AI becomes less significant as an autonomous generator and more important as a tool that can reveal, challenge, or destabilise existing modes of practice.

Although these case studies differ significantly in medium, methodology, and artistic intention, they collectively suggest that the most productive intersections between AI and artistic practice emerge when computational systems remain connected to materially grounded processes. Across these examples, AI functions less as a replacement for human making and more as a reflective, speculative, or destabilising agent capable of reconfiguring existing visual languages. The present research aligns with this broader tendency while placing particular emphasis on ceramics as a medium that foregrounds time, resistance, fragility, and embodied negotiation. In this context, the dialogue between AI and material practice becomes valuable not because it resolves tensions between technology and craft, but because it makes those tensions more visible.

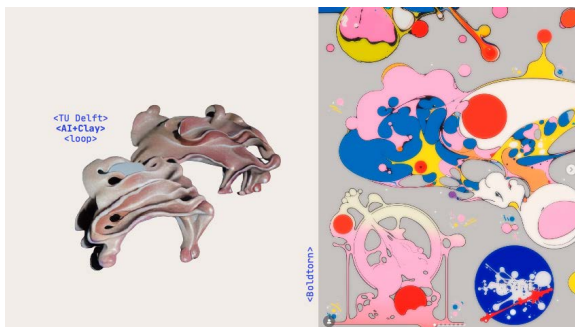


Fig. 7 & 8. TU Delft, *Crafting Reflection Through AI and Clay* [11]. Boldtron's AI-assisted visual practice [12].

5. Personality, presence, and the human stake in process

Discussions about AI and authorship often revolve around originality or ownership, but a quieter issue sits underneath: the role of personality in the artwork. When viewers say a piece “feels human,” they often refer to a sense of presence that exceeds style, something carried by tempo, vulnerability, and the trace of decisions made under constraint.

Ceramics makes this particularly legible because clay registers the maker's habits of attention: the pressure of a thumb, the patience of a join, the choice to smooth or leave a seam visible, the willingness to repair rather than restart, the tolerance for asymmetry. The object becomes a record of how someone behaved inside uncertainty.

John Dewey's account of art as experience helps clarify why this matters. For Dewey, making is not separate from perception; the artist works with an internalised sense of encounter, and the work is shaped by lived attention rather than detached execution [4]. Phenomenology sharpens that point: Merleau-Ponty's insistence that the body is the medium through which we have a world places meaning inside embodied orientation, not only in ideas [8]. In ceramics, the body is not an instrument that applies intention; it is the condition through which form becomes possible.

Bourdieu's concept of habitus adds another dimension: the artist's "personality" can be understood as a pattern of durable dispositions, ways of acting that become consistent through repetition [2]. In the studio, those dispositions become visible as voice: recurring scales, preferred thicknesses, characteristic surface decisions, repeated gestures that return before the maker can fully explain why.

Winnicott's writing on play offers a psychological angle that fits clay practice well [10]. Ceramics often depends on serious play: testing what a form can do, accepting failure as information, allowing surprise to redirect the work rather than treating it as a deviation. In that sense, personality is not only expressed in the final object; it is exercised and reshaped through the act of making.

This is also where AI becomes a meaningful contrast. AI can simulate surfaces that read as expressive, irregular textures, "handmade" marks, plausible ceramic glazes, yet it does not possess a body, a habitus, or an affective stake in consequence. It does not wait, repair, hesitate, or feel anticipation before opening a kiln. That difference does not make AI irrelevant; it clarifies what kind of agency it is. AI can mirror patterns and mutate motifs, but the human contribution, especially in ceramics, often lies in commitment: returning to the work, living through uncertainty, and letting consequence shape meaning.

6. Ethics, datasets, and distributed authorship

Any studio use of generative AI sits inside larger infrastructures. Kate Crawford's work is crucial here because it insists that AI is not immaterial "intelligence" but a system built from extraction: datasets compiled through uneven power relations, large-scale computation with material costs, and cultural archives absorbed without consent [3]. For artists, this becomes immediately relevant because the visual languages AI recombines often originate in human labour that remains uncredited.

This creates an authorship problem that cannot be solved by aesthetics alone. If an AI system produces an output that resembles an established visual language, what does that resemblance mean? Which parts belong to the user's intention, which to the model's training history, and which to the artists whose work was absorbed into datasets?

Hybrid practice makes authorship distributed in any case: clay itself participates, the kiln participates, the studio's constraints participate. Adding AI expands that network. A more accurate question than "who made this?" may be: what relations made this possible, and what responsibilities follow from those relations?

Ceramics does not resolve dataset politics, but it can keep ethical questions visible. Material processes resist the fantasy of frictionless creation. They insist on time, consequence, and repair. That insistence can work as a counterbalance to the speed and abstraction AI encourages, reminding both maker and viewer that making is not only output, it is also labour, risk, and presence.

Conclusion

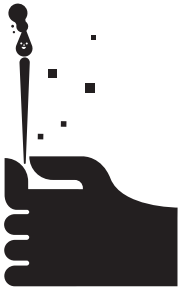
Approaching AI through the lens of art-making process shifts the conversation away from spectacle and toward conditions: time, attention, consequence, and the human stake embedded in making. Ceramics and drawing illuminate these conditions differently, with clay providing the clearest contrast to algorithmic generation because it binds form to gravity, transformation, and irreversibility.

In the studio, AI becomes most useful when treated as a reflective agent rather than a replacement. It can estrange the work, amplify patterns, and propose speculative routes, but meaning consolidates when those routes are tested against material reality, when clay refuses what is only pictorial and rewards what can survive structure, weight, and fire.

The intersection between touch and algorithm is therefore not best understood as a contest, but as a site of negotiation where different ways of knowing come into contact. What this article proposes, through practice-based inquiry, is that material processes such as drawing and ceramics do not simply coexist with AI, they actively ground and test it. By insisting on time, resistance, and consequence, these practices reveal what remains at stake in artistic making within an increasingly accelerated, image-driven culture. In this sense, the contribution of this work lies in repositioning AI not as a replacement for human creativity, but as a reflective counterpart—one that gains meaning only when brought back into dialogue with embodied experience and material reality.

References

1. Adamson, G.: *Thinking through Craft*. Berg, Oxford (2007)
2. Bourdieu, P.: *The Logic of Practice*. Stanford University Press, Stanford (1990)
3. Crawford, K.: *Atlas of AI: Power, Politics, and the Planetary Costs of Artificial Intelligence*. Yale University Press, New Haven (2021)
4. Dewey, J.: *Art as Experience*. Perigee, New York (2005)
5. Harari, Y.N.: *Homo Deus: A Brief History of Tomorrow*. Harvill Secker, London (2016)
6. Ingold, T.: *Lines: A Brief History*. Routledge, London (2007)
7. Ingold, T.: *Making: Anthropology, Archaeology, Art and Architecture*. Routledge, London (2013)
8. Merleau-Ponty, M.: *Phenomenology of Perception*. Routledge, London (1962)
9. Sontag, S.: *Against Interpretation and Other Essays*. Farrar, Straus and Giroux, New York (1966)
10. Winnicott, D.W.: *Playing and Reality*. Tavistock, London (1971)
11. TU Delft: Crafting Reflection Through AI and Clay. Delft Design Stories, 15 Oct. 2025. <https://www.tudelft.nl/en/ide/delft-design-stories/crafting-reflection-through-ai-and-clay>
12. Blend Barcelona: Boldtron. Blend Barcelona, n.d. <https://www.blendbarcelona.com/boldtron/>
13. de Joode, R.: Rachel de Joode. n.d. <https://racheldejoode.com>
14. i2ADS: ARTinRARE – Artistic Intelligence. i2ADS, n.d. <https://i2ads.up.pt/en/project/artinrare/>



Tackling obesity with comics: the case of the PAS GRAS project

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Keywords

Comics creation;
Characters; Co-
production; Science
Communication; Health
Promotion.

Abstract

This study discusses how visual narrative in children's electronic books can benefit from research findings on children's literature. In this paper we discuss the concept of interactivity in the context of ebooks as a resource that adds multimodal stimulus to visual narratives. Based on the work from Nikolajeva and Scott, we focus on three aspects to guide the design of interactive digital narratives for children: (1) ambiance, (2) representation of the characters and (3) the perspective of the narrative. The discussion is exemplified through the analysis of highly interactive children's ebooks, such as story apps. The results of this investigation aim at providing professionals with some preliminary guidelines that can helping them to design interactive books for children.

1. Introduction: Making comics within science and health

Throughout the years, comics have served as a medium for communicating diverse types of information to the public. They are especially valued for their ability to convey complex subjects to broad, often non-specialist audiences. Pertinent examples are narratives involving science (e.g., Lin, et al., 2015; Amaral et al., 2015) or health subjects (e.g., Williams, 2012; Alemany-Pagès et al., 2022; Tavares et al., 2023). Indeed, it is evident the attention given by researchers in these topics, as many efforts suggest that comics are effective and engaging in conveying scientific topics (Hosler & Boomer, 2011; Spiegel et al. 2013; Diamond et al. 2015; Farinella, 2018), health topics (e.g., Girault, 1991; McNicol, 2017; Czerwicz et al., 2015; Kearns & Kearns, 2020; Hamdy & Nye, 2022), and promoting behaviour change (e.g., Putnam & Yanagisako, 1985; Dobbins, 2016), to/among the public.

Even though the presence of comics in the context of science and health is vast, the processes involved in making these comics, and the creators involved in it, is not as often discussed. Some authors have published guidelines on how to make this type of comics (e.g., Tribull et al., 2017; Friesen et al., 2018; McDermott et al., 2018; Waite, 2019) and they often neglect the people involved and how it can benefit the process. As comics with scientific and health subjects are often created within aca-

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demographic settings, they open the space for the creators (e.g., researchers and artists) to establish specific interdisciplinary work dynamics (e.g., Herd et al., 2020; Tavares et al., 2023; Tavares, 2024) that will make it easier for a non-specialist audience to decipher complex concepts. A working relationship based on (mutual) collaboration between the different creators (and others), where there are continuous contributions, and complementary behaviour can be advantageous (Udhir, 2012). In general, a good working relationship between creators will result in an accomplished comic with a successful message (Eisner, 1996).

Indeed, comics are social objects (Cohn, 2013) that involve the relationship between different individuals (Davies, 2019). This indicates that co-production can go beyond the collaboration of the creators themselves and involve individuals such as members of the audience, health professionals, researchers from different specialties, and other relevant stakeholders. This is especially pertinent when dealing with concepts that need to be translated the best way possible to specific audiences.

To accomplish this, mixed method research approaches can be applied during the creation and after the publication of the comic. A good example can be the creation of the comic book “A Healthy Liver Will Always Deliver!” (Alemany-Pagès et al., 2020b). First, people with type II diabetes were interviewed before the creation of the comic book, and their testimonies helped to a) select the scientific concepts to be present; and b) inspire characters and narrative situations and scenarios (Alemany-Pagès et al., 2020a; 2021; 2022). Second, during the comic book creation, a qualitative research approach was taken to understand the dynamics between creators and the visual and narrative solutions taken to best convey the topic of non-alcoholic fatty liver disease and its related scientific topics (e.g., insulin resistance) to the audience (Tavares et al., 2023; Tavares, 2024). Third, after the publication of the comic book, pre-/post- questionnaires were made to assess the impact of reading this graphic narrative, on a big scale, shedding light on the power of comics to convey knowledge and potentiate behaviour changes among the public (Alemany-Pagès et al., 2023).

Even though some research efforts have been made to push the process of co-producing comics forward, discussing the dynamics between illustrator(s), researchers, and other stakeholders, there seems to be little evidence of such process within the context of research projects. We consider that this is a topic that should be further developed, especially when dealing with complex science and health topics, which involve knowledge that is being communicated to different audiences. In this paper we shed light into the comics-based practice and research within the PAS GRAS project and bring forward the significant decisions taken by the team to better tackle obesity with this medium and research approach.

2. Co-producing comics within a research project about obesity

The present work is established within the research project “PAS GRAS: De-risking metabolic, environmental and behavioural determinants of obesity in children, adolescents and young adults”. It comprises a consortium of

sixteen partners from eight European countries and was funded by the European Union's Horizon Europe Program. This project aims to prevent and reverse overweight and obesity in children (3-9 yr), adolescents (10-18 yr), young adults (19-25 yr), and adults (25-55) through an integrated approach based on scientific evidence. The project has an interdisciplinary nature and intends to convert scientific knowledge into accessible and relevant resources tailored to diverse audiences, supporting the understanding and uptake of health-promoting behaviours throughout life.

This will be accomplished through the development and implementation of a campaign, which involves co-production of different science-health literacy materials, including comics and comic strips, with researchers, patients and members of the general public, to ensure inclusiveness and to maximize the effectiveness of these resources for the public.

3. Methodology

The collaborative research on the co-production of comics emerged with several levels of involvement between the illustrator and the researchers at different points in time, through a dynamic entitled "Drawing Science Understanding Science" (DSUS). First, a core-working group involved the illustrator and 4-6 researchers, which were directly developing the comics with a continuous collaboration. The collaborative work (in-person and online) focused on every aspect related to comics, scientific topics, narrative, sketches, among others. Second, researchers from different expertise and research institutions, within the PAS GRAS consortium, contributed with working groups sessions, written content, in the form of short stories and scientific texts. These contributions were then discussed within the core-working group, so that sketches could be developed by the illustrator. Third, the illustrator and researchers outside of the core-working group had sessions of discussion about the sketches in development, whenever it was necessary a deeper understanding of specific scientific topics from different fields, biomedicine, ecology, nutrition, sports, geography. These discussions helped to improve the depiction of the topics in the sketches. Fourth, several rounds of iteration (in-person and/or online sessions and follow up email correspondence) would take place between the core group and other researchers, with the purpose of further improvement of visual depiction of topics. These sketches served as data to inform decision making during the remaining of the comic production process. Furthermore, the discussions at different levels went beyond the scientific topics, touching on other subjects such as the environmental and socio-cultural contexts, definition of age groups that these comics will target, the types of narrative situations and characters that would inhabit the stories, the graphic style, among others. In these sessions, all decisions were documented through notetaking and keeping all the versions of the sketches, which was beneficial during iteration rounds. Whenever disagreements took place, the discussion would extend to more members of the PAS GRAS team, so other opinions could be considered and, eventually, new ideas and a consensus would be found.

Besides the coproduction for the scientific script among the PAS GRAS team, a participatory approach was adopted with a target audience – children – for the creation of project’s mascot. Children were asked to draw a character that could inspire children and adults to pursue healthy lifestyles. This visual approach session was conducted during a session of the pilot study “GicO – Gymnastics Against Obesity” of the PAS GRAS project. It involved children aged 6–7 ($n=34$) starting a gymnastic program. The study comprised visual methods and a food-themed memory game to document lifestyle and better understanding the circumstances influencing the food choices of children – including preferences, perceptions, knowledge and related behaviours – and their relationship with the food environment. The children’s drawings were used as data not only to discuss the mascot among the team but also to inform about contexts in both written and visual scripts. This process took roughly eight weeks of discussions and sketch iterations, which was part of DSUS sessions between the core working group and, at times, with other researchers. Moreover, once achieved a consolidated version of the comic, a new iterative moment occurred with the PAS GRAS team for the translation for 8 languages. Simultaneously, the targeted audiences, here adolescents and young adults, were invited to read and review the comic generating a new round of discussions and a final consensus.

4. Style and characters to potentiate the project’s topics

4.1. The graphic style

Creating comics, among other materials, within PAS GRAS, required defining the science and health topics that were crucial to be communicated and to which audiences. At the same time, there was a shared belief that each material produced within the project should also contribute to a strong visual identity.

The first aspect to be defined was the graphic style. This would be determinant in dictating how the comics, comic strips, and other materials would integrate the visual identity of the project. It was established that this should be intentional in terms of appealing to different age groups and leaving enough room for scientific concepts to be portrayed objectively. Taking direct inspiration from the clear line graphic style used in Franco-Belgian comics, the style was proposed. On different co-production sessions the style was discussed, and it was considered an extremely adequate graphic style to balance a certain level of simplicity, expressiveness, and with potential to appeal to audiences of different ages.

4.2. The mascot as a pivot of scientific topics

Mascots are characters, usually anthropomorphic, that serve as representative symbols of brands and events (Liang et al., 2025; Wood, 2019; Thompson & Bennett, 2016; Kraak et al., 2015). In different ways, they influence the impact, engagement, and motivation of/towards their respective brands and events, among the public (e.g., Liang et al., 2025; Thompson & Bennett, 2016; Kraak et al., 2015).

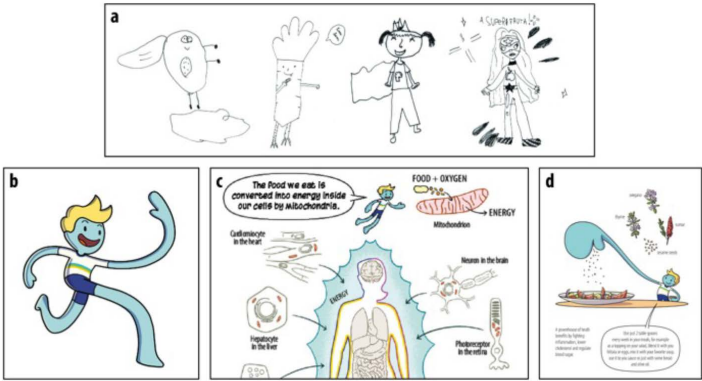
In the PAS GRAS project, the idea of having a mascot was similarly aligned: the necessity to have a character that could strategically represent the project and serve as a reinforcement and unifying agent of the communication of the different concepts related to obesity. At the same time, it would have to avoid creating stigma around obesity. This character would have to be dynamic so it could inhabit different types of outlets, such as comics, comic strips, illustrations, posters, outreach materials, videos, and others (print and digital); and it would have to have visual features that could potentiate the communication of the scientific concepts.

The data gathered from the children’s visual contributions demonstrated a tendency for human features (48%) with the remaining proposals including anthropomorphized representations, particularly fruits and vegetables, as well as animals and other symbols associated with health. Several iterative sketches were made, often mixing scientific elements with anthropomorphic parts (e.g., adipocyte or mitochondrion), but after several sessions of discussion and iteration, a more humanlike figure was selected, carrying strategic visual features: blue skin in accordance with the project logo in which the (blue) child is the transformative agent; yellow and pointy hair to represent energy and vitality; the mascot’s body is malleable, which represents the plasticity of the human body towards change; and a white t-shirt with three stripes representing the colours of the project.

In terms of the abilities of the mascot, we established that it would have to be able to present scientific information on different scales (e.g., daily life situations, inside the human body, inside the organs and cells, and so on). This was crucial for the purpose of communicating scientific concepts related to obesity in a dynamic and engaging way. The solution found was to make the mascot have the power to generate portals that could lead to different levels of biological organization (of the body, organs, cells, organs, and organelles).

As for the mascot’s name, parallel sessions were held at different points in time, among consortium members, to establish a simple, neutral, yet strong name. The selected name was Bluu, as in the colour blue from its body and from the visual identity of the project.

Fig. 1. Selected drawings from children (a); final version of Bluu (b); example of the use of Bluu in a comic (c) (detail from Azul et al., 2025a) and in an illustrated leaflet (d).



4.3. A character for sustainability, nature, and diet

From the many subjects the project communicates, sustainability, nature, and diet, are crucial. This is something that the mascot alone could communicate, but with limitations due to its visual features focused on the human body and “branding” aspects. To help the mascot bring these subjects to the public, it was established that another character should be created.

We looked at the project and at what type of food is involved in the research: it is focused on the Mediterranean Diet and on the use of various species of mushrooms. This presented itself as the perfect opportunity to explore food as an anthropomorphized character, specifically mushrooms, and be a character directly linked with sustainability, nature, and diet. With this, this second character was developed through several rounds of iterative sketches and discussions.

The mushroom fructification of *Pleurotus ostreatus* was the selected representation, while having human features (face, arms and legs). This mushroom, also known as the Oyster mushroom, inspired the name of the character: Dr. Oyster. It was established that Dr. Oyster is very knowledgeable and can interact directly with natural elements. Such characteristics, from a narrative standpoint, make it easy to navigate in nature scenarios from different levels of information.

