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Exploring Consciousness Through *Ritual Media*



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Abstract of Doctoral Dissertation of Academic Year 2025

Exploring Consciousness Through *Ritual Media*

Category: Design

Summary

This doctoral dissertation proposes *ritual media* as a new concept and design framework for exploring consciousness through immersive and interactive art. The research emerges from a transdisciplinary context where art, science, technology, spirituality, and embodied practices intersect, aiming to respond to the limitations of conventional scientific methods in addressing the subjective, elusive, and multifaceted nature of consciousness.

Ritual media refers to artistic experiences designed to invite a ritual disposition, foster embodied interaction, and induce altered states of consciousness. These experiences are not simply artworks or therapeutic tools—they are iterative, symbolic, and immersive processes that bridge subjective experience and collective meaning-making. The framework integrates principles from ritual studies, phenomenology, psychoanalysis, Buddhist philosophy, somaesthetics, and technoetic art, and serves as both a manifesto and a methodological guide for creators interested in designing media-based rituals of consciousness exploration.

The thesis explores three main research questions:

1. How can *ritual media* be defined and applied to create experiences that shift consciousness and produce insight?
2. What do participants report and reflect upon during ritual media engagements, and how does this feedback contribute to a broader understanding of consciousness and transcendence?
3. How do artists and spiritual or cultural communities interpret and integrate ritual media, and what are the implications for the future of art and design?

These questions are addressed through three interconnected tracks: theoretical conceptualisation, the creation of two interactive artworks (*Ethereal Phenomena* and *Convergences of the Spirit*), and the evaluation of user experiences. The installations function as proofs of concept for ritual media, integrating meditation, breathing biofeedback, symbolic aesthetics, and gamified interaction to create meditative and transformative experiences. In addition to user studies, the research includes an autoethnographic intervention at the Shingon Buddhist temple Jōrakuji, and an artist interview with Julian Dupont, whose work resonates with the framework.

The study introduces original design strategies and novel methods of evaluating subjective experience. It contributes to knowledge in media art, design research, and consciousness studies by offering an adaptable framework for creators, communities, and researchers seeking to use art as a space for inner exploration. Ultimately, *ritual media* is proposed not only as a category of artistic work, but as a transformative methodology capable of producing experiential knowledge, fostering self-awareness, and reconnecting individuals with embodied, symbolic, and transcendent dimensions of life.

Keywords:

consciousness, interactive art, breathing biofeedback, media art, meditation, *ritual media*

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Contents

| | |
|-----------------------------------------------------------------------------|----------|
| Acknowledgements | x |
| 1 Introduction | 1 |
| 1.1. Motivation | 1 |
| 1.2. Purpose | 1 |
| 1.3. Characteristics of <i>Ritual Media</i> | 2 |
| 1.4. Research Questions | 3 |
| 1.5. Rhizomatic Research Structure | 4 |
| 1.6. Expected Contributions | 5 |
| 1.7. Writing Style | 6 |
| Notes | 7 |
| 2 Consciousness and Rituals: Literature Review | 8 |
| 2.1. What is Consciousness? | 8 |
| 2.2. Science: Measuring Consciousness | 10 |
| 2.3. Phenomenology: Philosophical Views And Embodied Perception | 12 |
| 2.4. Psychoanalysis: Unconscious And Collective Realms | 14 |
| 2.5. Yogācāra: Everything Is Consciousness | 16 |
| 2.6. Levels of Consciousness | 17 |
| 2.7. Higher Levels of Consciousness | 19 |
| 2.8. Altered States of Consciousness | 19 |
| 2.9. Psychedelics | 22 |
| 2.9.1 Focus on Introspection and Personal Experience | 22 |
| 2.9.2 From Personal Experience to Cultural and Ecological Context | 23 |
| 2.9.3 Comprehensive Evolutionary Theories On Consciousness | 25 |
| 2.9.4 Recovering Indigenous knowledge | 26 |
| 2.10. Overview of the Spectrum of Consciousness | 27 |

| | |
|---------------------------------------------------------------------------------------------------|-----------|
| 2.11. Rituals, Altered States of Consciousness, and Art | 28 |
| 2.11.1 Altered States of Consciousness and Rituals | 28 |
| 2.11.2 Characteristics of Rituals: Common Structures and Variations | 30 |
| 2.11.3 The Intersections of Art and Ritual | 32 |
| 2.12. Design and Research Methods | 35 |
| 2.12.1 Design Practice As Research | 35 |
| 2.12.2 Speculative Design | 36 |
| 2.12.3 Showroom | 37 |
| 2.13. Theories and Transdisciplinary Fields | 38 |
| 2.13.1 Technoetics | 38 |
| 2.13.2 Somaesthetics | 38 |
| 2.13.3 <i>Transcendalia Art</i> | 40 |
| 2.14. Wellness Elements In <i>Ethereal Phenomena And Convergences Of The Spirit</i> | 41 |
| 2.14.1 Breathing Techniques | 41 |
| 2.14.2 Meditation | 41 |
| 2.14.3 Breathing Biofeedback | 42 |
| 2.15. Related Artworks | 43 |
| 2.16. Novel Contributions | 46 |
| 3 <i>Ritual Media: Concept and Methods</i> | 49 |
| 3.1. Universal Characteristics of Rituals | 49 |
| 3.2. <i>Ritual Media</i> Manifesto | 52 |
| 3.3. <i>Ritual Media</i> Framework | 54 |
| 3.4. Distinctions: <i>Ritual Media</i> , Technoetics, and Somaesthetics | 62 |
| Notes | 63 |
| 4 Artworks | 64 |
| 4.1. Design of the Artworks/Proof of Concept | 64 |
| 4.1.1 From Mind and Body Wellness Towards Self-Transcendence | 64 |
| 4.1.2 Meditation and Art | 65 |
| 4.1.3 From Buddhist Traditional Knowledge to Embodied and Gamified Interactions | 66 |
| 4.1.4 Experimental Meditations | 67 |

| | | |
|----------|----------------------------------------------------------------------------------------------------------|------------|
| 4.2. | <i>Ethereal Phenomena</i> | 68 |
| 4.2.1 | Abdominal Breathing and Yantra Yoga | 69 |
| 4.2.2 | Media | 70 |
| 4.2.3 | Symbolism | 70 |
| 4.2.4 | Interaction | 72 |
| 4.3. | <i>Convergences of the Spirit</i> | 73 |
| 4.3.1 | Coherent Breathing | 74 |
| 4.3.2 | Media | 75 |
| 4.3.3 | Symbolism | 76 |
| 4.3.4 | Interaction | 79 |
| 5 | User Studies | 81 |
| 5.1. | User Study 1: <i>Ethereal Phenomena</i> as a Meditation Tool | 81 |
| 5.1.1 | Wellness Evaluation | 82 |
| 5.1.2 | Interaction and Media Design Evaluation | 83 |
| 5.1.3 | Consciousness State Evaluation | 84 |
| 5.1.4 | User Study Design Evaluation | 85 |
| 5.2. | User Study 2: Transcendence and Altered States of Consciousness | 85 |
| 5.2.1 | User Study Design | 87 |
| 5.2.2 | Setup and Elements | 89 |
| 5.2.3 | Session Overview and Workflow | 90 |
| 5.2.4 | Participants' Information and Meditation Experience | 91 |
| 5.2.5 | Wellbeing Aspects | 92 |
| 5.2.6 | Questionnaire Breakdown | 95 |
| 5.2.7 | Analysis of the Engagers' Profiles: Integration of Questionnaires, Drawings, and Conversations | 99 |
| 6 | Autoethnography at Jyōrakuji | 120 |
| 6.1. | Methodology | 122 |
| 6.2. | Fire Ceremony and Development of the Installation Fudō Myōō | 124 |
| 6.3. | Art Installation Fudō Myōō Experience | 130 |
| 6.3.1 | Cultural and Spatial Situatedness | 132 |
| 6.4. | Conclusions | 132 |
| | Notes | 134 |

| | | |
|----------|---------------------------------------------------------------------------------------|------------|
| 7 | Artist Interview | 136 |
| 7.1. | Introduction | 136 |
| 7.2. | First Interview: Julian Dupont’s Artworks and Vision | 137 |
| 7.2.1 | Dupont’s Work and <i>Ritual Media</i> | 140 |
| 7.2.2 | Insights on Consciousness from Julian Dupont’s Artworks | 141 |
| 7.3. | Second Interview: Discussing <i>Ritual Media</i> | 143 |
| 7.3.1 | Ritual Disposition and Intention | 143 |
| 7.3.2 | Integration of Technologies and Media to Dissolve Subject-Object Separation | 144 |
| 7.3.3 | Fostering Body and Mind Connectivity | 144 |
| 7.3.4 | Inducing Altered States of Perception and Consciousness | 144 |
| 7.3.5 | Symbolic and Direct Stimuli for an Encompassing Experience | 145 |
| 7.3.6 | Iterative Process, Socialisation, and Feedback Integration | 145 |
| 7.3.7 | Conclusions of the Interview | 146 |
| | Notes | 146 |
| 8 | Conclusions | 147 |
| 8.1. | Main contributions | 147 |
| 8.2. | Insights on Consciousness | 149 |
| 8.3. | Final Considerations | 151 |
| 8.3.1 | What <i>Ritual Media</i> Can Do | 151 |
| 8.3.2 | Limitations of the <i>Ritual Media</i> Framework | 152 |
| 8.3.3 | Future Directions for <i>Ritual Media</i> Research | 153 |
| 8.4. | Final Notes | 154 |
| | References | 155 |
| | Appendices | 163 |
| A. | User Study 2 | 163 |
| A.1 | Questionnaire Breakdown | 163 |
| B. | Interviews with Julian Dupont | 199 |
| B.1 | Interview 1: Discussing Dupont’s Works | 199 |
| B.2 | Interview 2: Resonances with <i>Ritual Media</i> | 203 |
| C. | Exhibitions, Conferences, and Academic Publications | 222 |

List of Figures

| | | |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| 1.1 | Research Key Concepts | 4 |
| 2.1 | <i>Dream Temple</i> by Mariko Mori (1998) | 44 |
| 2.2 | <i>Wave UFO</i> by Mariko Mori (1999-2003) | 44 |
| 45figure.65 | | |
| 2.4 | <i>Bion</i> by Adam W. Brown (2009) | 47 |
| 2.5 | <i>Ouroboros VR</i> by Ioannis Bardakos (2017) | 47 |
| 48figure.68 | | |
| 4.1 | Mandala of the Diamond Realm | 66 |
| 4.2 | <i>Ethereal Phenomena</i> : setup with engager; still frame | 69 |
| 4.3 | Plate 24. Rainbow Phenomena from the book <i>The Encyclopedia of Tibetan Symbols and Motifs</i> by Robert Beer (1999) | 71 |
| 4.4 | <i>Ethereal Phenomena</i> : stills from different stages of the experience | 72 |
| 4.5 | <i>Convergences of the Spirit</i> : projection mapping over the mask and wall; lotus-shaped heartbeat sensor, Lotus Heart; setup with engager | 74 |
| 4.6 | <i>Convergences of the Spirit</i> : three moments of the projection mapping over the mask | 75 |
| 4.7 | <i>Convergences of the Spirit</i> : animation stills | 76 |
| 4.8 | <i>Convergences of the Spirit</i> : mask-making process with projection mapping | 77 |
| 4.9 | Shaka Noh Mask | 77 |
| 4.10 | Baozhi Statue | 78 |
| 5.1 | Studio Setup for the Second User Study | 86 |
| 5.2 | Biosignal Recording Setup for <i>Ethereal Phenomena</i> | 88 |
| 5.3 | User Study Layout | 89 |

| | | |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 5.4 | Participant Answering a Questionnaire During the Second User Study | 92 |
| 5.5 | Conversation With a Participant During the Second User Study | 94 |
| 5.6 | Second User Study: a participant answering a questionnaire; a participant drawing; conversation with a participant | 94 |
| 5.7 | Affinity Diagram of Engagers' Profiles | 97 |
| 5.8 | Affinity Diagram of Engagers' Drawings | 98 |
| 6.1 | Jyōrakuji's Fire Ceremony | 121 |
| 6.2 | Music Performances During the Fire Festival at Jyōrakuji | 122 |
| 6.3 | Flyer for the Fire Festival at Jyōrakuji | 124 |
| 6.4 | Jyōrakuji's Honzon or Altar with Fudō Myōō's Images | 125 |
| 6.5 | Fudō Myōō: still frame; setup with user/performer | 126 |
| 6.6 | Jūshoku-san Walking On The Embers | 128 |
| 6.7 | Tribal Assassin's Fire Performance at the Fire Festival | 129 |
| 6.8 | Backass and Aoki (aka Perdominant) DJing at the Fire Festival . | 130 |
| 6.9 | Jyōrakuji After the Fire Ceremony | 131 |
| 7.1 | Collective Dreaming (art installation/performance/ritual) at the Museo del Banco de la República in Colombia (2023) | 138 |
| 7.2 | El Sueño del Cóndor (exhibition view including the works El Colibrí, El Lobo Blanco, El Trueno) at the Instituto de Visión New York in the USA (2023) | 139 |
| 7.3 | Potosí: The Inverse Uncanny Valleys (art installation) at the Museo del Banco de la República in Colombia (2023) | 140 |

List of Tables

Acknowledgements

Chapter 1

Introduction

1.1. Motivation

While artists have always delved deep into the realms of consciousness, the recent integration of art, technological means, and scientific knowledge in a transdisciplinary sphere has brought about the emergence of unimaginable forms of creative expression. These new artistic media offer novel approaches to understanding and expanding consciousness as well as new ways of perceiving reality and ourselves. My drive to explore consciousness through art creation comes from a search for a deeper understanding of both myself and the nature of reality, an understanding that goes beyond the rational towards a direct embodied experience. Through this search, I aim to expand the possibilities of transdisciplinary media experiences, producing new perceptual stimuli and providing insights into consciousness, transcendence, and body-mind awareness.

1.2. Purpose

The purpose of this research is to present the concept of *ritual media*, a kind of media and design framework for developing artistic experiences that produce a shift in consciousness and that allow us to understand the nature of consciousness better. This responds to the need for new methodologies that acknowledge the complexity of transdisciplinary projects at the intersection between art, science, and technology. Such projects can not only offer new forms of artwork as an outcome but also generate knowledge related to the study of consciousness from collected data and feedback from the engagers, ethnographic work, and interviews with other creators.

