

Sonic worldbuilding and hydrofeminism in electroacoustic performance

Elektroakustik performans sanatında sonik dünya kurma ve hidrofeminizm

Buket Yenidogan¹

¹ Coventry University, England.

ABSTRACT

This article examines the practice of electroacoustic sound art within the context of my trans-media worldbuilding project, The Ones Who Became The Ocean. This project envisions a new way of relating to the ocean through a speculative reality characterized by myths and rituals set in a world on the brink of a global flood. The research adopts a hydrofeminist perspective of embracing the concept of 'becoming a body of water' both narratively and methodologically. Central to this research is the question: 'How can a hydrofeminist perspective be incorporated into sound art performance and speculative worldbuilding?' I address this question through analyses and reflections on my creative sonic practice and practice-based methods of iterative building, testing, and a two-way exchange with hydrofeminist theory aiming to provide insights into the creative decision-making processes within this project that positions electroacoustics as a medium for environmental and philosophical discourse.

Keywords: hydrofeminism, sound art, electroacoustics, speculative worldbuilding, posthumanism, creativity

ÖZ

Bu makale, elektroakustik ses sanatının pratiğini, trans-medya dünyakurma projesi Okyanusa Dönüşenler (The Ones Who Became The Ocean) bağlamında incelemektedir. Bu proje, bir küresel selin eşiğindeki bir dünyada mitler ve ritüellerle şekillenen spekülasyon bir gerçeklik aracılığıyla okyanusla ilişki kurmanın yeni bir yolunu tasavvur eder. Araştırma, hem anlatsal hem de metodolojik olarak "bir su kütlesi olma" kavramını benimseyen bir hidro-feminist perspektifi benimser. Bu araştırmanın merkezinde şu soru yer alır: "Hidro-feminist bir perspektif, ses sanatı performansı ve spekülasyon dünyakurma pratiğine nasıl entegre edilebilir?" Bu soruyu, yaratıcı ses pratiğim ve iteratif inşa etme, test etme ile hidro-feminist teoriyle iki yönlü bir alışverişe dayanan uygulamaya dayalı yöntemler üzerindeki analizlerim ve düşüncelerim yoluyla ele alıyorum. Araştırma, elektroakustik çevresel ve felsefi söylem için bir ortam olarak konumlandırılan bu projedeki yaratıcı karar alma süreçlerine dair içgörüler sağlamayı amaçlamaktadır.

Anahtar Kelimeler: hidrofeminizm, ses sanatı, elektroakustik, spekülasyon dünya kurma, posthumanizm, yaratıcılık

1. INTRODUCTION

Figuring, thinking and mattering our bodies as watery links us inseparably to the pressing ecological implications of the Anthropocene (Neimanis, 2017, p.12). In an era marked by escalating water crises and rising ocean levels, the urgency of creating narratives that reshape, renew, and rethink our connection to the ocean and to each other has never been greater.

"It matters what stories we tell to tell other stories with." Haraway (2016, p. 12).

The Ones Who Became The Ocean (Yenidoğan, 2022) is a speculative trans-media storytelling and worldbuilding project that addresses ocean level rise by envisioning a culture set in a distant future, where most of the land is submerged. This project explores the spiritual ways humanity copes with such an environmental catastrophe through new myths and rituals inspired by the posthuman phenomenology of hydrofeminism—a framework that underscores the interconnectedness of bodies through water. Speculative worldbuilding allows for the construction of imaginative, yet plausible, futures where the works within the project can instigate critical reflection and dialogue about our current culture.

While the main project involves outcomes across various media such as short films and interactive sound installations, this paper focuses on the sound art practice at the intersection of live electroacoustic performance and hydrofeminism. These performances aim to bring speculative reality to the performance space with *sonic worldbuilding*. The research question driving this exploration is: "How can a hydrofeminist perspective be addressed in sound art performance and speculative worldbuilding?" Through practice-based methods, this work aims to integrate hydrofeminist values not only into the performance art pieces themselves but also into the creative process and methods of iteration. Within the research, a water-based musical instrument is created in addition to the development of a ritual-like sound art performance.

Electroacoustics is central to this inquiry with the creation of an electroacoustic musical instrument designed to produce live water sounds with creative effects, enabling sonic experiences that evoke a deep, visceral connection to the aquatic elements that sustain life. The importance of electroacoustics in this context lies in its ability to bridge the gap between conceptual ideas and practical execution, transforming abstract notions of water and fluidity into tangible, immersive soundscapes.

My multidisciplinary background spans engineering, experiential communication, and arts, with a concentration in readings on critical posthumanism and feminisms. My introduction to sound art, influenced significantly by my encounter with Cardew's Scratch Orchestra, introduced me to experimental music through graphic scores, improvisation games, and instrument-making. Since this encounter, experimentation has been central to my sound art practice, evolving with every performance and enriched continually by learning from collaborators and peers.

In this study, the main research method is my practice of creating and performing electroacoustic music using water sounds, which directly addresses the research question. This allows for a deep engagement with both the material and conceptual aspects of the research, facilitating a dynamic interplay between theory and practice. The iterative process of developing and refining performances becomes a way to explore and address the research question—knowledge in my work is located in iterative practice, including making and performing not in audience evaluation. Through practice, insights emerge that might not be accessible through traditional research methods, as the creative process reveals new understandings and possibilities. This methodology embraces the complexity and fluidity of creativity, allowing for the emergence of new narratives and forms of knowledge that are intimately connected to the act of making and performing.

The *Map of Sonic Creativity* designed by Knight-Hill and Margetson is used to gain insights, understand, and evaluate my sound art practice, examining the completed works in addition to evaluating the project leaving room for future improvement (Knight-Hill & Margetson, 2023). It is done via situating the scope of work in the map starting from applying a selection of principles and building up to approaches and techniques adopted. These principles, approaches and techniques described in the book *Art of Sound: Creativity in Film Sound and Electroacoustics* are read through hydrofeminism drawing connections between different theories (Knight-Hill & Margetson, 2023).

Through this work, I aim to contribute to the broader discourse on the role of sound in shaping our understanding of ecological and philosophical issues, and to inspire others to explore the full creative

potential of electroacoustic music and environmental sustainability and the role of art in envisioning and enacting transformative futures.

With the convergence of electroacoustics and speculative worldbuilding, my work endeavours to manifest a speculative, neo-shamanic ritual that echoes the fluid, interconnected reality theorised by hydrofeminism. By reimagining our relationship with water and the more-than-human world, these sonic rituals offer a glimpse into a posthuman future, where the boundaries between self and other, human and non-human, dissolve into the boundless ocean of being. By situating my work within an alternative temporal and existential framework, I challenge deterministic narratives that tether us to anthropocentric ideologies. This speculative esotericism, a term I use to describe my practice, serves as fertile ground for cultivating new myths that envision a posthuman future.

The subsequent sections of this article will delve into the theoretical foundations of hydrofeminism, describe the principles, approaches and techniques involved in developing my ritualistic sound art performances, and discuss the creative decisions and insights within a hydrofeminist context.

2. RESEARCH BACKGROUND

Hydrofeminism and Posthumanism

Hydrofeminism, as articulated by Astrida Neimanis, reimagines our interconnected existence through water, our entangled wet beginnings and ends (Neimanis, 2012). This perspective invites us to move beyond the confines of human-centred agency and embodiment, envisioning a continuum where our forms and those of the more-than-human world are intertwined in a ceaseless, watery symphony.

Neimanis' critically materialist approach offers a new way of experiencing, being and becoming with more-than-human socio-technological collectives interconnected through and encompassed by waters running from roots to leaves, veins to rains, against the privileging of the human as the sole or primary site of embodiment and agency. It figures all bodies as bodies of water, that leak sponge, flood and dissolve, inviting us to relate to the other bodies of water (Neimanis, 2012).