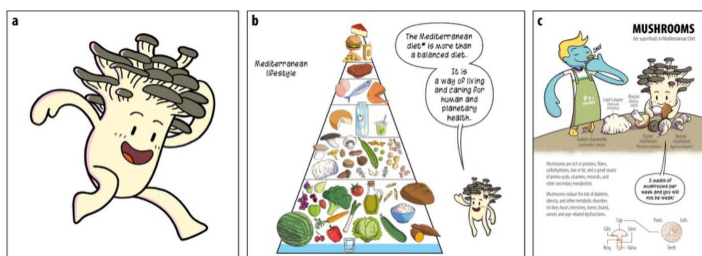


Fig. 2. Final version of Dr. Oyster (a); example of the use of Dr. Oyster in a comic (b) (detail from Azul et al., 2025a) and in an illustrated leaflet (c).

4.4. Human characters and their stories

In the context of the PAS GRAS project, and in the context of comics about science and health, having human characters was an obvious decision. The main points of debate were the type of human characters that would inhabit the comics narratives, and in which ways they were going to help communicate the different aspects related to the project for different audiences.

The project tackles obesity among children, adolescents, and young adults, so one important aspect to consider was to show these different age groups in the characters. Another important aspect is that, within the project, children are regarded as crucial agents of change, so special attention should be given to children characters. Data from the participatory with the children also gave some insight into the types of the characters, their settings and background.

During the first discussion about characters, a point was raised to include previously developed characters (by the same team of illustrator and researchers) in the PAS GRAS comics. More specifically, the character Lara, from the comic book “Mitochondrial Follies” (Azul et al., 2018). This

character has a metabolic disease, she is knowledgeable about different science and health topics, is an artist, and works with different patients of different ages. So, Lara had the potential to be a pivotal character among the others to help bring such topics into the comics narratives.

First, to answer the aspect of children characters, it was established that the rest of the characters should be a group of multicultural and diverse children. Second, to answer the aspect of different ages, it was decided that the comics would take place in different periods of the children's lives. This was also a strategy to develop narratives for different age groups, with different themes related to the project (e.g., a comic focused on the adipose tissue, one dedicated to physical activity, one dedicated to food and diet). Third, to incorporate more easily these themes in the narratives, the characters were attributed specific background stories (e.g., professions, hobbies, and so on) that could tap into the project's themes and potentially enhance the communication of the concepts related to obesity. For example, Arthur is a farmer and food engineer and Karol is a biologist.

Excerpts from the description of the characters give a clearer idea of what is intended with each one:

Karol, biologist, researcher, loves sports and being active. In her childhood she used to move around in her skate.

Fred, chef, frequently collaborates in campaigns with local farmers to raise awareness about eating healthy and local foods. Fred was overweight during childhood. He learnt to cook with Lara after visiting the healthcare center for a psychology appointment.

In the comics, the application of this are specific moments of conversation where Karol explains technical concepts with the rest of the characters, while Fred is preparing a healthy meal.

Excerpts from the script:

It's a sunny Saturday afternoon/evening, late June. Lara receives her dearest friends for dinner, as usual once a month. [...] Karol, the biologist of the group, demystifies several aspects about fat and weight.

[...] when Fred and Karol arrive. Fred brings some mushrooms, Pleurotus, Agaricus, Hericium in a wicker basket.

Fig. 3. Karol talking about adipose tissue (a) and Fred preparing food (b); both examples are from a comic soon to be launched (Azul et al., 2025b).



5. Concluding remarks

In the context of science and health, creating comics involves taking decisions that have impact on how audiences receive, tackle, apprehend and,

ultimately, use complex subjects. In the process of creating the comics within the PAS GRAS project, character creation was seen as an opportunity to touch on each main subject related with obesity, even before completing the narrative scripts: Bluu represents the project in many levels/platforms and can easily communicate about the human body, metabolism, and physical activity; Dr. Oyster is the link to the nature, environment, and diet aspects; and the different human characters with their daily life situations, and their background stories, while being portrayed in different ages of their lives, strengthen the comics potential to reach audiences at different ages, and tap into different themes related to obesity.

The project has also offered the opportunity to have an interdisciplinary co-productive environment. So far, illustrator and researchers from different disciplines and countries have contributed to these co-production sessions. This has opened the door for different perspectives, opinions, and experiences to come together and help to decide a myriad of aspects related to the comics creation, the scientific subjects to be communicated, and the characters creation.

Co-production in this project also revealed some limitations. To this point, the graphic style, especially how the characters and scientific topics are depicted and how engaging they are, has only been subject to discussion. No evaluation has been conducted. Granted, it is based on a well-known style, and during discussion it was regarded as suitable style for the purposes of the project's different materials, but some concerns were raised about its efficacy to reach multiple age audiences. An evaluation needs to be made to effectively assess the graphic style's efficacy among different audiences. Currently, efforts are being made to develop an evaluation tool to accommodate this limitation.

To conclude, this paper highlights taking advantage of comics' affordances to potentiate the communication of specific concepts and intentions within a research project about obesity. Moreover, the interdisciplinary nature of the project has favoured the use of co-production in comics. We consider that reporting this endeavour, and decisions involved in it, is crucial to: a) shed light on the process of comics creation with science and health communication purposes; b) make a case for the use of comics in research projects; and c) to contribute to the research field of comics studies.

PAS GRAS consortium

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References

1. Alemany-Pagès, M., Azul, A. M., & Ramalho-Santos, J. (2021). The use of comics to promote health awareness: A template using nonalcoholic fatty liver disease. *European journal of clinical investigation*, e13642. Advance online publication. <https://doi.org/10.1111/eci.13642>
2. Alemany-Pagès, M., Moura-Ramos, M., Araújo, S., Macedo, M. P., Ribeiro, R. T., do Ó, D., Ramalho-Santos, J., & Azul, A. M. (2020a). Insights from qualitative research on NAFLD awareness with a cohort of T2DM patients: time to go public with insulin resistance?. *BMC public health*, 20(1), 1142. <https://doi.org/10.1186/s12889-020-09249-5>
3. Alemany-Pagès, M., Tavares, R., Azul, A. M., & Ramalho-Santos, J. (2020b). *A Healthy Liver Will Always Deliver!*. Coimbra University Press. Coimbra, Portugal. <https://doi.org/10.14195/978-989-26-2040-4>
4. Alemany-Pagès, M., Tavares, R., Azul, A. M., & Ramalho-Santos, J. (2022). A healthy liver will always deliver: development of a NAFLD awareness comic. *Health Promotion International*, 37(6), 1–15. <https://doi.org/10.1093/heapro/daac165>
5. Alemany-Pagès, M., Tavares, R., Azul, A. M., & Ramalho-Santos, J. (2023). A healthy liver will always deliver: Impact study of a Non-Alcoholic Fatty Liver Disease (NAFLD) awareness comic. *Health Communication*, 1–6. Advance online publication. <https://doi.org/10.1080/10410236.2023.2215908>
6. Azul, A. M., Ramalho-Santos, J., Oliveira, P.J., & Tavares, R. (2018) Mitochondrial Follies: A Short Journey in Life and Energy. In: Oliveira P. (eds) *Mitochondrial Biology and Experimental Therapeutics*. Springer, Cham. https://doi.org/10.1007/978-3-319-73344-9_29

7. Azul, A. M., Silva, A., Ramalho-Santos, J., Tavares, R. (2025a). Food powers your body on/off. Doi: <https://doi.org/10.5281/zenodo.19590713>
8. Azul, A. M., Silva, A., Ramalho-Santos, J., Tavares, R. (2025b). Fi/at on track. *In press*
9. Bennett, D. E., & Thompson, P. (2016). Use of Anthropomorphic Brand Mascots for Student Motivation and Engagement: A Promotional Case Study With Pablo the Penguin at the University of Portsmouth Library. *New Review of Academic Librarianship*, 22(2-3), 225-237. <https://doi.org/10.1080/13614533.2016.1162179>
10. Cohn, N. (2013). *The Visual Language of Comics*. Bloomsbury. Cohn,
11. Czerwiec, M., Williams, I., Squier, S., Green, M., Myers, K., & Smith, S. (Eds.) (2015). *Graphic Medicine Manifesto*. University Park, USA: Penn State University Press.
12. Davies, P. F. (2019). *Comics as Communication: a functional approach*. Palgrave Macmillan. <http://link.springer.com/10.1007/978-3-030-29722-0>
13. Diamond, J., Jee, B., Matuk, C., McQuillan, J., Spiegel, A. N., & Uttal, D. (2015). Museum Monsters and Victorious Viruses: Improving Public Understanding of Emerging Biomedical Research. *Curator: The Museum Journal*, 58(3), 299-311. <https://doi.org/10.1111/cura.12115>
14. Dobbins, S. (2016). Comics in public health: the sociocultural and cognitive influence of narrative on health behaviours. *Journal of Graphic Novels and Comics*, 7(1), 35-52. <https://doi.org/10.1080/21504857.2015.1127844>
15. Eisner, W. (1996). *Graphic Storytelling*. Poor House Press.
16. Farinella, M. (2018). The potential of comics in science communication. *Journal of Science Communication*, 17(1), 1-17. <https://doi.org/10.22323/2.17010401>
17. Friesen, J., Van Stan, J., & Elleuche, S. (2018). Communicating Science through Comics: A Method. *Publications*, 6(3), 38. <https://doi.org/10.3390/publications6030038>
18. Girault, Y. (1991). La bande dessinée peut-elle être un outil de prévention du sida ? *Aster*, 13(1), 187-207. <https://doi.org/10.4267/2042/9102>
19. Hamdy, S., & Nye, C. (2022). Comics and revolution as global public health intervention: The Case of Lissa. *Global Public Health*, 17(12), 4056-4076. <https://doi.org/10.1080/17441692.2019.1682632>
20. Herd, D., Jindal-Snape, D., Murray, C., & Sinclair, M. (2020). Comics Jam: Creating healthcare and science communication comics – A sprint co-design methodology. *Studies in Comics*, 11(1), 167-192. https://doi.org/10.1386/jem_00020_1
21. Hosler, J., & Boomer, K. B. (2011). Are comic books an effective way to engage nonmajors in learning and appreciating science? *CBE Life Sciences Education*, 10(3), 309-317. <https://doi.org/10.1187/cbe.10-07-0090>
22. Kearns, C., & Kearns, N. (2020). The role of comics in public health communication during the COVID-19 pandemic. *Journal of Visual Communication in Medicine*, 43(3), 139-149. <https://doi.org/10.1080/17453054.2020.1761248>
23. Kraak, V. I., & Story, M. (2015). Influence of food companies' brand mascots and entertainment companies' cartoon media characters on children's diet and health: a systematic review and research needs. *Obesity Reviews*, 16(2), 107-126. <https://doi.org/10.1111/obr.12237>
24. Liang, A., Sun, L., & Wang, H. (2025). A study of the effect of mascot attractiveness on attitudes toward sporting events. *Scientific Reports*, 15(1). <https://doi.org/10.1038/s41598-025-09406-z>
25. Lin, S.-F., Lin, H., Lee, L., & Yore, L. D. (2015). Are Science Comics a Good Medium for Science Communication? The Case for Public Learning of Nanotechnology. *International Journal of Science Education, Part B*, 5(3), 276-294. <https://doi.org/10.1080/13614533.2015.1062179>

- g/10.1080/21548455.2014.941040
26. McDermott, J. E., Partridge, M., & Bromberg, Y. (2018). Ten simple rules for drawing scientific comics. *PLOS Computational Biology*, 14(1), e1005845. <https://doi.org/10.1371/journal.pcbi.1005845>
 27. McNicol, S. (2017). The potential of educational comics as a health information medium. *Health Information and Libraries Journal*, 34(1): 20–31. <https://doi.org/10.1111/hir.12145>
 28. *Medical Humanities*, 40(1), 49–55. <https://doi.org/10.1136/medhum-2013-010469>
 29. Putnam, G. L., & Yanagisako, K. L. (1985). Skin cancer comic book: Evaluation of a public educational vehicle. *Journal of Visual Communication in Medicine*, 8(1), 22–25. <https://doi.org/10.3109/17453058509155960>
 30. Spiegel, A. N., McQuillan, J., Halpin, P., Matuk, C., & Diamond, J. (2013). Engaging Teenagers with Science Through Comics. *Research in Science Education*, 43(6), 2309–2326. <https://doi.org/10.1007/s11165-013-9358-x>
 31. Tavares, R. (2024). Making Comics in Science and Health Communication: Insights From the Creation Process [University of Coimbra]. <https://hdl.handle.net/10316/116166>
 32. Tavares, R., Alemany-Pagès, M., Araújo, S., Cohn, N., Ramalho-Santos, J., & Azul, A. M. (2023). Comics in Science and Health Communication: Insights From Mutual Collaboration and Framing a Research Practice. *International Journal of Qualitative Methods*, 22. <https://doi.org/10.1177/16094069231183118>
 33. Tatalovic, M. (2009). Science comics as tools for science education and communication: A brief, exploratory study. *Journal of Science Communication*, 8(4). <https://doi.org/10.22323/2.08040202>
 34. Tribull, C. M. (2017). Sequential Science: A Guide to Communication Through Comics. *Annals of the Entomological Society of America*, 110(5), 457–466. <https://doi.org/10.1093/aesa/sax046>
 35. Uidhir, C. M. (2012). Comics and Collective Authorship. In A. Meskin, R. T. Cook (Eds.) *The Art of Comics: A Philosophical Approach*. Wiley-Blackwell
 36. Waite, M. (2019). Writing medical comics. *Journal of Visual Communication in Medicine*, 42(3), 144–150. <https://doi.org/10.1080/17453054.2019.1575641>
 37. Williams, I. C. M. (2012). Graphic medicine: Comics as medical narrative. *Medical Humanities*, 38(1), 21–27. <https://doi.org/10.1136/medhum-2011-010093>
 38. Wood, M. (2019). The Potential for Anthropomorphism in Communicating Science: Inspiration from Japan. *Cultures of Science*, 2(1), 23–34. <https://doi.org/10.1177/209660831900200103>

Expanded Drawing as Epistemic Situation: Installation, Embodiment, and Brain-Computer Interfaces

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Abstract

This article examines expanded drawing as an epistemic situation, proposing that contemporary drawing increasingly operates not only as graphic representation but also as a spatial and embodied structure of experience. While drawing studies have often approached drawing as process, inquiry, and a form of thinking through making, less attention has been given to the conditions under which drawing shifts from representation toward situation. To address this question, the article revisits Claire Bishop's theory of installation art and applies its experiential framework to spatial drawing practices. The study combines conceptual analysis, interpretive examination of selected artworks, and a practice-led case study in order to explore how line, body, space, and action become operationally interconnected within expanded drawing. The discussion culminates in the analysis of the performance-installation *Enhancing the Mind's I*, which combines manual drawing, projection, and brain-computer interface technologies to stage a mediated relation between bodily inscription, neurophysiological activity, and spatial perception. The article argues that drawing becomes expanded not simply by leaving the page or adopting new media, but when the line reorganises perception, movement, and spectatorship. Under these conditions drawing no longer functions only as a representational surface; it becomes a situation through which spatial and embodied experience are structured.

1. Introduction

Drawing and installation have historically been approached as distinct artistic domains. Drawing has traditionally been associated with surface, trace, and representation, while installation art has been understood as an environmental practice concerned with spatial experience and the embodied presence of the viewer. Yet many contemporary artistic practices increasingly blur this distinction.

In numerous recent works drawing expands beyond the page and unfolds across architectural space, often incorporating performative gestures, spatial interventions, or technological systems. Under these conditions the drawn line no longer functions solely as a means of produc-

Keywords

Expanded Drawing;
Installation Art; Artistic
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Brain-Computer
Interfaces; Spectatorship.

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ing images. Instead it may organise how viewers move through space and how perception unfolds within an environment.

This shift can be understood in relation to Rosalind Krauss's notion of the expanded field [1], which described how artistic practices increasingly operate across disciplinary boundaries rather than within fixed media categories. Contemporary drawing similarly occupies an expanded terrain where image, gesture, space, and action intersect.

Within this article, the term expanded drawing refers to situations in which the line acts as a spatial operator capable of structuring perception, movement, and interpretation. The central question guiding this study is therefore simple: under what conditions does drawing move from representation toward situation?

To explore this question, the article brings together drawing studies, installation theory, and practice-led artistic research. Taken together, these perspectives make it possible to understand expanded drawing as a spatial configuration in which perception, movement, and interpretation are organised through the line. This article approaches expanded drawing from the perspective of artistic research, understanding knowledge production as emerging from the reciprocal articulation of theoretical reflection, artistic practice, and long-term pedagogical experience. The argument developed here is informed not only by a critical engagement with drawing studies and installation theory, but also by the authors' more than two decades of teaching drawing in higher art education, where recurring tensions between drawing, embodiment, spatiality, and spectatorship have been observed across distinct pedagogical and artistic contexts. In this sense, the article mobilises theory, teaching, and practice as interdependent sites of inquiry through which expanded drawing can be analysed as an epistemic situation. The remainder of this article is organised as follows. Section 2 situates expanded drawing within contemporary drawing research. Section 3 introduces the theoretical framework derived from installation art theory. Section 4 outlines the methodological approach. Sections 5 and 6 analyse spatial drawing modalities and the case study *Enhancing the Mind's I*. Sections 7 and 8 discuss the implications of the study, followed by its conclusion and limitations.

2. Drawing Research and the Expanded Field

Over the past two decades drawing studies have increasingly challenged narrow definitions of drawing as a preparatory stage within artistic production. Instead drawing is often described as an exploratory practice that operates across disciplinary boundaries.

Sale and Betti emphasise how contemporary drawing expands beyond traditional art contexts and engages a wide range of visual and spatial practices [2]. Similarly, the editors of *Drawing Now* highlight the diversity of contemporary drawing and its capacity to question established definitions of artistic media [3].

Within artistic research drawing is also understood as a way of thinking through making. Mäkelä, Nimkulrat, and Heikkinen describe drawing as a research tool through which knowledge can emerge from practice

itself [4]. In this perspective drawing is not simply a means of representing ideas but also a process through which ideas are developed. Recent work presented in the CONFIA conference likewise demonstrates how drawing may operate as spatial illustration, mapping, or embodied visual experimentation [5,6].

Across these contexts drawing increasingly operates as:

- a process of inquiry
- a medium of spatial communication
- an epistemic tool
- a performative practice.

Historically drawing has always occupied an ambiguous position between concept and execution. Its expansion into spatial environments therefore represents less a rupture than a continuation of one of its enduring characteristics.

3. From Representation to Situation

Installation art theory provides a useful framework for examining this transformation. Claire Bishop argues that installation art addresses the viewer as a physical presence within space rather than as a distant observer contemplating an object [7]. The artwork becomes an environment that must be entered and navigated.

Meaning therefore emerges through the interaction between body, environment, and perception.

Seen from this perspective the drawn line should not be understood merely as a graphic trace that records visual form. Instead it can function as a relational vector capable of structuring spatial relations between bodies and environments. When drawing operates in this way it produces not only images but also situations.

Drawing therefore shifts from representation toward situation.

4. Methodological Approach

This study is situated within artistic research and adopts a qualitative, interpretive, and practice-led methodology. Its analytical framework emerges from the intersection of three complementary sources: theoretical inquiry, pedagogical experience, and artistic practice.

First, the article develops a conceptual framework through a close reading of key contributions in drawing studies and installation art theory, with particular emphasis on Claire Bishop's account of installation as an embodied and spatially activated mode of spectatorship. Second, the study draws on the authors' long-term experience of teaching drawing in higher art education for more than two decades. This pedagogical background is not presented as anecdotal evidence, but as a situated field of observation in which recurring questions concerning line, surface, gesture, space, and bodily engagement have consistently emerged. Third, the article examines a practice-led case study developed by the authors, *Enhancing the Mind's I*, as a concrete instance through which the proposed framework can be tested and refined.

Methodologically, the research does not aim at statistical generalisation. Instead, it pursues analytical transferability through interpretive depth. The corpus is therefore constructed from sustained engagement with contemporary drawing discourse, long-term pedagogical observation, and the reflexive analysis of an artistic work produced within the authors' own research practice. This triangulation makes it possible to examine expanded drawing not as a fixed medium category, but as an operational condition in which line, body, space, inscription, and technological mediation become interdependent.