Transdisciplinary projects expand the possibilities of art and address the limi-

tations of science to deal with the subjective character of consciousness. Despite being a fundamental aspect of human experience, conventional scientific methods can barely grasp consciousness because it pertains to subjective experience, it is dynamic and ever-changing, and it cannot be directly measured, observed, or objectively described, thus, it inherently evades a concrete definition or objectification which makes it complex to assess. For this reason, an artistic approach can better handle the subjective quality of consciousness. Art has the freedom to explore consciousness without rigid definitions, it has the potential to navigate it without the need to explain it deterministically, allowing for a nuanced understanding (Ascott 1999a).

To fulfil this purpose, this research introduces the concept of *ritual media*, a design framework that enables the creation of artistic experiences integrating the benefits of rituals with the potential to explore consciousness. This framework is demonstrated through the development and evaluation of two interactive art installations, *Ethereal Phenomena* and *Convergences of the Spirit*, both designed to investigate the intersection of new media, ritualistic traditions, and the cultivation of altered states of consciousness

1.3. Characteristics of *Ritual Media*

Here I enlist the features that characterise *ritual media* artworks. I envision this as an art manifesto in that it can be freely interpreted and adapted, and as a design framework in that it proposes a methodology to take as guidance:

1. *Ritual media* are artistic experiences that invite an engager¹ to approach them with a ritual disposition
2. *Ritual media* integrate technologies and combine media to create immersive and interactive experiences with the aim of dissolving the separation between engagers and work, between subject and object
3. *Ritual media* foster body and mind connectivity
4. *Ritual media* attempt to produce altered states of perception and consciousness and heightened awareness

5. *Ritual media* reunite symbolic elements with direct stimuli to produce an encompassing experience
6. More than finished outcomes, *ritual media* are processes of iterative experimentation that incorporate creative evaluation methods to socialise the experience and collect feedback from the engager, producing knowledge on consciousness and expanding the scope of the artwork.

A more detailed explanation of the *ritual media* concept is given in the third chapter, *Ritual Media: Concept and Methods*.

1.4. Research Questions

I articulated three main questions that are addressed throughout the research:

1. What is *ritual media* and how can an artwork be developed to promote a ritual experience, produce knowledge on consciousness-related topics, and potentially induce an altered state of consciousness or transcendence?
2. What insights do engagers derive from *ritual media* art installations, and how does their feedback contribute to the broader discourse on consciousness, transcendence, and the efficacy of *ritual media*?
3. How do media artists and specific cultural or religious communities perceive, interpret, and potentially integrate *ritual media* into their contexts or creative practices, and what are its implications for the future of art, design, and consciousness exploration?

These questions have been formulated to bridge the intersection of art and ritual practices. The exploration of how interactive art installations and curated experiences can facilitate altered states of consciousness is not only innovative but essential. As the lines blur between our external realities and our internal states, understanding the psychological and physiological implications of such experiences is crucial. This research is further enriched by analysing the reception of *ritual media* within both the artistic community and specific cultural or religious contexts. By delving into these questions, the research seeks to chart the course for future art and design practices that seamlessly integrate consciousness exploration.

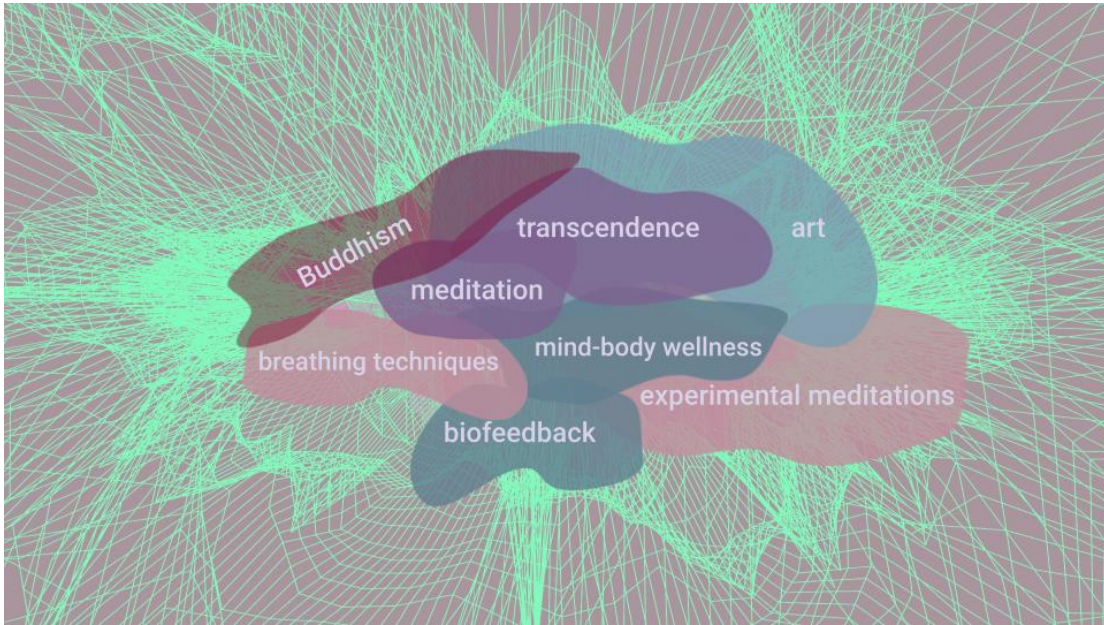


Figure 1.1 Research Key Concepts

1.5. Rhizomatic Research Structure

The exploration of a multidimensional matter as it is consciousness compels a rhizomatic research structure. Rhizomatic research encourages a decentralized method that acknowledges non-hierarchical and interconnected ideas, perspectives, and disciplines. Theories from a variety of fields, from art and philosophy to technology and wellbeing science, have informed the design practice of this research project. In the same way, the production of the art installations has prompted a diverse range of reflections regarding meditation, body-mind awareness, and self-transcendence. The process of evaluation and prototyping became intrinsic to the artworks. This necessarily moved the research to reflect on design methodology and transdisciplinarity, leading me to the development of the concept of *ritual media*. Such non-linear connections, multiplicity, and heterogeneity of subjects and fields are what characterise this research as rhizomatic.

The research can be organised into three major tracks that are developed simultaneously: (1) conceptualisation, (2) artworks' design and production, and (3) evaluation. These tracks are not consecutive but intertwined, they inform and

feed each other in a transversal way and a constant exchange process from the overall research design to more specific components of the artworks. Each component works as a puzzle piece that will be progressively throughout the research, forming the entire image. By considering the intricate interconnection among all elements it will be possible to conceive the rationale behind the creative process of the artworks as well as the outcomes.

The conceptualisation track comprehends, on the one hand, the main literature review, that is, the theoretical and methodological basis for the development of the *ritual media* concept and the artworks. On the other hand, there is a terminological discussion of consciousness, altered states, and transcendence which emerges from both theory and the analysis of the collected feedback and returns from user studies' participants, the ethnographic work, and interviews with another artist.

The artworks' design and production track also integrates a literature review that concerns the specificities of each artwork, covering two areas: (1) science, which addresses matters of wellness, and (2) humanities, focused on Buddhist thought, art, and techniques. These are overlapped at several points, like meditation and breathing techniques. Besides the literature review, this track includes the technical aspects of the artworks' production.

Finally, the third track comprises the evaluation and socialisation of the artworks through exhibitions, demos, and the development of user studies, ethnographic work, and interviews. There is a discussion on the design and re-design process of the evaluation methods and the analysis of various types of collected data and feedback, which influence the previous two tracks.

1.6. Expected Contributions

The first contribution of this research is the concept of *ritual media*, as a type of media artwork and as a design framework that serves as a basis or reference for creators to explore consciousness through artistic experiences and foster the benefits of rituals. *Ritual media* is an invitation to produce new perceptual stimuli that induce a shift in consciousness and to implement methods to evaluate the subjective experiences of the engagers in order to generate insights into the nature consciousness. Therefore, another contribution of this research is providing a

better understanding of consciousness by analysing the engagers' feedback from the questionnaires, interviews, and ethnographic work.

The installations work in this research as proofs of concept of *ritual media* and also have various contributions in terms of design innovation and wellness. They show the potential of integrating meditation into art and vice versa, they offer novel perspectives on technology-based meditation and new applications of breathing techniques and biofeedback. Hence, this research expands the possibilities of all these areas.

Moreover, the installations produce an extensive number of psychological and physiological benefits. Through audiovisual interaction, they induce states of relaxation, reduction of stress, and heightened focus, among others. The breathing interactions also promote healthy breathing patterns that positively affect our minds and bodies (blood pressure, heart rate variability, etc.).

The evaluation process from the user studies, ethnography, and the artist interview are also an extension of the artworks' experiences and serve as proofs of concept for *ritual media* by showing the application and rationale behind the design framework.

Along with these contributions, there is another that could be considered as the most fundamental one and that is transversal to the previously presented; at the core of this research, there is the search for awareness and transcendence. The exploration of consciousness brings the elucidation of consciousness-related matters and, together with it, the benefits from self-reflection and transformation: personal growth, emotional regulation, clarity of purpose, enhanced relationships, decision-making, ethical growth, and resilience. This occurs to me as the researcher, to the engagers of the installations, as it is evaluated in the user studies, and hopefully, it will also occur to the potential creators that apply the proposed method of *ritual media* and their respective audiences.

1.7. Writing Style

While the structure and terminology of this thesis are grounded in academic convention, the writing style occasionally shifts toward a more introspective or poetic register. This choice is intentional. Because the subject of this research engages

with altered states of consciousness, symbolic experience, and spiritual aesthetics, a strictly analytical or technical language may not fully capture the nuances of the phenomena under exploration. Rather than aiming for complete objectivity, the writing seeks to reflect the complexity of subjective states and the layered quality of ritual and aesthetic experience. In this sense, the tone of the thesis mirrors its subject matter: experiential, symbolic, and at times deliberately ambiguous. This style does not replace critical analysis but accompanies it, allowing a space for language to resonate with the experiential depth of the research focus.

Notes

- 1 The term 'engager' stands for 'user', 'participant', 'spectator', 'performer', 'interactor', 'experiencer', 'initiate', etc. It acknowledges an active role and interconnection with the artwork, with *ritual media*.

Chapter 2

Consciousness and Rituals: Literature Review

2.1. What is Consciousness?

Anyone who has attempted to address this question knows there is no definitive answer. At least, there is no answer that is both satisfactory and consensual. Diverse disciplines confront the question, but it is not merely a matter of comparing these disciplines; even within each discipline, there is no uniformity in the approaches to studying or outlining consciousness. The difficulty of defining it might be the only constant across interpretations. Consciousness is, by nature, elusive. It concerns subjective experience, inherently difficult to grasp. Conventional language and logic seem insufficient and encounter innumerable paradoxes. Despite the hardship, despite the seeming impossibility of reaching an understanding that can be conveyed, the need to explore consciousness keeps emerging. Where does this need to explore consciousness come from? This particular question is rarely addressed by the authors or creators involved in the quest. Humans have been doing it since immemorial times through rituals. We sit in front of the fire—always a millenary fire—and ponder our existence. We transcend space, time, and ourselves, becoming the ancients: the Jaguar-man, the shaman, Heraclitus, the yogi, the pilgrim, the witch. A spark of that fire might be the origin. Consciousness is the spark, the fire. Trying to define it is like trying to capture the shape of fire. Explorers might stubbornly get burned in this absurdity or simply keep contemplating the flames.

We are still inside the labyrinth, searching for an exit. Not only is the thread broken and the few crumbs that could trace us back scattered, but the most concerning realisation is that consciousness is not at the exit—it is the labyrinth it-

self. As demonstrated, we can only convey the vagueness of consciousness through metaphor. Some of the most important things in life are driven by a certain ineffability, accessible intuitively rather than rationally. For instance, what is love? Or why do we love? Or what is reality, existence, what am I? It is almost absurd to ask: why would anyone try to answer? Nevertheless, these questions have kept poets, scientists, and philosophers awake throughout history. Embedded in the question of what consciousness is lies the implicit need to explore it.

This need to explore consciousness is shared across disciplines. Among the most integrative approaches is that of perennial philosopher Ken Wilber, who draws a parallel between the electromagnetic spectrum and consciousness. (Wilber 1977) He suggests that just as electromagnetic radiation includes various wavelengths and frequencies, consciousness can also be understood as a spectrum. Different approaches to studying consciousness—often divided into ‘Eastern’ and ‘Western’ methodologies—focus on distinct levels or ‘bands’ of this spectrum. Investigators may not realise they are examining parts of the same continuum, leading to misunderstandings or conflicts. Wilber implies that resolving these conflicts does not require all investigators to adopt the same perspective. Instead, it requires an acknowledgment that their perspectives reflect different aspects of the same unified spectrum of consciousness. This framework offers a way to integrate diverse understandings into a more comprehensive view.

This literature review aims to map the spectrum of perspectives on consciousness, examining how diverse disciplines have approached its study, and to identify opportunities for integration into a cohesive understanding. These disciplines—spanning science, phenomenology, psychoanalysis, Buddhism, and ritual studies—offer unique insights. They were chosen for their contributions to understanding consciousness, ranging from empirical observations to subjective experiences and the transformative role of rituals and art. The following review explores how consciousness has been conceptualised across this spectrum, beginning with materialist perspectives and moving through phenomenological, psychoanalytical, intersectional, and ritual-based approaches. Together, these perspectives reveal the multifaceted nature of consciousness and its intimate connection to art and human experience.

2.2. Science: Measuring Consciousness

A well-known experiment published in the seventies, commonly referred to as the mirror test, was developed by Gordon Gallup Jr. in 1970.(Jr. 1970) It assesses self-recognition, which is considered a potential indicator of self-awareness. In this test, animals are marked with a non-visible dye on a part of their body they cannot see without a mirror. If the animal uses the mirror to investigate and attempts to remove the mark, it suggests they recognise their reflection as themselves. This test has been performed on species like great apes, dolphins, elephants, and birds, with varying levels of success depending on the species. Gallup's original study on chimpanzees was groundbreaking, providing evidence that some animals possess a level of self-awareness similar to humans.

If we interpret self-awareness as a form of consciousness, based on Gallup's study, consciousness could be defined as the capacity to recognise oneself as an individual distinct from the environment and others, evidenced by the ability to reflect on one's own existence or physical presence. This definition aligns with Gallup's findings, where animals demonstrating mirror self-recognition reveal an awareness of their own body and appearance as separate entities, suggesting a form of introspective cognition. This operational approach to consciousness focuses on observable behaviours, such as self-recognition, as measurable indicators of internal self-awareness.

Gallup's study represents a materialistic perspective of consciousness because it relies on observable, measurable phenomena (such as mirror self-recognition) to infer the presence of self-awareness. This approach aligns with the materialist framework, which seeks to explain consciousness in terms of physical processes and behaviours that can be empirically studied, rather than invoking metaphysical or non-material explanations. By focusing on self-recognition as a proxy for self-awareness, Gallup's study avoids speculating on subjective, immaterial experiences. Instead, it treats consciousness as a product of cognitive processes that emerge from the brain's physical structures and functions, consistent with the principles of materialism in science and philosophy.