According to hydrofeminism our existence and the existence of other living things are deeply intertwined through water. This perspective shifts our understanding of human agency to a more inclusive and interconnected view, where water becomes the medium through which we understand our connection to the world around us. Neimanis (2012, p. 85) poetically states that:

"The space between ourselves and our others is at once as distant as the primaeval sea, yet also closer than our own skin—the traces of those same oceanic beginnings still cycling through us, pausing as this bodily thing we call mine. "

To fully grasp hydrofeminism, we must also understand its connections with posthumanism and new materialism. As with many other feminist approaches, hydrofeminism also performs under the umbrella of critical posthumanism, as a multidisciplinary research field investigating new definitions of who we are, by looking beyond human exceptionalism. Posthumanism seeks to decenter the human subject within a web of interconnected agents, both human and non-human. Posthuman theory focuses "on the margins of expression of yet unrealized possibilities for overcoming both humanism and anthropocentrism" (Braidotti, 2018, p. 31-61). It allows new understandings of causality and agency to converge beyond the Cartesian and Aristotelian, and de-centering and deconstructing the human of humanism in a network of existence (Ferrando, 2019).

Rosi Braidotti (2013, p. 45) states that critical posthumanism aims to develop new perspectives on the posthuman subject; such perspectives "that does not confine the subjectivity within our species, but include all nonanthropomorphic elements: the non-human, vital forces of life". She defines this view of the posthuman subject as the core of postanthropocentric feminist turn which is a materialist response to the "opportunistic trans-species commodification of life" via advanced capitalism (Braidotti, 2017, p.16). This type of materialism has monistic ontological foundations that assumes radical immanence, including the primacy of intelligent and self-organising matter (Braidotti, 2017, p.16-17).

"The key notion is that matter, including the specific bound volumes of matter that constitutes humans themselves, is not organised in terms of dualistic mind/body oppositions, but rather as materially embedded and embodied subjects-in-process." Braidotti (2017, p. 16-17) states.

Emancipation of matter is declared as a feminist project by Rosi Braidotti according to Dolphijn and Van Der Tuin (2012, p. 93) therefore it is also the main concern of new materialism. New materialist thinkers attempt to rediscover a materiality through immanent self-transformation, which compels us to consider a new causation of nature and of capacities for agency (Coole & Frost, 2010). Karen Barad's work on new materialism emphasizes the entanglement of matter and meaning, suggesting that all entities are intra-actively co-constituted and agency resides in the intra-actions of matter (Barad, 2007).

Hydrofeminism's emphasis on the materiality of water and figuration the body as waters of Earth is aligned with both critical posthumanism, and new materialism. "We are with water as much as we of water, and we, like all living earthly entities, embody water" Neimanis (2017, p. 41) states. Hydrofeminism offers a response to the call of new materialism's reconfiguration of the posthuman agency, "located within a constant flux of material flows that enable uncertain becomings within a lively agential more-than-human world" (Braidotti & Hlavajova, 2018, p. 293).

While new materialism and feminism deny the objectification of technology and matter such as vital materialism and gender as a socio-technological construct such as glitch feminism, hydrofeminism differs from these accounts, and offers a perspective of inclusion, care and gestational futures, making kin in between all bodies, meta-bodies and non-bodies through the element of water (Neimanis, 2012). It highlights water's perpetual movement through bodies and ecosystems shows the porosity between entities, reminding us that all living things are connected with the exchange of this fundamental element. The boundaries between self and other, human and non-human is blurred within this movement of water.

Hydrofeminism considers fluidity and porosity at all levels and offers a new perspective of embodiment and agency, challenging anthropocentrism's human-centeredness, a new metaphysical way of perceiving the self and others. Water is seen as the metaphysical, ontological and phenomenological foundation of existence.

The Need for a Cultural Shift Towards Hydrofeminism

With the concept of agency and creativity being exclusively assigned to humanity under Western humanist thinking, the domination of humans over non-human animals, vegetal life and land are legitimised as a continuation of the agency problem of culture over nature, the dichotomies of subject/object, self/other, human/nonhuman, human/technology. New materialist approaches, as with many other posthuman theories, aim to develop different perspectives on agency to solve this issue.

I believe that a cultural shift towards hydrofeminist values is crucial in our current epoch of ecological crises and ideological conflicts. My artistic endeavours aim to facilitate this shift by weaving a speculative mythology that aligns with hydrofeminist principles. Through world-building, performance, and ritualistic practices, I seek to dismantle rigid binaries and human-centric narratives that have long dominated our metaphysical landscapes. Insights from Braidotti (2017, pp.16-17) into posthumanism call for an ethical reconfiguration that acknowledges the interconnectedness of all life forms, challenging anthropocentric hierarchies and advocating for a more inclusive, egalitarian worldview.

Braidotti asserts that posthuman thought challenges us to redesign our frameworks of thinking and knowledge to encompass a diversity of viewpoints and experiences (Braidotti, 2013). This idea is central to my work, as I aim to create art that embodies these principles, fostering a shift towards a more interconnected and inclusive understanding of our place in the world, in order to respond the ecological collapse in which we find ourselves.

Crafting a Mythology for a Speculative Reality

Crafting a mythology within a speculative reality is a tool for subverting entrenched foundational ideas of what is real and what is not, the metaphysical constructs of reality. Metaphysics are arbitrary constructs that shape our understanding of the world according to Campagna (2018). By creating speculative metaphysics, he asserts that we can reimagine our place in the universe and envision a future that transcends the limitations of our current paradigms (Campagna, 2018).

This perspective informs my work, as I seek to create new mythologies that challenge existing metaphysical constructs and offer new ways of understanding our interconnected existence. By situating my work within an alternative temporal and existential framework, I challenge deterministic narratives that tether us to anthropocentric ideologies. This speculative culture serves as fertile ground for cultivating new myths that envision a posthuman future.

Connecting phenomenology, metaphysics, and ontology, hydrofeminism in a speculative narrative becomes an aesthetic and creative act. Presenting a new way of relating the self and others through oceans, offers a critique of the Western narrative of human sovereignty and its contemporary implications. A hydrofeminist mythology creates collective hope via a speculative narrative to build a better world, to world-build.

Trans-media Worldbuilding Project: The Ones Who Became The Ocean

In the heart of my artistic practice lies the trans-media worldbuilding project, *The Ones Who Became The Ocean*. The project envisions a speculative reality where humans are not separate from the ocean, and where selves are bodies of water and water is our new posthuman body. It transports audiences to a future where society is perched on the brink of a deluge. In this speculative reality, the ocean is both revered and feared, symbolizing both the beginning and the end, the womb and the tomb. The inhabitants of this world recognize their bodies as watery and fish-like, embracing their oceanic origins and integrating this understanding into their daily lives, rituals, and beliefs.

One of the central components of the project is the creation of new myths and rituals that reinforce the connection between the human body and the ocean. For instance, the *Ritual of Rejoin*, a short film within the trans-media project, depicts women entering a trance-like state and walking towards the ocean, symbolizing their return to their aquatic roots, a re-immigration. This ritual, along with other practices, serves to solidify the speculative society's spiritual and cultural ties to the ocean, fostering a collective sense of belonging and purpose.

Drawing on the principles of hydrofeminism, the project emphasizes the interconnectedness of all living things through water. We share our waters constantly through our porous bodies, exchanging moisture with the environment and each other. This notion of kinship through water underpins the project's narrative, fostering a sense of unity and collective responsibility for the preservation of clean water and the recognition of its political implications. By listening to the stories water tells and tracing its paths, we uncover deeper truths about our world and our place within it.