The corpus mobilised in this article combines theoretical sources, long-term pedagogical observation in higher art education, and a selective comparative analysis of works discussed in the authors' teaching practice. These works were chosen not to provide an exhaustive survey of expanded drawing, but to clarify recurrent experiential configurations through which drawing operates as a spatial and embodied situation. To ensure critical consistency, the article makes explicit the position from which it speaks: that of artist-researchers and drawing educators. This situated perspective is treated not as a limitation to be concealed, but as a methodological condition requiring reflexive awareness. For this reason, the case study is analysed not as self-evident proof, but as a materially and conceptually specific instance through which broader questions about expanded drawing can be articulated.

5. Modalities of Expanded Drawing

The four modalities proposed in this section are directly informed by the chapter structure of Claire Bishop's *Installation Art: A Critical History*. Rather than being transferred mechanically from installation studies to drawing, these categories are reworked here as an interpretive framework through which expanded drawing can be examined in spatial and embodied terms. In this sense, *Dream Scene*, *Heightened Perception*, *Mimetic Engulfment*, and *Activated Spectatorship* function as analytic lenses derived from installation theory and adapted to the specific problem of how drawing operates once it exceeds the representational surface and becomes situational. Their purpose is heuristic rather than taxonomic: they provide a structured way of identifying recurrent experiential configurations through which line, space, body, and perception become interrelated. The modalities are tested here through a small comparative corpus of works that exemplify distinct ways in which drawing exceeds representation and structures experience in space.

5.1. Dream Scene

In the modality of Dream Scene, expanded drawing operates as a mnemonic and interpretive environment rather than as a self-contained image. Xu Bing's *Book from the Sky* and Background Story are particularly relevant here, since both works transform drawing into a spatial field of reading and projection: signs appear legible, yet resist stable interpretation. In a different register, Do Ho Suh's *Rubbing/Loving Project* turns drawing into tactile memory, preserving lived space through contact, friction, and repetition. In both cases, line exceeds depiction and becomes a structure through which

memory, language, and spatial narration are activated. These works suggest that expanded drawing may function as a scene to be entered and interpreted rather than simply viewed from a distance.

5.2. Heightened Perception

In Heightened Perception, drawing reorganises bodily orientation and spatial attention. Fred Sandback's yarn installations exemplify this condition with particular clarity: the line does not depict volume but produces the experience of virtual volume through minimal means. Gego's *Reticulárea* similarly expands drawing into a suspended spatial mesh, demonstrating how line can remain fully operative as drawing while becoming volumetric and environmental. These practices are significant because they show that expanded drawing does not need to engulf the viewer in order to alter perception; it may do so through restraint, tension, and the precise activation of architectural space. Here drawing no longer describes space but acts directly upon it.

5.3. Mimetic Engulfment

The modality of Mimetic Engulfment describes situations in which drawing becomes immersive, destabilising the viewer's orientation and dissolving clear boundaries between image, environment, and body. Chiharu Shiota's thread installations are exemplary in this respect: dense networks of line transform architectural space into an enveloping field that is simultaneously bodily, affective, and psychological. A related logic can be found in teamLab's immersive environments, where projected visual forms exceed discrete objecthood and unfold as continuous, responsive spatial situations. Although materially distinct, both practices suggest that expanded drawing can operate through saturation, absorption, and perceptual instability. In this modality, drawing does not merely guide the viewer through space; it partially absorbs and decentres the viewer within it.

5.4. Activated Spectatorship

In Activated Spectatorship, drawing functions as instruction, interruption, or political address. Yoko Ono's instruction pieces are especially important because they displace drawing from visible mark to enunciated action, inviting the viewer to complete the work mentally, bodily, or collectively. Doris Salcedo's *Shibboleth* offers a different but equally powerful example, transforming line into fissure, threshold, and spatial wound. In both cases, drawing no longer remains a neutral visual structure: it positions the viewer ethically and physically. These works are crucial for understanding how expanded drawing may operate not only as spatial organisation, but also as a form of activation that implicates the spectator in processes of movement, decision, and confrontation.

Viewed through these modalities, *Enhancing the Mind's I* can be understood not as an isolated experiment, but as a practice-led instance in which several conditions of expanded drawing converge: mnemonic inscription, bodily activation, technological mediation, and the spatial staging of unstable self-articulation.

6. Case Study: Enhancing the Mind's I

Enhancing the Mind's I is selected here as a practice-led case study because it concentrates, within a single performance-installation, several of the tensions that define expanded drawing in this article: inscription and erasure, line and language, embodiment and mediation, self-description, and spatial spectatorship. The work emerged from artistic research conducted in dialogue with neuroscientific contexts, including the observation of neuropsychological assessment procedures in which subjects are asked to articulate their own identity in writing. This background prompted a critical question that remains central to the project: if self-perception is projected onto a material support to be read by others, what is in fact being assessed — memory, imagination, performance, communicative ability, or a socially constructed image of the self? Earlier reflections on the project have examined its relation to memory, self-perception, and neurophysiological mediation [10,11].

The performance is structured around the psychological protocol known as the Twenty Statements Test, in which the sentence “I am...” is repeatedly completed. During the action, the artist writes successive identity statements in graphite on paper. After each sequence, the written surface is partially erased before the process resumes, producing an accumulative and unstable field of inscription. The resulting drawing is therefore not a fixed image but a layered process in which writing, repetition, interruption, and erasure register the provisional character of self-definition. In this sense, the work extends drawing through language while also exposing identity as iterative, performative, and materially fragile (Fig. 1).

Fig. 1. Lopes, M. M., Bastos, P. B., Silva, F. M., Tomé-Marques, H., (2017) *Enhancing the Mind's I*, Detail.



At the same time, the performance incorporates EEG-based signal capture and live computational mediation. In previous iterations of the project, the action was preceded by neurofeedback sessions associated with attention, memory, and creativity stimulation. During the performance, the artist's brain activity is recorded through EEG and translated in real time into data that modulate projected visual transformations. The setup links EEG acquisition to live computational processing and projection, allowing neurophysiological variation to affect the temporal behaviour of the projected image. The installation therefore articulates several

simultaneous layers: the manual production of marks on paper, the sensing of neurophysiological activity, the computational transformation of data, and the projection of a parallel visual event in space (Fig. 2). Rather than claiming transparent access to thought, the work stages an aesthetic and epistemic relation between bodily action, self-articulation, technical mediation, and spatial perception. Drawing no longer resides only in the physical trace left on paper; it becomes distributed across body, surface, signal, screen, and environment.

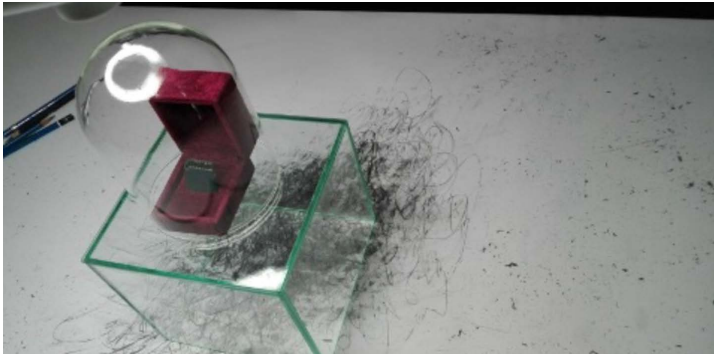


Fig. 2. Lopes, M. M., Bastos, P. B., Silva, F. M., Tomé-Marques, H., (2017) *Enhancing the Mind's I, Performance Installation* View.

This distributed condition is central to the argument of the present article. In *Enhancing the Mind's I*, drawing operates not simply as representation but as a situation in which memory, gesture, writing, and technological mediation interact in real time. The work explores whether acts of remembrance and self-description can be made spatially perceptible without reducing them to stable images or fixed meanings. What is produced is not a readable map of cognition, but a dynamic configuration through which the viewer encounters drawing as an embodied, mediated, and temporally unfolding event.

7. Discussion

The analysis developed in this article suggests that expanded drawing should not be understood simply as a hybrid category between drawing and installation. Rather, it can be described as an operational condition in which line, body, space, inscription, and technological mediation become interdependent. The comparative modalities discussed earlier show that this condition may take different forms - mnemonic, perceptual, immersive, or activating - but in all cases drawing exceeds the representational surface and begins to structure the experience of space. What matters, therefore, is not only what the line depicts, but what the line does: how it orients movement, produces attention, organises interpretation, and implicates the viewer within a spatial situation. Read in this framework, *Enhancing the Mind's I* functions as more than an illustrative example. It shows how expanded drawing may incorporate writing, erasure, projection, and neurophysiological mediation without ceasing to be drawing. The case study is especially relevant because it displaces the line from a

purely graphic register into a performative and epistemic one. The repeated inscription of “I am...”, followed by interruption and partial erasure, turns drawing into a process of unstable self-articulation. Simultaneously, the EEG-driven projection extends that process into the surrounding environment, making the act of drawing inseparable from sensing, translating, and spatialising. In this sense, the work does not externalise thought in any literal or neuroscientific sense; rather, it produces a mediated aesthetic situation in which cognitive self-articulation becomes materially and spatially negotiable.

This is also where the case study helps clarify the notion of drawing as an epistemic situation. Knowledge does not arise here from the image alone, nor from the technological apparatus alone, but from the relation established between bodily inscription, technical translation, and spectatorship. The installation opens a productive gap between the ways scientific systems register activity and the ways artistic situations generate affect, ambiguity, and reflection. Expanded drawing thus emerges as a mode of inquiry in which perception and interpretation are not detached from embodiment, but generated through it.

8. Conclusions and Limitations

This article has argued that drawing becomes expanded not simply when it leaves the page or adopts new media, but when it begins to organise the experiential conditions of perception, movement, and interpretation. By bringing together drawing studies, installation theory, pedagogical observation, comparative artistic examples, and a practice-led case study, the article has proposed that expanded drawing can be understood as an epistemic situation: a situated configuration in which marks, bodies, spaces, and mediating technologies participate in the production of knowledge through experience. From this perspective, drawing no longer merely represents space; it structures the experience of inhabiting it.

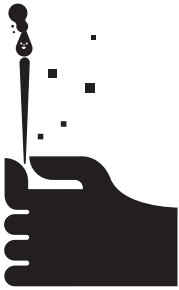
The study nonetheless has important limitations. First, the corpus is selective and interpretive rather than exhaustive, and the four modalities are proposed as heuristic categories rather than a closed taxonomy. Second, the central case study is drawn from the authors’ own artistic practice, which offers depth and reflexive insight but also requires acknowledgement of authorial proximity. Third, the article does not include a systematic study of audience reception and therefore cannot make strong claims about how viewers empirically experienced the installation. Fourth, given the scale and format of the paper, the technical description of the EEG/BCI system is necessarily concise; the work should therefore be understood as an artistic use of neurophysiological mediation, not as neuroscientific proof of direct access to thought or memory. Future research may expand this framework through broader comparative corpora, more detailed technical documentation, and audience-based analysis of spectatorship within expanded drawing environments.

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References

1. Krauss, R.: Sculpture in the Expanded Field. *October* 8, 30–44 (1979).
2. Sale, T., Betti, C.: *Drawing: A Contemporary Approach*, 6th edn. Thomson Wadsworth, Belmont (2008).
3. Downs, S., Marshall, R., Sawdon, P., Selby, A., Tormey, J. (eds.): *Drawing Now: Between the Lines of Contemporary Art*. I.B. Tauris, London (2007).
4. Mäkelä, M., Nimkulrat, N., Heikkinen, T.: Drawing as a Research Tool. *Studies in Material Thinking* 10, 1–12 (2014).
5. Gamba Junior, N.G., Pinto, C.S.: O desenho como estímulo para um mapeamento colaborativo de mascarados do carnaval carioca. In: *Proceedings of the 8th International Conference on Illustration and Animation (CONFIA)*, pp. 601–612 (2020).
6. Liang, Y.: Expanded Illustration Practice as an Embodied Sensory Experience. In: *Proceedings of the 11th International Conference on Illustration and Animation (CONFIA)*, pp. 299–309 (2024).
7. Bishop, C.: *Installation Art: A Critical History*. Tate Publishing, London (2005).
8. Garner, S.: Towards a Critical Discourse in Drawing Research. In: Garner, S. (ed.) *Writing on Drawing*, pp. 15–26. Intellect (2008).
9. Petherbridge, D.: *The Primacy of Drawing*. Yale University Press (2011).
10. Lopes, M.M.: Body Storytelling and the Performance of Memory. In: *Distributed, Ambient and Pervasive Interactions (DAPI 2016)*, LNCS 9749, pp. 257–269 (2016).



The representation of the ‘self’ in animated documentaries: biographical and autobiographical practices

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Keywords

Animation; Animated
Documentary;
Autobiography; Biography;
Documentário Animado;
Animação.

Abstract

This article examines how contemporary animated documentaries reconfigure autobiographical and biographical practices through the interplay of different regimes of image, sound, and mediation, focusing on films from the past decade selected for festivals. Based on the premise that animated documentaries have moved away from indexical conception of reality, this study examines how animation enables the representation of subjective dimensions, such as memory and identity. Drawing on scholars who reflect on the documentary genre in general and the animated documentary in particular, this paper discusses the legitimacy of the animated documentary as a form of nonfiction and its ability to make visible what cannot be captured through direct recording. The paper argues that biographical and autobiographical documentary narratives provide a prime setting for observing these transformations, as they bring together the individual’s experience, narrative structuring, and approaches to representation. It concludes that animation, by pushing the boundaries of the documentary, has established itself as a central medium in the contemporary exploration of narratives of the “self” and subjective experience.

1. Introduction

The growing presence of documentary works in animation has challenged traditional ways of representing reality, making room for narrative approaches that prioritise subjectivity and individual experience. In this context, biography and autobiography have emerged as recurring choices among filmmakers seeking to blend their authorial approach to animation with documentary, drawing on Grierson’s original definition of the documentary as the “creative treatment of current events” [1].

1.1. Conceptual frameworks of the animated documentary

Building on previous research, in which a systematization of animated documentary typologies and the interplay between different modes of representation were presented, the author refers to a previous article [2], a detailed analysis of these categories and their respective theoretical frameworks, which will be drawn upon here, where contributions from authors

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such as Annabelle Roe, Paul Wells, and Bill Nichols [3], [4], [5], [6], [7], , allow for the framing of the formal and conceptual specificities of this genre. It is therefore proposed, in a spirit of continuity, to explore in greater depth the conceptual themes that define the contemporary animated documentary as a field that embraces and explores hybrid creation, in which different forms of expression coexist and are frequently brought together in dialogue.

It is thus argued that current practices in animated documentary do not tend to operate within rigid categories, but rather stand out for their hybrid approach, in which axes of analysis are identified, forming different analytical dimensions of the same phenomenon: the relationship between the mimetic substitution of reality and subjective evocation; the tension between indexicality and pictorial construction; and the interplay between direct representation and interpretative mediation. This distinction is justified insofar as they operate at distinct levels of analysis – functional, ontological, and procedural – and act in complementary ways, allowing for an integrated reading of the practices of animated documentary and highlighting its hybrid and multidimensional nature.

The relationship between mimetic substitution and subjective evocation, as discussed by Annabelle Roe [8], is a central theme of the animated documentary, in which the function of images is analysed. Mimetic substitution refers to animation's ability to take the place of absent or inaccessible images, whilst maintaining a referential relationship with reality. In this sense, it approaches a logic of reconstruction, functioning as an extension of the traditional documentary approach.

By contrast, subjective evocation shifts the focus from representation to inner experience, allowing for the visual representation of subjective dimensions that defy direct perception or naturalistic representation.

These dimensions, despite their apparent opposition, coexist, creating a tension between reconstruction and expression that broadens the scope of what can be represented. It is important, however, to add, in agreement with Widdowson [9], that this approach allows the filmmaker to introduce a visual meta-commentary and take it into a territory where the experience of the documentary's subject(s) may be subject to misinterpretation or excessive aestheticisation. It may also lead to the situation to which the same author warns: "This formulation becomes even more complex due to the fact that all forms of animated, evocative and non-mimetic meta-commentary are indicative of the imagination of those who created them." [9].

A second key aspect of this genre concerns the tension between indexicality and graphic staging, which is directly linked to the theoretical foundations of the documentary, and aims to explore the relationship between the images in animated documentaries and reality.

Documentary is grounded in an indexical relationship between image and reality, according to which the image is understood as evidence or a direct trace of the real.

Animation breaks with this physical connection and introduces a non-indexical condition that challenges the ontological assumptions of the documentary image. Furthermore, Widdowson [9] notes that, in this regard,

representation in animated documentaries ceases to be a reproduction of reality and can become fertile ground for aesthetic and ethical choices.

However, as Annabelle Roe argues, this absence does not detract from its documentary value but rather opens the way for new forms of representation. The visual staging makes it possible to represent what has not been or cannot be captured; to give visibility to the invisible; and to reinterpret reality through its own visual codes, thereby creating an expanded form of indexicality, mediated by processes of image-making and interpretation.

Finally, the interplay between direct recording and interpretative mediation allows us to understand the animated documentary as a space for negotiation between different modes of representation and to reflect on how reality is transformed in this context. Direct recording, associated with classical documentary practices, involves capturing events in real time, often in line with observational approaches. However, animation inevitably introduces a layer of mediation that alters this record. Even when based on documentary material, such as interviews and archive footage, and using rotoscoping techniques, the animated image is always the result of processes of selection and interpretation.

This condition brings the animated documentary closer to the performative and reflective modes described by Bill Nichols [3], who highlights the construction of all representations of reality. Interpretative mediation is thus asserted not as a limitation, but as a critical resource that makes the very process of representation visible and legitimises subjectivity as a component of documentary discourse.

Guided by these principles, the contemporary animated documentary can be understood as a field in which different forms of representation – mimetic and evocative, indexical and staged, direct and mediated – coexist and engage in dialogue.

This hybrid state of convergence is also evident at a technical level, particularly in the interplay between live-action, rotoscoping and 2D animation techniques, and can be understood as its expression. The combination of these visual styles is not an exception, but rather a manifestation of contemporary practices that favour composite approaches with an essayistic and self-reflexive inclination.

Within this framework, this study does not seek to redefine the typologies discussed previously, but rather to explore their practical application, examining how they manifest and evolve in the contemporary context of animated documentary, specifically through an analysis of a selected corpus of animated documentaries screened at festivals over the past decade.

1.2. Biography, autobiography: representation and self-representation in animated documentaries

Biography and autobiography are narrative forms that explore human life, focusing on lived experience and its interpretation.

Paul Ricoeur [10] notes that, in telling a story, a narrative identity is constructed, that is, a structure that lends coherence to a lived experience. Thus, biography and autobiography are not mere records of facts, but

processes of meaning-making, in which events are selected and arranged into meaningful sequences.

This ability to impart a sense of unity to life is problematised by Pierre Bourdieu [11], who speaks of the “biographical illusion”. According to this author, when narrating a life, one tends to assume it constitutes a coherent, continuous journey. However, this coherence is often a retrospective construction, in which events are linked, through the narrative, as if they were bound by logical relationships, when, in fact, life is punctuated by discontinuities and governed by constraints.

In this way, an autobiography can be understood as an individual’s attempt to give meaning and coherence to their own existence, whereas a biography involves the mediation of another person who interprets and organises that life.

A critical analysis of these two perspectives reveals that every life narrative is, at the same time, essential to understanding the human experience, yet limited as a faithful representation of that experience. As Bourdieu points out, “to construct a life story, to treat life as a story – that is, as a coherent account of a sequence of events with meaning and direction – may well be to resign oneself to a rhetorical illusion, a common conception of existence that an entire literary tradition has continually reinforced and continues to reinforce.” [11, p. 185].

François Dosse [12] emphasises that biography lies in the representation that establishes a dialogue between the facts and the narrative construction. The author highlights the impossibility of direct access to reality by stating that “biography (...) is written first in the present, in a relationship of even stronger involvement when there is empathy on the part of the author” [12, p. 11] and is situated, as the same author further emphasises, at a midpoint between fiction and reality.

Contemporary thinking on biography finds an important systematisation in the work of François Dosse [12], who proposes three main categories: heroic, scientific and hermeneutic, each corresponding to a different way of conceiving the relationship between the individual(s) and the narrative. The heroic biography, which draws on the classical tradition, focuses on exemplary figures and creates linear narratives that emphasise unity and the individual. Furthermore, the scientific biography draws on documents and the individual’s place within social structures, shifting the emphasis away from the individual’s exceptionality and towards the context.