Generally, the scientific perspective does not get bogged down with terminological discussions. It studies consciousness by analysing the correlations between psychic phenomena and the brain or parts of the body, dualistically separating

mind and body. The scientific method adjusts reality into its internal model, where elements must be measurable. Whether through quantitative or qualitative data, its output is statistical. Therefore, science can only address the objectifiable aspects of consciousness. However, if the essence of consciousness is its subjectivity, the scope that conventional science can handle is limited.

A more recent article by David Gamez, entitled “The Measurement of Consciousness: A Framework for the Scientific Study of Consciousness,” proposes studying consciousness through its correlations with the physical world (e.g., brain activity) while avoiding commitment to metaphysical theories. (Gamez 2018) Consciousness is operationally defined for scientific purposes as the states or experiences inferred from behavioural or verbal reports, brain activity, and other indicators. A framework of assumptions is introduced to sidestep metaphysical debates and focus on empirical correlations. This involves assuming that consciousness is connected to specific spatiotemporal brain structures during experiments. Consciousness is associated with the ability to report experiences, such as seeing or hearing. For instance, verbal or motor responses to stimuli are taken as indicators of conscious awareness. This perspective emphasises a pragmatic, experimental approach to studying consciousness while acknowledging its philosophical complexities and deliberately putting them aside to focus on the measurable aspects.

Gamez broadly defines consciousness as a ‘stream of experience’ that appears when a person wakes up and disappears during deep sleep. It can vary in intensity (e.g., from drowsy to hyper-alert) and content (the various things we perceive, think, or feel). Consciousness can only be scientifically studied through first-person reports, as it is inherently subjective and inaccessible to direct measurement. This introduces challenges, such as variability in self-reports and the potential for non-reportable consciousness.

This scientific framework for measuring consciousness includes several key assumptions designed to address its subjective nature. These assumptions guide the identification and measurement of conscious states despite challenges like the variability of self-reports and non-reportable consciousness. The main assumptions include:

1. System Identification: The framework assumes that certain systems (e.g., humans or animals) are conscious. This is based on shared biological or func-

tional characteristics, such as neural complexity or behavioural evidence, that suggest the presence of consciousness.

2. Correlates of Consciousness: Gamez assumes that consciousness has physical correlates in the brain or system under investigation. These correlates can be studied scientifically, such as neural activity patterns, without requiring direct access to subjective experiences.
3. Causal Closure of the Physical World: The framework assumes that consciousness arises from physical processes and is not influenced by non-physical entities. This aligns with a materialistic perspective, making consciousness measurable through physical indicators.
4. First-Person Report Calibration: While subjective self-reports are inherently unreliable, they are assumed to provide valid data when paired with objective correlates. This calibration allows for cross-referencing subjective descriptions with measurable phenomena, improving reliability.

These assumptions aim to create a consistent and theory-neutral approach to studying consciousness, enabling it to be scientifically analysed despite its inherently subjective qualities.

We now have a broad understanding of the possibilities and limitations of the scientific method through its materialistic perspective. This research acknowledges the empirical approach of science but, freed from the need to objectify and measure, navigates subjective experience.

More studies including brain and body research will be discussed, but now let us move onto the phenomenological level of the spectrum of consciousness.

2.3. Phenomenology: Philosophical Views And Embodied Perception

Phenomenology lies at the border of science and philosophy. It bridges the gap between empirical observation and abstract conceptualisation. It explores how we experience and make sense of the world through perception, emphasising the

subjective, lived experience rather than objective, external reality alone. Let us examine how seminal authors approach consciousness phenomenologically.

In his book *Ideas: General Introduction to Pure Phenomenology* (1913), Edmund Husserl conducts a phenomenological study of lived experience. For Husserl, consciousness is intentional and structured by acts of perception, memory, and thought. (Husserl 1913) Husserl develops the concept of "intentionality," describing consciousness as always being about something. He emphasises phenomenological reduction, or "bracketing," which isolates consciousness from assumptions about the external world.

While the scientific approach, as described previously, focuses on measurable external aspects, Husserl maintains the empirical approach but turns inward to the internal experience. In a sense, there is a release from the material world, but it is dualistic in that it separates body and mind. Husserl's understanding of "consciousness" implies being conscious of something. Terminologically, at the rawest and most simplified level, it equates "consciousness" with "noticing," "realising," or "perceiving." This divides the observer and the observed, subject and object.

Heidegger takes a direction toward a less dualistic approach by criticising the isolation of the mind from the body and Cartesianism (*Being and Time*, 1927), *The Fundamental Concepts of Metaphysics*, 1929–1930). He shifts focus from "consciousness" to *Dasein* ("being-there"), which refers to the human mode of existence. (Heidegger 1927)(Heidegger 1995) *Dasein* is characterised by "being-in-the-world," a pre-reflective engagement with the world. Heidegger critiques the traditional view of consciousness as an isolated "subject" (e.g., Cartesian view) and instead sees it as fundamentally relational and situated. Awareness arises through moods, care, and temporality, revealing how *Dasein* exists authentically or inauthentically.

Merleau-Ponty emphasises embodied consciousness, rejecting dualistic separations between mind and body. Consciousness is not a detached observer but a lived experience, rooted in the body and its interactions with the world. Perception is primary; it is through perceptual experiences that consciousness engages with the world and constitutes meaning. He introduces the concept of "flesh" as the intertwining of self and world. The terms "consciousness" and "perception"

are intertwined.

The emphasis on experiential aspects is transversal to most definitions of "consciousness." The five senses play a fundamental role. Merleau-Ponty's sensory elements include the five traditional senses (sight, hearing, touch, smell, and taste), proprioception, kinesthesia, interoception, synesthetic perception, Gestalt perception, and pre-reflective consciousness, all intertwined in the embodied, holistic experience of being-in-the-world.

Heidegger, for instance, highlights temporal perception as an indicator of the state of consciousness. For him, time and consciousness are intrinsically linked through Dasein's temporal structure, as human existence unfolds in a finite, forward-moving awareness of being-toward-death, grounding all understanding of self and world.

Based on these propositions, sensory elements and temporal perception are considered later in this research as criteria for evaluating and analysing *ritual media*.

2.4. Psychoanalysis: Unconscious And Collective Realms

Psychoanalysis treats consciousness differently. It moves away from understanding it as simply "being aware of" and goes beyond questions of the measurable aspects of consciousness to a more interpretative and speculative approach.

Sigmund Freud proposes a model that classifies the mind into the conscious, preconscious, and unconscious (The Interpretation of Dreams (1900), The Ego and the Id (1923)).(Freud 1900)(Freud 1923) Unconscious processes are primary and directly influence and determine conscious processes. All three are part of 'consciousness'; the unconscious and preconscious are still states of consciousness. A trivial, everyday use of the term 'consciousness' would be 'vigil' or 'being awake' in the most literal sense, such as when we say that someone lost consciousness because they fainted. But for Freud, dreams, which occur when asleep, are a terrain for exploring consciousness. Dreams serve as a "royal road to the unconscious," revealing repressed desires and the workings of psychic structures. Consciousness is a surface phenomenon shaped by the unconscious. It is the layer of the mind

accessible to awareness, but it is heavily influenced by the unconscious, which emerges in dreams through symbolism and displacement.

Carl Jung builds on Freud but focuses on the collective unconscious and archetypes (*The Archetypes and the Collective Unconscious* (1934)).(Jung 1959) Consciousness is the realm of the ego, where personal awareness resides. The unconscious is dual: the personal unconscious (repressed or forgotten material) and the collective unconscious (universal, inherited patterns or archetypes). Consciousness expands through individuation, a process of integrating unconscious content into awareness. Consciousness is the realm of the ego, with personal and collective unconscious elements affecting awareness. Jung explores the idea of the collective unconscious, a repository of shared human experiences and archetypes. This also resonates with Yogacara and the Alaya Vijnana, as well as with the amalgamation of realms from rituals.

Consciousness is centred on the ego, but true psychological growth occurs when unconscious archetypes (e.g., the Shadow, Anima/Animus) are integrated. This text is pivotal in defining consciousness as both personal and collective, with a focus on its symbolic and archetypal dimensions.

Psychoanalysis focuses on mental processes, but this does not imply a separation of body-mind or subject-object. The correlation of consciousness with brain activity and the body becomes a by-product originating in the psyche.

With the interpretation of dreams and the archetypes, there is a process of characterising patterns. Subjective experiences of patients are mapped through identifying symbols from common experiences.

Jung's ideas strongly resonate with Joseph Campbell's narrative archetypes, the hero's journey, and the idea of universal rituals, also mentioned by the philosopher Byung-Chul Han and anthropologist Levi-Strauss, as it is discussed later.(Campbell 2004)(Han 2019)(Lévi-Strauss 1955)

While consciousness is subjective, the assignment or recognition of symbolic meaning allows us to navigate it. Psychoanalysis uses this navigation as a therapeutic method. Rituals do as well. This shows the benefits, at the most practical level, of exploring consciousness.

2.5. Yogācāra: Everything Is Consciousness

The parallels between Western and Eastern views on consciousness might not be evident since the approaches fundamentally differ. However, recognising them contributes to elucidating how, while there are infinite understandings of consciousness, there seem to also be universal traits that are shared no matter the cultural background, time or location. Before going into the comparison, let us briefly explore one key doctrine in Asia, the Yogācāra. This will not only de-center the review from Western knowledge, offering a wider panorama, but it is also pertinent in that it is directly linked to the art installations developed in this research which are deeply influenced by Buddhism.

The Yogācāra school, as described by Carl Olson in *The Different Paths of Buddhism* (2005), is one of the major philosophical systems of Mahāyāna Buddhism and it originated in India around the first or second century BC. Yogācāra means ‘the practice of yoga’, of techniques for meditation. (Olson 2005) Another name it has is Vijñānavāda, which means ‘the doctrine of consciousness’. This doctrine basically sustains that the external and material reality is in fact a projection of the mind and that everything is consciousness. Eventually, this thought entered Japan at the end of the Asuka period, in 654, as the Hossō school, which was based in the Chinese Fāxiàng-zōng.

The Buddha taught that the root of human suffering is desire and ignorance. For this to happen, there must be a subject that desires/ignores an object. Therefore, suffering is based on the dichotomy of subject and object, which is the way we commonly experience reality.

The Yogācāra’s non-dual perspective of not separating object from subject does not come out from this intellectual logic, but from the recognition of the actual experience of the non-dual consciousness that occurs during meditation. The elucidated perception of the mind is the realisation and identification that all external objects and differentiation are only a product of and, at the same time, part of consciousness. This is considered the no-mind of pure emptiness.

According to the Yogācāra school, there are eight types of consciousness: the five senses (vision, hearing, smell, taste, and touch), the mind (called vijñana), the “internal sense-center that organises these six types of consciousness” — which still maintains a sense of self or ego, that is, it is still deluded —, and the alaya-vijñana

or ‘storehouse consciousness’ that finds all the other types of consciousness. The alaya-vijñāna consciousness overpasses the limits of a single individual. It is where is the imprinted memory of all the impressions, actions, and perceptions of the humankind, which are called *bījā* or seeds:

“This is analogous to the waves (particular egos) on the ocean (storehouse). The waves are many, but the ocean is one vast body of water that underlies all the different waves (...) When the storehouse consciousness reaches its perfected state, it attains a condition of pure consciousness. It is this pure consciousness that represents nirvana. By reconsidering our analogy of the waves on the ocean, it is possible to recognize that nirvana represents the cessation of waves on the surface of the storehouse consciousness.(Olson 2005)

Olson’s metaphor of the ocean matches with Wilber’s analogy of consciousness as a spectrum whose levels can be studied separately but ultimately, it is a single encompassing consciousness.

2.6. Levels of Consciousness

In *The Spectrum of Consciousness* (1977), Ken Wilber proposes an integrative framework for understanding consciousness, bringing together insights from both Eastern spiritual traditions and Western psychology.(Wilber 1977) He organises consciousness into three major levels: the Ego Level, the Existential Level, and the Level of Mind. These levels are also referred to by different thinkers using various terminology, showing how different approaches converge on similar concepts despite their diverse methods. For example, Hubert Benoit refers to these levels as the level of objectal consciousness, subjectal consciousness, and the Absolute Principle. Wei Wu Wei uses the terms of object, pseudo-subject, and Absolute Subject, while in *Yogācāra*, these levels are represented by the *mano-vijñāna* (discriminating mind), *manas* (self-reflective mind), and *ālaya* (storehouse consciousness).

Wilber highlights that many of the great thinkers in both Eastern and Western traditions have addressed these layers of consciousness, including figures like William James, D.T. Suzuki, Stanislav Grof, Carl Jung, and Gurdjieff, among others. He also notes that several psychologists have inadvertently focused on

one of these levels, which provides important insights into each level's nature and functioning. The schools of psychoanalysis, existential psychology, Gestalt therapy, and others are mentioned as approaches that delve into particular levels of consciousness, contributing significantly to the understanding of the psyche.

The main goal of Wilber's work is to create a synthesis of both Eastern and Western approaches to psychology and psychotherapy, integrating their diverse insights into a more unified understanding of consciousness. By drawing connections between various schools of thought and focusing on the common levels of consciousness they address, Wilber aims to clarify how both psychological and spiritual traditions contribute to the study of the human mind and its potential for healing and transcendence.

Wilber's model of consciousness is quite comprehensive in that several theories from diverse backgrounds align to it. This model allows us to create a direct parallel between, for instance, psychoanalysis and Eastern philosophy.

Freud's model of consciousness can be connected to Wilber's levels, primarily aligning with the Ego Level and the Existential Level. Freud divides the mind into the conscious, preconscious, and unconscious. The conscious mind corresponds to the Ego Level in Wilber's framework, which deals with the awareness of the external world and self. The preconscious and unconscious aspects of Freud's model, which contain repressed memories and desires, would align more closely with Wilber's Existential Level, dealing with deeper subjective experiences and unconscious material that influence behaviour.

Jung's model of the psyche is more intricate, involving the conscious ego, personal unconscious, and collective unconscious. His work can be mapped across both the Existential Level and the Level of Mind in Wilber's framework. The conscious ego, which represents self-awareness and the individual's sense of identity, corresponds to the Ego Level. The personal unconscious, which houses repressed or forgotten experiences, aligns with Wilber's Existential Level, addressing the subjective internal world and hidden mental contents.

Jung's concept of the collective unconscious, which holds archetypes and universal patterns shared by all humanity, fits within Wilber's Level of Mind, particularly corresponding to the Yogācāra concept of *Ālaya-vijñāna*, the storehouse consciousness that holds universal, transcendent patterns beyond the individual

ego.