The Role of Electroacoustic Sound Art Performances in Worldbuilding

Within the broader context of *The Ones Who Became The Ocean* project, which incorporates various media from interactive installations to visual art, my experimental sound art practice plays a crucial role in bringing the speculative reality to life. Sound art performances function as rituals that embody and enact the project's themes, creating immersive auditory experiences that transport audiences into the speculative reality. By utilizing hydrophones, modular synthesis, and electroacoustic effects, these performances capture the raw, organic sounds of water and transform them into evocative soundscapes that resonate with the audience's senses and emotions.

From a worldbuilding standpoint, performance art has the profound ability to bridge the audience and the moment, a practice rooted in the ancient rituals of tribes and cultures. Shamans and other ritualistic performers have long known the power of performance to invoke presence and transformation. Contemporary performance art continues this lineage, offering a direct, visceral experience that transcends mere observation (Schechner, 2003, p. 158).

Electroacoustics is a vital element of these performances, allowing the sounds of water to articulate their narratives with minimal intervention from the artist. The language of electroacoustic music, as elucidated by Simon Emmerson, offers a profound conduit for this ritualistic enactment. By letting the acoustic reality of water take the lead, the performances emphasize the intrinsic voice and presence of water within the speculative world, allowing them

This approach aligns with the posthumanist desire to decenter the human and give agency to non-human entities.

The live nature of these performances, where water sounds are generated and manipulated in real-time, underscores the fluid and dynamic relationship between the human and the non-human, the artist and water. Each performance is a unique, ephemeral moment being majorly improvised.

Sonic Improvisation and Posthumanism

Improvisation has a big role in my sound art practice, with the majority of the performances relies solely on the what emerges during the performance with other collaborators, in addition to a practice of improvised spoken-word I adopted during the iteration of my performances.

Improvisation in artistic practices, particularly within the realm of sound art, serves as a fertile ground for exploring critical posthumanist ideas, which challenge traditional human-centred hierarchies and boundaries between the human and the non-human. The spontaneity and unpredictability inherent in improvisational performance align with posthumanist perspectives by disrupting established structures and inviting a multiplicity of interactions that can lead to new forms of social and artistic expression. Cornelius Cardew's Scratch Orchestra, established in the late 1960s, exemplifies this connection. The Orchestra was an experimental ensemble that emphasized improvisational performance from both musically trained and untrained participants, perhaps unwittingly embodying the posthumanist ideal of de-centring authorship and expertise in favour of a collective, emergent creation (Bickley, 2014, p. 207). This model highlights how improvisational practices can democratize participation and output, thereby challenging traditional notions of artistic authority and the primacy of the individual creator.

By fostering a space where the boundaries between performer and audience, professional and amateur, are blurred, the Scratch Orchestra provides a practical illustration of how improvisation can be a critical tool in realizing posthumanist aims, encouraging a rethinking of relationships in the production of art and knowledge.

Map of Sonic Creativity for Reflecting on the Sound Art Practice

The Map of Sonic Creativity is a conceptual framework designed to explore and understand the intricate processes involved in sound art practice (Knight-Hill & Margetson, 2023). Developed from the experiences and insights of practitioners, the map categorizes the creative processes into three main components: Principles, Approaches, and Techniques. Principles are defined as foundational ideas that inform a core philosophy of making. Approaches are aesthetic strategies deployed to articulate sound and evoke effect," and Techniques involve "material practices through which ideas and approaches can be articulated in sound." This map serves as a dynamic constellation of ideas, offering practitioners a flexible guide rather than a rigid set of instructions, enabling them to navigate and reflect upon their own creative pathways (Knight-Hill & Margetson, 2023).

The framework is visualized in a graphical form with concentric circles and colour codes, illustrating the interrelationships between different components. The map encourages practitioners to use it as a tool for thought and reflection at any stage of the creative process, whether for generating ideas, analyzing completed works, or stimulating collaborative discussions. By presenting a range of possibilities and avoiding a fixed model, the map supports a plurality of perspectives and fosters dialogue, allowing practitioners to develop their own unique approaches to sound art. The authors' approach for offering new ways to the artists' to orientate themselves within the rich complexity of creativity is particularly valuable for uncovering new opportunities and avoiding conventional constraints, ultimately enriching the creative landscape of sonic practices.

3. METHODOLOGY

Conceptual Framework and Methodological Approach

Engaging with the speculative framework of *The Ones Who Became The Ocean*, my research adopts a practice-based methodology that integrates electroacoustic sound art with hydrofeminist theory. Realized through iterative and performative approaches, this project leverages the improvisational manipulation of water sounds to craft narrative spaces that challenge and expand ecological and philosophical engagements. The fluidity of this methodology embodies the interconnectivity central to hydrofeminist thought, allowing for a dynamic interplay between theoretical constructs and the tangible practices of sound creation.

Artistic Processes and Reflexive Techniques

Central to this methodology is the improvisational creation and performance of sound art, where each session is approached as an exploratory dialogue between sound and hydrofeminist principles. The use of electroacoustic techniques, including hydrophone recordings and modular synthesis, allows for the detailed articulation of water's sonic properties, thus foregrounding the fluid dynamics that echo hydrofeminist concerns. The spontaneous nature of these performances is critical, as it mirrors the unpredictable and interconnected flows of water itself, thereby enriching the theoretical underpinnings with each sonic encounter.

A reflexive analysis of a practice of art, aims to uncover the frameworks of tacit, embodied knowledge that underpins my practice which might otherwise remain unnoticed. Through writing about, evaluating, analysing, and reflecting upon my creative sonic practice, I forge new connections and insights into alternative ways of making electroacoustic sound art performances.

Documentation and Reflective Analysis

Given the improvisational nature of the performances, documentation began partway through the research project and includes selected audio recordings and performance videos. Reflective practice is integral, with reflections recorded after each performance to capture insights and developments. The Map of Sonic Creativity by Knight-Hill and Margetson (2023) serves as a reflective scaffold, enabling a diffractive analysis of how the creative outputs intersect and resonate with hydrofeminist themes.

Ethical Considerations and Relational Ethics

Adhering to Barad's concept of intra-action, this research recognizes that the practice and the artist are inseparably interwoven, establishing an ethical framework that extends beyond human subjects to include more-than-human entities. This perspective compels an ethical engagement that respects all agents—human, water, and technological—as active participants in the research network. By embracing this interconnectedness, the study strives to responsibly manage the environmental impacts of artistic practices, ensuring that the collection and manipulation of sound materials are conducted with a commitment to sustainability and respect for water's agency.

Furthermore, this project demands rigorous transparency in documenting and reflecting upon the researcher's influence on the research outcomes. This methodological reflexivity enhances the ethical integrity of the study, fostering a deeper understanding and representation of the dynamic interplay between the researcher's experiences and the wider ecological and social interactions. This approach not only adheres to traditional ethical standards but actively expands them to engage with the complexities of a research environment that is deeply embedded in both human and more-than-human worlds.

4. FINDINGS

For the sake of this practice-based research, a total of six performances are introduced with a variety of available documentation from audio visual recordings to photography or notes as the outcomes. These performances are selected due to their significance in iterative design and the evolution of the practice.

Selected Performances

1. First Improv Session in the Exhibition "Experience 5 Senses" (2021)

The initial performance was part of the "Experience 5 Senses" exhibition opening in 2021, where an installation involving hydrophones (waterproof contact microphones) was adapted into a live improvisational performance as part of a collaborative musical session.

- **Setup:** The setup consisted of a large plastic square tank, a glass, hydrophones, and direct manual interaction with water. The hydrophones, placed in the tank, were connected directly to a mixer without effects.

- **Technical Observations:** Challenges emerged in maintaining sound consistency while pouring water, as varying submersion depths impacted sound quality. Excessive submersion led to muffled sounds, while the limited tank capacity required periodic refilling.
- **Theoretical Implications:** This improvisational performance illustrated principles of hydrofeminism, such as fluidity and interconnectedness, aligning with the philosophy's focus on relationality and spontaneity in practice. Exploring the acoustic properties of water with hydrophones provided insights into the potential of water as both a sound source and conceptual medium.