Finally, hermeneutic biography, influenced by interpretative schools of thought and authors such as Paul Ricoeur, regards the story of a life as a narrative construction constantly being reshaped. This author emphasises, regarding the role of interpretation and the construction of meaning, and to what the literary analysis of autobiography reveals, that “The story of a life is constantly being reshaped by all the true or fictional stories that a person tells about themselves. This reshaping makes life itself a tapestry of stories.” [10, p. 356].

In addition to this development, it should be noted that contemporary biography tends to shift from an individual-centred perspective towards approaches that incorporate the collective. From this perspec-

tive, Pierre Bourdieu's critique of the 'biographical illusion' is decisive in showing that, often, the coherence of life stories results from a retrospective construction that conceals discontinuities and social impositions. As the author suggests, understanding a life course involves situating it within a field of relations, that is, within a set of positions occupied by different agents and actions. In this sense, biography ceases to be merely the account of a singular existence and becomes also an instrument for analysing social structures.

Against this backdrop, practices such as prosopography or collective biography have emerged, in which multiple life trajectories are analysed comparatively or in relation to one another. Biography thus comes to function as a means of understanding group experiences, social events and forms of belonging, by bringing together the individual and the collective. Consequently, it can be argued that contemporary biography is not limited to recounting lives but constitutes an analytical tool that enables an understanding of the broader processes that structure social life.

Self-representation, as a discursive practice, has traditionally been understood as a form in which the author, the narrator and the subject of the experience coincide, as noted by Lejeune (1989), who presents a conceptual formulation of the 'autobiographical pact', according to which autobiography establishes an understanding of identity between the narrator and the subject of the narrative. In this model, the verisimilitude of the narrative rests on a relationship in which lived experience is retrospectively organised into a coherent whole. This concept has been undergoing a transformation within contemporary audiovisual practices. As Renov points out: "The word 'autobiography' is composed of three principal parts – 'auto', 'bio' and 'graphy' – which make up the essential elements of this representational form: a 'self', a life and the act of writing." [14, p. 11] and autobiography became a crucial means of resistance and counter-narrative. The same author also argues that contemporary documentary is shifting from a focus on factual recording to one of subjective expression, in which the personal dimension takes on a central role and has the power to transform how we think about and represent ourselves, both to ourselves and to others [14].

In this sense, neither autobiography nor contemporary biography relies solely on a direct correspondence with reality. They involve processes of mediation, as well as weighing up choices and interpretation. Memory, far from being a static archive, emerges here as a dynamic field, shaped by emotions, open to reconstruction and marked by inherent gaps.

In recent years, animated documentary has brought about a significant shift in how reality is documented, placing increasing emphasis on the individual's experience and memories and moving closer to forms of expression that prioritise the subjects' perspectives and the construction of their identities.

Thus, contemporary autobiographies and biographies do not merely recount a life, but craft a sensory experience of that life, drawing on both content and form, and employing narrative devices such as voice-over and archive footage.

As already mentioned, animation presents itself as a medium capable of representing dimensions inaccessible to real filmed imagery; it creates space for narratives in which subjective experiences can be recounted, and identity can be affirmed; and it embraces the evocative act, of which memory and emotion are part. It also allows for the articulation of personal experience and the author's visual representation by establishing itself as a medium capable of depicting intimate experiences and traumas in an ethical and expressive manner, making these narrative forms particularly relevant to the critical analysis of this genre.

1.3. Mediating memory and the 'self'

In animated documentaries, the expansion of the autobiographical concept takes on more specific forms. The absence of indexicality – i.e., the lack of a direct link between the image and the filmed reality – allows for greater freedom in representing subjective experience. Animation thus becomes a privileged medium for exploring cognitive dimensions that are difficult to access through live-action footage, such as memory evocation, imagination, and sensory perception.

Representation can take symbolic and fragmented forms, reflect the unstable nature of memory and approach what Stella Bruzzi [15] describes as the performativity of the documentary, in which truth is not simply captured, but produced through the act of representation. According to this author, it is argued that “documentaries are performative acts, inherently fluid and unstable and informed by issues of performance and performativity.” [15, p. 2].

According to this author, it is argued that, as Alisa Lebow [16], maintains, the first-person documentary (a concept the author proposes to encompass the self-portrait, the film-essay, the video diary and portraits of others, and which is worth bringing into this context to deepen our understanding of this genre) should be understood as a plural field that transcends the notion of a stable individual subject. In many documentaries with these characteristics, the self is relational and personal experience is articulated in relation to other voices, other bodies and other stories, giving rise to forms of shared subjectivity in which representation and self-representation, rather than merely showing the self and the other, shape them. This perspective is particularly evident in contemporary practices that address themes such as the body and identity.

1.4. Biographical and autobiographical expressions in the analysed corpus

Given the need to define a coherent corpus that would allow for a sustained critical analysis of the contemporary biographical/autobiographical animated documentary, screening contexts were selected that function as spaces for mediation rather than merely for the presentation of works, thereby contributing to their categorisation and understanding, such as festivals and film showcases. In this sense, the selection of films from specific contexts reflects discursive trends characteristic of a particular moment and of specific distribution circuits.

In the case of autobiography, this approach proves particularly relevant, since many of these works emerge in independent or auteur circuits, where formal experimentation and subjectivity are valued.

Focusing on a specific context enables us to understand forms of contemporary self-representation, as well as the ways in which biography and autobiography manifest as practices that are often hybrid and essayistic. Thus, defining a situated corpus ensures methodological rigour and allows for a more in-depth analysis of the conditions under which these works circulate and are received.

Having clarified the proposed scope of the analysis, a 10-year period (2015-2025) was considered, along with the documentaries screened at the animation festivals held in Portugal – *Cinanima* and *Monstra* –, the *Annecy festival*, and the *Dok Leipzig festival*. From this extensive body of work, over 160 films were listed, and only those short films that could be considered autobiographical or biographical, built primarily around testimonies, with the filmmakers reflecting on their own lives and those of others, were selected, resulting in 27 short films.

1.5. Concepts of the ‘self’ in contemporary animated documentaries

The body of work under consideration reveals a significant diversity of approaches in this field, allowing for the reconfiguration of the autobiographical and biographical practices discussed earlier; these practices emerge as devices for narrative construction, in which subjectivity and expressive mediation play important roles. A significant proportion of these works configures lived time, organising scattered experiences into bodies of meaning. Films such as *Chris the Swiss* [17], *I died in Irpin* [18] or *Papercuts: my life as an indie animator* [19] illustrate this process by structuring personal journeys or biographical explorations through narrative devices that lend coherence and intelligibility to subjective experience. In these cases, animation plays an active role in creating narrative coherence, acting as a link between memory and imagination.

The presence of fragmented narrative forms, which engage with the “biographical illusion”, is evident in works such as *Carne* [20], *Sopa Fria* [21] or *Água mole* [22], in which identity is not presented as a continuous journey, but as a set of discontinuous experiences of one or more individuals, often sensory and non-linear, in which fragmentation and the absence of traditional linearity reveal the construction of a collective life narrative. In these works, animation reinforces this discontinuity by favouring symbolic visual forms and open narrative structures, which mirror the instability of memory.

Animation plays a key role as a medium for conveying memory and subjective experience, enabling documentary works to move beyond an indexical nature and to represent dimensions inaccessible to live-action filming, such as memory, imagination, sensory perception, and trauma. Animations such as *Carne* [20], *Sopa Fria* [21], *I died in Irpin* [18], *Musical traumas* [23], *Mum’s hair* [24] e *Surpresa* [25] show that animation can visually convey internal states and emotions, as well as fragments of memory, by creating a sensory experience that lies beyond the reach of factual rep-

resentation. This ability is akin to the notion of performativity proposed by Stella Bruzzi [15], which holds that the documentary does not simply capture reality but actively participates in its construction.

Most of the documentaries in this selection do not seek to establish a definitive factual truth, but rather to explore the processes of interpreting and reconfiguring experience. Works such as *Chris the Swiss* [17], *Empty space* [26], *Swimming with wings* [27] or *O homem do lixo* [28] fall within this field by presenting life as a realm of constant reconstruction, in which memory is continually reinterpreted. At the same time, some films place individual stories within broader historical and social contexts, as in *Broken-The women's prison at Hoheneck* [29] or *I died in Irpin* [18].

It is worth noting that the heroic biography is almost absent from this corpus, reflecting a contemporary shift in the narrative focus towards everyday, marginal or collective experiences. Nevertheless, the following points are worth noting: *A cat is always female* [30], *Obon* [31], *Oscar* [32], *Papercuts: my life as an indie Animator* [19], *Teacups* [33] in which the focus is on specific figures, bearing in mind that interpretative practice and mediation reshape this possibility.

As Renov [14] suggests, the subjective dimension of the animated documentary is evident in this collection. Many of these works prioritise expression, transforming the documentary into a space for aesthetic experimentation and discursive resistance. Films such as *Mum's hair* [24], *Musical traumas* [23] and *Surpresa* [25], which explore personal memory and emotions, use animation to give form to experiences that are difficult to represent through indexical imagery. In this context, the documentary aspect of these animations does not lie in their direct correspondence with reality, but in the legitimacy of the subjective experience they evoke.

In many of the works in this corpus, identity is not constructed in isolation but rather emerges from relationships with other individuals and social contexts. Movies such as *Bear with me* [34], *Immersion* [35], *My brother, my brother* [36], *O homem do lixo* [28], *Pelas costas* [37], *Pronto era assim* [38], *Random walks* [39], *Swimming with wings* [27] e *Tailor* [40] bring together the individual and the collective, highlighting the fact that contemporary representation and self-representation often transcend the boundaries of the individual subject. This aspect sheds light on the initial discussion of the concepts of autobiography and biography, linking them to practices of prosopography, in which multiple voices and experiences intertwine.

I died in Irpin [18], *Mum's hair* [24], *My brother, my brother* [36] highlight possibilities for autobiography in contemporary animated documentary. The first film tells the story of a war experience marked by trauma; *Mum's hair* [24] constructs an intimate, fragmented and sensory recollection centred on the author's mother's illness; *My brother, my brother* [36] presents a shared identity of twin brothers built upon their relationship with one another, and above all with their mother. Taken together, these works reveal a tendency towards autobiographical forms that emphasise subjective experience.

The selection of short films allows us to identify two main forms of autobiography: direct autobiography and indirect, or essayistic, autobiography.

Cases in which there is a clear identification between the author and the subject of the narrative, whilst remaining relatively close to the classical model defined by Lejeune [13] correspond to direct autobiography and are represented by *My brother, my brother* [36], where the close bond between the filmmakers themselves forms the core of the narrative, establishing a direct link between personal experience and its portrayal.

In the film *My mum's hair* [24] the filmmaker's personal experience is not presented in a linear or explicit manner but emerges through formal devices that assert autobiography as the inscription of a subjective, essayistic experience.

Finally, *I died in Irpin* [18] falls within the realm of direct testimony, in which the experience of war is filtered through individual memory, albeit mediated by the language of animation.

The selected autobiographical works highlight the contemporary role of the autobiographical documentary in exploring expanded forms of self-representation, in which personal experience emerges through formal, thematic and sensory mediations, and in which the 'self' is continually constructed and reconfigured.

The sound dimension of animated documentaries also plays a prominent role in structuring the narrative. According to David Sonnenschein [41], sound organises the narrative, emotional, temporal and perceptual experience, guiding the viewer's interpretation and contributing to their understanding of the work. Thus, the sound dimension also plays a decisive role in documentary construction as a structuring element of the narrative, alongside the image.

1.6. Devices of Representation in Animated Documentaries

In addition to the narrative and conceptual dimensions discussed above, an analysis of the autobiographical animated documentary requires us to consider the technical dimension as a central element of representation, acting as an active mechanism in the construction of subjectivity by mediating narrative intentions. This relationship is evident in the films analysed, in which different technical approaches take on distinct forms of constructing the 'self'.

Reflecting on the sound in the films analysed, the voice, whether as narration, testimony or direct recording, often serves as the narrative backbone, establishing a close connection with the experiences depicted. In works such as *Água mole* [22], *Bear with me* [34], *I died in Irpin* [18], [35], *Immersion* [35], *Pronto era assim* [38], *Random walks* [39], *Music & Clowns* [42], *Obon* [31], *Pelas costas* [37] and *O homem do lixo* [28] e *Surpresa* [25], the vocal testimonies form the basis of the narrative structure conveyed through the language of animation.

In *Chris the Swiss* [17], *Teacups* [33] or *Papercuts: my life as an indie animator* [19], the narration, sometimes in the first person, structures the narrative's development, serving as a unifying thread across diverse narrative approaches. Similarly, in *I died in Irpin* [18], [35], the voice organises the account of a traumatic experience, contributing to the construction of meaning.

It is also possible to identify forms of dialogue which, although not direct records of reality, are intended to be documentary in nature. These

are situations in which speech is reconstructed and/or staged, approaching a fictional dialogue rather than one grounded in testimonies. This approach gives space in the animation to absent voices, contributing to the narrative construction of events that were not directly recorded. In these cases, the boundary between fiction and documentary blurs, reinforcing the performative nature of the animated documentary. Examples of this approach include the films *A cat is always female* [30], *Chris the Swiss* [17], *My brother, my brother* [36] and *Rádio Dolores* [43].

Empty space [26] and *Mum's hair* [24] from the list are the films in which sound moves away from its predominantly referential function, favouring atmospheres that contribute to a more sensory experience.

As for the animation, the variety of techniques employed, including 2D animation, rotoscoping, stop-motion, archive footage, live-action, and hybrid techniques resulting from combinations of these, demonstrates that the narrative representation relies on the materiality of the image.

The relative formal stability, which verges on a more mimetic function, can be found in the film *My brother, my brother* [36], which allows for a depiction of personal experience that is closer to the lived experience of the director brothers. The same can be said of *Tailor* [40], in which this closeness is reinforced by the interplay between image and voice, which contributes to a more grounded and recognisable portrayal.

Films such as *Carne* [20], *Surpresa* [25] and *Água mole* [22] employ, in different ways, evocative visual strategies in which metamorphosis, metaphor and abstraction, sometimes combined with archive live-action footage and stop-motion techniques, as in *Carne* [20], convey emotional states and experiences that are difficult to represent through indexical means.

The incorporation of indexical materials, such as photographs and audiovisual archives, introduces an additional layer of complexity and establishes a dialogue between reality and its pictorial reinterpretation, as can be seen in the films *A cat is always female* [30], *Chris the Swiss* [17], *Simply divine* [44] e *Oscar* [32].

This hybrid approach, which combines different techniques and media, is also evident in the diversity of sound strategies, reflecting the fragmented nature of both autobiographical and biographical documents. This interplay between image and sound reinforces the conceptual themes outlined above, namely the tension between mimesis and subjective evocation, as well as the dialogue between indexicality and graphic construction.

1.7. Final reflections

An analysis of the works shows that the contemporary animated documentary exists at the intersection of mimesis and evocation, indexicality and graphic construction, and between direct recording and interpretative mediation. The 'self' is revealed as an unstable entity, open to continuous processes of reconfiguration.

Thus, and to conclude, it can be stated that biographical and autobiographical animated documentaries constitute devices that contribute to the production of knowledge about the subject and society, whose documentary character emerges from the interaction between aesthetic choices

and the overall narrative construction, as demonstrated by the different approaches proposed by the analysed corpus. This approach implies an epistemological reconfiguration in which the documentary character shifts from a regime of testimony to a regime of experience and mediation, and representation becomes explicitly mediated and performative. Animation thus reveals not only the real, but also the conditions of its own construction, in which the departure from indexicality expands the documentary field, allowing for the representation of internal experience.

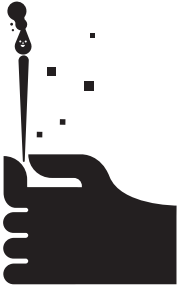
Finally, the documentary, in this context, emerges as relational, articulating individual and collective dimensions, and thus asserts itself as a hybrid and critical field that reconfigures the boundaries and foundations of contemporary documentary.

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Referências

1. G. Strøm, 'Animated documentary', Jan. 02, 2015, *Informa UK Limited*. doi: 10.1080/17503280.2014.1002253.
2. A. L. Pinto, 'Entretecer a mulher transmontana: os primeiros passos de um documentário animado', in *CONFIA · 10th International Conference on Illustration & Animation*, Caldas da Rainha: IPCA, Jul. 2023, pp. 188–199.
3. B. Nichols, *Introduction to Documentary*, 2nd ed. Indiana University Press Bloomington & Indianapolis, 2010.
4. A. H. Roe, 'The Evolution of Animated Documentary', in *New Documentary Ecologies. Emerging Platforms, Practices and Discourses.*, K. Nash, C. Hight, and C. Summerhayes, Eds., New York: Palgrave MacMillan, 2014, ch. 11, pp. 174–191.
5. A. Roe, 'Absence, Excess, Epistemological Expansion: towards a framework for the study of animated documentary', in *The Animation Studies Reader*, 1st ed., vol. 1, N. Dobson, A. Ratelle, A. Roe, and C. Rudelle, Eds., New York: Bloomsbury Academic, 2019, ch. 9, pp. 100–117.
6. P. Wells, 'Writing animated documentary: a theory of practice', Apr. 2016.
7. P. Wells, *Understanding animation*. Routledge, 1998.
8. A. H. Roe, *Animated documentary*, vol. 1. London: Palgrave Macmillan UK, 2013. doi: 10.1057/9781137017468.
9. A. Widdowson, 'Representational risks associated with interview-based animated documentaries', *Animation Practice, Process & Production*, vol. 11, no. 1, pp. 81–107, Jun. 2022, doi: 10.1386/ap3_00032_1.
10. P. Ricoeur, *Temps et récit III*. Éditions du Seuil, 1985.
11. P. Bourdieu, 'A ilusão biográfica', in *Usos e abusos da história oral*, 2006, ch. 13.
12. F. Dosse, *O desafio biográfico: escrever uma vida*. Edusp, 2016.
13. P. Lejeune, *On autobiography*. University of Minnesota Press, 1989.
14. M. Renov, *The subject of documentary*. University of Minnesota Press, 2004.
15. S. Bruzzi, 'New Documentary', 2006.
16. A. Lebow, *The cinema of me, the self and subjectivity in first person*. Wallflower Press,

2004. [Online]. Available: <https://archive.org/details/cinemaofmeselfsuooooounse>
17. A. Kofmel, *Chris the Swiss*, (2018).
18. A. Falileieva, *I Died in Irpin*, (2023).
19. E. Power, *Papercuts: My Life as an indie animator*, (2024).
20. C. Kater, *Carne*, (2019).
21. M. Monteiro, *Sopa fria*, (2023).
22. A. Ramires (Xá) and L. Gonçalves, *Água mole*, (2017).
23. M. Tomić, *Musical Traumas*, (2018).
24. M. Arnekleiv, Noruega. *Mum'a hair*, (2017).
25. P. Patrício, *Surpresa*, (2017).
26. Ü. Pikkov, *Empty space*, (2016).
27. D. Awadish, *Swimming with wings*, (2019).
28. L. Gonçalves, *O homem do lixo*, (2022).
29. V. Schlecht and A. Lahl, *Broken - The women's prison at Hoheneck*, (2016).
30. M. Meštrović and T. Vujasinović, *A cat is always female*, (2023).
31. A. Hörmann and S. Klemke, *Obon*, (2018).
32. M.-J. Saint-Pierre, *Oscar*, (2016).
33. A. Green and F. Watson, *Teacups*, 2023.
34. D. A. Golan, *Bear with me*, (2021).
35. M. Dubrul, Z. Scorer, and M. Royer, *Immersion*, (2019).
36. A. Dnewar and S. Dnewar, Egipto / França. *My brother, my brother*, (2022).
37. A. Andrade, L. Rodrigues, and D. Tietzen, *Pelas costuras*, (2024).
38. J. Nogueira and P. Rodrigues, *Pronto, era assim*, (2015).
39. B. Tompa, *Random walks*, (2015).
40. C. dos Anjos, *Tailor*, (2017).
41. D. Sonnenschein, *Sound design: the expressive power of music, voice, and sound effects in cinema*. Michael Wiese Productions, 2001. [Online]. Available: <https://books.google.pt/books?id=gwh-6QkjNcAC>
42. A. Widdowson, *Music & Clowns*, (2018).
43. K. Lillqvist, *Radio Dolores*, (2016).
44. M. Boulissière, *Simply divine*, (2024).



Memory, Identity, and Creative Processes in Animation

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Keywords

Memory; Illustration;
Animation; Authorial
approach.

