IMMERSED IN CABILLA
CREATING A FULLDOME EXPERIENCE
OF AN ANCIENT OAK WOODLAND AND TEMPERATE RAINFOREST

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INTRODUCTION

> The role and value of creative/critical sound praxis in the age of Anthropocene

> Exploring the interdisciplinary potential of sound in relation to ecological work particularly in relation to sounds ability to be a tool to "inspire" a community, engage with a site and prompt action" and "listening as a tool for reciprocity, care and connection" (Barclay, 2024) with the research associated with the project being in part are about generating questions for (future) research and as reflective cues for the praxis itself

> The value and potential of immersive sound in amplifying the reach and impact of the Cabilla/Thousand Year projects, engaging audiences with nature and the environment, and enhancing environmental empathy

> The *Cabilla* project is timely and there is a clear need for (creative) narratives as the data sciences alone have not created the shifts needed or connected 'people' to ''stay' and work with the problem.

>The project as an act of affirmative sound praxis

ECO-PHILOSOPHICAL FRAMEWORK

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AFFIRMATIVE ETHICS

"The future is nothing more or less than inter-generational solidarity, responsibility for posterity, but it is also our shared dream, or a consensual hallucination."

Braidotti, R. (2013) *The Posthuman*. Polity Press.

> The importance of fostering sustainable and ethical relationships

> Awareness of our processes and tools (Wright, 2022)

> The project foregrounds sonic potential in immersive experiences in relation to its effect and affect on bodies, environments, spaces, and beings.

> Practice and encouragement of *affirmative* listening and 'affective listening' (Jing, 2012, 2016)

> Listen first: In *The Soundscape Speaks* (2021) we hear the voice of Hildegard Westerkamp saying: "The longer your listen, the more you get immersed". The piece itself is an "invitation to open yourselves to the complexities of listening itself and the possibilities it may offer to recalibrating your own relationship to the environment" (Westerkamp, 2021).

"We used to think that every tree and plant existed as an island on its own in the forest – that simply isn't true. Healthy soil has a highly complex network of fungal connections that links every living flora in a woodland together, otherwise known as mycelial fungus. Trees and plants can use this network to send nutrients, electrical signals and warnings across long distances. Imagine, as you walk beneath the canopy, that the trees above are talking to one another and sharing their food. It's a community – a family, even – all made possible by this outstanding fungus." (Cabilla, 2024)

DARK SOUND ECOLOGIES

> Ferrett, D. (2020) *Dark Sound*: *Feminine Voices in Sonic Shadows.* Bloomsbury.

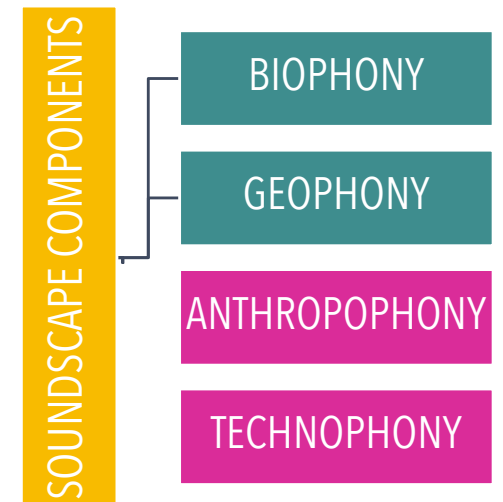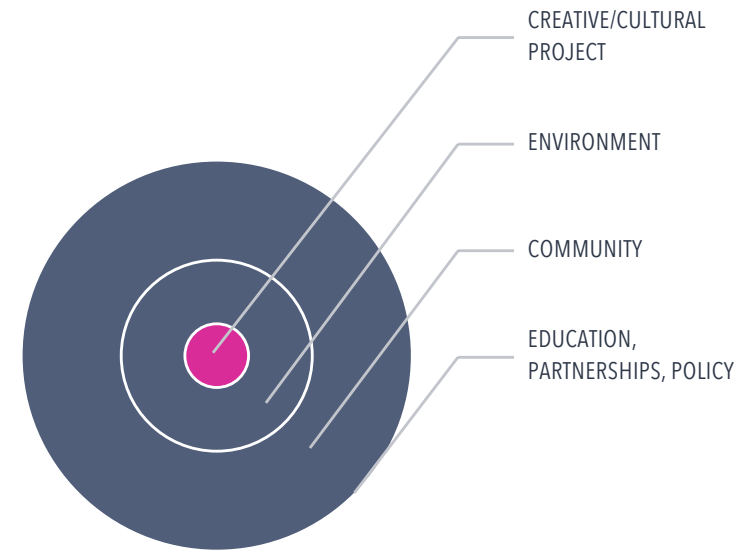> Morton, T. (2018) *Dark Ecology: For a Logic of Future Coexistence.* Columbia University Press.