Audiovisual documentation is available as a reference for this performance. The audio-visual documentation can be found as a downloadable link.¹

2. "Congeal me Not", Activation on Natalia Janula's Installation (2021)

Figure 1

Photograph taken in the Congeal me Not Performance. Source: Author



This collaborative performance, shown in Figure 1, involved activating artist Natalia Janula's installation, which explores object-oriented ontologies, queer and interspecies bodies, and the natural world within technological contexts. The performance featured modular synth composers, a dancer, a spoken-word artist, and the electroacoustic manipulation of water.

¹ Source: Author, First video taken from the Congeal Me Not Performance, filmed in 2021. <https://drive.google.com/file/d/1ayu4wPresBd87-wXMcy-nsxhNgexQx2c/view?usp=sharing>

There are two video excerpts from the performance available as the documentation of this performance.^{2,3}

- **Setup:** A smaller round bowl with a side hole was placed inside a larger bowl, allowing water to drain into the larger bowl to maintain a stable water level. Electroacoustic effects, including reverb and delay, were applied to the hydrophone output.
- **Technical Observations:** The setup facilitated control over the water instrument, and the use of finger-tapping techniques enabled sound production without altering the water level. The refined hydrophone setup contributed to a structured and controlled sonic performance.
- **Theoretical Implications:** The performance environment, including Janula's sculptures and specific costume choices, contributed to a speculative aesthetic that resonated with the overarching transmedia storytelling project, *The Ones Who Became The Ocean*. The iterative approach to the water instrument expanded its performative capacity, situating it within a broader immersive context. Electroacoustic effects provided additional layers of sonic depth, marking an introduction to modular synthesis for future explorations.

3. "Weaving Wet Worlds" An Immersive Sound Performance in collaboration with Zhao Jiajing, 2022

Figure 2

Photograph taken in the Weaving Wet World Performance. Source: Author



"Weaving Wet Worlds", shown in Figure 2, is a collaborative performance with interdisciplinary artist Zhao Jiajing, held at IKLECTIK art venue. This performance combined modular synthesis, live water sounds, and a spoken-word composition, exploring themes of oceanic interconnectedness in a spatial sound setting.

² Source: Author, First video taken from the *Congeval Me Not Performance*, filmed in 2021. https://drive.google.com/file/d/1ahKKzbN17UyPbdNhROMmGxcHq7n_jr4z/view?usp=sharing

³ Source: Author, Second video taken from the *Congeval Me Not Performance*, filmed in 2021. https://drive.google.com/file/d/10F6AAUM1ry7G_NiU9hry_w-4YxJBd_53/view?usp=sharing

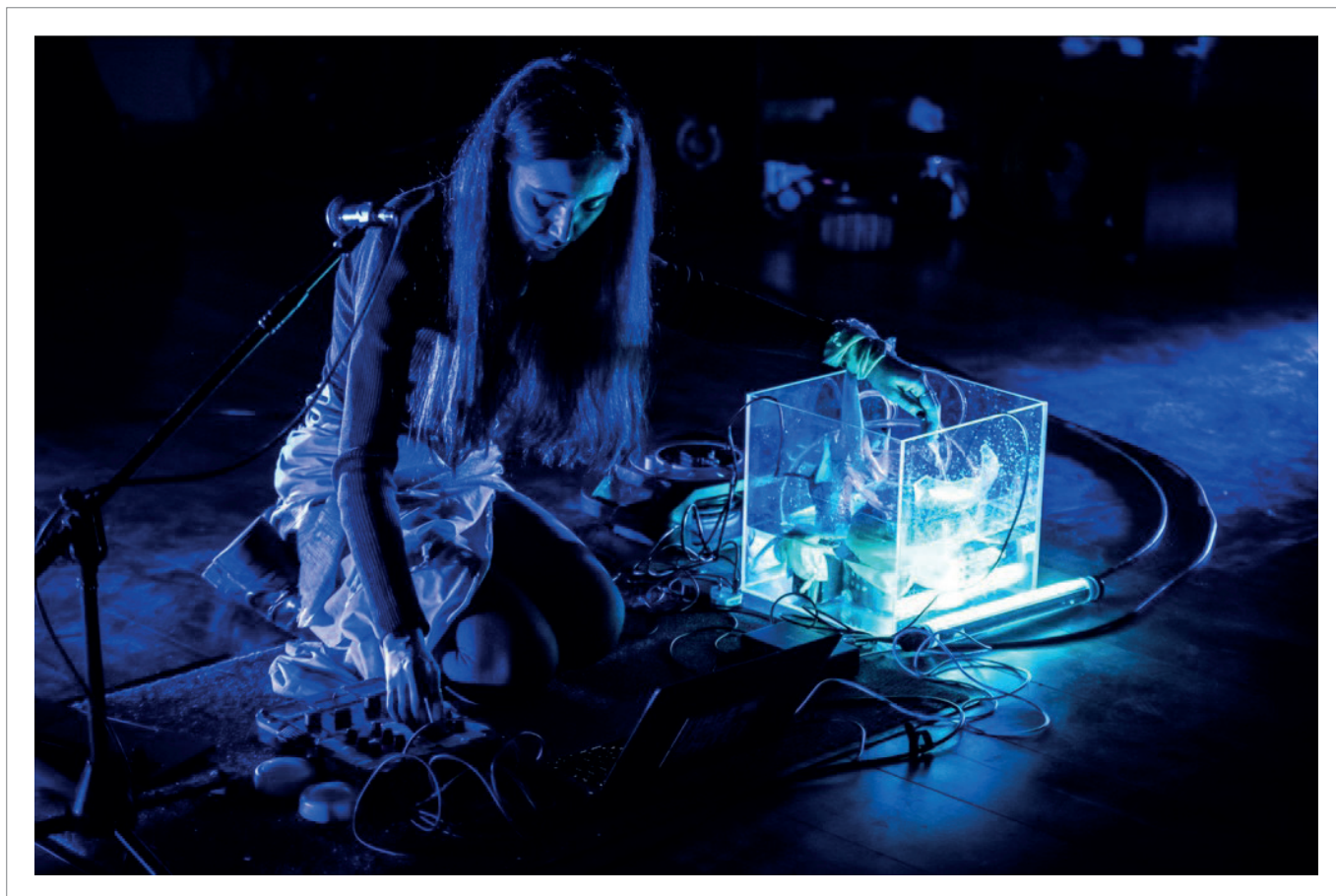
A demo video can be watched as the documentation of this performance⁴

- **Set Up:** Jiajing's synthesiser set up and my electroacoustic set up were both connected to the main mixer and been translated into 360 sonic environment that is ever changing direction throughout the performance.
- **Technical Observations:** The performance introduced an aquarium pump and silicon tubes, allowing for controlled water levels and horizontal pouring distance. This addition enabled more precise technical adjustments in the sound produced by water. Blue and green lighting created an oceanic, ritualistic atmosphere, which aligned with the thematic focus. Costume elements, including latex fabrics previously used in related works, reinforced a cohesive aesthetic consistent with ongoing transmedia projects.
- **Theoretical Implications:** Spoken-word recordings, based on hydrofeminist writings by Astrida Neimanis, provided a philosophical foundation and balanced the abstract sonic environment with conceptual context. The interplay between live and recorded ocean sounds introduced temporal layering, offering insights into the relationship between real-time and pre-recorded elements within immersive soundscapes.

4. "Children of the Ocean", First Solo Performance for The Fundraiser for Turkey Event in IKLECTIK, 2023

Figure 3

Photograph taken in the IKLECTIK Fundraiser Performance. Source: Author



This solo performance was presented at IKLECTIK as a fundraiser for earthquake relief in Turkey, incorporating water sounds, Turkish traditional vocal ululation techniques, and elements of ritualistic expression, shown in Figure 3.