Abstract

This paper examines a practice based research project about the creative processes and processes of decision making in the development of authorial approaches in animation, focusing on how individual identity is embedded within a creative project and mediated through personal experience and memory. Developed during the first year of a PhD specializing in Animation, the research is guided by the following questions: How does memory influence the development of an authorial visual approach? Which memory-related factors contribute to the creation of an animated film? And how can a “memory-based approach” be introduced within the animation production process to create a distinctive project?

This paper argues that memory constitutes one of the most significant forces within the creative process, understood as both individual and collective. It operates through references, concepts, lived and selected experiences, perception, and sensory input, shaping visual concepts, narrative development, and expressive outcomes, and enabling the emergence of distinct authorial aesthetics.

Memory is not merely a thematic element or a faithful translation of the past, but functions as an emotional cartography of the present — reconstructing fragments into a renewed projection of the self. As an active and transformative component, it mediates creative choices and contributes to the formation of authorial identity.

Methodologically, the study adopts a multi-layered approach combining literature review, theoretical reflection, case study analysis, and art-based exploratory practice. Central to this methodology is the creation of a tool, a “reflective artistic learning log,” which operates as both method and outcome. Functioning as a logbook, diary, and artist’s book, it serves as a space for experimentation, documentation, and reflection, informing creative decisions and supporting the development of authorial animated films as well as insights of practice based research.

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1. Introduction

In a contemporary world marked by image overload and increasing technological consumption, the development of an authorial visual approach in animated films presents specific challenges for artists and filmmakers [1]. These aspects raise questions about how distinctive and meaningful aesthetic and graphic expressions can be constructed and how artists express themselves, within contemporary visual culture, particularly in a context where both creators and audiences are exposed to the rapid circulation of information, as well as to automated AI-driven tools and machine learning systems that streamline and reduce stages of the creative process [2].

This paper begins from an interest in understanding creative processes and exploring approaches to creativity that preserve key aspects of identity and authorship. Within this context, memory is considered a central element, based on the proposition that artistic expression is shaped by lived experience, perception, and the ways individuals interpret and remember the world [3].

First, introduces a literature review addressing the relationship between memory, identity, and authorial approaches, followed by an examination of the connections between memory, drawing, and gesture. Drawing is considered as a fundamental tool in the development of visual thinking and authorial expression. The discussion then expands to analysis of the visual representation of memory across artistic practices such as painting, photography, and illustration, before focusing on animation as a space in which memory operates as both a narrative and visual device.

The research is guided by the question of how memory influences the development of an authorial visual approach in animation, particularly in relation to personal experience and creative processes. It also considers how these processes can be documented to support learning and potential pedagogical applications.

Methodologically, the study combines literature review, theoretical reflection, case study analysis, and practice based research. It further proposes an exploratory approach based on a “reflective artistic learning log”, conceived as a tool for documenting and analyzing the creative process.

2. Memory, Identity and Authorial Approaches

Nowadays, the acceleration of digital temporality has influenced how images are perceived, fostering rapid responses and continuous circulation [4]. The increasing volume of information consumed in short periods of time has also contributed to changes in attention span and perception [5] [6]. As a result, memory develops not only within individual processes, but also within digital environments of archiving and sharing, shaping both personal and collective narratives [7]. This paper reinforces an interest in artistic approaches that foreground memory, particularly in relation to individual expression and authorial development.

The individual identity is constructed through the accumulation of *memories*, which are essential to experience, psychological development, and artistic creation [8]. Each individual cognitive process with memory involves processes of encoding, storage, and retrieval, allowing individu-

als to organize and reconstruct experiences over time and with greater or smaller level of fidelity to events, as memory is understood as a mutable, active and transformable tool of the past.

According to Baudelaire [9], artists draw not from nature itself, but from the image retained in their minds. Drawing from memory is therefore not merely a process of representation but a visual projection of the self in those memories, a performative act of reconstruction into something new. The artist observes, selects, and reinterprets, navigating between memory and imagination. The soul of the artist reflects on his creation, and inevitably creates a new atlas for those emotions, an image of regained self of those inner states in mental images that connect past and present and sense of identity [1].

In contemporary art, this relationship between memory and identity becomes particularly evident. Artists frequently draw on archives, images, and past experiences to question or expand identity narratives. In animation, this dimension is especially significant, as it allows memories and sensory experiences to be transformed into moving images, projecting liberated experiences from the past into new narratives, where identity becomes embedded in the visual structure not only on the final work as in the creation process.

While memory has been discussed here mainly in relation to personal experience and authorial identity, it is also important to consider the broader cultural and sensory dimensions through which memory is constructed and mediated.

2.1. Memory, Subjectivity and Cultural Representation

In order to further understand memory and the relationship with identity and artistic expression, it is important to consider memory not only as an individual phenomenon but also as a cultural and sensory process.

According to Maurice Halbwachs memory is not understood only as an individual phenomenon, but also as socially and culturally mediated process. Memory operates through “social frameworks”, such as language, space and temporality. This allows individuals to reconstruct experiences collectively rather than in isolation [10].

Expanding this reflection, Jan Assmann [11] distinguishes communicative memory from cultural memory [11]. Communicative memory emerges through interpersonal interaction and everyday experience, but cultural memory is preserved through external forms such as images, archives, writing, rituals, and monuments. These mediated forms of memory contribute to the construction of collective identity and allow experiences to persist across generations and historical transformation.

The sensory and subjective dimensions of memory are further explored by Laura Marks through the concept of haptic visuality [12]. According to Marks, memory is profoundly connected to the body and the senses, offering a mode of viewing in which the eyes function almost as organs of touch. Haptic images emphasize texture, fragmentation, materiality, and sensory presence, evoking unique experiences to each person.

Within animation, these perspectives become particularly relevant, as animated cinema enables memory to be reconstructed visually through movement, rhythm, transformation, and fragmented temporalities. Memory therefore operates not only as narrative content, but also as a cultural, subjective, and sensory force that shapes authorial visual approaches and creative processes.

3. Memory, Drawing and Animation

In order to understand the relationship between memory and animation, it is important to consider which mediators operate within the process. The role of drawing, as performance and gesture, is particularly central in the early stages of envisioning an animated film, allowing initial concepts to become visible. Drawing raises questions related to perception, learning, performance, and representation [14].

One of these questions concerns whether drawing can be taught. In the book “*Drawing on the Right Side of the Brain*” (Edwards, 1912) [3], drawing is presented as a learnable skill that develops both visual perception and creative thinking. It involves not only observation, but also the activation of intuitive and gestural processes that move and improve new forms of expressivity and aesthetic decision-making.

Exercises proposed by Edwards, such as drawing from memory, highlight its role in creative practice. Similarly, in “*Drawing People*” (Semjonova, 2023) [5], the development of an authorial approach is closely linked to an individual’s internal visual framework. What is often described as “style” emerges from personal perception, experience, and memory. But which types of memory influence our identity and drawing practice? Rather than referring simply to “the past,” memory can be understood as a complex cognitive system that actively *structures* and *reshapes* visual output. Memory involves multiple dimensions that continuously shape perception, behaviour, and creative processes, often operating beyond conscious awareness. Includes episodic memory (that contains personal experiences, what we usually call memories from the past), semantic memory (the knowledge and concept we know like, what is rain), and procedural memory (embodied skills and practices like drawing) [M]. Within artistic practice, these dimensions interact dynamically, enlightening both perception and production.

Semjonova proposes a two-step exercise to support the development of an individual visual approach: first, drawing from observation; then, drawing from memory without reference. This transition activates different memory processes, moving from external perception to internal reconstruction, and influencing the resulting visual language.

This visual language is constructed through a range of interconnected aspects and elements. It begins with drawing itself, which includes elements such as line, shape, texture, color, and composition. Each artist mobilizes these elements differently according to their sensibilities and modes of expression. These features are present in function as documentation, as in observational drawing, or as a means of translating fragments of memory and mental imagery into visual form. Establishing the artist’s decisions and sensibilities, these elements are expressed into distinct and expressive outcomes.

As Baudelaire suggests, the artist exists between the present and the past, between memory and imagination, between observation and expression [9]. Authorial approaches emerge through this mediation, influencing what is selected, retained, and transformed through memory. Drawing can therefore be understood as a process through which perception and memory are reconfigured into visual forms.

As previously discussed, different memory dimensions operate within this process. In animation, episodic memory relates to personal experiences that inform narrative construction, while semantic memory involves knowledge of visual language and animation principles. Procedural memory is connected to technical skills, which become increasingly internalized through practice, allowing greater focus on expression.

These dimensions of memory are not isolated; they interact continuously throughout the creative process. Understanding this interaction is particularly relevant to this research, as it informs the development of the reflective artistic learning log proposed in this paper. By documenting both intuitive and deliberate decisions, this methodology seeks to make visible how memory operates within practice, supporting the construction of an authorial visual approach in animation.

Memory thus functions as an active and selective force in the development of authorial expression, supporting creative processes that can be documented and analyzed within artistic research.

3.1. Graphic studies and memory

The history of art offers abundant examples of singular forms of expression. From the reinvention of reality through the cubist distortions of

Pablo Picasso, to Henri Matisse's cut-outs and expressive use of color, Marcel Duchamp's radical conceptual approaches, and Caravaggio's dramatic use of light, artists have continuously developed distinct visual languages [10]. Through the singular use of line, shape, composition, light, colors and texture by each artist, it's important to consider and pay particular attention relationship between memory, identity, and the creative process. This section focuses on how memory is visually represented across artistic practices.

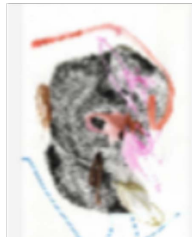
Research in this field suggests that memory can be expressed through a wide range of visual approaches, particularly within illustration practices that combine conceptual thinking with visual experimentation [16]. In some cases, memory emerges through painting; in others, artists incorporate fragments of reality, such as photographs, letters, or personal objects, which function as triggers for recollection and interpretation.

Through a case study approach, several works are examined. In the work of Steven Ketchum (Fig. 1 and 2), memory is explored through the

Fig. 1. Bothersome Man, 2018, Watercolor and Ink on Paper by Steven Ketchum. [17].



Fig. 2. How do you really feel?, 2018, Watercolor and Ink on Paper by Steven Ketchum.



human face. His work translates the experience of incomplete recollection, evoking the instability and gradual fading of remembered features [17].



Fig. 3. Portrait of Michel Leiris, 1976 by Francis Bacon. [19]



Fig. 4. Illustration about memory for *The Washington Post*, 2013 by Leslie Herman. [20]

A similar concern can be observed in the work of Francis Bacon, particularly in his paintings (Fig. 3). In an interview, he stated that he preferred working from photographs rather than from live sittings: “This may be just my own neurotic sense, but I find it less inhibiting to work from them through memory and their photographs than actually having them seated there before me” [18]. He further emphasized that his process relied on working alone, engaging with the subject through memory rather than direct observation [19].

This reflection on memory can also be extended to the work of Leslie Herman. In an illustration for *The Washington Post* (Fig. 4), the artist reflects on the consequences of excessive documentation, stating:

“When we save every memory, we forget which ones are special. About people living vicariously through the recording of every event. When you store everything, it turns into an indecipherable mass and you no longer remember or fully embrace the moments” [20].



Finally, the work of Anni Leppälä offers another approach to the representation of memory (Fig. 5 and 6). The artist describes her practice as deriving from “memories, loss, longing and early adolescence,” seeking “an experience of connection and

Fig. 5 & 6. Photographs by Leslie Herman. [21]

closeness,” while also engaging with “the act of recognizing something vaguely familiar through the images” [21].

These examples demonstrate the diverse ways in which memory can be visually represented. Memory may appear as fragmentary reflecting the complexity of human experience and the multiplicity of possible aesthetics constructions, often articulated through forms of visual poetry.

4. Memory and Animation

In animated cinema, visual expression is shaped by specific elements, such as movement, rhythm, timing, mutability, instability of form, and metamorphosis. These elements allow the experimentation of the possibilities of drawing, within animated picture, allowing images to evolve over time and create unique visual poetry [23], [24], [25]. In this sense, animation provides a unique framework for reconfiguring memory not only into images, but into dynamic and temporal visual experiences.

The memory plays a central role in narrative construction. Rather than representing events in their entirety, the film focuses on significant moments, those that resonate or carry meaning. These specific moments come from selective memory. These fragments are articulated within a constructed timeline, allowing movement across past and present in the shaping of a narrative.

A similar process occurs in aesthetic decision-making. Through an individual, authorial process of selection, choices regarding visual aspects, like color and composition, are informed by what memory has collected, filtered, and retained. This process ultimately shapes both visual language and ways of thinking.

In cinema, authorial approaches can be identified in many artists like in the other visual arts. Wes Anderson with his symmetric and perfectly align movies, David Lynch and his enigmatic characters with the fragmented narratives and Andrei Tarkovsky and the symbolism and poetic imagery [20]. These artists demonstrate how different perspectives of the world influence creative choices and allows the creation of distinct visual and narrative languages. Animated cinema occupies a particularly significant position, as it combines elements of drawing, painting, digital media, and narrative with the film, while allowing each frame to be constructed reinterpretations of reality. Contemporary animation thus emerges as a space for constructing distinctive visual expressions of memory, identity, and sensory experience, extending concerns present in other artistic practices [29]. Key authors in this field include Richard Williams [24], Wells [25], [26], and Buchan [28].

Animation not only represents memory, but the artistic choices involved in its representation contribute to the construction of authorial identity and the development of a visual “atlas” of the self.

4.1. Animation cinema and authorial approaches

In this context, the concept of an authorial approach cannot be reduced to the idea of style or visual impact. Rather, it is understood as a deeper process that articulates memory, identity, and sensory experience in the construction of visual approach [28]

Within the field of animation, particularly given its capacity to integrate drawing, painting, narrative, sculpture, and cinema, this process becomes especially significant [29]. Animation offers a fertile ground for visual poetry and for the development of a distinctive visual approach, closely connected to memory and identity.

This perspective shifts the focus from stylistic recognition to the underlying processes that shape artistic expression.

4.2. Animation and Memory

Considering the previous discussion, it is now possible to identify a set of case studies in animation in which memory is explored as a visual, narrative, and creative tool. The short animated film *Love, Dad* (Diana Cam Van Nguyen, 2021) (Fig. 7) [32] tells the story of an emotional distance relationship between a daughter and her father. By reading unanswered letters written by her father from prison, the film director revisits the past,

and in between all of the memories, she reacts to it in the present, responding to the letters. Visually, the film incorporates archives, handwritten correspondence, and fragments of personal memory, creating a strong sense of intimacy and emotional reconstruction.



Fig. 7. *Love, Dad*, Diana Cam Van Nguyen, 2021. [32]

This use of letters and archival imagery may also be understood through Jan Assmann's concept of cultural memory, in which personal recollections become mediated through material traces and preserved through visual and documentary forms. Memory operates not only as

an individual experience, but also as a mediated and intergenerational process. The fragmented visual structure and incorporation of archival materials reinforce the instability and emotional subjectivity of remembrance, allowing memory to emerge simultaneously as narrative, visual language, and affective reconstruction.

The use of letters and visual archives may also be interpreted through Jan Assmann's concept of cultural memory, in which personal recollections become mediated through material traces, archival forms, and intergenerational remembrance.



Fig. 8. *Mémorable*, Bruno Collet, 2019. [33]

In another interpretation of memory, *Mémorable* (Bruno Collet, 2019) (Fig. 8) [33], a French animated short film, presents a different perspective on the use of memory as a narrative device. The film portrays the experience of memory loss associated with

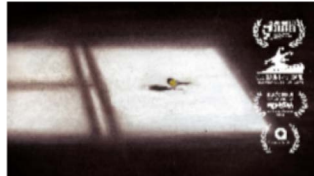
Alzheimer's disease, following an artist whose perception of reality gradually deteriorates. While "Love, dad" By Diana Nguyen represents memory that you can revisited, relived and reconstructed, Collet's film presents memory as something unstable and inevitably fading, emphasizing its fragility and the profound impact of its loss on identity. This deterioration is visually translated onto the screen through unstable textures, fragmented spaces, and material transformations that reinforce the emotional and sensory experience of the main character, reinforcing animation's capacity to visualize subjective and internal experiences through sensory and visual disruption.

These visual distortions may also be explored through Laura Marks' concept of haptic visually, in which images privilege texture, materiality, and sensory perception over optical clarity. Through stop-motion animation and the instability of objects and environments, the film creates an embodied and tactile experience of memory loss, allowing the viewer to perceive the fragility and fragmentation of remembrance through sensory and visual transformation.

Lastly, in the short animated film *Almost Forgotten* (Miguel Lima & Dimitri Mihajlovic, 2023) (Fig. 9) [34], memory is explored not only through narrative, but also through camera movement, fragmented temporality and

visual reconstruction while being narrated by a intimated testimony of the main character. Rather than presenting memory as linear or fixed, the film constructs an atmosphere in which past and present continuously overlap, reinforcing animation's capacity to visualize internal and psychological experiences through movement and temporal disruption.

Fig. 9. *Almost Forgotten*, Miguel Lima & Dimitri Mihajlovic, 2023. [34]



Through this approach, *Almost Forgotten* offers a new way to visually express memory. It shows that animation is a fitting medium to explore the complexities of remembering. This allows for the visualization of gaps, distortions, fragmented time, and changing perceptions. The broken

sense of time and smooth camera movements serve as visual cues for personal memories and unstable perceptions. They highlight the emotional and mental aspects of memory through movement and changes in space. These animated short films showcase various methods for representing memory both visually and narratively. Memory plays a role in multiple parts of the films, including narrative structure, visual development, material, rhythm, and camera work. They often mix autobiographical elements with poetic and experimental styles. Instead of following straight narratives, these works focus on fragments of emotions and personal experiences. This emphasizes animation's ability to turn internal human experiences into unique visual languages and artistic forms.

5. Practice-Based Methodology

Drawing from previous reflections in the literature review and case study analysis, this research became a practice-based project focused on memory, identity, and aesthetics in creating an animated short film. In this project, artistic practice serves as a way to explore these themes. To explore how memory impacts visual approaches in animation, a practice-based and exploratory method was chosen.

This method combines theory with exploratory research, workshops, documentation, and the creation of an artistic piece. The exploratory aspect of the research includes case studies, interviews with animation and visual arts professionals, questionnaires, and focus groups with students, teachers, and creative practitioners. These methods seek to uncover different perceptions and experiences related to memory, subjectivity, visual language, and understand how this are explored and influence the creative processes.

In addition to this exploratory aspect, workshops and experimental artistic practices focus on drawing, memory, sensory perception, and animation. These activities provide spaces for experimentation and serve as tools for observation. The main intention of the research is to develop artistic and creative strategies that help students achieve richer visual approaches and discover their own artistic voice. The workshops allow various creative responses and visual interpretations to emerge while also encouraging reflection on the most effective tools and exercises for achieving these goals.



A key part of the methodology is the creation of a “reflective artistic learning log,” which acts as both a creative and analytical tool throughout the research. This log also reflects the idea of a visual or mental

atlas, inspired by Aby Warburg’s *Mnemosyne Atlas* (Fig. 10) [32]. Instead of being a static archive, it serves as a dynamic space where sketches, images, visual references, sensory connections, and memory fragments are constantly collected, reorganized, and related during the creative process. The log documents drawing exercises based on memory, written reflections after workshops and results, interviews, storyboard studies, compositional studies, color studies, animation tests, and collected photographic references. It captures visual associations concerning color, texture, atmosphere, movement, and perception. Through these records, the log makes the creative process progressively visible, aiding both artistic reflection and analytical observation during the development of the animated project. Instead of just serving as documentation, the log provides a space for reflection and analysis. It allows for examining and organizing recurring visual patterns, memory influences, and creative choices over time.

Finally, the last stage of the research involves creating an animated artistic piece developed through iterative, practice-based processes. In conclusion, animation acts not only as the final product but also as a way to explore memory, identity, and sensory experience both visually and critically.

Conclusion

Drawing, illustration, and animation constitute rich fields of research that connect memory to individuality and the construction of identity within creative practice. By analyzing how artists use memory and express themselves, a visible “visual creative atlas” of identity emerges, in which decisions related to color, shadow, line, form, and movement generate expansive aesthetic possibilities. Through these elements, the past is not simply recalled but reconfigured into new work shaped by the author’s sensibilities and connections. These choices create distinct authorial identities, deeply rooted in human experience and resistant automatic non-human systems.