"If everything is connected, there is no definite background and a definite foreground […] each point of the mesh is both the centre and edge of a system of points so there is no absolute center or edge" and at the same time " "the interdependence theorem does not reduce everything to the level of sameness, it raises everything to the level of wonder" (Morton, 2010) thus offering us a (new) model for exploring spatial and sonic relationships, in particular in immersive contexts and with sounds with 'noisy' spectrums.

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ACOUSTIC ECOLOGY // ECOACOUSTICS

"With sound, everything interacts with everything else" with listening being "the primary interface between the individual and the environment". "[T]he interlocking behaviour of sound, the listener, and the environment" is understood as a "system of relationships, not as isolated entities" (Truax, 1984).

> Barclay's Sonic ecologies (2009-2012) methodology (Barclay, 2013, 2024)

> Diagnostic listening and listening as a solution and a "pathway to sustainability" and an *interface* to help "dissolve boundaries between self and environment"(Eldridge, 2024)

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CREATIVE/CULTURAL PROJECT

ENVIRONMENT

COMMUNITY

EDUCATION, PARTNERSHIPS, POLICY

SOUNDSCAPE COMPONENTS

BIOPHONY

GEOPHONY

ANTHROPOPHONY

TECHNOPHONY

'Sonic sources' (Hull, 2023)

SOUNDSCAPE//SOUNDSPACE

Modified ISO definition of soundscape as: "ISO 12913-1:2014: Soundscape: 'acoustic environment as perceived or experienced and/or understood by a ~~person or people~~ [sensory being] in context" (Eldridge, 2024).

"Soundscape as a set of physical vibrations" that are fundamental for being and staying alive (Eldridge, 2024).

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THE PROJECT CONTEXT
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PARTNERS // INTERSECTION

THE FILM MAKER

"How do you stay with the trouble when the trouble is you?" (Laity, 2022a)

A Short Film About Ice (2022)

"I begin to feel a sense of inbetweenness, and interconnectivity. Once scale is removed then one can start to recognise experiences shared between all things, be they human or non-human" (Laity, 2022a).

> For Laity this related to filming the arctic through both micro and macro perspectives

Equipment: INSTA 360 Pro 2, INSTA 360 X4 and Panasonic Lumix GH5 DSLR (w/macro lens) with 'backup' option of using the University's TITAN 11k camera

"As I take something from the landscape so a part of me belongs to this place now. I am bound to it" (Laity, 2022a)

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TEMPERATE RAINFORESTS

Temperate rainforest (Atlantic forest) and ancient woodlands/oaklands (primary and secondary forests, primeval forests, old-growth forests) have "global conservation significance" for preserving biodiversity with "temperate rainforests being the "richest most complex terrestrial habitat in the UK" (Cabilla, 2024)

> **Importance of mild climate, lichens and sufficient water(fall)**

> **Phoropphyte – epiphyte relationship**

> Whilst tropical rainforests are structured in four layers: emergent, canopy, understory, and forest floorforest emperate rainforests (only) have the three layers of canopy, understory, and forest floor with the layers increasing in 'darkness' when descending from the top down
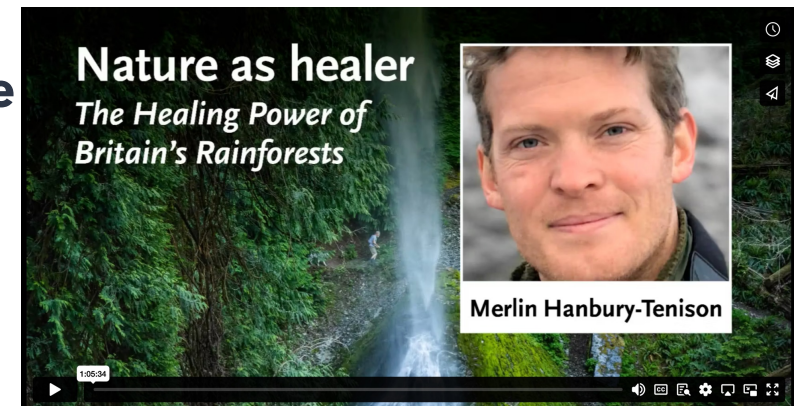
FOR CONTEXT

> Whilst UK is one of the "least forested countries in Europe" (Forest Research) with only 13% of British Isles being are covered by trees (BBC, 2023) and with only 2.5% of UK being "covered in ancient forest" there are more "ancient oak trees in England alone than the rest of Europe together" (Woodland Trust).

> Compare this with my native Finland which is "the most forested country in Europe" (Metsateollisuus, 2023) and number 11 in the world with i73% of its land area covered by forests (Forest Research) and with an annual growth being "over 100 million m3 per year" (Metsateollisuus, 2023).