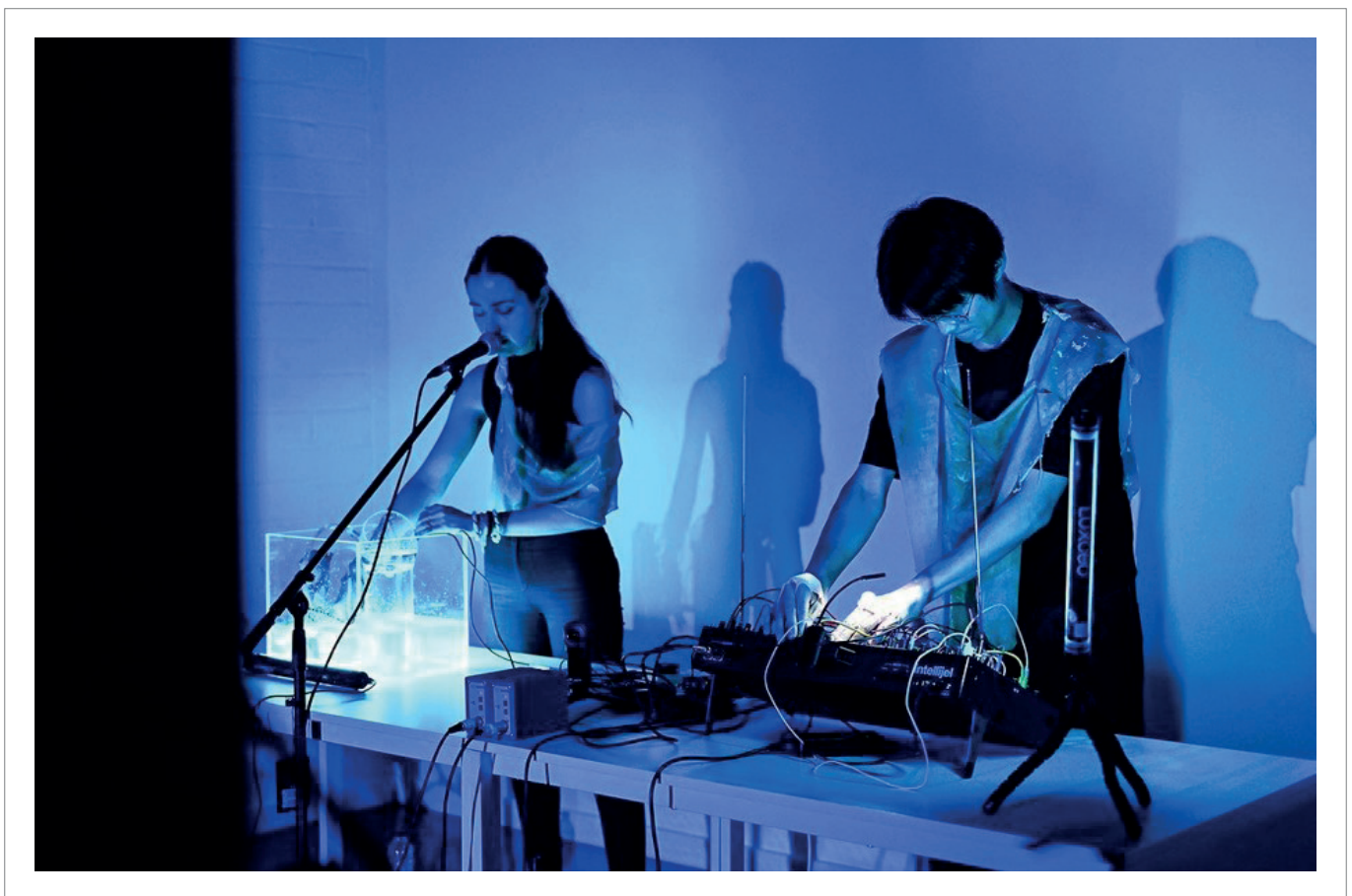
⁴ Source: Author, Video taken from the Weaving Wet Worlds Performance, filmed in 2021. <https://vimeo.com/708146133>

- **Set-Up:** VCV Rack, a digital Eurorack simulator, was used to integrate hydrophones and a microphone via an audio drive linked to the software on a laptop. A MIDI controller facilitated real-time effect adjustments to accommodate the challenge of wet hands.
- **Technical Observations:** Live vocal techniques, including Turkish folk-inspired ululations with reverb and delay, were introduced, adding a new dimension to the soundscape. Verbal commands directed at the audience enhanced the ritualistic quality of the performance.
- **Theoretical Implications:** The generative sound system functioned as a supportive layer within the solo performance, contributing a co-creative element that supported the improvisational structure. Audience engagement with rhythmic components underscored the role of sound in facilitating collective experiences in ritual-like settings.

6. "Summoning", Collaborative Performance with Zhao Jiajing, 2023

Figure 4

Photograph taken in the IKLECTIK Fundraiser Performance. Source:Author



"Summoning" was a collaborative performance with Zhao Jiajing, exploring both literal and metaphorical interpretations of the ocean, shown in Figure 4. Drawing on cultural and spiritual references, the performance aimed to blur boundaries and evoke ritualistic elements inspired by Eurasian, Hindu, and Sufi traditions. A sound recording of this performance is available as the documentation of this performance.⁵

- **Set-Up:** The setup included hydrophones and a vocal mic connected to reverb and delay controlled by me, while Jiajing managed modular synthesizers, a theremin, and heartbeat sensors.

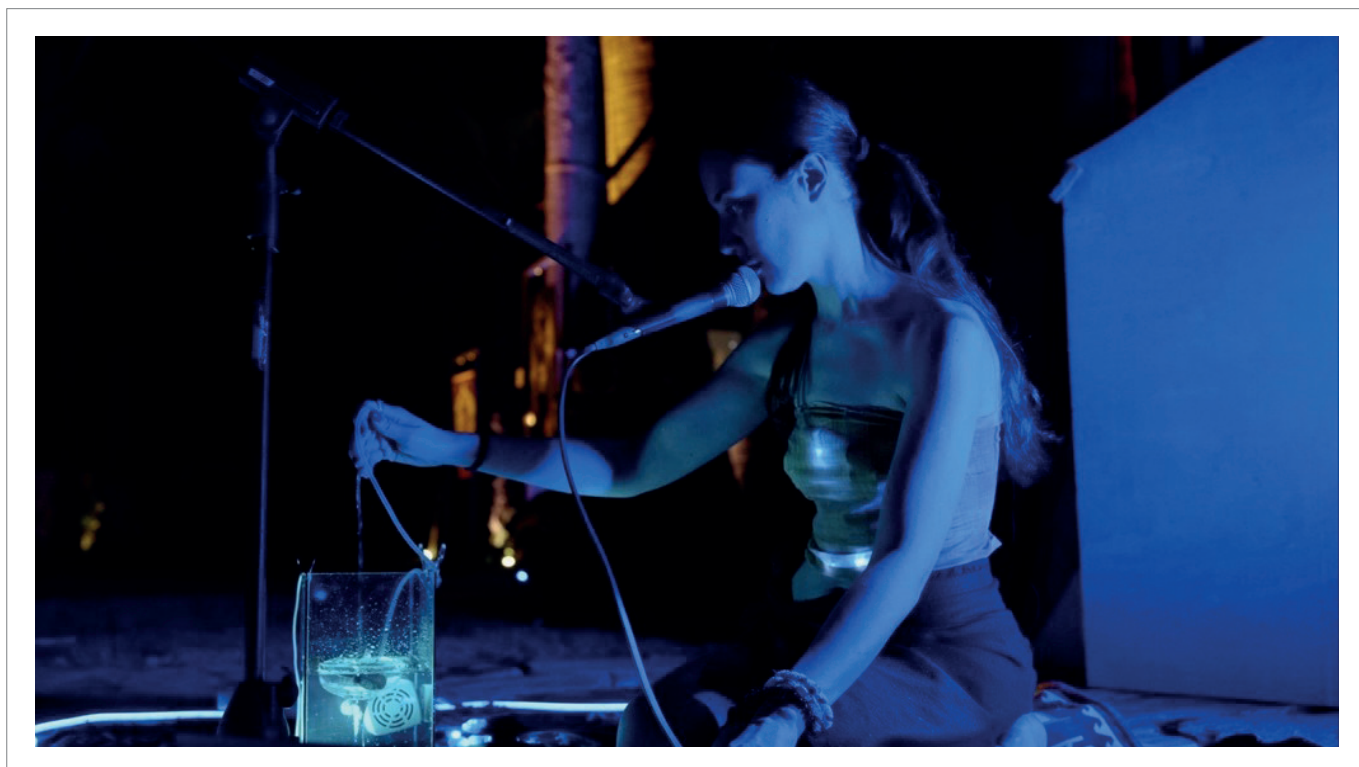
⁵ Source: Author, Sound Recording from the Summoning Performance, filmed in 2023. https://soundcloud.com/buket-yenido-an/summoning-experimental-ambient-buket-yenidogan-w-jiajing-zhao?si=fcf87445c60642f99dcb2a7af5445f8e&utm_source=clipboard&utm_medium=text&utm_campaign=social_sharing