The analysis of selected case studies shows how memory can be expressed in various ways. It also reveals how memory affects artistic practices, leading to personal and unique processes and results. This supports the notion that animation is especially good at turning subjective and internal experiences into visual form. It allows for the creation of intimate and distinctive works.

According to the studies of Paul Wells, the authorship in animation works across diverse realities, from studio-based production to independent and experimental practices. The development of an authorial voice often emerges through a distancing from dominant industrial aesthetics, allowing artists to construct visual languages that reflect their own experiences and perspectives.

Fig. 10. *Mnemosyne Atlas*, Aby Warburg’s, 1920-1929. [33]

To address the initial research problem, this paper proposes a framework to be further developed through practice-based research, centered on a methodology that functions simultaneously as both object and outcome, an artistic meta-object and meta-methodology defined as a “reflective artistic learning log”. Within this framework, memory is explored as a driving force in the development of an authorial approach, while also serving as a tool for documenting creative decisions. This investigation creates the possibility of an evolving process of reflection, supporting deeper analysis and potential pedagogical application.

Future developments may further explore the relationship between memory and animated film, expanding the potential of animation as a medium for unique artistic practices. In this context, can be understood as a space where memory, identity, and sensory experience converge, reconfiguring past experiences into new and mutable forms in the present creating distinctive visual approaches.

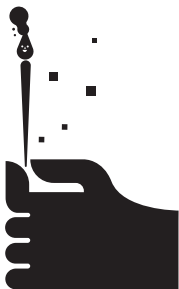
References

1. Benjamin, W. *Imagens de Pensamento*. Lisboa: Assírio Y Alvim (2004)
2. Passerini, L. “Memories Between Silence and Oblivion”, In: Hodgkin, K. Hodgkin e
3. S. Radstone (eds). *Contested Pasts: The Politics of Memory*. Oxfordshire: Routledge (2003)
4. Edwards, B. (2012). *Drawing on the right side of the brain* (4th ed.). TarcherPerigee.
5. Crary, J. (2013). *Suspensões da percepção: atenção, espetáculo e cultura moderna*. Cosac & Naify.
6. Squire, L. R., & Kandel, E. R. *Memory: From Mind to Molecules*. Roberts & Company, 2009
7. Semjonova, V. (2023). *Drawing people: 100 prompts, projects and playful exercises*. Hardie Grant Books
8. Rancière, J. (2002). *A revolução estética e seus resultados*. *New Left Review*, (14), 133–151.
9. Brett, G. (2013). *The transcendent: Art and its meanings*. Whitechapel Gallery.
10. Baudelaire, C. (2006). *O pintor da vida moderna*.
11. Assmann, J. (2011). *Cultural memory and early civilization: Writing, remembrance, and political imagination*. Cambridge University Press.
12. Marks, L. U. (2000). *The skin of the film: Intercultural cinema, embodiment, and the senses*. Duke University Press.
13. Halbwachs, M. (1992). *On collective memory* (L. A. Coser, Ed. & Trans.). The University of Chicago Press.
14. Brett, G. (2014). *Contemporary art and memory: Images of recollection and remembrance*. Tate Publishing.
15. Parr, P. (2018). *Sketching for animation: Developing ideas, characters and layouts in your sketchbook*. Bloomsbury Academic.
16. Kleiner, F. S. (2016). *Gardner’s art through the ages: The Western perspective* (15th ed.). Cengage Learning.
17. Male, A. *Illustration - A Theoretical and contextual Perspective*, London, Bloomsbury Publishing (2017),
18. Ketchum, S. (n.d.). *Work*. Steven Ketchum. <https://stevenketchum.com/work>

19. American Suburb X. (2015). Francis Bacon – Photographs, painting, destructive criticism and more. <https://americansuburbx.com/2015/05/francis-bacon-discussing-photographs-painting-destructive-criticism-and-more.html>
20. Sylvester, D. (1980). Interviews with Francis Bacon. Thames & Hudson
21. Illustration Age. (2013, September 25). Leslie Herman saves every memory for Washington Post. <https://illustrationage.com/2013/09/25/leslie-herman-saves-every-memory-for-washington-post/>
22. Leppälä, A. (n.d.). Work. <https://www.annileppala.fi/>
23. Bordwell, D., & Thompson, K. (2019). Film art: An introduction (12th ed.). McGraw-Hill.
24. Tarkovsky, A. (1986). Sculpting in time: Reflections on the cinema. University of Texas Press
25. Williams, R. (2001). The animator's survival kit. Faber & Faber.
26. Wells, P. (2006). The fundamentals of animation. AVA Publishing.
27. Wells, P. (2002). Animation: Genre and authorship. Wallflower Press
28. Cholodenko, A. (2007). The illusion of the beginning: A theory of drawing. In A. Cholodenko (Ed.), The illusion of life II: More essays on animation . Power Publications
29. Buchan, S. (Ed.). (2013). Pervasive animation. Routledge.
30. Furniss, M. (1998). Art in motion: Animation aesthetics. John Libbey
31. Nancy, J.-L. (2022). O prazer no desenho. Fundação Carmona e Costa / Documenta.
32. Thomas, F., & Johnston, O. (1995). The illusion of life: Disney animation. Hyperion.
33. Kalkstein, M. (2016). Aby Warburg's Mnemosyne Atlas: On photography, archives, and the afterlife of images. RACAR: Revue d'art canadienne / Canadian Art Review, 41(2), 50–73

Filmography

1. Diana Cam Van Nguyen, (Director). Love, Dad [Short-Film]. (2021)
2. Bruno Collet, Mémorable, (2019)
3. Miguel Lima & Dimitri Mihajlovic, Almost Forgotten (2023)



Toward an Idea of Animation: Origins of the Expression Animation Cinema

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Keywords

Animação; André
Martin; Pierre Hébert;
Michel Boschet; Ideia de
Animação.

Abstract

This article aims to historically contextualize the emergence of the term “animation cinema” and to map some of the earliest attempts to define it. It examines the first appearances of the concept in the writings of André Martin and Michel Boschet, as well as Pierre Hébert’s and Joubert-Laurencin’s proposals concerning the idea of animation as a concept. The term “animation cinema” first appeared in 1952 in the article “Animation et Pesanteur” by André Martin and Michel Boschet, two of the organizers of the JICA (Journées Internationales du Cinéma d’Animation), an initiative that would later lead to the creation of the Annecy International Animation Film Festival. The originality of the term lies in the fact that it brought together, for the first time, a plurality of techniques - including stop-motion, direct animation on film, and drawn animation - under a single designation.

1. Introdução

O conceito “Cinema de Animação” surge relativamente tarde quando comparado com o aparecimento dos primeiros filmes animados. A sua primeira utilização ocorre no artigo “Dessin Animé et Pesanteur” (1952) de André Martin e Michel Boschet, sessenta anos após a estreia do Théâtre Optique (1892) de Émile Reynaud, evento identificado pela ASIFA (Association Internationale du Film d’Animation) como o momento inaugural do Cinema de Animação. Do ponto de vista conceptual, a passagem da expressão “desenho animado” para “animação” revela uma transformação significativa. O termo “Animado”, enquanto adjetivo designa um modo de fazer, isto é, uma qualidade do desenho, indicando que este foi posto em movimento. Em contraste, “Animação”, surge enquanto nome, o que remete para um modo de existência autónomo. Esta mudança terminológica é sintomática de uma mudança epistemológica: os filmes animados anteriormente compreendidos como diferentes técnicas dispersas passam a ser reconhecidos como uma forma específica de produção cinematográfica, dotada de princípios e problemas próprios.

O aparecimento deste novo conceito teve consequências institucionais e culturais de extrema importância. Entre estas destacam-se a criação das JICA (Journées internationales du cinéma d’animation), o

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aparecimento dos primeiros festivais dedicados ao cinema de animação, como o Festival de Cinema de Animação de Annecy, e a fundação da ASIFA (Association Internationale du Film d'Animation). Estas iniciativas contribuíram decisivamente para uma mudança estrutural na compreensão e criação de um novo modo de pensar e fazer cinema, reconfigurando o panorama até então associado aos chamados “filmes animados”.

Decorridas mais de sete décadas de reflexão teórica sobre a formulação do conceito de Animação, permanece por se encontrar uma definição consensual, que seja transversal e que seja capaz de abarcar a pluralidade das suas manifestações. Segundo Joubert-Laurencin a definição do cinema de animação está diretamente ligada aos desenvolvimentos técnicos, motivo que impossibilita qualquer tentativa de criação de uma definição categórica, “Une des caractéristiques du cinéma d’animation semble être son perpétuel renouvellement dans la façon de faire des films, autrement dit sa capacité à intégrer de nouvelles techniques” [1].

Conscientes do posicionamento limítrofe do cinema de animação e da impossibilidade de uma definição categórica, importa delimitar o âmbito específico deste artigo. O nosso objeto não é a história do pensamento teórico sobre os filmes animados- reflexão que precede a utilização do termo “animação” e que se manifesta por exemplo, em *On Disney* de Sergei Eisenstein ou em *Manga Eigaron* (em inglês *A Theory of Cartoon Films*) de Taihei Imamura, publicado originalmente em 1941. Propomo-nos estudar, de forma mais restrita, a emergência histórica do próprio termo “cinema de animação” e a mudança conceptual que lhe está subjacente ao transitar da utilização de um adjetivo “animado” para o substantivo “animação”. Neste enquadramento, iremos contextualizar o aparecimento do conceito, propondo que o seu surgimento parte de um gesto político de resistência à guerra fria como modo de aproximação dos países então divididos. Em seguida, serão analisadas as primeiras propostas de definição de animação de André Martin e Michel Boschet. Por fim, será abordada a “Ideia de Animação” tal como proposta por Pierre Hébert e Joubert-Laurencin a partir dos escritos fundadores de André Martin.

2. Definição de Animação

2.1. Contexto

Para compreender os desdobramentos teóricos do conceito de *Cinema de Animação* é fundamental situar a sua criação no contexto histórico. A expressão surge pela primeira vez em 1952, apenas sete anos depois do fim da Segunda Guerra Mundial, num período marcado pela reconfiguração política global e pelo início da *Guerra Fria*. Em França, este período corresponde a um momento de reconstrução económica e cultural, dos danos sofridos na Segunda Guerra Mundial, movimento suportado em parte pelo plano Marshall, cuja implementação visava não apenas a estabilização económica, mas também a redução da influência comunista na Europa.

Como sublinham Michael Cox e Caroline Kennedy Pipe, o plano Marshall deve ser entendido como um instrumento de reconfiguração ideológica de aproximação aos Estados Unidos:

For, as we now know (and have known for a long time), the Plan was not merely a reactive move designed to prevent economic chaos; instead, it was the most dedicated effort yet to reduce Communist influence in Europe and was intended to affect not only the most obvious countries like France and Italy, but also the smaller states under Soviet control. [2]

Neste contexto, a aproximação entre França e os Estados Unidos teve implicações significativas para o cinema francês, nomeadamente através do acordo Blum-Byrnes. Assinado em 1946, este acordo impôs a abertura do mercado francês aos produtos americanos, em troca do perdoo parcial da dívida externa. No domínio do cinema, traduziu-se na imposição de quotas de exibição, que limitavam a exibição de filmes franceses a quatro semanas em cada período de treze, reservando as restantes nove para filmes internacionais, maioritariamente provenientes de Hollywood. O acordo viria a ter como consequência imediata a redução da produção cinematográfica nacional e num segundo momento o aumento do número de co-produções internacionais francesas como modo de contornar estas limitações. Como refere Bernard Clarens, as políticas de propaganda norte-americanas criaram um sentimento de desconforto e mesmo de revolta no meio cinematográfico francês, “La profession unanime réagit à ce diktat. Le Comité de Défense du Cinéma Français, réunissant l’ensemble des professionnels, les acteurs et une large partie du public, se battra avec succès pour faire abroger en partie ces dispositions. » [3]

É neste clima de tensão política e cultural que os circuitos alternativos cineclubistas ganham maior relevância, reagrupando-se em federações, promovendo a edição de boletins e revistas que propõe uma nova visão sobre o cinema [3]. É neste contexto que André Martin e Michel Boschet participam como apresentadores dos filmes nos cineclubes parisienses, onde entram em contacto com Pierre Barbin. Deste encontro resulta uma colaboração extremamente prolífica e importante para o cinema francês. Juntos, criam a AFDC (Association Française pour la Diffusion du Cinéma) e as “Journées du Cinéma”, iniciativas itinerantes dedicadas à divulgação de formas cinematográficas alternativas. Em “Des Journées POUR LE CINÉMA” (1953) -primeiro artigo escrito para a revista “Cahiers du Cinéma” por André Martin, em co-autoria do Michel Boschet e Pierre Barbin - afirmam que « « Les Journées du Cinéma » se préparent à organiser dans plusieurs villes de France d’importantes manifestations de propagande en faveur du cinéma. » [4] mobilizando estratégias de difusão inovadoras destinadas a alcançar novos públicos. Entre estas incluíam-se sessões realizadas ao ar livre, sessões inesperadas não programadas, encontros com profissionais de cinema, uma programação curatorial centrada em curtas-metragens, filmes raros e cinema de animação.

Este movimento estender-se-ia à criação de iniciativas especificamente dedicadas à animação, como as “Journées du Cinéma de Animation” inicialmente organizadas no festival de Cannes, e que viria a dar origem à criação do Festival international du film d’animation d’Annecy em 1960, e em simultâneo à criação da ASIFA cuja ideia de criação é fortemente inspirada pelas ideias que surgiram das “Journées du Cinéma de Animation”

É, portanto, num contexto marcado por dinâmicas políticas, económicas e culturais que André Martin inicia o seu percurso de divulgador de cinema e crítico de cinema. A sua intervenção insere-se num movimento amplo de resistência cultural, marcado pelo surgimento de festivais como “Cannes” e de revistas sobre cinema, como a “Cahiers du Cinéma” que viriam a propor um novo modo de ver e pensar o cinema.

2.2. Primeira aparição do termo

Ao mesmo tempo que André Martin participa activamente nas atividades de divulgação do cinema promovidas pela AFDC, inicia um percurso de crítico de cinema onde dedica especial atenção aos filmes animados. É neste contexto que surge o texto “Dessin Animé et Pesanteur” escrito com Michel Boschet para a revista *L'Âge du Cinéma*. A revista, impulsionada por Ado Kyrou, com forte influência do surrealismo, reunia um conjunto de figuras centrais do cinema experimental e de vanguarda como Hans Richter, André Breton, Alexandre Alexeieff, entre outros [3] constituindo-se como um espaço de reflexão estética e de contestação às formas dominantes de cinema.

O conceito «Animação» surge assim num contexto de resistência cultural face à hegemonia do cinema Norte-Americano. No domínio específico dos filmes animados, a hegemonia manifestava-se pelos Cartoons Norte-Americanos, estruturado em duas tendências principais: por um lado uma tradição de filmes fortemente inspirados pelo cinema mudo e pela comédia com recurso a uma linguagem de animação expressiva conhecida como rubber hose – marcada pela utilização de *squash and stretch* e metamorfoses visuais; por outro, uma vertente com uma pretensão de aparência mais realista como os filmes da Walt Disney.

Ao introduzir o conceito de animação André Martin e Michel Boschet criam um espaço de resistência à influência dominante do cartoon reenquadrando-o como uma parte integrante de um conceito maior. Esta tomada de posição pode ser constatada na frase onde surge pela primeira vez o termo “Animação”: “Et plus que le Dessin animé, l’art immense du FILM D’ANIMATION, et de la PRISE DE VUE IMAGE PAR IMAGE qui sauvent le meilleur du cinéma et dont le CARTOON tel qu’on le connaît n’est qu’une minuscule et étroite application » [3]

Ao longo do artigo, os autores desenvolvem críticas sistemáticas às diversas expressões do Cartoon Americano, abrangendo estúdios como a Disney, a Warner Bros, e a United Productions of America (UPA), contrapondo-lhes autores como Jiří Trnka ou Paul Grimault. Esta recusa, inicialmente radical, pode ser entendida como um sintoma de uma posição crítica à influência cultural e política dos Estados Unidos no contexto da Guerra Fria. Tal posicionamento é reforçado por dois textos escritos de Martin escritos em 1958, “L’Amérique a Perdu le Monopole du Dessin Animé” (1958) [3] e “Le dessin Animé Américain Est-il Mort?” (1958) [3], onde se afirma a perda da centralidade do modelo americano.

Curiosamente André Martin iria afirmar numa entrevista em 1967 que “Rien ne m’a jamais surpris comme les films d’animation d’avant 1950 et aujourd’hui encontre Winsor McCay ou Tex Avery me font toujours la même énorme impression ».[4] Pierre Hébert refere também uma

outra mudança de posição, quando Martin convida o produtor da UPA Stephen Bosustow para o “Rencontre internationale du cinéma d’animation” ocorrido durante a décima-primeira edição do Festival de Cannes em 1956, realizado apenas quatro anos após a escrita do texto. Sobre esta mudança de posição Pierre Hébert afirma:

De toute évidence, pour Martin, le temps n’était plus aux manifestes et aux affirmations de principe, mais à l’action et aux alliances tactiques. Il espérait visiblement que, dans le contexte de l’affaiblissement, pour ne pas dire de l’effondrement, tant de la production des «cartoons» que de l’hégémonie de cette forme d’animation, le rassemblement de la communauté internationale autour des phares du Cinéma d’Animation nouvellement nommé favorise l’envol et la reconnaissance publique de la nouvelle animation. Martin comptait sur l’échange direct entre les divers animateurs et sur le partage et la confrontation des œuvres [5]

O fim da recusa radical do Cartoon, estaria assim ligado, para Pierre Hébert, à perda da hegemonia do cinema americano de animação. Neste sentido, o conceito de animação adquire uma dimensão explicitamente política, configurando-se como uma reorganização do campo cinematográfico que resiste às divisões binárias. Como observa Joubert-Laurencin, há em Martin a intenção de promover o diálogo que contribua para o diálogo entre blocos ideológicos opostos:

Il existe, certes, chez Martin, la volonté (a-)politique de réaliser une fraternité autour d’un objet culturel nouveau afin de contribuer, contre la guerre froide, à un rapprochement Est-Ouest. [6]

Este tipo de conceção do cinema de animação viria posteriormente a ser posto em prática pela ASIFA (Association Internationale du Film d’Animation) sediada em Annecy e que teria como primeiro diretor o realizador Norman McLaren, onde a dimensão internacional e política da animação ganha plena concretização.

É neste enquadramento, simultaneamente teórico, político e institucional, que se consolidam algumas das noções fundamentais propostas por André Martin. Apesar do artigo “Dessin Animé et Pesanteur” não apresentar propriamente uma definição o longo do texto são apresentadas três ideias que terão desdobramentos importantes para o entendimento da ideia de animação.

A primeira diz respeito à relação do filme de animação e a “prise de vue image par image », isto é *captação imagem a imagem*. Este conceito opõe-se à “prise de vue directe” característica do cinema chamado de “imagem real”, cuja tradução para português seria de *captura directa*. A distinção destas duas expressões dá-se a nível do tipo de captação dos frames do filme que podem ser realizados *imagem a imagem* – o que significa que cada imagem é capturada individualmente sem que haja uma correspondência do tempo da acção representada com a filmagem – ou *directo* – o

que significa que os fotogramas foram filmados sequencialmente numa cadência constante, 24 fotogramas por segundo no caso do cinema.

Contudo, Martin e Boschet recusam uma separação ontológica entre animação e cinema ao afirmar que “De McLaren, à Vigo, Pabst, Eisenstein et Renoir, des plus volontaires aux plus inconscients des vrais cinéastes, les mêmes problèmes se posent. Il n’y a pas deux cinémas, il n’y a pas d’autre aventure du cinéma » [3] Esta posição introduz uma tensão, por um lado, há uma diferenciação da animação face à “sucessão mecânica de 24 frames por segundo”, simultaneamente há a afirmação de que não existem dois cinemas, nem duas aventuras cinematográficas. Esta aparente contradição é resolvida se considerarmos a “ideia de animação” proposta por Pierre Hébert e Laurencin. Só há uma aventura cinematográfica porque a animação não é um género, ou uma técnica, mas uma ideia, um modo de conceber e pensar o cinema.