MERLIN, *CABILLA* AND THE "WOOD WIDE WEB"

'The Nature As Healer: The Healing Powers of Britain's Rainforests' (2023) https://vimeo.com/890304930

"Our ancient oak woodland is extremely rare, as it has been left to its own devices for at least 1,000 years. The fungus beneath the soil, the many species of moss on the rocks and the rich canopy of lichen are part of an abundant biodiversity that has taken centuries to develop, proving that these woods are as old as the valley that they sit in. **The lack of interference also means that our trees are all related to one another – their roots and branches intertwine and they can 'speak' to each other through the mycelial 'Wood Wide Web'**." (Cabilla, 2024)

Nature as healer
The Healing Power of Britain's Rainforests

Merlin Hanbury-Tenison

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THE THOUSAND YEAR TRUST "RESTORING BALANCE"

VISION	> MISSION	> PURPOSE	> LEGACY
Restoring Britain's rainforests for our generation and all future generations	Catalysing the movement that triples the amount of temperate rainforests across Britain	Supporting scientists in groundbreaking research to save temperate rainforest landscapes	Creating a chance of for our ancient Atlantic rainforests, to not simply survive, but to thrive

The two research strands "highlight why and how we safeguard the future of our rainforest landscapes, alongside championing impactful science outreach to support the future of our rainforest landscapes":

- Safeguarding the future of temperate rainforests through the three tiers of: (1) protect, (2) restore and (3) expand
- Understanding why temperate rainforests are important ecosystems due to their: (a) biodiversity, (b) climate and (c) impact on people

https://www.thousandyeartrust.org

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@CABILLA: LISTENING, SENSING AND RECORDING ON SITE

At the intersection of field, on-location, environmental, and source recording:

> A-format and B-format (native) ambisonics capture combined with mono and stereo microphone recordings

> Use of booms and 'choir stands'

> Hydrophone, contact microphone and geo-phone capture

>Timed/remote recording (using Open Acoustic Devices Audio Moth audio logger/bioacoustics sensor); drop rigs
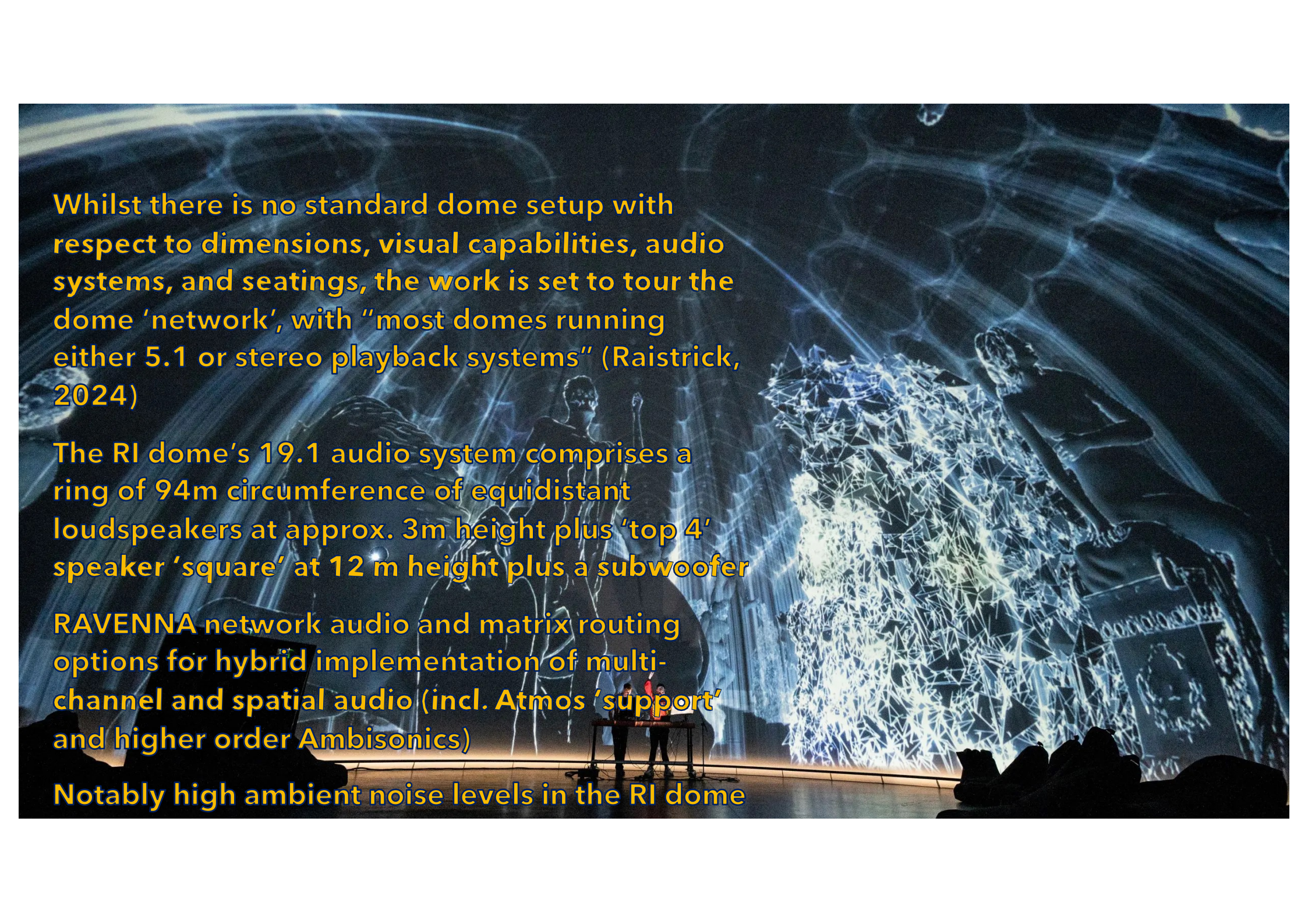
> Bio sonification (Everybody Hertz)