- **Technical Observations:** The Eurasian folk ululation technique "zilgit" was introduced, creating high-pitched sounds that were further manipulated through a theremin, producing unique sonic textures. Improvised spoken-word elements were looped, creating a haunting vocal collage.
- **Theoretical Implications:** The collaborative approach facilitated a dialogue between metaphorical and literal perspectives on the ocean, with spoken-word elements adding a narrative layer. This integration of speculative mythology and hydrofeminism highlighted the ocean as both a source of life and an expansive metaphor for interconnectedness.

7. "Children of the Ocean", Second Solo Performance, 2024

Figure 5

Photograph taken in the Children of the Ocean Performance. Source: Author



"Children of the Ocean" was performed at Bonjuk Art Week on a beach setting, where the natural environment accentuated the immersive and ritualistic aspects of the performance, shown in Figure 5. This setting deepened the exploration of speculative esoterism and hydrofeminist themes.

A sound recording of the performance is available as the documentation.⁶

- **Set up:** This performance combined previous technical approaches, with analogue and digital elements, including an aquarium setup with a pump, silicon tubes, hydrophones, and live modular synthesis through VCV Rack. An extra contact mic was placed under the sand, that took sounds from the performer's hitting to the ground with their fist during the performance.
- **Technical Observations:** BPM-controlled synthesizers facilitated the inclusion of traditional Turkish rhythms, specifically the Curcuna rhythm. Observing audience engagement with rhythm highlighted the role of sound in fostering a shared, embodied experience in performance, while hitting to the ground added an ancient and shamanic influence.

⁶ Source: Author, Sound Recording from the Summoning Performance, filmed in 2023. https://soundcloud.com/buket-yenido-an/children-of-the-ocean?si=52f839e6c12e499783cde8c0a9a6cdd6&utm_source=clipboard&utm_medium=text&utm_campaign=social_sharing

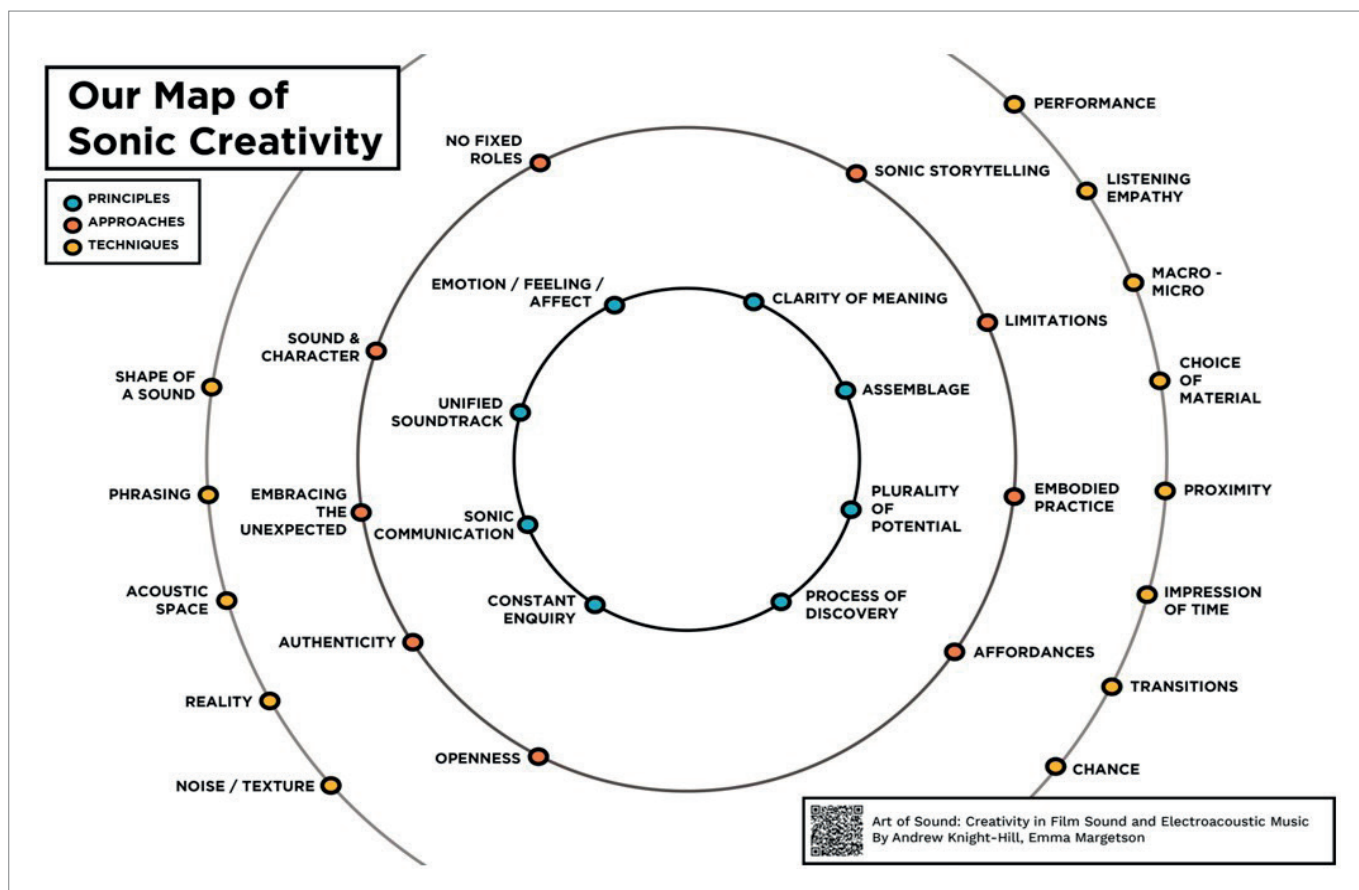
- **Theoretical Implications:** The inclusion of rhythm, aligned with hydrofeminist principles of kinship and embodied connection, reinforced the ritualistic and speculative themes. The natural ocean setting served as an immersive backdrop, aligning the performance with environmental and philosophical concepts of fluid interconnectedness.