2.7. Higher Levels of Consciousness

Another significant point from Wilber’s framework is what the Indian philosopher Shankara (8th c. CE) from the Advaita Vedanta—the doctrine of non-duality also interlaced with Yogacara—called subration. Subration is a process of discernment in which a level of consciousness, a state in the spectrum, is experienced as more real than the others, containing the others. It implies an expansion of consciousness and, in this sense, it is a higher state of consciousness. Wilber applies the notion of *subration* in the following way:

“Generally speaking, anyone who experiences the Level of Mind subrates the Ego Level and the Existential Level. That is, he becomes profoundly convinced—often for reasons he cannot fully explain or even articulate—that the Level of Mind is in some way more real, more basic, and more meaningful than the others. So totally and invincibly convincing is this experience, that he may now feel that the other levels of consciousness (such as the Ego and Existential Levels) are completely unreal, illusory, and dream-like.” (Wilber 1977)

Wilber comments that the experience of the Level of Mind cannot be fully articulated, but we know of it thanks to what he calls the “explorers” of consciousness. The explorers of consciousness might attempt to define consciousness, but the fundamental contribution is their accounts of altered states of consciousness. Through these first-hand reports of varied tone—from scientific studies to mystical and philosophical essays to cultural and anthropological works—we can ‘navigate’ consciousness and its subjective nature.

2.8. Altered States of Consciousness

Several studies carry out their own categorisation of altered states of consciousness. (Tart 1972)(Thompson 2014) After outlining their notions, I simplify them in order to focus on the aspects that contribute to the formation of the *ritual media* framework. What kind of altered states can we recognise? First, dreaming. Psychoanalysts handled this by interpreting dreams and obtaining information from the

unconscious for therapeutic use. Several Indigenous cosmogonies interpret dreams as omens and are charged with ancient symbolism. Tibetans, instead, do not care as much about the contents of dreams as they do about their nature and what it reveals from consciousness. (“The Tibetan yogas of dream and sleep”).(Rinpoche and Zangmo 2013) Dreaming is often compared to death and also to awakening. From a Tibetan perspective, dying is like waking up and realising that life was not more than an illusion. We might dream every night but it is a phenomenon that neither scientists nor philosophers, not even poets, have been able to explain. Dreaming is a universal altered state that reveals to us that there are other dimensions, ways of perception, temporalities, spatialities, and self-identities.

There are also numerous writings from clerics, monks, and artists on mystical experiences. A mystical experience is becoming One with God, recognising the Divinity in oneself. All primary monotheistic religions, Islam, Christianity, and Judaism, each have a mystical school: Sufism, Christian Mysticism, and the Kabbalah. It is curious that all these schools often face scepticism, rejection, or outright persecution within their parent religion, usually because they represent a threat to institutional power.

The perennial philosophy, significantly developed by Aldous Huxley—one of the “explorers” of consciousness—and also by Wilber, reunites what unifies all kinds of mysticisms.(Huxley 1945) It identifies the universal traits, which is, at the core, the non-dual experience. The perennial philosophy does not only encompass Western religions but also Eastern paths like the Tao, Buddhism, and ancient Vedas. Basically, it is a transcultural perspective. The non-dual perception, the sensation or realisation of oneness is another common state of consciousness which, coming back to Wilber’s model, would be towards the Existential Level to the Level of Mind.

One can ponder on the variables that played a perceptual influence on the experiencer, the explorer, but it is out of the measurable. For instance, there are chances that the isolation and starvation of meditators and clerics brought their bodies into hallucinatory states. Symbolic meaning is also powerful to induce mystical experiences. While there are several identifiable elements, ultimately, there is no formula and it is a circumstantial combination. Dreams and mystical experiences are encountered spontaneously.

Psychedelics are triggers of mystical experiences and other altered states of consciousness. The term might be mainly understood as psychedelic substances but there are various kinds of psychedelics that encompass a wide variety of practices. Psychedelic experiences are characterised by profound introspection and can arise through methods beyond substances.

Sensory and environmental techniques like strobe lights, binaural beats, Ganzfeld experiments, or isolation tanks manipulate sensory input to shift perception, while immersive art installations can evoke similar states. Breathing techniques, such as holotropic breathwork, pranayama, and the Wim Hof Method, and other techniques that are applied in the art installations of this research influence consciousness by modulating oxygen and energy flow. Movement-based practices like innumerable kinds of trance dancing, yoga, or martial arts like tai chi integrate rhythmic motion and focus to access heightened awareness. Meditation and mindfulness practices, including Vipassana, zazen, or guided visualisation, promote deep introspection and altered states, as do sound-based approaches like shamanic drumming, chanting, and mantras. Psychological methods like hypnosis, lucid dreaming, or Jungian active imagination tap into the unconscious mind, while natural triggers such as nature immersion, exposure to extreme environments, or profound awe-inducing landscapes can also evoke psychedelic experiences. Certainly, ritual and group practices are also psychedelic. Spiritual ceremonies, collective chanting, or meditations, amplify consciousness through shared intention and unity. Modern technologies like virtual reality, brainwave stimulation, or transcranial magnetic techniques replicate or enhance altered sensory perceptions, while sleep-related phenomena, including hypnagogia, hypnopompia, and even sleep deprivation, unlock vivid dream-like states. These diverse approaches offer profound alternatives for exploring the depths of consciousness.

Research on chemical psychedelics and stimulant plants highlights the multiplicity and interdisciplinary nature of consciousness exploration. By reviewing studies on psychedelics, we can see the importance of a multidisciplinary and holistic approach to understanding consciousness.

2.9. Psychedelics

Studies on psychedelics cannot overlook the interconnection between various parts of the spectrum of consciousness. Some might start with a scientific framework focused on the botanical, chemical, and biological description of a plant or substance, empirically evaluating its psychological and somatic effects. Others cannot separate the plant or substance from the context and cultural background in which it was originally used, thus approaching it from an anthropological and ethnobotanical perspective. Some studies are more comprehensive, considering the full range of implications and offering profound analyses of psychedelics and altered states in relation to the development of consciousness, rituals, and art.

2.9.1 Focus on Introspection and Personal Experience

A renowned experiment is recounted in Aldous Huxley's *The Doors of Perception* (1954). The experiment sought to evaluate the effects of mescaline. (Huxley 1954) Aware of the difficulty of verbalising the experience, researchers asked Huxley—whose background and writing demonstrate skill in conveying subjective and sensorial aspects while maintaining scientific rigour—to report on the experience. As a result, the essay is considered one of the most illuminating and influential texts on the nature of altered states of consciousness. It focuses on Huxley's personal experience and philosophical reflections during the experiment, which took place at his house in Los Angeles, outside the cultural origin of the substance. Huxley does mention that mescaline is derived from the peyote cactus (*Lophophora williamsii*), a plant traditionally used by Indigenous peoples in the Americas for religious and ceremonial purposes. He references the historical and spiritual significance of peyote in Native American rituals, highlighting its role as a sacred substance for inducing visionary experiences and fostering a connection with the divine. While he acknowledges mescaline's cultural context, the text does not delve deeply into the Indigenous traditions or practices surrounding peyote use, reflecting a more Western, individualistic perspective on the substance's potential for expanding perception. This omission has been critiqued by some scholars, who argue for greater acknowledgment and respect for the cultural origins and spiritual practices tied to mescaline use.

Another key point from Huxley's essay is the link between altered states of consciousness and artistic perception and expression. He describes how psychedelics can reveal the deeper essence of reality, enhancing one's ability to appreciate beauty in art and life. He draws connections between his altered perceptions and the works of artists like Velázquez and William Blake, suggesting that psychedelics can unlock new dimensions of artistic understanding. This reflection is consistent with evolutionary theories that correlate the development of art with altered states of consciousness, and that will be addressed in following sections.

2.9.2 From Personal Experience to Cultural and Ecological Context

Carlos Castañeda's *The Teachings of Don Juan* (1968) series recounts his apprenticeship with a Yaqui shaman, Don Juan Matus, and his transformative experiences with psychoactive plants such as peyote, jimsonweed (*Datura*), and psychedelic mushrooms. Castañeda presents these substances as tools for spiritual growth and accessing non-ordinary realities, embedding his narrative within the framework of Indigenous shamanic traditions. However, his works have faced criticism for potentially fabricating or fictionalising elements of these practices, raising questions about their authenticity. Castañeda emphasises the spiritual discipline and apprenticeship required to engage with these plants, contrasting their ritualistic use with casual experimentation. His tone blends anthropological observation with storytelling, often blurring the line between factual ethnography and creative fiction.

In *El Río: Explorando la Amazonia* (1996), Wade Davis delves into the cultural and spiritual significance of psychoactive plants, focusing on their role within the Indigenous traditions of the Amazon, as documented through the work of ethnobotanist Richard Evans Schultes. (Davis 2011) Central to the narrative are plants like ayahuasca (*Banisteriopsis caapi*), coca, and other sacred substances, which are explored as tools for spiritual connection, healing, and cosmological understanding. Davis meticulously details the preparation and ceremonial use of these plants, emphasising their integration into Indigenous knowledge systems and cultural frameworks. Unlike works that frame psychoactive experiences through a

Western lens, El Río honors the ecological and cultural contexts in which these substances are used, portraying Indigenous peoples as sophisticated stewards of plant-based wisdom. By highlighting Schultes' contributions to the scientific understanding of these substances, Davis bridges ethnobotany, anthropology, and the preservation of traditional knowledge, underscoring the vital importance of the Amazon as a repository of both biodiversity and cultural heritage.

Jeremy Narby's *The Cosmic Serpent: DNA and the Origins of Knowledge* (1998) presents a provocative and interdisciplinary exploration of the connections between Indigenous knowledge, shamanism, and molecular biology. Central to Narby's thesis is the idea that shamanic visions, particularly those induced by ayahuasca, may involve an intuitive understanding of DNA and the molecular basis of life. (Narby 1998) Drawing from his fieldwork among Amazonian Indigenous peoples, Narby suggests that the serpentine imagery frequently reported in shamanic visions corresponds to the double helix structure of DNA, implying that Indigenous shamans access information about the biological world through altered states of consciousness.

Narby combines anthropology, molecular biology, and mythology to propose that shamanic knowledge systems offer insights into the fundamental nature of life that align with modern scientific discoveries. He hypothesises that psychoactive plants might facilitate a direct interaction with the molecular realm, enabling shamans to acquire complex botanical and medicinal knowledge without conventional scientific methods. However, like McKenna, Narby's work leans heavily on speculation, drawing connections that are often metaphorical rather than scientifically rigorous.

While *The Cosmic Serpent* is not a scientific text in the strict sense, it challenges conventional boundaries between Indigenous epistemologies and Western science. Narby's work has been praised for its creativity and cross-disciplinary approach but also critiqued for its lack of empirical evidence and reliance on anecdotal accounts. Nonetheless, the book remains an influential and thought-provoking contribution to discussions about the nature of knowledge, consciousness, and the relationship between humans and the natural world.

2.9.3 Comprehensive Evolutionary Theories On Consciousness

In *The Food of the Gods: The Search for the Original Tree of Knowledge* (1992), Terence McKenna explores the deep historical and cultural connections between humans and psychoactive plants, proposing that their use played a pivotal role in shaping human consciousness and cultural evolution. (McKenna 1992) McKenna highlights substances such as psilocybin mushrooms, cannabis, and ayahuasca as agents of cognitive transformation, suggesting that they may have influenced the development of language, religion, and creativity. Central to his thesis is the idea that these plants served as "catalysts for the imagination," fostering spiritual insight and ecological awareness. Unlike purely scientific or anthropological texts, McKenna's work is speculative and philosophical, blending historical analysis, personal experiences, and a call for the reintegration of psychoactive substances into modern culture as a means of addressing ecological and spiritual crises. By framing these plants as ancient allies of humanity, McKenna positions them as central to the ongoing dialogue between nature, culture, and the evolution of human consciousness.

McKenna touches on neurology and the brain in the context of his broader thesis, but his exploration is speculative rather than rigorously scientific. His work is not grounded in empirical neuroscience or detailed physiological studies, and his theories often lack the methodological rigour and peer-reviewed evidence required in scientific discourse. Instead, his approach is interdisciplinary, blending anthropology, mythology, cultural history, and personal insights. While he cites some scientific research, his interpretations and connections between psychoactive substances and brain function are largely speculative and intended to provoke thought rather than provide conclusive evidence.

Aligned with Huxley's perspective, McKenna also discusses the transformative role of psychoactives in human consciousness and culture, including their potential to shape art and creativity but he goes further and suggests that substances like psilocybin mushrooms have historically been catalysts for the development of art, religion, and language, proposing that these plants were key to the evolution of human culture and artistic expression.

Decades before, *Cosmic Consciousness: A Study in the Evolution of the Human*

Mind (1901), Richard Maurice Bucke had similar propositions on the evolutionary potential of altered states of consciousness.(Bucke 1901) He is a pioneer in exploring the idea of an expanded state of consciousness beyond ordinary human experience, which he refers to as "cosmic consciousness." Drawing from his background as a physician and psychiatrist, Bucke presents a theory that this higher form of consciousness represents an evolutionary step in human development, linking it to mystical and transcendent experiences reported by figures such as Buddha, Jesus, and others throughout history. Bucke theorises that cosmic consciousness involves a profound sense of unity with the universe, a feeling of timelessness, and a heightened perception of reality.

Bucke's work blends psychology, spirituality, and evolutionary theory, offering a speculative yet systematic approach to understanding consciousness. He argues that cosmic consciousness represents a potential stage in the evolution of the human mind, one that could be reached through various means, such as spiritual practice, profound personal experiences, or even the use of mind-altering substances. While Bucke's view aligns with some modern ideas of altered states of consciousness, particularly those related to mystical and psychedelic experiences, his approach focuses more on the individual's ability to transcend ordinary perception through inner transformation.

Overall, the study of psychedelics is a spectrum that interconnects scientific, cultural, and philosophical aspects. In particular, it reveals the correlation between three core elements of this thesis, the development of consciousness, art, and rituals.

2.9.4 Recovering Indigenous knowledge

While recent scientific and artistic interest in psychedelics has helped to renew conversations about altered states and their cognitive potential, it is essential to recognise that these substances and the ritual contexts in which they are traditionally used originate from Indigenous epistemologies that have long cultivated relational, non-dualistic, and ecologically embedded modes of knowing. The psychospiritual frameworks of Amazonian, Andean, Mesoamerican, and other polyphasic cultures offer not only sophisticated techniques for managing altered states, but deeply integrated cosmologies that resist fragmentation between the individual, the social,

and the natural. Recovering and respecting these traditions is not only a matter of ethical responsibility but a way to reframe consciousness studies beyond the reductive limits of neuropharmacology or Western metaphysics. In this sense, the exploration of altered states through art must also contend with cultural memory, ancestral wisdom, and the symbolic ecologies in which such experiences are held.