The importance of being 'present' and listening with one's whole body when in a given space (Barclay, 2024)

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DOME EXPERIENCE

The Real Immersive 360 dome in Plymouth, UK is the largest immersive dome in Europe comprising 19.1 L'Acoustics speaker array (for multi-channel and/or spatial audio formats), 4k visual resolution at 210° vertical screen extension, and no fixed seating in the 15m diameter dome.

Whilst there is no standard dome setup with respect to dimensions, visual capabilities, audio systems, and seatings, the work is set to tour the dome 'network', with "most domes running either 5.1 or stereo playback systems" (Raistrick, 2024)

The RI dome's 19.1 audio system comprises a ring of 94m circumference of equidistant loudspeakers at approx. 3m height plus 'top 4' speaker 'square' at 12 m height plus a subwoofer

RAVENNA network audio and matrix routing options for hybrid implementation of multi-channel and spatial audio (incl. Atmos 'support' and higher order Ambisonics)

Notably high ambient noise levels in the RI dome

POST

Given that the project is part of on-going work to synthesise my creative-critical listening and recording practices into an affirmative-affective sonic methodology; a quest to find a space, focus and application for my praxis and skillset, it is important for a critical reflection on the notion(s) of immersive composition, sound, audio and experiences.

With the compositional approach to immersive experience production being through the notions of immersion in listening <u>and</u> into listening, the relationship between listening, listener, sound, and immersion are key in cultivating a post–immersive awareness and necessary considerations for a purposeful resistance against the "immersive-consumerist approach" (Chattopadhyay, 2020) and tendencies to turn immersion into a spectacle.

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SOUNDSCAPES // COMPOSITION

Whilst influenced by the associated praxes, not soundscape composition *per se* as established by the WSP/VSP (Schaffer, Truax, Westerkamp)

Relationship to the sound(scape)s and sound(scape) recordings is key: experiential, collaborative, contextual, reciprocal, emergent (Barclay, Harrison, Truax, Westerkamp)

The fixed media recorded sounds are considered as 'nomadic' sound bodies; in relation to the overall immersive experience and associated (power) relationships (subjectivities) (incl. in its production)

The creation of an immersive soundscore; composing with soundscapes, in a soundscape, and into a soundscape

Post-acousmatic fixed media composition

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NEXT STEPS

> 3 x on-site recording sessions (July, Sept, TBC)

> Recorded interview/site walk with Merlin Tenbury-Hanson

> Audio testing at Real Immersive for developing an experiential sense of the dome's sonic capabilities

> VR testing for audio and review of 'dailies'

> Studio based work

> Additional field recordings

> Completion of the composition and the 'extended sensory' version and associated agreed deliverables

> Establishment of micro-internships on the project (community training)

> Address emergent challenges work with immanent opportunities

EMERGENT CHALLENGES AND IMMANENT OPPORTUNITIES

> Visual, audio and audio-visual tech and associated workflows (incl. planning and co-planning)

> Having to prepare for a high number of potential visual and narrative 'unfoldings'

> Site access

> Further compositional, ethical and philosophical considerations

> Noise

> Complex intersecting agendas and values

> Collaborative 'composition'

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(RE)CONNECT(ING) WITH EXPERIENCE

"Retrieving contact with our experience is thus an essential condition for us to find the strength to stop transforming any aspect of our life into an object of consumption, and to regain enough lucidity, dignity, and courage to change our model of society"

(Petitmengin in Eldridge, 2024)

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