The documented performances are the outcomes of this research themselves, they collectively illustrate a progressive refinement of the hydrophone as an instrument and a deeper engagement with hydrofeminist theory. Each performance contributed to the iterative design process, revealing new technical methods and theoretical insights. Through both collaborative and solo experiments, a distinctive sonic language emerged, engaging with concepts of interconnectedness, kinship, and speculative mythology within a hydrofeminist framework. This body of work exemplifies a cumulative knowledge-building approach in practice-based research, extending discourse on embodied, nonhuman interactions in contemporary performance art.

4. DISCUSSION, CONCLUSION AND RECOMMENDATIONS

Figure 6

Andrew Knight-Hill and Emma Margetson, "Map of Sonic Creativity" Accessed 2024. <https://s3-eu-west-1.amazonaws.com/s3-euw1-ap-pe-ws4-cws-documents.ri-prod/9780367755881/Map%20of%20Sonic%20Creativity.png>

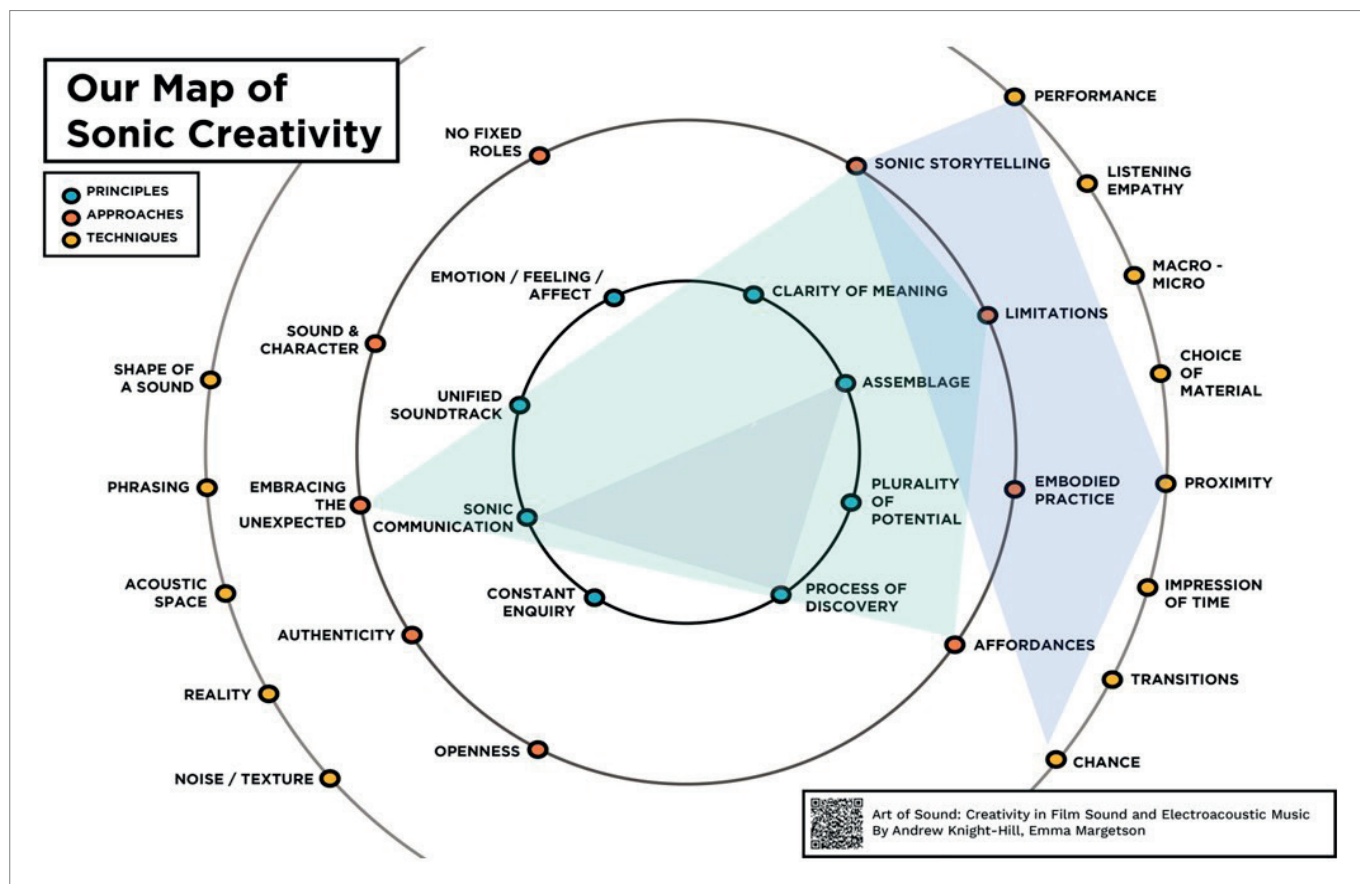


Drawing on the Map of Sonic Creativity

The Map of Sonic Creativity by Knight-Hill and Margetson (2023) shown in Figure 6, provided a structured foundation for selecting and organizing principles, approaches, and techniques that align closely with the practice. Specific elements from the map were chosen to resonate with core aspects of the work, particularly in relation to hydrofeminist theory. These selected elements have been used as lenses through which past performances and current practices were examined and reflected upon. Building on the original Map of Sonic Creativity shown in Figure 6, a map that shows the layers of my practice is built, shown in Figure 7. Using this adapted map, I analyzed my work through the lens of hydrofeminist theory, continuously reflecting on past performances and evolving practices across each selected principle, approach, and technique.

Figure 7

Diagram drew on the Map of Sonic Creativity by Knight-Hill and Margetson, Source: Author



Layer of Principles

- **Assemblage:** This principle draws on Deleuze and Guattari's assemblage theory situated within new materialism, highlighting the fluid and dynamic ensemble of human and nonhuman elements in creative practice. Hydrofeminism shares the view of fluidity both as a metaphor and materiality. In my performances, the assemblage consists of technology and tools, collaborators, ambient noises, and the water itself. These combinations change in every performance iteration avoiding my practice becoming a rigid structure bounded by rules and preferences, emphasizing the porous and flexible consideration of creative agency. In addition, the incorporation of a generative sound system within the performances in the later iterations has enhanced the versatility and creative agency of the assemblage. I also physically integrate with my experimental water instrument through silicon tubes, being a bridge where water flows through. This physical assemblage informs the take of hydrofeminism on bodies as temporary carriages of water. Conceptually, this also means that I maintain a direct connection with water during the performance, and this translates through sound to the audience.
- **Process of Discovery:** As an experimental sound artist with limited studio time, my craft evolves primarily through live performances. Discovery is integral to my practice. For instance, while performing at Iklectik in London, I experimented with various vocal techniques and delay effects, uncovering an old cassette tape-like quality that I incorporated into the performance.
- **Sonic Communication:** Central to my practice, this principle emphasizes allowing sounds to convey their inherent meanings. In my performances, water dripping communicates its ancient significance. I aim to give agency and voice to the water itself, recognizing that listening to water sounds is ancestral. Instead of decoding the messages, I forward them directly, allowing the water to communicate its own narrative. Respecting the material agency is rooted in both new materialism and hydrofeminism, and also emphasized in critical posthumanism. The sonic communication can be taken as the agency of water on my performance.

Layer of Approaches

- **Affordances and Limitations:** These play a significant role in my work. The ritual context of my sound art practice imposes limitations, such as the necessity of using water sounds. This constraint is balanced by the affordances it brings. For example, my dominant hand is often wet, restricting its use for technical tasks, requiring careful planning for tasks I can perform with my non-dominant hand. This interplay between affordances and limitations shapes my creative process.
- **Sonic Storytelling:** My compositions serve as a medium to narrate the mythological stories underlying the rituals. This approach heavily relies on vocals and water sounds, timed to simulate experiences like diving into water or the first breath of a newborn. This storytelling method aligns with the principle of Sonic Communication, using sound to evoke and convey the speculative reality's narrative.
- **Embracing the Unexpected:** The improvisational nature of my practice mandates this approach. As theorized by Cardew, experimental music embraces unforeseen outcomes, which are seen as acts with unknown results rather than successes or failures. This aligns with the improvisational aspect of my practice, allowing spontaneity and serendipity to guide the creative process.