2.10. Overview of the Spectrum of Consciousness

The study of consciousness spans disciplines, revealing its nature as both subjective and interconnected, elusive yet deeply rooted in human experience. Materialist approaches, such as Gallup's mirror test and Gamez's framework for correlating consciousness with brain activity, highlight the empirical study of self-awareness as a measurable phenomenon. Phenomenological insights, including Husserl's concept of intentionality and Heidegger's *Dasein*, emphasise the lived, relational experience of being-in-the-world, while Merleau-Ponty's focus on embodiment underscores the role of perception in constituting meaning. Psychoanalytic theories expand this exploration, with Freud's model of the unconscious as a driving force shaping conscious processes and Jung's archetypes connecting individual awareness to a collective symbolic dimension. Eastern philosophies, such as the Yogācāra school, go further by dissolving the boundary between subject and object, proposing that all experience arises within a unified continuum of consciousness. This continuum encompasses levels that range from the sensory and embodied, to the reflective and symbolic, and finally to the collective and transcendent, as articulated in Wilber's integrative spectrum of consciousness.

Altered states—whether through dreams, as Freud described, mystical experiences, or meditation, as central to Yogācāra and perennial philosophy—offer glimpses into these dimensions. These states reveal consciousness's transformative potential, reflected in the evolution of art and rituals as vehicles for exploring and integrating these altered perceptions. Rituals, which have accompanied humanity since immemorial times, provide a structured means of navigating and sharing these states, bridging subjective experience with collective meaning. Turning now to rituals, we continue to trace the threads of consciousness, where the abstract finds structure and the ineffable becomes communal.

2.11. Rituals, Altered States of Consciousness, and Art

The exploration of consciousness is inseparable from the history of ritual. From ancient communal ceremonies to contemporary artistic practices, rituals have served as structured vehicles for altering, expanding, and stabilising states of awareness. They embody humanity's inherent drive to transcend the limitations of ordinary perception, offering patterned, symbolic, and sensorially rich experiences that recalibrate the relationship between mind, body, and environment. In this section, I examine how rituals function as intentional mechanisms for shifting consciousness, integrating biological, neurological, emotional, and cultural dimensions. This understanding provides a crucial framework to situate artistic practices—not merely as aesthetic pursuits but as ritualistic engagements that shape perception, identity, and collective memory. It also sets the ground for comprehending the emergence of *ritual media* as an evolution of these traditions, adapted to contemporary technological, artistic, and existential contexts.

2.11.1 Altered States of Consciousness and Rituals

Rituals, in their many forms, are among the earliest and most enduring practices devised by human beings to engage and transform consciousness. They have evolved not merely as cultural performances but as intentional contexts designed to induce altered states of consciousness and to integrate these states into meaningful individual and collective experiences. As Charles Laughlin and Robbie Davis-Floyd argue in *Ritual: What It Is, How It Works, and Why* (2022), ritual practices are rooted in evolutionary processes and shaped by the interplay between biology, cognition, and culture (Laughlin and Davis-Floyd 2022). Far from being peripheral or merely decorative, rituals constitute a fundamental aspect of human adaptation and cognitive development. They emerge as patterned, repetitive, and symbolic enactments that create 'transitional spaces' or 'thresholds' through which perception, emotion, and identity may be reorganised.

In this framework, rituals are not simply containers for belief but engines of transformation. They are intimately connected to what Laughlin and Davis-Floyd describe as the 'polyphasic mind', a form of consciousness that incorporates mul-

multiple states of awareness, including dreams, trance, and visionary experience, into daily life. Human societies that have remained close to this polyphasic paradigm rely on ritual not only to mark transitions but to manage and cultivate access to diverse cognitive states. The neuropsychological functions of ritual—including rhythm, repetition, sensory deprivation or enhancement, and symbolic performance—support a view of ritual as a biological and cultural innovation that has coevolved with the expanding capacities of the human mind.

This evolutionary perspective aligns with the psychedelic hypothesis discussed in a previous section of this chapter, in which authors such as Terence McKenna argue that the ingestion of entheogenic substances played a significant role in the development of language, symbol, and self-awareness (McKenna 1992). Rituals and psychedelics may be seen as parallel or even interwoven technologies of consciousness: while the latter catalyse neurochemical shifts, the former provide socially structured, symbolically framed environments in which those shifts can be interpreted, integrated, and shared. In this sense, rituals function not only as modes of inducing altered states, but as meaning-making systems that stabilise and transmit the cognitive novelties revealed through such states. Where psychedelics may open a new way of perception, rituals construct the temporal, spatial, and symbolic architectures through which these experiences become transformative.

Indeed, the very structure of ritual practice suggests a sophisticated engagement with consciousness: what Laughlin and Davis-Floyd call 'warps of consciousness'—guided transitions between states—are achieved through multisensory stimuli such as music, drumming, chanting, or fasting. These ritual drivers activate neurological and physiological processes that bind individual experience to collective frameworks of belief and memory. As they explain, "Rituals integrate higher-order cognitive processes with instinctual, emotional, and physiological states managed by the lower brain centers. This integration is achieved through symbolic penetration and ritual drivers like music, fasting, or sensory deprivation." (Laughlin and Davis-Floyd 2022) The result is often a state of neural entrainment and emotional resonance that fosters unity, catharsis, and altered perception.

The capacity of rituals to affect human consciousness lies precisely in their

holistic nature. They operate simultaneously at the anthropological, sociological, cultural, psychological, physiological, and emotional levels. Rituals bind together individual and collective life, bridging the inner and outer worlds. They are cognitive systems, but also embodied, affective, and symbolic enactments. Their function is not solely to produce trance, ecstasy, or visionary states, but to weave these moments of heightened awareness into cultural narratives, mythologies, social structures, and individual biographies. *Ritual media* draws on this same holistic logic. It is conceived as a multidisciplinary and multimedia practice that integrates symbolic design, technological interaction, spatial aesthetics, and embodied engagement to facilitate reflective and transformative experience. By synthesising sensorial, cognitive, and cultural dimensions, *ritual media* aims to reintroduce the integrative power of ritual into contemporary art and experience design.

In this sense, rituals offer what can be understood as amalgamative states, engaging mind, body, and spirit in unified participation. The symbolic frameworks of rituals do not merely reflect social values—they shape perception itself, altering what is possible to see, feel, and understand. Whether in initiation ceremonies, healing rites, or spiritual practices, rituals serve as powerful tools for managing the boundaries of consciousness, facilitating integration across multiple levels of experience. This complexity is what provides rituals their transformative potential, generating profound personal and social meaning. *Ritual media* draws from this very potential, using technological and aesthetic environments not simply to represent ritual, but to reactivate its function as a generator of direct experience, symbolic immersion, and embodied transformation within contemporary contexts.

2.11.2 Characteristics of Rituals: Common Structures and Variations

While ritual practices take diverse forms across cultures, their underlying structures often reflect a set of shared principles that have been consistently observed by scholars in anthropology, performance studies, psychology, and the arts. These recurrent characteristics do not suggest a fixed or universal formula, but rather a tendency for ritual to emerge as a patterned response to existential transitions,

collective crises, or processes of symbolic transformation.

One of the most enduring frameworks for understanding ritual comes from Arnold van Gennep's seminal work *The Rites of Passage* (1909), in which he proposes a three-phase structure that informs both academic theory and artistic practice: (1) separation, in which the participant detaches from a prior state; (2) liminality, the ambiguous and transformative in-between; and (3) incorporation, the reintegration into a new identity or role. These serve not only to guide social transitions—birth, initiation, marriage, death—but also to frame psychological and spiritual shifts, that reconfigure identity, belief, and perception through performative and symbolic means. (van Gennep 1960)

Victor Turner expanded van Gennep's model by emphasising the dynamic power of the liminal phase. Liminality, for Turner, is a threshold state of ambiguity and potentiality, wherein normative structures are suspended and new possibilities can emerge. It is within this space that transformation is most acutely experienced: through ordeal, play, or communion, participants are opened to altered modes of consciousness and reoriented toward the sacred or the collective. (Turner 1982)

This emphasis on ambiguity and openness as generative conditions resonates strongly with the conceptual basis of *ritual media*, which intentionally designs for liminality as a space of suspension, subjectivity, and heightened awareness. Rather than dictating interpretation or enforcing symbolic meaning, *ritual media* creates environments in which ambiguity becomes a method, inviting each engagers to encounter their own thresholds of perception, feeling, and sense-making. Like traditional rituals, it holds space for transformation, but unlike institutionalised forms, it resists closure, offering instead an aesthetic structure that foregrounds the fluid, experiential, and ephemeral nature of meaning itself.

More recent approaches, such as those proposed by Charles Laughlin and Robbie Davis-Floyd, offer a neuroanthropological perspective, emphasising how symbolic actions, rhythmic repetition, and sensory intensification activate specific cognitive and affective responses. Rituals, in this view, are not symbolic overlays on otherwise functional behaviour, but deeply integrated mechanisms for coordinating bodily, emotional, and cultural experience. They function through what the authors call 'ritual drivers'—elements such as music, gestures, formalised language, framing, and staging—that work across neurological and cultural domains to gen-

erate cohesion and modulate consciousness. (Laughlin and Davis-Floyd 2022)

In *The Craft of Ritual Studies* (2014), Ronald Grimes has also contributed to the evolving understanding of rituals by challenging static definitions and encouraging attention to the improvisational and creative aspects of ritual practice. His methodology focuses on the design of rituals not as fixed forms, but as processual acts shaped by context, intention, and cultural sensitivity. He acknowledges the structure proposed by van Gennep but insists that real-world rituals often blur, remix, or reimagine these phases depending on their social and aesthetic aims. (Grimes 2014)

Despite disciplinary variations, a number of shared features emerge in these characterisations: ritual is performative, often highly stylised; it operates within a framed time-space distinct from everyday life; it evokes heightened affective states; and it employs symbolic actions to transmit, transform, or stabilise belief and identity. Rather than aiming to catalogue ritual forms in this section, the intent is to acknowledge the structural and experiential regularities that make ritual recognisable across divergent domains. These shared patterns—of preparation, transition, climax, and resolution—inform not only anthropological analysis but also the way contemporary artists and researchers have approached the creation of immersive, transformative experiences.

2.11.3 The Intersections of Art and Ritual

The historical and conceptual relationship between art and ritual is deep and multifaceted. Both arise from a human impulse to symbolically frame experience, to give shape to the ineffable, and to transform inner states into shared, perceptible forms. In many early societies, there was no distinction between the two: ritual action was aesthetic, symbolic, and performative, and art was embedded within spiritual, communal, or shamanic contexts. From prehistoric cave paintings to funerary ceremonies, from masked dances to sacred chants, art and ritual have co-emerged as technologies of transformation—sensory, emotional, and cognitive tools that facilitate shifts in consciousness and meaning-making.

Several authors have situated the origin of art within ritual practice, arguing that symbolic creativity emerged not as a pursuit of beauty but as an extension of ritual needs. Suzanne Langer describes art as the creation of forms symbolic of

human feeling, and emphasises its origin in rhythmic, performative, and ritualised activity. (Langer 1953) Similarly, Ellen Dissanayake in *Homo Aestheticus: Where Art Comes From and Why* (1992) proposes that art evolved as a means of 'making special' significant moments, distinguishing them from ordinary experience through aesthetic framing. (Dissanayake 1992) Her view aligns closely with early anthropological interpretations of cave paintings as magical acts or visual rituals designed to ensure successful hunts, connect with spirits, or mark cosmological events. The symbolic dimension of these acts was inseparable from their embodied and affective impact, merging perception, intention, and communal belief.

In *Material Thinking: The Theory and Practice of Creative Research* (2004), Paul Carter has further elaborated on this by framing artistic processes as inherently ritualistic. His notion of material thinking highlights the way in which the artist's engagement with materials—through shaping, repetition, and symbolic assembly—mirrors ritual procedures. (Carter 2004) The artwork, in this sense, is not merely a product but a residue of a process of transformation, both personal and cultural. Carter draws attention to the mythopoeic aspect of both art and ritual: the capacity to produce meaning not only through content but through the very act of symbolic engagement with space, gesture, and matter.

While many of these reflections concern the origins of art, the discussion extends into the performative dimensions of contemporary artistic practices. Richard Schechner and Victor Turner have argued that modern theatre and performance art inherit the transformational logic of ritual. (Schechner 2002) (Turner 1982) The repetition of symbolic actions, the stylisation of gesture, and the collective attention of the audience echo ritual structures in form and effect. Erika Fischer-Lichte describes the transformative power of performance as arising from its capacity to create moments of shared presence, where the boundaries between performer and spectator blur, and where symbolic enactment opens up the potential for personal and collective transformation. (Fischer-Lichte 2008)

In the edited volume *Reading Contemporary Performance: Theatricality Across Genres* (2010), Cody and Cheng bring together a wide range of authors exploring the intersections of ritual, theatricality, and experimental performance. (Cody and Cheng 2010) While ritual studies are primarily applied to the analysis of avant-garde and performance art, some chapters briefly touch upon multimedia

installations. For instance, Debra Levine discusses how durational and immersive performance works can evoke ritual-like experiences through sensory immersion and symbolic repetition. These performances are framed as liminal spaces where aesthetic, perceptual, and symbolic elements converge. While the book does not provide a direct theorisation of installations as rituals, certain ideas—such as the blurring of boundaries between performer and audience, or the role of space and media in structuring symbolic engagement—resonate with the potential of installations to operate as ritual environments. When adapted into multimedia contexts, these dynamics can be seen to reposition the audience as active coparticipants in processes of transformation, evoking ritual-like effects even without formal ritual structure.

Few texts address art installations explicitly as rituals, though certain long-duration or immersive practices, such as those of Linda Mary Montano, make this link explicit. Montano's work draws on Hindu theology and chakra-focused endurance practice to create spaces of contemplative and transformative participation. The ritual-like dimension of such works lies not only in their content but in their temporal and affective structure: the repeated gesture, the stylised space, the performative presence, and the invitation to enter a state of attentive openness.(Montano 2000)

Pablo Helguera, writing from the perspective of socially engaged art, reinforces this view. For Helguera, the ritualistic aspect of art lies in its capacity to structure collective memory, to enact meaningful transitions, and to foster a shared sense of symbolic and emotional investment. Here, ritual becomes a tool not just for individual transcendence but for communal dialogue and transformation.(Helguera 2011)

Taken together, these perspectives suggest that the boundary between art and ritual is not fixed but historically and contextually shaped. In many contemporary practices—particularly those concerned with altered states of consciousness, symbolic engagement, or participatory immersion—ritual does not disappear, but is reconfigured. It is carried forward not as dogma but as structure, as affective rhythm, as symbolic depth. This convergence will become especially relevant in the next chapters, where immersive installation works and participatory environments are explored not simply as aesthetic experiences, but as ritual me-

dia—spaces designed to induce and frame transformations of perception, embodiment, and self-awareness.