A terceira ideia chave do artigo é a noção de “perigo de animação” expressão que Martin e Boschet utilizam para criticar a estandardização do cartoon americano. Segundo os autores este assenta na repetição de fórmulas narrativas centradas no ódio e na violência organizados em torno de uma *gag*. “Les dessins animés américains vont tous être taillés sur le même patron : l’illustration de la haine héréditaire et inassouvie des chats pour les souris (...) Le Style et l’histoire sont toujours les mêmes : provoquer par tous les moyens l’ennui et l’inconfort de l’adversaire » [3]. Paradoxalmente, embora as narrativas coloquem as personagens em situações de perigo, evitam o verdadeiro risco criativo – o perigo da animação – recorrendo a soluções formais estabilizadas que impedem a experimentação:

“Les Américains ont dû admettre, que pour provoquer l’intérêt il fallait mettre les personnages en danger et qu’il n’y avait pas d’autre moyen de gagner l’attention. Mais l’aventure, dangereuse de l’animation leur répugnait et le mouvement de leur film s’est chargé de précautions, de normalisation qui simplifiait les problèmes, esquivait les difficultés » [3]

Em oposição, Martin e Boschet propõe uma ideia de animação como lugar de desconforto, e de experimentação, fora de todas as tentativas de regulamentação e de lugares seguros. Em autores como Eduard Hoffmann e Alexandre Alexeïeff, encontram a possibilidade de um cinema onde a animação é imprevisível. É neste sentido que a animação é entendida como uma “aventura perigosa” não pela representação do perigo, mas pelo próprio risco de criação face às infinitas possibilidades de criação.

2.3. Definição

No artigo “Dessin Animé et Pesanteur”, apesar de ser introduzido o termo *Animação*, não é ainda formulada uma definição sistemática do conceito. Essa explicitação surge mais desenvolvida em “Films d’animation au Festival de Cannes”, um texto posterior de André Martin publicado em 1953 nos “Cahiers du Cinéma”. Sob o pretexto de fazer uma cobertura crítica do Festival de Cannes, André Martin propõe uma distinção do cinema de

animação face às outras formas de cinema, fortemente assente no princípio de criação imagem a imagem:

De tous les films présentés au Festival de Cannes seul, celui de Buñuel *El (Tourments)* a osé bouleverser un instant avec un naturel parfait la paresseuse et sacro-sainte succession mécanique des 24 images-seconde pour imaginer les réjouissances et inconvenantes hallucinations du héros. Ainsi que bien entendu les œuvres de quelques partisans décidés de cet aventureux cinéma d'animation, pour qui un film, qu'il soit dessin-animé, film de poupées animées, ou même de prise de vue directe, ne peut être autre chose qu'une œuvre sentie et agencée image par image. [7]

Martin sugere que o cinema de animação não deve ser definido exclusivamente por um procedimento técnico de captura *imagem a imagem*, mas por um modo de fazer cinema, que concebe o filme como uma construção ao nível da unidade mínima do cinema, o fotograma. Com este texto abre a possibilidade do cinema de *captura direta* ser animação se a obra for “sentida e organizada *imagem a imagem*”. O eixo central da definição de animação passa a ser o pensamento *imagem a imagem*, em vez do processo de captura.

A expressão *fotograma a fotograma*, tradução direta da formulação anglo-saxónica *frame-by-frame*, parece ser mais adequada ao conceito proposto por André Martin por remeter à especificidade da imagem cinematográfica. Não há, contudo, nos seus textos uma utilização da expressão *frame-by-frame*. Mesmo na tradução direta da expressão *frame* - presente na conhecida definição de Norman McLaren “Therefore, animation is the art of manipulating the invisible interstices between frames” - opta por traduzir *frame* por *image* em vez de *photogramme*: “L’animation est par conséquent l’art de se servir des intervalles invisibles entre les images”.

A possibilidade de o cinema de *captação direta* ser considerado *Cinema de Animação* é exemplificada, no mesmo artigo, por Martin através do filme “Water Birds”, realizado por Ben Sharpsteen, em 1952. Martin identifica neste filme, produzido pelos estúdios Disney, uma reanimação do material cinematográfico, através da manipulação da cadência das imagens, mais precisamente, de uma edição e manipulação ao nível dos fotogramas, pela sua duplicação ou triplicação, de acordo com a cadência da música:

Considérant chaque image des plans de prise de vue directe séparément comme des dessins d’animateurs, ils les ont réanimés. Doublant, triplant les images ils ont collé étroitement le mouvement visuel sur les silences, les immobilités et les accélérations de la musique. [7].

Ao abrir a possibilidade do *Cinema de Animação* acolher em si filmes de *captura de vista direta*, Martin clarifica a sua afirmação de que “só há uma aventura cinematográfica”: o Cinema de Animação é a única possibilidade de um cinema total. Em “Invention Réinvention et Nouvelle Réinvention du Cinéma”, Martin afirma que: “Pour son Praxinoscope, Émile Reynaud a déjà tout inventé: L’ART CINÉMATOGRAPHIQUE

de L'ANIMATION (...). L'invention du cinéma déjà inventé ne va plus finir” (Martin p.80). Na perspetiva de André Martin o cinema surge com um dispositivo de Émile Reynaud e com o seu espetáculo de animação. A animação não se define em oposição ao cinema de *captura de vista direta*. As ideias de um *único cinema*, e de um *cinema total* aproximam-se aparentemente dos teóricos de animação contemporâneos, como Alan Cholodenko e Lev Manovich que veem no cinema de *imagem real* uma subcategoria do *Cinema de Animação*.

If one may think of animation as a form of film, its neglect would be both extraordinary and predictable. It would be extraordinary insofar as a claim can be made that animation film not only preceded the advent of cinema but engendered it; that the development of all those nineteenth century technologies — optical toys, studies in persistence of vision, the projector, the celluloid strip, etc — but for photography was to result in their combination/ synthesizing in the animatic apparatus of Emile Reynaud's Théâtre Optique of 1892; that, inverting the conventional wisdom, cinema might then be thought of as animation's 'step-child'. [8]

Num artigo posterior Cholodenko clarifica a sua ideia propondo que todo o filme é independentemente da técnica uma forma de animação: “Given all film by definition includes live action, live action is a form of animation.” [9]. A abertura do termo *Cinema de Animação* a todo o cinema, tal como Cholodenko propõe, retira-lhe o seu papel de duplo, de ser um outro do cinema hegemónico e toda a sua força política. Ao afirmar que todo o filme é um filme de animação é retirada ao Cinema de Animação qualquer identidade. Esta posição difere da de Martin porque apesar deste considerar que há apenas uma aventura do cinema, mantém ainda uma especificidade para a animação, a ideia de animação de um cinema feito ou pensado *imagem a imagem*. Apesar do cinema ter nascido com a animação e de a animação poder acolher em si filmes de *captura direta*, nem todo o cinema é Cinema de Animação. A ideia de Martin de um *cinema total* é explicitada na seguinte citação presente na página:

Diante de tantos meios disponíveis, não podemos deixar de sonhar com o criador que ousará utilizar uma linguagem visual flexível, indo de imagem a imagem até à câmara lenta, e servindo-se, claro está, de cadências normais, ao transitar naturalmente da reportagem à animação de elementos gráficos — numa palavra, que nos ofereça o espetáculo de uma escrita capaz de considerar a infinita diversidade das visões pessoais e as suas imprevisíveis variações. Trata-se de um cinema completo, que já não nos condenaria mais a escolher entre René Clair e Tex Avery, Alain Resnais e Trnka, Renoir e John Hubley, Rossellini e Émile Cohl [3]

É necessário ainda retornar à segunda parte da frase de André Martin sobre a criação de Émile Reynaud “L'invention du cinéma déjà inventé ne

va plus finir » um ponto essencial da ideia de animação. O cinema, inventado por Émile Reynaud, seria assim perpetuamente reinventado a cada filme, a cada tecnologia. A relação entre Animação e tecnologia é um dos pontos centrais da ideia de animação de André Martin e teve em Norman McLaren a sua maior referência. Laurencin afirma que McLaren ocupa um papel activo de institucionalização do termo cinema de animação : “Le rôle des films de Norman McLaren créés pendant cette époque d’émergence, de stabilisation et d’institutionnalisation du terme et du concept de « cinéma d’animation » [6]. Os seus trabalhos cruzam-se de tal forma que Laurencin propõe que não se pode separar um do outro para falar da invenção do cinema de animação. É precisamente num artigo sobre o trabalho de Norman McLaren que André Martin um conceito fundamental, a noção de “expressão instrumental” que designa uma prática artística em que a técnica e instrumentos são elementos da própria estética. A técnica, contudo, não é valorizada em si própria, mas na possibilidade de servir à poética do filme. Pierre Hébert destaca esta característica como a essencial para a ideia de animação:

Ainsi, l’« expression instrumentale », telle que je la comprends, serait la pratique possible du cinéma sous la forme d’une fidélité à l’« idée de l’animation » comme fondement de tout le cinéma sous ses différents genres et à ses différentes époques. Elle est la forme adéquate de la pratique d’un art sous condition technologique, dans l’assomption de la transparence, entre le travail de la forme et le travail de la technologie, et dans l’assomption également du vecteur historique de l’évolution technologique. [10]

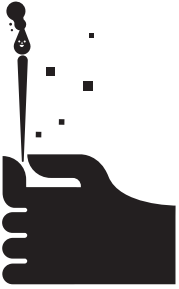
3. Conclusão

A obra crítica de André Martin permite-nos compreender que o conceito de Cinema de Animação é inseparável do contexto histórico da sua criação. Como procurámos demonstrar, a criação do Cinema de Animação é simultaneamente de um gesto político e estético, um gesto de resistência à guerra fria e à hegemonia do cartoon-americano. A proposta de definição original por André Martin é a de um Cinema que pode acolher todas as técnicas desde que pensadas *imagem a imagem*. Da leitura dos textos de André Martin, Joubert-Laurencin e Pierre Hébert viriam a propor o conceito de “ideia de Animação” que transformam as intuições de Martin numa proposição teórica mais precisa fortemente ancorada no conceito de “Expressão Instrumental”, um cinema que se define pelo seu perpétuo renascimento, técnico e formal.

References

1. Joubert-Laurencin, H.: La Lettre Volante: Quatre Essais sur le Cinéma d’Animation. Presses de la Sorbonne Nouvelle, Paris (1997)
2. Cox, M., Kennedy-Pipe, C.: The Tragedy of American Diplomacy? Rethinking the Marshall Plan. *Journal of Cold War Studies* 7(1), 97–134 (2005)
3. Martin, A.: André Martin 1925–1994, écrits sur l’animation. Clarens, B. (ed.). Dreamland, Paris (2000)

4. Martin, A., Boschet, M., Barbin, P.: Des Journées Pour le Cinéma. *Cahiers du Cinéma* 22, 46--48 (1953)
5. Hébert, P.: Matériaux pour l'étude de la pensée d'André Martin. <https://pierrehebert.com/fr/publications-fr/textes/materiaux-pour-letude-de-la-pensee-dandre-martin/> (2009). Accessed 29 Mar 2026
6. Joubert-Laurencin, H.: Du bon usage des primitifs: Émile Cohl dans les écrits d'André Martin. 1895. *Mille huit cent quatre-vingt-quinze* 53, 227--239 (2007)
7. Martin, A.: Films d'animation au Festival de Cannes. *Cahiers du Cinéma* 24, pp. 36--40 (1953)
8. Cholodenko, A. (ed.): *The Illusion of Life: Essays on Animation*. Power Publications, Sydney (1991)
9. Cholodenko, A.: First Principles of Animation. In: Beckman, K. (ed.) *Animating Film Theory*, pp. 98--110. Duke University Press, New York (2014)
10. Hébert, P.: *Toucher au cinéma*. Éditions Somme Toute, Montréal (2021)



Drawing a Line between Visual Identity, Packaging and Illustration: A Framework for Specialty Coffee Branding

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Keywords

Visual Identity; Illustration;
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Abstract

This paper investigates the strategic role of illustration as a central component of visual identity systems and packaging design within the specialty coffee sector. Grounded in practice-based research, it proposes a conceptual framework – *the illustrative universe* – defined as a coherent, flexible visual system built around an illustrative language capable of translating brand narrative, emotional connection, and competitive differentiation across multiple communication touchpoints. The research combines a systematic review of theoretical frameworks on visual identity, illustration theory, and packaging design with a comparative case study analysis of eleven specialty coffee brands, evaluated through six analytical criteria: illustrative language, chromatic palette, system flexibility, hierarchical weight of illustration, legibility, and visual coherence. A consumer survey (n=110) validates illustration's measurable impact on purchasing decisions and perceived quality. The framework is applied in a practice-based redesign proposal that is undergoing for Combi Coffee Roasters (Porto, Portugal), a specialty coffee brand whose current minimalist identity underexplores the narrative potential embedded in its origin story. The findings demonstrate that illustration, when deployed as a strategic system rather than a decorative element, can simultaneously humanise a brand, communicate provenance, and resist aesthetic homogenisation – structural challenges that are particularly acute in the specialty coffee market.

1. Introduction

The specialty coffee market is characterised by a structural paradox: a sector that foregrounds traceability, artisanal process, and cultural narrative has increasingly converged on a homogeneous visual aesthetic – predominantly minimalist, typographically centred, and chromatically restrained [1]. While this aesthetic communicates precision and confidence, it tends to suppress the emotional and narrative dimensions that define specialty coffee as a cultural object rather than a commodity.

With the pervasive use of digital technologies, audiences' visual expectations have become increasingly mediated by algorithmically generated imagery. AI image-generative platforms have introduced a new

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aesthetic into everyday visual culture: one that is often efficient, polished and instantly recognisable, yet simultaneously standardised. As a result, understanding how contemporary audiences emotionally engage with different forms of illustration has become a critical dimension of contemporary brand identity research.

In Pamela Schenk's seminal work *Drawing in the Design Process* [2], the author already identified concerns surrounding the increasing dominance of digitally mediated aesthetics within design education and practice. In the chapter "Drawing on the Curriculum in the Digital Age," Schenk notes that, from the early 2000s onwards, academics and practitioners began to observe the emergence of a recognisable visual "style", associated with the widespread use of digital tools: a sleek, resolved, although less reflective and less exploratory aesthetic. *Mutatis mutandis*, similar concerns may now be extended to AI-generated imagery. Through unprecedented speed and reduced manual effort, generative systems are capable of producing convincing outputs that appear to solve communication problems, while frequently bypassing the iterative and exploratory dimensions, traditionally associated with design practice. Within this context, handmade illustration emerges as an important counterpoint to processes of visual homogenisation and to contemporary narratives surrounding the supposed "death" of the design process. Rather than privileging immediate resolution and optimisation, handmade illustration foregrounds gesture, materiality, imperfection, and interpretation. It makes visible the traces of reasoning, experimentation, and trial-and-error; which are intrinsic to creative inquiry. In this sense, illustration does not merely function as a stylistic device, but as evidence of human presence and cognitive engagement within the design process itself. Therefore, the persistence of handmade visual languages within contemporary branding, particularly in sectors such as specialty coffee, may be interpreted as a cultural and emotional response to increasingly automated visual environments. Through irregularity, tactility, ambiguity, and expressive mark-making, handmade illustration reintroduces a sense of authorship, intimacy, and human connection into brand communication, reinforcing emotional authenticity in contrast to the generic visual smoothness frequently associated with algorithmically generated imagery.

Illustration, understood not as decoration but as a strategic visual language, offers a structurally distinct solution to this challenge. When deployed as what this research terms an illustrative universe: a coherent, flexible system of visual elements built around an illustrative logic, it enables brands to communicate provenance, humanize consumer relationships, and resist homogenization while maintaining the sophistication expected in this market segment.

The research is anchored in a practice-based investigation with Combi Coffee Roasters, a Porto-based specialty roaster founded in 2014, whose current black-and-white typographic identity – functional and consistent – leaves its rich brand narrative largely unexploited visually. The projectual redesign proposal serves as both a test laboratory and a validation instrument for the proposed framework. Two research questions structure the investigation: (1) What constitutes an effective illustrative

universe as a system of visual identity in the specialty coffee sector? (2) How can illustration be deployed strategically in packaging design to communicate brand narrative and generate emotional connection without sacrificing coherence or legibility?

The paper is structured as follows: Section 2 establishes the theoretical framework; Section 3 describes the methodology; Sections 4 and 5 present the case study analysis and consumer survey findings respectively; Section 6 proposes the illustrative universe framework; Section 7 applies it to the Combi Coffee Roasters redesign; and Section 8 draws conclusions and outlines directions for future research.

2. Theoretical Framework

2.1. Visual Identity and the Illustrative Fifth Element

Visual identity operates as a system of mediation between a brand and its publics, translating intangible values into a coherent sensory experience [3]. Wheeler [4] positions visual identity not as a collection of isolated graphic elements but as a structured system capable of materialising narrative, purpose, and emotional resonance. Within this system, illustration holds a singular position: unlike typography or abstract marks, it can generate what Male [5] describes as a “contextualised visual message” that communicates character, narrative and, simultaneously, emotional tone.

The concept of the *fifth element* – introduced by Møllerup [6] and expanded by Oliveira and Raposo [7] – is particularly pertinent here. Beyond the four traditional pillars of visual identity (logotype, typography, colour palette, and imagery), the fifth element is a visual resource that achieves brand recognition independently from the logo. It functions through accumulated cultural memory rather than prescription. The illustrative universe, as theorised in this research, constitutes a strategic fifth element: a visual system sufficiently distinctive to ensure recognition, sufficiently flexible to expand across contexts, and sufficiently narrative to generate emotional attachment. In response to the increasing prevalence of AI-generated imagery and its visual homogenisation, the proposed illustrative universe is deliberately rooted in hand-made and drawn processes. This emphasis on manual construction operates not merely as an aesthetic choice, but as a critical positioning strategy within contemporary visual identity design. By foregrounding the trace of the hand, variability, and interpretative mark-making, the illustrative system seeks to convey a sense of originality, specificity, and character that resists algorithmic standardisation. In this sense, illustration functions as a distinctive “fifth element” of visual identity, alongside typography, colour, composition, and form, capable of introducing narrative depth, emotional resonance, and human presence into the brand system.

2.2. Illustration as Strategic Communication

The theoretical literature on illustration consistently distinguishes between its decorative and functional registers. Male [5] argues that illustration is a “functional art” whose primary purpose is to communicate a contextual-

ised message to a specific audience. Nath [8] reinforces this position, noting that custom illustrations provide a distinctive visual language capable of differentiating a brand from photography or generic graphics, conveying authenticity and enabling precise modulation of brand tone of voice.

Illustration's strategic value resides in its flexibility. Unlike photography, which is anchored to the real, illustration can operate across a spectrum from figuration to abstraction, from documentation to narrative, from humour to solemnity – selecting the register most appropriate to each brand context [9]. This adaptability is what enables the construction of a coherent yet dynamic illustrative universe, capable of expanding across touchpoints without rigidity. From a semiotic perspective, Peirce's trichotomy of icon, index, and symbol [10] is directly relevant to understanding illustration's communicative role: illustrative marks operate primarily as icons (resemblance-based signs) but can simultaneously function as symbols (culturally coded) and indices (pointing to a brand's origin or values), enabling a layered communicative density that photography or abstract marks rarely achieve. Berger's *Ways of Seeing* [11] further reinforces this complexity, arguing that visual representation is never neutral but always culturally mediated – an insight of particular relevance to specialty coffee branding, where the representation of geographical origins can oscillate between genuine cultural translation and the reproduction of exotic stereotypes. Illustration, when critically deployed, offers the designer the means to negotiate this tension with intentionality.

The strategic deployment of character-based illustration as a brand identity tool is documented in Counter-Print's survey *Mascot: Mascots in Contemporary Graphic Design* [12], which catalogues the breadth of contemporary mascot and character illustration across sectors – from technology companies to food and beverage brands – demonstrating that figurative, character-driven illustration systems constitute one of the most persistent and emotionally effective registers available to brand identity designers.

The line, the fundamental morphological element of illustration, deserves particular attention within a CONFIA context. Dondis [13] describes it as the most versatile element of visual syntax: simultaneously exploratory and decisive, expressive and objective. The organic, gestural line carries what Arnheim [14] terms expressive quality: the viewer perceives not merely a mark but a directed tension, a lived gesture. This distinction between the human trace and the digital vector has become strategically significant in a cultural moment where illustration's perceived handmade quality is increasingly valued as a marker of authenticity [15]. As Martin Salisbury argues in *Drawing for Illustration* [16], the line is not only descriptive but also emotional and narrative. For Salisbury, the line is fundamental to drawing for illustration. Line transcends the outlining of form to communicate rhythm, movement, atmosphere and is a visual residue of the illustrator's cognitive and emotional engagement with the world.