Layer of Techniques

- **Performance:** My entire practice is performance-based, with all tracks enacted as rituals before an audience. I avoid pre-designing or composing, instead making creative decisions during the performance. This approach channels the speculative spirituality of my worldbuilding, ensuring that all sounds are contextually meaningful.
- **Proximity, Acoustic Space, and Chance:** These techniques are integral to my practice. Group improvisations inherently involve chance, incorporating all new sounds. Emphasizing acoustic space, I creatively use reverb and delay effects to enhance the spatial dimension of my work. Interaction with hydrophones involves proximity, using hand gestures to manipulate water sounds, creating a dynamic and responsive sonic environment.

Opportunity for Extending the Map of Sonic Creativity

In engaging with the Map of Sonic Creativity through a hydrofeminist lens, I recognized the need for a deeper philosophical foundation beneath the principles. This foundational layer, influenced by posthuman phenomenology and an ontological perspective on being, could add depth and breadth to the existing framework, suggesting that each artist might adapt and interpret these foundational elements uniquely to enrich their creative practice. This layer would act as a philosophical foundation, reflecting the artist's worldview. By embedding this philosophical underpinning into the Map of Sonic Creativity, would not only extend its theoretical reach but also align it more closely with the nuanced and transformative practices of artists who navigate and reshape worlds through their creative endeavours.

Discussion on the Connection of the Practice and Theory

The performances conceptualize the role of a "shaman" within a speculative reality, where the performer leads a ritual that engages both the audience and the self in a collective experience of introspection. This shamanistic approach aligns with hydrofeminist perspectives and is intended to create an immersive, contemplative journey that connects participants to water both symbolically and materially. Hydrofeminism's principles, informed the methodological choice to employ hydrophones, or underwater contact microphones, to capture and manipulate the nuanced sounds of water.

The use of electroacoustic techniques, such as reverb and delay, serves to evoke an ancient, primal connection with natural environments—echoing the resonance of dripping water in cavernous spaces. This methodological approach blends ancient sensory motifs with contemporary technological interventions, situating the work within a speculative worldbuilding project that seeks to foster a sensory and intellectual engagement with hydrofeminist principles.

5. CONCLUSIONS

In my ongoing research project *The Ones Who Became The Ocean* hydrofeminist principles interlace with the resonant strands of electroacoustic sound art. The project reimagines our interactions with the ocean, weaving a hydrofeminist perspective into sound art performances and speculative worldbuilding, thereby addressing urgent ecological discourses of our time.

The research blends metaphysical elements of myth with contemporary performance art to craft new mythologies and speculative realities. It positions the performances as rituals that engage with speculative concepts, creating a space where hydrofeminist worldbuilding and electroacoustic sound art performance intersect.

By proposing to extend the Map of Sonic Creativity to include a foundational philosophical layer rooted in posthuman phenomenology and ontology, this research responds to the journal's prompt while enriching the map, fostering deeper creative engagement within sound art practices. My goal is to forge a narrative that resonates on ecological and philosophical levels, making tangible the ethereal connections between humanity and water through sound.

Future recommendations based on this study encourage a broader application of the enhanced map across interdisciplinary contexts, inviting sound artists to explore and articulate their unique ecological narratives. These explorations could evolve into practices that merge art, science, and activism, positioning sound art as a pivotal tool for ecological engagement and transformation.

Ultimately, this research contributes to scholarly discussions on sound art and hydrofeminism and acts as a call to artists to reflect on their role in a rapidly changing world. It highlights the potential of sound art to move beyond aesthetic expression, emerging as a dynamic agent in shaping our collective ecological consciousness and envisioning new futures.

Acknowledgements

Thank you to Dr. Kevin Walker, my PhD advisor at Coventry University's Postdigital Cultures Research Centre, and Dr. Bianca Wright, my colleague, for their invaluable guidance and support.

Ethical approval

According to the TR Index ethical principles flow chart, no data collection process requiring ethics committee approval was conducted in the study. Therefore, it was decided that this research is a study that does not require ethics committee approval.

Author contribution

Study conception and design: BY; data collection: BY; analysis and interpretation of results: BY; draft manuscript preparation: BY. All authors reviewed the results and approved the final version of the article.

Source of funding

The authors declare the study received no funding.

Conflict of interest

The authors declare that there is no conflict of interest.

Etik kurul onayı

TR Dizin etik ilkeleri akış şemasına göre çalışmada etik kurul onayını gerektiren herhangi bir veri toplama işlemi yapılmamıştır. Yöntemi itibarıyla bu araştırmanın etik kurul onayı zorunlu olmayan çalışma olduğuna karar verilmiştir.

Yazarlık katkısı

Çalışmanın tasarımı ve konsepti: BY; verilerin toplanması: BY; sonuçların analizi ve yorumlanması: BY; çalışmanın yazımı: BY. Tüm yazarlar sonuçları gözden geçirmiş ve makalenin son halini onaylamıştır.

Finansman kaynağı

Yazarlar, çalışmanın herhangi bir finansman almadığını beyan etmektedir.

Çıkar çatışması

Yazarlar, herhangi bir çıkar çatışması olmadığını beyan etmektedir.

REFERENCES

- Barad, K. (2007). *Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning*. Duke University Press.
- Bickley, T. (2014). The legacy of Cornelius Cardew. *Journal - Association for Recorded Sound Collections*, 45(2), 207. <https://www.questia.com/library/journal/1G1-390561979/the-legacy-of-cornelius-cardew>
- Braidotti, R. (2013). *The posthuman*. John Wiley & Sons.
- Braidotti, R. (2017). Posthuman critical theory. *Journal of Posthuman Studies*, 1(1), 9-25. <https://doi.org/10.5325/jpoststud.1.1.0009>
- Braidotti, R. (2018). A theoretical framework for the critical posthumanities. *Theory Culture & Society*, 36(6), 31-61. <https://doi.org/10.1177/0263276418771486>
- Braidotti, R., & Hlavajova, M. (2018). *Posthuman glossary*. Bloomsbury Publishing.
- Campagna, F. (2018). *Technic and magic: The reconstruction of reality*. Bloomsbury Publishing.
- Coole, D., & Frost, S. (2010). *New materialisms: Ontology, agency, and politics*. Duke University Press.
- Dolphijn, R., & Van Der Tuin, I. (2012). *New materialism: Interviews & cartographies*. Open Humanities Press.
- Ferrando, F. (2019). *Philosophical posthumanism*. Bloomsbury Academic. <https://doi.org/10.5040/9781350059511>
- Haraway, D. J. (2016). *Staying with the trouble*. <https://doi.org/10.1215/9780822373780>
- Knight-Hill, A., & Margetson, E. (2023). *Art of sound: Creativity in film sound and electroacoustic music*. Focal Press.
- Neimanis, A. (2012). Hydrofeminism: Or, on becoming a body of water. In H. Gunkel, C. Nigianni, & F. Söderbäck (Eds.), *Undutiful daughters: New directions in feminist thought and practice* (pp. 85-99). Palgrave Macmillan.
- Neimanis, A. (2017). *Bodies of water*. Bloomsbury Publishing Plc. <https://doi.org/10.5040/9781474275415>
- Schechner, R. (2013). *Performance studies: An introduction*. Routledge.
- Yenidoğan, B. (2022). The ones who became the ocean. <https://2022.rca.ac.uk/students/buket-yenidogan/>