The discussion above has traced the intricate connections between ritual and artistic practice, from their shared origins in symbolic enactment to their reconfigurations in contemporary performance and installation art. These practices demonstrate that ritual has not disappeared from the cultural landscape but has instead migrated into aesthetic forms that maintain its transformative, symbolic, and affective structures. In particular, the immersive and participatory qualities of installation art offer fertile ground for ritual processes to unfold in new, technologically mediated contexts. These are not rituals in the traditional religious sense, but experimental forms of embodied inquiry that retain ritual's capacity to modulate consciousness, reorganise perception, and cultivate shared experience. This perspective provides the foundation for the methodological approach that follows, where the design and evaluation of artistic experiences are framed as contemporary rituals. The next chapter introduces the research design and methods used to investigate these questions through the development of site-specific, participatory installations grounded in the conceptual framework of *ritual media*.

2.12. Design and Research Methods

2.12.1 Design Practice As Research

There are several kinds of goals and contributions from this research. While some tend more toward the practical and empirical, others possess a more intellectual nature. The design and production of the artworks and the analysis of the process have brought about a series of insights into diverse areas of knowledge and, ultimately, the development of the *ritual media* concept and framework. In design methodology, this fits into Practice as Research, which consists of generating theoretical knowledge on design through practical development, usually iterative and reflective. From this approach, designing turns into a way of inquiry about the process itself, testing ideas and refining the design method along the way. The openness and adaptability of Practice as Research allow the cultivation of new solutions and innovations.

The purpose of Practice as Research is not to make a commercially successful product but to create “artifacts (that) stimulate discourse around a topic by challenging the status quo and by placing the design researcher in the role of a critic” (Zimmerman et al. 2007). The criteria for evaluation take distance from the scientific method in which it would be expected that anyone could recreate the same results from the same experiment. Instead of that, it is the relevance of the topic and the potential extensibility that has value. This is precisely what happens in this research. There are infinite ways of addressing the problem of consciousness and, due to its subjective nature, it cannot be expected that results could be replicated. However, the framework of *ritual media* allows for further experimentation.

2.12.2 Speculative Design

Speculative Design is a crucial approach for conveying the purpose of this research. While a majority of design approaches are focused on problem-solving, Speculative Design takes distance from it. What drives it is not finding a solution for an existing problem but inquiring about future possibilities, projecting ideas (and ideals) of wanted futures (sometimes even unwanted futures), and provoking reflections of an order that goes beyond a commercial or functional purpose. Similarly to Design Practice as Research, Speculative Design relies on the design process as a way to create knowledge, to theorise on concerns that address sociocultural matters, scientific research, and philosophical questions. Projects carried from Speculative Design might not find answers or solutions. Instead, their contribution and output come in the form of questions, unexpected ideas, and visionary manifestations, “all expressed through the language of design”. (Dunne and Raby 2013)

This research emerges from the speculation that there is a key in the integration of new media, rituals and artistic expression that leads to self-transcendence. Particularly in the developed art installations, health benefits are also brought about but more as necessary byproducts or bonuses of inquiring about the realms of consciousness and transcendence than as prior goals. Speculative Design encourages a design process even when the end results are uncertain and not guaranteed. Rather than asserting definitive goals or answers, this research is driven by the quest to understand what consciousness is and how artistic experience and a rit-

ualistic approach can potentially foster transcendence.

2.12.3 Showroom

The showroom approach is a design framework and evaluation method that derives from critical design. Its principles serve as a base to build a proper evaluation method embedded into the *ritual media* framework. The showroom approach is one of the design methods that assess the overlap between art and design practice. It has no pretension for objectivity and takes distance from limited scientific evaluation methods that require experiments to be universally replicable and verifiable. Instead, the showroom approach acknowledges that certain design research will depend on the particularities of the study subjects and environment and the subjective view of the researcher who is not expected to be an outsider expert with a supposedly more objective perspective but another subject that filters the analysis through their emotions and vision. The showroom approach looks for disruption and dialogue rather than conclusions, for ‘returns’ rather than data, debates rather than statistics, and it “allows designers to approach topics that seem inaccessible to science” (Koskinen et al. 2011). A major key idea is that it uses people’s stories not for the aim of collecting facts or scientific data but to produce a significant and rich understanding of the prototypes.

Another characteristic of the showroom format responds to a curatorial matter. It takes distance, for instance, from conventional art galleries and exhibitions because the display of the prototypes or works requires a setup that serves as a conceptual framework that follows the specific intentions of the research.

The central topic of this research, consciousness, has per se an ambiguous nature. Therefore, the method and possibilities of the showroom approach I just introduced are ideal for addressing the subjective and controversial character of consciousness.

2.13. Theories and Transdisciplinary Fields

2.13.1 Technoetics

The term 'technoetics', introduced by the academic and artist Roy Ascott, is composed of 'technology' and 'art' ('techne') with the study of consciousness ('noetics'). This research stands in the field of technoetics in that it studies consciousness from a transdisciplinary perspective, it is developed at the intersection of art, philosophy, wellbeing science, design theory, and technology. In this sense, the *ritual media* framework and the creation of the artworks as a means and end to inquiry on consciousness do not exclude the scientific method. While technoetics is freed from the need for objectification, it is informed by science. Technoetics invites combining art and science, as Ascott mentions: "The mysterium of consciousness may be the final frontier for both art and science, and perhaps where they will converge" (Ascott 1999a). In this research, there is a revision of scientific wellbeing studies that serves the artistic process to design interactive experiences that influence the body and mind in deliberated ways and the evaluation methods are used to gather information on the reception of the artworks. In principle, art does not require verification, but in this case, the feedback from the participants of the interactive artworks is used to expand the creative process and to better elucidate how interactive art and rituals can alter consciousness.

2.13.2 Somaesthetics

Like technoetics, somaesthetics is also an interdisciplinary field that explores the relationship between embodied experience and human interaction through technology. Somaesthetics encompasses a wide range of disciplines, including philosophy, art theory, cultural studies, phenomenology, psychology, and performance studies. It explores body consciousness, bodily movement, sensory perception, the connections between body and mind, the role of embodiment in art, and the ways in which bodily practices shape our aesthetic sensibilities. It also emphasises the cultivation of self-awareness and self-transformation through bodily practices, encouraging people to develop a more mindful and conscious relationship with their bodies and enhance movement, bodily perception, and expression for self-growth

and aesthetic development.(Höök 2018)

Both the artworks and design framework developed in this research coincide with all these aspects of somaesthetics. *Ritual media* is part of somaesthetics. Within the ritual characteristics, bodily engagement is essential. Furthermore, the installations are based on embodied interaction through the biofeedback of the breath and the physical disposition required for meditation. Also, the breathing techniques are incited through an interaction based on an aesthetic sense that influences the body directly. This will be explained in detail later in the descriptions of the installations' interaction but, to provide an example, if the engager breathes smoothly, the image and sound will also be smoother. Thus, the engager's bodily reactions are guided by an aesthetic sense in a relatively intuitive way, more than through a rational or linguistic understanding. The artworks could be seen as phenomenological experiments in which the play of diverse stimuli shifts perception, necessarily bringing awareness of the body–mind connection.

While this research draws on somaesthetics as a foundation for embodied interaction and aesthetic reflection, it also expands the inquiry into areas less explored by Shusterman's formulation. Somaesthetics focuses largely on the refinement of everyday bodily awareness, mindfulness, and the development of somatic practices for personal cultivation. The present work, in contrast, explores the body not only as a site of aesthetic self-awareness but as an interface for altered states of consciousness, symbolic enactment, and collective ritual experience.(Shusterman 2008)

Here, bodily awareness is modulated through immersive environments and multisensory cues that invite participants into liminal states of attention, suspension, and transformation. Rather than focusing solely on self-cultivation, the body is repositioned within shared symbolic spaces, framed by ritual structures that blend sensory feedback, environmental choreography, and cultural meaning. The somatic becomes a threshold—not just for heightened perception—but for entering transitional spaces between the self and the other, the ordinary and the altered, the symbolic and the experiential.

In this way, somaesthetics provides a useful conceptual base, but *ritual media* shifts the emphasis from individual bodily cultivation to embodied participation in symbolic environments. This allows for a more collective, affective, and trans-

formative understanding of the body within contemporary aesthetic and spiritual practices.

2.13.3 *Transcendalia Art*

The concept of *transcendalia art* is introduced by Ken Wilber. It is more a transdisciplinary and transphilosophical reflection, rather than transdisciplinary. Yet it is crucial in this research to analyse the possibilities of *ritual mediat* to induce a sense of transcendence or a shift of perception directly, experientially, and not exclusively conceptually or intellectually.

In the essay about *Sacred Mirrors* (1990), a series of paintings made by the visionary artist Alex Grey, Wilber proposes an understanding of art from the perennial philosophy—the non-dual doctrine that reunites the core of all mystical traditions, including Western religions and also Eastern traditions like Hinduism, Taoism, and Buddhism. From the perennial philosophy perspective, there are three forms of knowing/perceiving: the eye of the flesh (material and concrete), the eye of the mind (symbolic), and the eye of contemplation (spiritual): "The first realm made visible to the eyes of perception is composed of *sensibilia*, or phenomena that can be perceived by the body. The second realm is composed of *intelligibilia*, or objects perceived by the mind. The third realm consists of *transcendelia*, or objects perceived by the soul and spirit" (Wilber 1990).

Ritual media aims to produce artworks that directly alter perception, becoming part of the *transcendelia* realm. This does not mean excluding the realms of *sensibilia* and *intelligibilia*. In fact, representational aspects, symbolic meaning, and sensorial stimuli are all encompassed in a holistic experience that would potentially induce an altered state of consciousness. The concept of *transcendalia art* serves as an ideal or paradigm to aim for.

2.14. Wellness Elements In *Ethereal Phenomena* And *Convergences Of The Spirit*

2.14.1 Breathing Techniques

The breath is what links all the elements of the artworks and what connects the engager to them. Breathing reflects and influences all aspects of our mental, emotional, and physical state. It is a physiological, psychological, and conditioned behaviour (Rinpoche and Zangmo 2013). It is the only visceral function of the body that we are able to control. By acquiring awareness of the breath we can better understand our mental, emotional, and physical states and by improving the way we breathe we can influence them. There is a wide variety of breathing techniques. While the most common is that they produce calmness, there are many that induce different states of consciousness and that influence the mind, body, and emotions distinctly.

In the artworks developed in this research, there are mainly two breathing modes, one for each, that are encouraged through the interaction design: abdominal breathing for *Ethereal Phenomena* and coherent breathing for *Convergences of the Spirit*. The details of these ways of breathing and their benefits in terms of wellness and consciousness development will be presented later while introducing the specificities of each artwork.

2.14.2 Meditation

In the same way as with breathing techniques, there are infinite ways of meditation and each one possesses its own characteristics and potential benefits. Some kinds of meditation are within the frame of religious traditions, others are secularised techniques, guided, non-guided, with or without body movements, with or without particular external tools, etc (Sampaio et al. 2017). The meditation experiences of *Ethereal Phenomena* and *Convergences of the Spirit* do not necessarily subscribe to a single technique but they reunite certain characteristics found in several into unique experimental meditations.

Esoteric Buddhist meditation and Transcendental Meditation are particularly relevant in the development of the art installations that serve as proof of concept in

this research. These two have in common the use of mantras—as it is characteristic of tantric practices—, and, besides having a series of health benefits, they seek to achieve a state of pure consciousness and self-awareness.

A lot of interaction research into meditation focuses on bodily reflection, health encouragement, and a heightened feeling of embodiment in general (Carpenter et al. 2019) (Cochrane et al. 2021) (Khut and Howard 2020) (Lin et al. 2020) (Salehzadeh Niksirat et al. 2017) (Yu et al. 2016). However, most of these types of studies have not addressed matters of consciousness. One of the few studies that considers changes in cognition and performance and also evaluates the state of self-transcendence or pure consciousness is focused on Transcendental Meditation (Travis 2014). According to Frederick Travis, Transcendental Meditation consists, basically, of sitting down and mentally repeating a mantra. Self-transcendence or pure consciousness is a state in which the mind is free from content, provoking a realisation of non-duality, of dissolution of the boundaries of self, and, therefore, of unity with everything. Practitioners of Transcendental Meditation characterised pure consciousness by the absence of time, space, and body. A deep and slow pace of breath is also one of the physiological characteristics of Transcendental Meditation. This particular study serves as a model for the design of the evaluation methods applied in the user studies of the research.

2.14.3 Breathing Biofeedback

Visualising the breath has a tremendous potential for wellness (Gervais et al. 2016) (Weerdmeester et al. 2020). It allows practitioners to monitor the way they breathe, informing them of their physiological and psychological condition in real-time so they can deliberately modify their breath. It also contributes to managing diverse health issues like stress and anxiety. It must be highlighted that to make biofeedback training effective, just displaying the biosignal is not sufficient as the practitioner must possess certain knowledge on how to correctly modify their activity.

In this research project, biofeedback is the base of the artworks' interaction. The breath signal of the user/performer is not barely reflected as raw numbers data or a wave representation, which would not be enough to inform on how to breathe appropriately. There are also no instructions on how to breathe. Instead,

the different parts of the images and the audio effects reflect the breath in a way that makes it evident when the respiration is too shallow or fast. In principle, the user/performer would try making the image parts smoothly and rhythmically and will accommodate their breathing pace to achieve a pleasant sound. There is a sort of gamification guided by an aesthetic sense that induces an appropriate way of breathing, which results in a quite unique form of making biofeedback effective.

The implementation of biosignals implies that artworks are not complete without an engager monitoring the system with their own body. In this sense, the biofeedback interaction is what unifies artworks and users/performers. This bilateral exchange dissolves the dichotomy between subject and object, bringing a non-dual experience, which is characteristic of states of transcendence.

2.15. Related Artworks

In this section, I introduce a series of artworks related to this research. Afterwards, I discuss what are the novelties I am offering through my research, the production of the installations, and the concept of *ritual media*.