Stephen and Johnson [17], writing in the context of scientific illustration, argue that line, in its most elemental form, constitutes the fundamental currency of visual communication, capable of simultaneously answering intricate questions and telling intelligible stories. Their concept of illus-

tration-as-diagram is pertinent here: a diagram is a drawing that does not necessarily resemble its referent but conveys crucial information about it: a logic that applies equally to brand illustration, where the goal is not faithful depiction but the communication of essence, character, and narrative.

2.3. Packaging as Identity and Narrative Surface

The relationship between packaging design and brand identity has been theorised since Sutnar's foundational *Package Design: The Force of Visual Selling* (1953), which established three enduring operative principles: optical interest, visual simplicity, and visual continuity [18]. Of these, visual continuity is most pertinent to the illustrative universe framework: it positions coherence not as aesthetic uniformity but as a cognitive mechanism enabling recognition, memory, and loyalty across contexts.

Klimchuk and Krasovec [19] define packaging as the fusion of form, structure, materials, colour, typography, and graphic elements – a multidisciplinary object that simultaneously protects, communicates, and promotes a product. Within the specialty coffee sector, packaging has assumed an additional function: it articulates the brand's ethical and cultural positioning, communicating origin, process, and values to a consumer who is both knowledgeable and attentive [20].

In this context, illustration assumes a particularly powerful role. According to Gavin Ambrose and Paul Harris, packaging design is capable of “packaging the brand” itself, transforming the physical object into an emotional and symbolic extension of brand identity [21]. Rather than simply identifying a product, packaging creates atmosphere, expectation, and emotional resonance through visual language. For Ambrose and Harris, illustration possesses a distinctive communicative capacity because it can convey personality, narrative, tactility, and cultural specificity in ways that photography or purely typographic systems often cannot. Particularly within artisanal and specialty food sectors such as coffee, illustrated packaging can suggest craftsmanship, locality, warmth, ritual, and sensory richness, reinforcing emotional bonds between consumer and brand. This emotional dimension aligns with Ellen Lupton's [22] concept of the “emotional arc” of design experience – anticipation, interaction, and memory – through which packaging becomes a narrative device that initiates the consumption experience before contact with the product itself. The act of handling, observing, opening, and remembering the package becomes part of the product experience and contributes to brand loyalty and affective recognition.

When illustration is a dominant visual element, packaging transcends its utilitarian function and becomes a narrative surface capable of embodying what Sutnar described as the “character and tone of voice” of the brand [18]. In specialty coffee branding, illustrated packaging often operates as a visual storytelling system through which brands articulate notions of origin, ecology, craft, experimentation, or community. The package thus becomes not only a container but also a site of symbolic and emotional mediation, where graphic language materialises the implicit values and cultural positioning of the brand in a tangible and memorable form.

3. Methodology

This research adopts a practice-based methodology [23], in which the creative and experimental process functions as a knowledge-production tool. The study combined five complementary methodological stages. First, a systematic literature review mapped theoretical frameworks on visual identity, packaging design, illustration theory, semiotics, and the specialty coffee sector. Second, semi-structured interviews were conducted with specialists in illustration, visual identity, and packaging design: an interview with illustrator Pol Montserrat (February 2026) focused on the expressive and human qualities of hand-drawn illustration in contemporary visual culture, and an interview with Gonalo Cardoso, co-founder of Combi Coffee Roasters (December 2025), clarified the strategic and narrative dimensions of the brand and its identity needs. Third, a quantitative consumer survey (n=110) investigated specialty coffee consumption habits and perceptions of illustration in visual identity and packaging. Fourth, a comparative case study analysis was conducted: although eleven specialty coffee brands using illustration as a central identity component were initially mapped and analysed through the six-criteria framework, this article selects three representative cases for detailed discussion, chosen for their distinct and paradigmatic approaches to illustrative systems and packaging communication. Fifth, the research developed a projectual redesign proposal for Combi Coffee Roasters. However, this proposal is still ongoing and not yet implemented; therefore, the present study does not include results concerning the brand owners or customers reaction. User testing and observer-based evaluation sessions are planned for a later phase of the research timeline.

The triangulation of these five phases – theoretical, professional, quantitative, analytical, and projectual – ensures that the proposed framework is grounded in multiple forms of evidence and validated across theoretical, empirical, and practice-based registers.

4. Case Study Analysis: Illustrative Universes in Specialty Coffee Branding

4.1. The Analytical Framework

The six-criteria analytical framework applied to the case studies operates as follows. Illustrative language examines the morphological syntax of the illustration system – whether it relies on line, tonal mass, or vectorial form – and the semantic register deployed (figurative, abstract, anthropomorphic). Chromatic palette analyses how colour functions within the system: as informational architecture, as emotional trigger, or as differentiation device. System flexibility evaluates the capacity of the illustrative system to adapt across different touchpoints, formats, materials, and scales – from packaging and labels to digital media and environmental applications – while maintaining recognisable visual continuity and internal consistency; a flexible system achieves this through the coherence of its illustrative language rather than through rigid compositional templates. Hierarchical weight assesses whether illustration functions as the primary

identity carrier or as a secondary element within a typographic system. Legibility examines clarity of visual communication across formats and dimensions. Visual coherence analyses the unity of the system as a whole.

4.2. Selected Cases

Although eleven specialty coffee brands were initially analysed through the comparative framework, for synthesis, this article presents three selected cases as paradigmatic exemplars of the framework’s analytical dimensions. Dalston Coffee (Barcelona/London) exemplifies an illustrative universe where pencil-drawn, humanist illustrations – created with Lourenço Providência – act as the primary identity. They convey neighbourhood character beyond typography, while the building-shaped, colour-coded packaging shows how illustration can integrate narrative, function, and aesthetics.

Kaffebaren (Norway) offers a conceptually refined case: an identity rooted in alchemical symbolism, where illustration becomes a philosophical argument. The Rebis figure, styled like antique engravings, turns packaging into a cultural object, framing coffee as alchemist’s gold, with typography purely informational.

Café Âncora D’Ouro (Bibó Piolho) (Porto) shows illustration as collective memory. Developed by Estúdio Duas Faces, its detailed, sociological imagery captures generational and political history. Printed on take-away napkins, it transforms a disposable surface into an affective object.

Comparatively, all cases place illustration at the top of the visual hierarchy, ensuring flexibility through a consistent visual language rather than fixed layouts. Despite formal differences, they share the same structure: illustration as the core system generating coherence, recognition, and emotional impact—confirmed across all eleven brands analysed. The comparative analysis (Fig. 1) reveals consistent patterns across all eleven brands: high-performing illustrative systems deploy illustration at the top of the visual hierarchy; maintain system flexibility through a consistent illustrative language rather than rigid compositional templates; and achieve visual coherence through the coherence of the illustrative register rather than the repetition of a fixed mark.

Fig. 1. Comparative analysis grid of ten specialty coffee brands across six identity criteria.



5. Consumer Survey: Illustration and Purchasing Behaviour

The consumer survey (n=110, predominantly 18–34 years, specialty coffee consumers) generated quantitative data on illustration’s role in purchasing decisions. Key findings include: 75.5% of respondents considered illustration to make packaging more appealing and attention-capturing;

74.5% selected a fully illustrated packaging with a vibrant palette as their first choice among four options (traditional photographic; mascot illustration; minimal typographic; fully illustrated); packaging design ranked second – after price – as the most influential factor in purchasing decisions (31.8%); and 76.4% reported they would visit a café space that incorporated illustration in its physical identity.

Survey data on aesthetic preferences (Fig. 2) revealed that 61.8% of respondents were most drawn to illustrations communicating coffee origin, while 43.6% responded positively to abstract forms and 41.8% to humorous illustration. These preferences directly informed the design direction of the Combi Coffee Roasters proposal.

It should be noted, however, that the prominence of origin-related illustration in the preferences may reflect the self-selection of a sample already predisposed to the values of specialty coffee culture – traceability, provenance, and artisanal process – rather than a finding generalisable to broader consumer populations. The convergence of survey preferences with the framework's theoretical propositions should therefore be read as a form of triangulated corroboration rather than independent confirmation: the findings are consistent with and supportive of the framework, while the limitations of the sample preclude stronger causal claims.

These findings reinforce the theoretical premise that illustration constitutes a genuine purchasing driver and a primary vehicle for emotional connection, corroborating Wheeler's [4] assertion that visual identity communicates brand attributes before rational processing occurs.

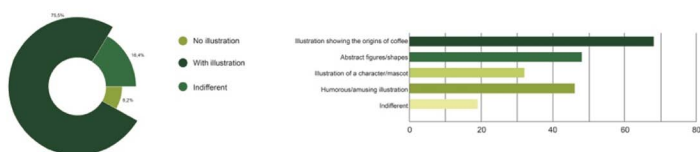


Fig. 2. Consumer survey results (n=110): preference for illustration in specialty coffee packaging (left) and preferred illustrative register (right). 75.5% of respondents favoured packaging with illustration; illustrations communicating coffee origin ranked as the most preferred register (61.8%).

6. The Illustrative Universe: A Proposed Framework

Drawing from the theoretical review, the case study analysis, and the survey data, this research proposes the following operational definition: an *illustrative universe* is a coherent visual system structured around a distinctive illustrative language – defined by its morphological syntax (line, mass, or vector), its semantic register (figurative, abstract, anthropomorphic), and its technical signature (gestural, precise, or hybrid) – that functions as the primary identity carrier across communication touchpoints, maintaining recognition through systemic coherence rather than through the repetition of a fixed mark.

Four structural conditions characterise an effective illustrative universe. First, narrative centrality: the illustrative system must embody and communicate the brand's core narrative, not merely illustrate it superficially. Second, morphological consistency: the illustrative language must be sufficiently distinctive and consistent to be recognisable as the brand's own, even without the logotype – functioning as a fifth element in Mollerup's sense. Third, systemic flexibility: the system must be capable of adapting to diverse scales, for-

mat, and contexts without loss of coherence – achieved through consistency of language rather than rigidity of composition. Fourth, adaptive coherence: the illustrative register must maintain recognisable visual continuity while adapting to different media, scales, and communication contexts.

This framework distinguishes between illustration as decoration (where illustration is applied to a pre-existing identity system) and illustration as system (where the illustrative language constitutes the identity system’s generative logic). The distinction is not merely theoretical: the case studies demonstrate that brands in the first category tend to exhibit lower system flexibility and weaker visual coherence than those in the second.

7. Projectual Proposal: Combi Coffee Roasters

7.1. Brand Analysis and Design Problem

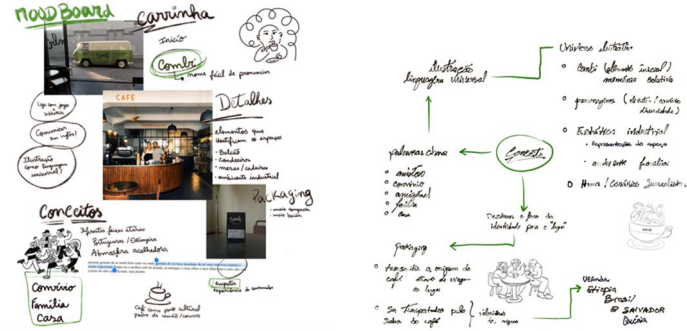
Combi Coffee Roasters was founded in Porto in 2014 by brothers Gonalo and Francisco Cardoso, initially operating from a converted Mercedes Kombi van – a vehicle that became the brand’s origin story and naming rationale. The brand has since established physical spaces and a micro-roastery (currently sited at Serralves), sourcing directly from producers in Ethiopia, Uganda, Kenya, El Salvador, and Brazil. Its current visual identity, developed by Studio 327, is characterised by a black-and-white typographic system with a calligraphic logotype: functional and consistent, but structurally resistant to the kind of narrative expansion that the brand’s story would support [24].

Three design problems were identified through brand analysis and founder interview: (1) the absence of the Kombi van from the current identity system, despite its foundational significance; (2) the lack of visual communication of the brand’s direct relationships with producers and coffee origins; and (3) a gap between the warm, community-oriented atmosphere of the physical spaces and the formal coolness of the typographic identity on packaging.

7.2. Conceptual Framework and Illustrative Language

The redesign proposal is anchored in Ray Oldenburg’s [25] concept of the *third place* – a space of community formation between the domestic and professional spheres – as a sociological framework that captures what

Fig. 3. Conceptual moodboard for the Combi Coffee Roasters redesign proposal, mapping the illustrative universe around the core concepts of place, community, and origin.



Combi's spaces actually function as. The visual translation of this concept (Fig. 3) privileges the representation of human figures in situations of encounter, rest, and sensory exploration, drawn in a gestural line language inspired by the illustrative traditions of Saul Steinberg and Quentin Blake: organic, humorous, and simultaneously precise and spontaneous.

The illustrative language (Fig. 4) is built on a line that is deliberately handmade: drawn with analogue tools to preserve the organic imperfection that, as Montserrat [15] observes, marks the boundary between the algorithmic and the human in contemporary visual culture. The system deploys this language across five origin-specific packaging illustrations (one per producer country), a set of narrative graphic supports for physical spaces, and a series of digital communication materials. Each origin illustration translates geographical and sensory characteristics into visual metaphors: the Ethiopian packaging evokes the altitude and ceremonial culture of Kaffa through ascending figures and floral forms; the Brazilian packaging references the Fazenda Sertão's generational continuity through a multi-figure scene structured around a common table.



Fig. 4. Examples of hand-drawn sketches developed for the illustration system.

7.3. Identity System and Packaging

The identity system retains the existing calligraphic logotype as a point of continuity, recontextualising it within the illustrative universe rather than replacing it. The chromatic palette introduces warm, earthy tones as a system base (replacing the strict monochrome), with origin-specific colour variations

that enable differentiation within a coherent range. Typography is maintained in a clean sans-serif for product information, creating the figure-ground tension between informational rigidity and illustrative vitality that characterises several of the highest-performing case studies analysed.



Fig. 5. Packaging prototypes for the Combi Coffee Roasters redesign.

The packaging structure (Fig. 5) positions the illustration as the primary visual element on the front face, with product information (origin, altitude, variety, tasting notes, processing method) organised in a structured grid on the reverse. This separation of narrative and informational registers enables the front to operate as an affective surface – a *portal*, in Lupton's [22] terms – while maintaining the transparency and technical specificity valued by specialty coffee consumers.

8. Conclusions

This research demonstrates that illustration, when deployed as a systemic identity language rather than as a decorative supplement, constitutes a strategically distinctive tool for visual identity and packaging design in the specialty coffee sector – and, by extension, in a market characterised by the simultaneous challenges of aesthetic homogenisation, narrative depth, and the need for emotional connection. The proposed framework of the illustrative universe offers a structured conceptual instrument for design practice and research: it defines the conditions under which illustration transcends decoration to become an identity system, and identifies the four structural requirements – narrative centrality, morphological consistency, systemic flexibility, and adaptive coherence – that distinguish high-performing illustrative identities from merely illustrated ones.

The empirical evidence from the consumer survey (75.5% preferring illustrated packaging; packaging design as the second purchasing driver after price) corroborates and quantifies what the theoretical literature asserts: illustration is not an aesthetic preference but a communication strategy with measurable impact on consumer behaviour. The case study analysis further demonstrates that this impact is maximised when illustration occupies the highest position in the visual hierarchy – not as an accompaniment to typography, but as its equal or primary partner.

The Combi Coffee Roasters proposal operationalises these findings, demonstrating how a brand with a rich narrative substratum can deploy an illustrative universe to close the gap between its physical brand experience – warm, communal, internationally diverse – and its packaged identity. The proposal validates the framework's four structural conditions in a real-world application context, confirming their pertinence as design criteria rather than merely theoretical propositions.

Two limitations of the current research should be acknowledged. The consumer survey, while statistically informative, was conducted with a predominantly young and digitally active sample; its findings should be tested across broader demographic groups in future research. The self-selected nature of the respondents, who were recruited through specialty coffee consumer networks and social media channels, introduces a probable selection bias toward audiences already predisposed to favour artisanal and illustrated visual identities – a limitation that constrains the generalisability of the preference findings and calls for more controlled sampling strategies in future studies. Additionally, the framework's application to a single redesign proposal, while enabling depth of analysis, does not permit generalisation across sectors. A further dimension requiring investigation is the impact of AI image-generation technologies on audience emotional engagement with illustration. As algorithmically produced imagery becomes increasingly prevalent in everyday visual culture, the emotional and cognitive responses elicited by handmade illustration may shift in ways that current research has not yet fully mapped: the perceived authenticity of the gestural line, for instance, may acquire new resonance – or new ambiguity – for audiences whose baseline visual experience is increasingly shaped by AI-generated content. Future research

should examine longitudinal consumer perception of illustrative identity systems, attend specifically to the role of AI-conditioned visual literacy in shaping emotional engagement with brand illustration, and extend the framework's application to other artisanal and culturally situated food and beverage sectors, as well as to contexts where illustration's role is emerging rather than established.

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References

1. Garcia, A., et al.: Specialty Coffee as Cultural Practice: Traceability, Aesthetics and Ethical Consumption. *Food, Culture & Society* 27(2), 145–163 (2024)
2. Schenk, P. (2016). *Drawing in the Design Process: Characterizing Industrial and Educational Practice; (a Long-term Study Carried Out Over the Period 1984-2015)*. Intellect.
3. Raposo, D.: *Design de Identidade e Imagem Corporativa*. Edições IPCB, Castelo Branco (2008)
4. Wheeler, A.: *Designing Brand Identity*. 4th edn. Wiley, New Jersey (2018)
5. Male, A.: *Illustration: A Theoretical and Contextual Perspective*. AVA, Lausanne (2007)
6. Mollerup, P.: *Marks of Excellence*. Phaidon, London (2007)
7. Oliveira, F., Raposo, D.: O 5º Elemento na Identidade Visual. *Convergências — Revista de Investigação e Ensino das Artes* 14(27) (2021)
8. Nath, S.: The Role of Illustration in Brand Identity Design. *Journal of Design and Communication Research* 8(2), 498–510 (2024)
9. Zeegen, L.: *Principles of Illustration*. RotoVision, Brighton (2005)
10. Peirce, C.S.: *Collected Papers of Charles Sanders Peirce*. Harvard University Press, Cambridge (1931-1958)
11. Berger, J.: *Ways of Seeing*. Penguin Books, London (1972)
12. Dowling, J. (ed.): *Mascot: Mascots in Contemporary Graphic Design*. Counter-Print, London (2022). ISBN: 978-1-915392-04-6
13. Dondis, D.A.: *A Primer of Visual Literacy*. MIT Press, Cambridge (2003)
14. Arnheim, R.: *Art and Visual Perception: A Psychology of the Creative Eye*. University of California Press, Berkeley (1974)
15. Montserrat, P.: Interview conducted February 12, 2026 [primary source]
16. Salisbury, M. (2021). *Drawing for illustration*. Thames & Hudson.
17. Stephen, A., Johnson, R.G.: Scientific Illustration at CONFIA: Line as a Form of Minimalist Illustration. In: *CONFIA – 12th International Conference on Illustration & Animation*, Barcelos, Portugal, pp. 491–499. ISBN 978-989-35331-8-5 (2025)
18. Sutnar, L.: *Package Design: The Force of Visual Selling*. Arts Inc., New York (1953)
19. Klimchuk, M.R., Krasovec, S.A.: *Packaging Design: Successful Product Branding from Concept to Shelf*. 2nd edn. Wiley, New Jersey (2012)
20. Methodical Coffee: What Is Specialty Coffee? methodicalcoffee.com (2023)
21. Ambrose, G., & Harris, P. (2017). *Packaging the brand: The relationship between packaging design and brand identity*. Bloomsbury Visual Arts.

22. Lupton, E.: *Design Is Storytelling*. Cooper Hewitt, New York (2017)
23. Noble, I., Bestley, R.: *Visual Research: An Introduction to Research Methodologies in Graphic Design*. 3rd edn. Fairchild Books, London (2016)
24. Cardoso, G.: Interview conducted December 9, 2025 [primary source]
25. Oldenburg, R.: *The Great Good Place*. Paragon House, New York (1989)