Probably the artworks that have the most points in common with *ritual media*, are from the artist Mariko Mori. Mori created two architectural installations. The first is *Dream Temple* (see Fig. 2.1), a replica of the Yumedono or Hall of Dreams that is at the Buddhist Temple Hōryūji, founded more than 1400 years ago. Inside *Dream Temple*, there is a sphere with projections of an abstract animation that, for Mori, consists of a sort of story of consciousness and it is related in particular to the Yogācāra philosophy (Mori and Celant 1999). The second installation is *Wave UFO* (see Fig. 2.2), a spaceship to which visitors enter and contemplate visuals that react to their brainwaves. In both cases, Mori created immersive experiences that strongly alter the perception of the visitors/users and, therefore, consciousness. (Mori 2003) Like the artworks that are developed in this research, *Dream Temple* is deeply inspired by Buddhism and *Wave UFO* uses biosignals.

Like *Dream Temple*, *Wish Happiness* (see Fig. 2.3) from Kristina Mah is an art installation inspired by Buddhism. It adapts traditional Tibetan Buddhist rituals into a wheel that people can rotate together, producing a shared experience that is meant to motivate compassion (Mah et al. 2020). The installations of this research



Figure 2.1 *Dream Temple* by Mariko Mori (1998)
(Mori and Celant 1999)

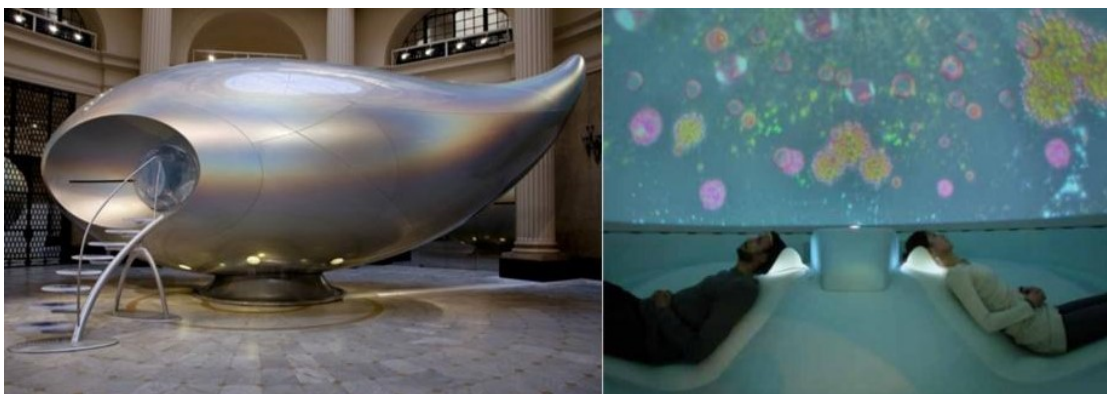


Figure 2.2 *Wave UFO* by Mariko Mori (1999-2003)
(Mori 2003)



Figure 2.3 *Wish Happiness* by Kristina Mah (2020) (Mah et al. 2020)

are also drawn from Buddhist rituals and seek to induce a sense of transcendence, which is relatable to compassion and togetherness. This work also included a user study but the focus is on evaluating the sense of compassion.

Following a similar line, there are three particular art installations that were made within the framework of technoetics: *Ouroboros VR*, *Anima*, and *Bion*.

Ouroboros VR (see Fig. 2.5) is a self-reference apparatus designed by Ioannis Bardakos. Bardakos records the user's brain activity through electroencephalograms and translates them into visuals and images in real-time through an interface. Then the user's brain is modified by the perception of these, and a circular flow is created. With this, Bardakos attempts to show how we perceive perception (Younes et al. 2017).

Anima is described by her creator Elhem Younes as an interactive experiment

to increase mental imagery processes that establish special perceptual modalities between users and the artwork. Through eye-tracking technology, the users can draw and create animated figures that are projected. However, the system used is configured in such a way that only abstract images can be made; even if the users try to make concrete figures or specific objects, they will not be able to. The exciting part is that, after the experience, the users affirm to have entered a hypnotic-like state. *Anima* is a case in which art and technology can directly alter consciousness and modify conventional perception (Younes et al. 2017).

Bion (see Fig. 2.4) is an intelligent installation made by Adam W. Brown that explores the relationship between humans and artificial life. The installation is composed of many hanging devices with embedded technology also called bion. Each bion is “a small, technological and synthetic entity, with low-level artificial intelligence and infrared sensors that enables each bion able to communicate with other bions, as well as with human interactors” (Anker 2009). Bions interact with the users through sound and light.

Bion was conceived as a space for the expansion of the conscious mind. *Ouroboros VR* and *Anima* look for an aesthetic of consciousness through the use of cybernetic feedback and self-reference as a structural process of circular information flow which resonates with the biofeedback integrated into the installations of this research.

Another related artwork is *AuxeticBreath* (see Fig. 2.6), an installation composed of auxetic structures that display the rhythmic respiratory rate and tidal volume (Youn 2021). *AuxeticBreath* shows the relevance of how artistic means mixed with technology can help to promote awareness of breathing properly to produce wellness. This last aspect is also one of the purposes of the artworks of this research.

2.16. Novel Contributions

Besides the relations that were already mentioned, the works presented not only have a conceptual background but also seek a direct influence on perception and a shift on consciousness through embodied experiences, which would also coincide with the idea of *transcendalia* art that I introduced previously. Mainly this would

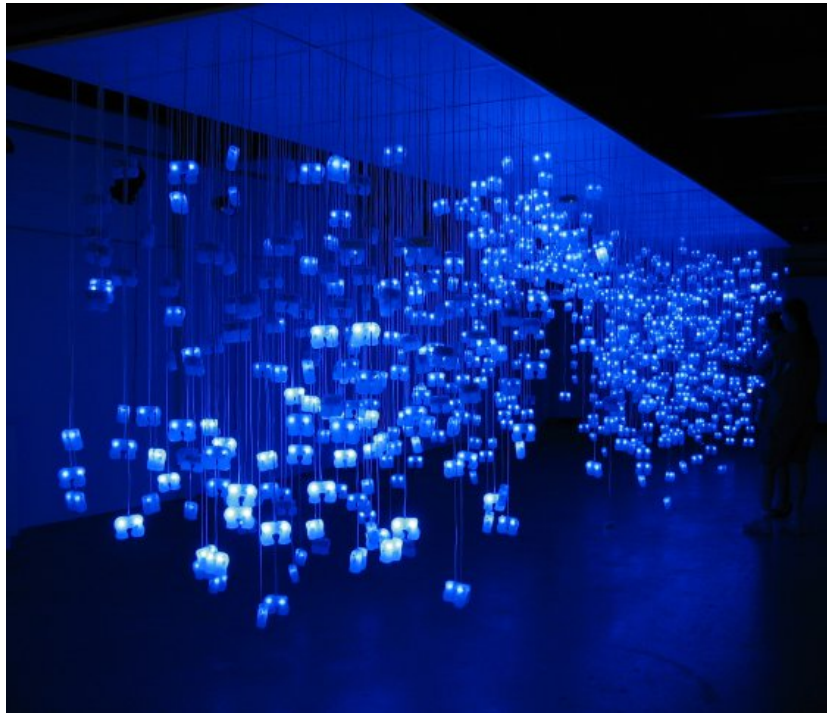


Figure 2.4 *Bion* by Adam W. Brown (2009)
(Brown and Gerbarg 2012)

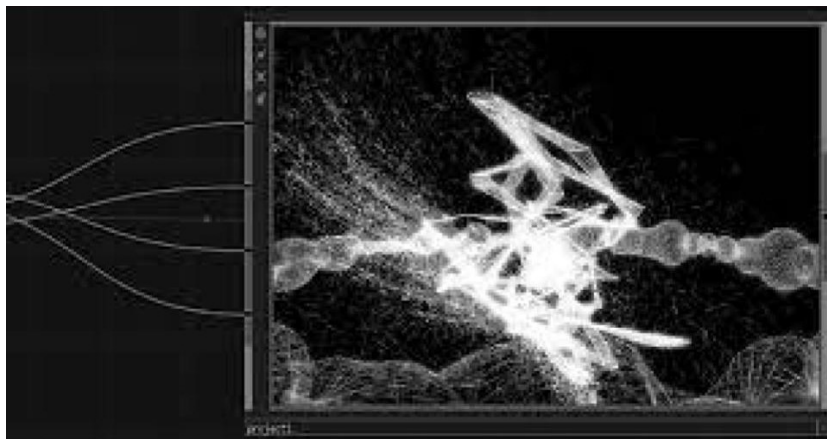


Figure 2.5 *Ouroboros VR* by Ioannis Bardakos (2017)
(Younes et al. 2017)

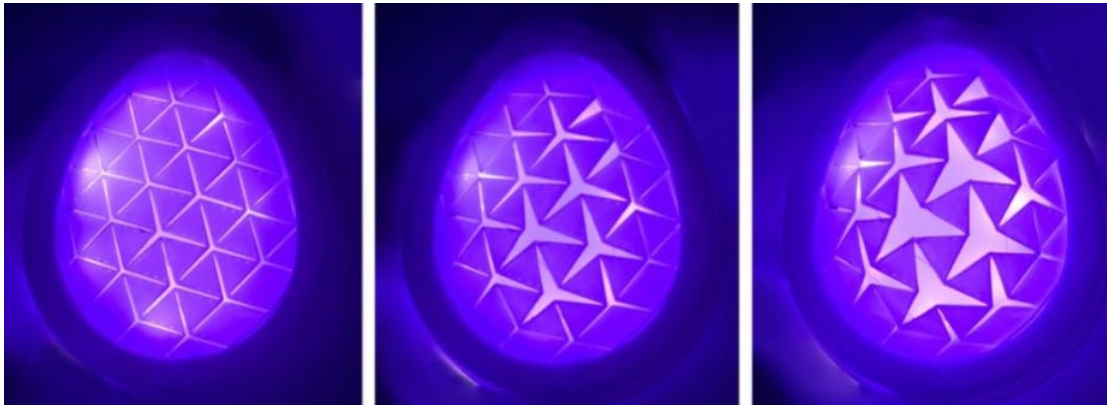


Figure 2.6 AuxeticBreath by Hye Jun Youn (2021) (Youn 2021)

make them fit within the concept of *ritual media*.

Nevertheless, the key aspect that I am proposing in this research is to go beyond the showcase of the artworks and, like in rituals, curate a setup and conditions surrounding the central installations and implement experimental evaluation methods that help to reunite data, returns, and stories, not only about the particular experiences of each specific artwork but also about consciousness and consciousness-related topics in general. The speculation and purpose is that this could eventually contribute to diverse fields of knowledge, from philosophy to science.

Chapter 3

Ritual Media: Concept and Methods

Inspired by common and generalisable aspects of diverse rituals around the world and various theoretical frameworks from ritual studies, I developed *ritual media* as a concept and design framework for transdisciplinary art creation focused on inducing altered states of consciousness with the aim of better understanding its nature.

I refer to both the artworks and the methodologies to create the artworks as *ritual media*, since the process and output product overlap. The term reunites the notion of ‘media art’, understood as art that utilises multiple media and technologies and produces new forms distinct from the encountered in fine or traditional arts, and the idea of rituals, as characterised in the previous literature review.

Following these suggestions, this research proposes to approach art as a ritual, to transform artistic experiences into our spaces/times to transcend ourselves and to explore our bodies, minds, spirit, and consciousness. This is the core idea of *ritual media*.

3.1. Universal Characteristics of Rituals

I articulated a nine-point series that synthesises the main characteristics of rituals. To exemplify them, I take a common and universal archetype of ritual, the rite of passage, present in diverse Indigenous cultures around the world, like the Lakota and other Native North American tribes, the Yanomami people from the Amazonas, or the Aboriginal Australian Walkabout, among many others. Concisely, the rite of passage is a transformative journey where an initiate departs

from their known life, undergoes challenges like going alone into the wilderness, confronting and reshaping their identity. Then they return to their community and socialise their new selves usually with the ancients, healers, or shamans and the more experienced of the group. This archetype of ritual can be taken as a blueprint to design a *ritual media* experience.

Here are the characteristics of rituals to consider for the design and evaluation of a *ritual media* experience:

1. **Repetition and Structure:** Rituals often follow a structured format that engagers engage with consistently, a specific sequence or set of actions that are repeated over time. For instance, rites of passage are often structured, with a set of stages like separation, initiation, and return, which provide a familiar, dependable framework for guiding the initiate through transformation.
2. **Symbolism:** Symbols and elements that hold significance within the context of the experience are fundamental to rituals. These can enhance the meaning and emotional or spiritual resonance of the experience. In rites of passage, collected objects, visions, or tasks are imbued with symbolic meaning, helping the initiate interpret personal and universal discoveries about identity and belonging within the community.
3. **Intentionality:** The experience must be designed with a specific purpose or intention in mind. Rituals are purposeful, whether for personal reflection, community bonding, or spiritual connection. In a rite of passage, the initiate enters the forest with the intention of growing, proving maturity, and overcoming challenges. In this sense, it is designed with the specific intention of guiding an individual's transition, be it into adulthood, a new social role, or a deeper spiritual understanding, making the ritual purposeful and directed.
4. **Communal or Personal Connection:** Many rituals are performed in community settings and consist of a collective action with shared intention that fosters connection and collective identity. Other rituals consist of an individual experience of inner connection and discovery. While many rites

of passage involve personal, solitary experiences (like vision quests), they often conclude with communal ceremonies that welcome the initiate back, reaffirming social bonds and collective identity.

5. **Emotional Engagement:** Rituals often evoke deep feelings or transcendence, enhancing participants' connection to the experience. The intense physical and emotional experiences of rites of passage—often involving challenges, revelations, or symbolic deaths—allow participants to deeply connect with their inner selves and transform.
6. **Transcendence:** Ritual experiences often facilitate a sense of transcendence or connection to something greater than oneself, whether spiritual, communal, or existential. Rites of passage encourage a shift in perspective, helping the initiate to transcend their former self and gain a connection to something greater, whether it be the spirit world, nature, or community.
7. **Time and Space:** Rituals may create a liminal space where ordinary rules are suspended and time and spatial perception are altered, allowing for transformation or deeper reflection. Entering a sacred, liminal space (such as a forest or ritual circle) suspends ordinary life, allowing the initiate to step outside conventional boundaries and access a state open to transformation.
8. **Resonance of the Cultural Context:** Rituals are often rooted in cultural traditions, beliefs, and practices, shaping their form and meaning. They embody that culture's understanding of identity, growth, and connection, giving participants a sense of place within a larger tradition or common set of practices and ideas. The context can vary in scope and be a local community or cultural scene or a specific setup or environment.
9. **Socialisation:** Rituals often include a conversation, a process of communication between participants that contributes to creating connection and mutual support and guidance for each individual's state and personal journey. In rites of passage, for example, upon returning, the initiate often engages in shared conversations with elders and peers, discussing their experiences, gaining guidance, and reinforcing their place within the community and the collective journey.

3.2. *Ritual Media* Manifesto

In this part, I address each point presented in the Introduction as the characteristics of *ritual media*, which I also refer to as the '*ritual media* manifesto'. This is the outline of the methodology that is developed and applied throughout the research.

1. ***Ritual media* are artistic experiences that invite engagers to approach them with a ritual disposition:** Following the characteristics of rituals to design media experiences is a method to produce a context to navigate consciousness and recover or diversify the benefits of traditional rituals in a contemporary context. The notion of a 'ritual disposition' is subjective but following the characteristics and patterns from traditional rituals provides a base to induce it.
2. ***Ritual media* integrate technologies and combine media to create immersive and interactive experiences with the aim of dissolving the separation between engagers and work, between subject and object:** Immersion and interactivity are elements that foster the union between a media artwork and its engagers. New technologies and experimental uses of media contribute to creating interactive experiences.
3. ***Ritual media* foster body and mind connectivity:** They require engaged bodily participation and active contemplation. Interactive and collective processes foment physical engagement with the experience and, by extension, the psychological state is also influenced. This follows the logic of rituals, as explained by Han. While not limited to it, the use of biosensing is highly effective in engaging the body. In the case of *Ethereal Phenomena* and *Convergences of the Spirit*, the breathing biofeedback is one of the most influential elements that link mental and physical processes. According to Han: "The body moves the spirit, not vice versa. Body does not follow spirit, but spirit follows body. We may also say: the medium produces the message. This is the force of ritual" (Ascott 1999b).
4. ***Ritual media* attempt to produce altered states of perception and consciousness and heightened awareness:** This point emphasises the

aim of inducing altered states of consciousness, influencing different senses and creating new ways of perceiving. By combining multiple stimuli—such as interactive and immersive elements—*ritual media* invites participants into direct, active engagement rather than passive contemplation or mere conceptual understanding. Like traditional rituals, these experiences are crafted to shift participants from ordinary consciousness into heightened awareness by using repetition, symbols, music, or specially prepared spaces to help them move beyond routine thought patterns and suspend daily concerns. Through this sensory and immersive approach, participants connect deeply with the present moment, community, or spiritual dimensions, potentially transcending individual identity to access a timeless, shared reality. Such altered states foster personal transformation, emotional release, and insights beyond the reach of everyday consciousness.

5. ***Ritual media* reunite symbolic elements with direct stimuli to produce an encompassing experience:** While the purpose of *ritual media* is to induce a perceptual experience, symbolic meaning also plays an important role in guiding participants toward a sense of transcendence and suggesting a spiritual intention. Symbols do not necessarily have to be explicitly derived from an already existing tradition, but the emergence of symbols in ancient traditions tends to have strong rationales that sustain them and can be more identifiable and relatable, depending on the context. What is fundamental is that they give the experience a tone, so it is approached with a deeper intention than just as an entertaining moment.

6. **More than finished outcomes, *ritual media* are processes of iterative experimentation that incorporate creative evaluation methods to socialise the experience and collect feedback from engagers, producing knowledge on consciousness and expanding the scope of the artwork:** Socialising is a crucial element in rituals. Many artists create immersive artworks but struggle to collect feedback and stories from engagers in a way that is not disruptive and separate from the core experience, but rather a continuity that is seamlessly integrated into it. This challenge arises because conventional evaluation methods are often disre-

garded by artists who choose to create without considering the reception of their artwork. Furthermore, those methods tend to attempt objectification, which limits the subjectivity of the experience. In *ritual media*, analysing the impact on engagers is valued. *Ritual media* invites creators to gather the stories surrounding their artworks as a means of improving their designs and producing knowledge related to consciousness.

Ritual media is a response to the need of encouraging creators to adopt a trans-disciplinary and holistic approach to explore and develop altered states of consciousness through ritualised artistic experiences. The term *ritual media* reunites the notion of ‘media art’, understood as art that utilises multiple media and technologies and produces new forms-distinct from the encountered in traditional and fine arts, and the element of rituals, as characterised in the previous Literature Review. *Ritual media* encompasses not only an output product, for instance a finished art installation that is displayed, but it includes a designed environment and curated progression of actions aiming to induce immersion into the artwork and to socialise the experience with it. In this sense, it expands the conception of the artworks beyond its materiality and has a performative and investigative character. *Ritual media* overlap process and output product, it is both the artwork and the methodology.

3.3. *Ritual Media* Framework

Ritual media is a design framework for *ritual media* art aimed at inducing altered states of consciousness and transcendence. This framework incorporates strategies for designing immersive, sensory-rich experiences while also including methodologies to gather feedback on the subjective experiences of participants or audiences. This framework merges concepts from art, ritual studies, phenomenology, and contemporary immersive media, integrating both the artistic design process and the collection of data on consciousness. The following is a response to how to design *ritual media*.

- **Purpose and Intent** Reflect on the diverse purposes of rituals. How will your design alter consciousness? Will it foster awareness of the body-mind

connection, induce self-transcendence, facilitate emotional or perceptual exploration, encourage personal or collective transformation, or establish a relationship between participants and the object or installation itself? In the context of *Ethereal Phenomena* and *Convergences of the Spirit*, my goal was to evoke a sense of transcendence rooted in the Buddhist concepts of liberation and enlightenment. While these ideas can be challenging to define due to their varied interpretations, this ambiguity allows for openness and flexibility. A sense of transcendence can manifest at multiple levels and in countless ways, making it a concept that invites exploration and personal navigation.

- **Ritual Disposition** Symbolic meaning is a fundamental aspect of rituals. To invite a ritual disposition, it is necessary to create a symbolic universe. This can be an adaptation of already existing symbolic universes, such as traditional rituals, a specific cultural context, transcultural elements, or even a particular field of knowledge, a theoretical framework, a narrative, a philosophy, or a poetic approach. It can also be a unique, personal symbolic universe that does not explicitly reference a pre-existing one.¹ The development of a symbolic universe is intended to encourage a ritual approach. It seeks to establish common ground that participants can relate to. This requires balancing the particular/personal with the universal/collective.² For *Ethereal Phenomena* and *Convergences of the Spirit*, the symbolic universe is based on Buddhism, particularly tantric and esoteric traditions from China and Japan. Although the installations are ‘new media’—composed of digital elements such as projections, screens, and sensors, making them non-traditional in form—they explicitly incorporate Buddhist symbols and follow compositional aspects of traditional Buddhist art. At the same time, they take certain liberties, perhaps even transgressions, such as using a colour palette based on colour psychology rather than traditional Buddhist symbolism. After receiving feedback from participants, I confirmed that the Buddhist elements were generally not perceived religiously but rather in a universal and open-ended way.³ Among the participants in the user studies, there were no significant aversive reactions or conflicts, nor did they feel pressured to convert to Buddhism in any religious sense. Instead, they tended

to adapt their engagement with the artworks to their own perspectives and levels of prior knowledge, sometimes integrating the experience into their personal practices and beliefs based on their cultural backgrounds. In other words, the world of Buddhism served as a narrative framework through which symbols and concepts such as non-duality, compassion, awareness, presence, meditation, breathing, and self-transcendence were presented in a universally accessible manner. From my perspective, the essence of Buddhism is not confined to a cultural context but can be understood as a cognitive methodology. Nonetheless, it is necessary to acknowledge that the Buddhist elements in the artworks could potentially conflict with someone's ideology, beliefs, practices, or values. While I am aware of this limitation, I have found that engaging with Buddhist symbols and philosophy has been more effective in fostering connection than attempting to strip the experience of religious associations altogether. The context in which the artworks are presented plays a fundamental role. For instance, in Japan, where Buddhism is deeply ingrained, participants are less likely to harbour strong aversions to Buddhist elements. In other cultural settings, I might have been more cautious about using explicit Buddhist iconography to avoid potential religious disputes or the risk of exoticism, which could alienate participants rather than foster connection.

- **Immersion and Interactivity** Immersion and interactivity enhance the core characteristics of rituals, such as body-mind engagement, the fusion of physical, mental, and spiritual realms, self-transcendence, and the dissolution of subject-object boundaries. These aspects are intrinsic to ritualistic practice. How can engagers be integrated into the artworks? How can an encompassing experience be created?
- **Technology and Media** Technologies such as sensors, movement mapping, voice feedback, or manual actions—such as playing an instrument—foster a deeper connection with the artworks. The concept of technology is not confined to digital media; it can also include plant-based technologies, craft techniques, or mechanical objects. Ritual media employs various technologies and media to extend consciousness exploration beyond traditional methods,

opening the door to novel forms of perception. These may stem from conventional artistic practices or traditional ritual elements, but they are not limited to them. In *Ethereal Phenomena* and *Convergences of the Spirit*, among other elements, breathing biofeedback interaction plays a fundamental role in fostering a sense of unity between the engager's body, mind, and spirit and the artwork itself.

- **Consciousness Modifying Techniques** There are various ways to induce a shift in consciousness. Sensory immersion can be achieved by stimulating multiple senses simultaneously, incorporating visual projections, soundscapes, physical movement, scents, and tactile elements. These multisensory inputs should be designed to engage both the body and mind, helping participants dissolve self-boundaries and potentially reach states of flow or self-transcendence, merging their inner selves with the surrounding environment. Psychosomatic practices derived from traditional knowledge, as well as disciplines such as neuroscience, psychology, and health sciences, offer powerful means of altering consciousness. Examples include meditation, postures, physical exercises, hypnosis, and perceptual stimuli such as sound and visual effects. *Ethereal Phenomena* and *Convergences of the Spirit* were developed holistically, drawing on both Buddhist and scientific techniques. The breathing technique employed in *Ethereal Phenomena* is influenced by both Tibetan Yantra Yoga and scientific research on abdominal breathing and breathing biofeedback. For *Convergences of the Spirit*, the primary technique is coherent breathing, which is also used in various forms of Buddhist meditation. While the installations do not include traditional chanting, both incorporate soundscapes based on repetitive patterns that function similarly to mantras. Scientific research, such as studies on Transcendental Meditation (based on mantra recitation), has demonstrated the potential of sound repetition to influence both body and mind. *Ritual media* alls for an interdisciplinary approach that integrates contemporary scientific research with traditional knowledge, bridging Western and Eastern perspectives, cultural and personal influences, to create unique experiences that unite their shared foundational elements.

- **Performativity** *Ritual media* must be performed in a specific manner. This could involve actions, gestures, the use of wearable gear, dancing, chanting, or other performative elements. Interactive components encourage performative action, disposition, and behaviour. Performativity can also manifest through verbal interaction, whether written or spoken, which should be integrated into the overall experience in a curated way. For the user study/performance involving *Ethereal Phenomena* and *Convergences of the Spirit*, I asked participants to remove their shoes before entering the installation space, which was marked by rugs. I also assisted them in wearing the breathing sensor—a harness with two belts—the heartbeat sensor, which was a lotus flower sculpture with an attached finger pulse sensor, and the headphones. This process created a physical connection between the participants and me. During this preparation, conversations naturally unfolded, leading to explanations of certain elements of the work. This interaction helped set a disposition that facilitated immersion. It is crucial to strike a balance between providing guidance and leaving aspects open to interpretation, ensuring that engagers can explore, experience, and assimilate the artwork without undue influence or bias.
- **Environment** The space must be curated with intention. This does not mean modifying every detail but rather being aware of the environment as a whole. Traditional gallery settings may not always be the most suitable locations. Unconventional spaces can often better support the immersive and ritualistic nature of the experience. Some artworks may even be inherently tied to a particular place—whether a living room, a garden, a forest, or a train carriage—where the environment itself enhances the ritualistic quality of the experience. Elements such as lighting, air circulation, temperature, materials, landscape, and noise levels all contribute to the atmosphere in which the ritual unfolds. A layered environment enhances immersion. Ritual media considers as many spatial layers as possible, from a core (or multiple cores) within the installation to the surrounding spatial contexts: the immediate engagement area, the framing elements such as furniture and architectural features, the broader room or site containing the artwork, and even external factors such as the cultural and geographical setting. Aware-

ness of these macro and micro scales expands the perceived boundaries of the artwork. I refer to this process as *layering*. This concept is inspired by Buddhist mandalas, which are composed of multiple layers representing different perspectives and dimensions. The mandala structure symbolises the order of the cosmos and consciousness. Similarly, this structure can be applied to media artworks by curating external layers to create deeper immersion. In other words, the artwork must be integrated into its surroundings, or the surroundings must be transformed as an extension of the artwork. For *Ethereal Phenomena* and *Convergences of the Spirit*, I opted for a controlled studio environment.* The details of the interior design are explained later. Within the studio, I used rugs and table arrangements to divide the space, creating an ‘island’ for each installation, a central table for socialisation, and a designated area for the laptop running the software and recording biosignals, where I remained during the direct interactions. Additionally, since the studio had an anteroom that functioned as a reception area, I used this space to conduct all formal and practical procedures—such as signing consent forms—before participants entered the ritual space. These spatial divisions and layers created a sense of transition, giving engagers the feeling of entering into, engaging with, and immersing themselves in both the artwork and their own inner experience.

- **Ritual Structure** To establish a ritual structure, it is essential to consider what happens before and after engagement with the artwork. The concept of layering applies not only to space but also to time, reinforcing immersion, progression, and transformation. It provides a framework that guides participants into the core experience and helps them transition out of it, allowing time for reflection and integration. For the user study/performance of *Ethereal Phenomena* and *Convergences of the Spirit*, I asked participants to complete a short questionnaire on their current mental and physical state before engaging with the installations. This served a dual purpose: it provided me with evaluative data and also helped participants turn their attention inwards, preparing them for the meditation experience. After the core experience, there were multiple layers of evaluation. Immediately following the meditation, participants were asked to freely express their impressions

through drawing or writing. This initial step captured their immediate resonance with the experience. Next, they completed a structured questionnaire, which prompted self-reflection. Finally, in the last stage, we engaged in conversation, allowing them to externalise and communicate their experience. A ritual structure does not have to be tied to evaluation; it can involve any surrounding activities that frame the installation or media work. However, in my case, integrating the evaluation process into the overall experience ensured that feedback collection became part of the ritual itself rather than a detached assessment.

- **Socialisation and Feedback** Most traditional rituals include a moment of socialisation, discussion, and collective processing. In the archetypal structure of a rite of passage, the community gathers to share words after the initiate returns from their immersion in nature or a personal challenge. *Ritual media* should aim to deepen our understanding of consciousness. Therefore, it must include a moment of socialisation and evaluation, allowing for the collection of data, reflections, and narratives on the subjective experiences of participants. This helps assess the capacity of the artwork to induce altered states. The evaluation process requires the development of experimental methods that are seamlessly integrated into the ritual itself. The priority is always the experience, not the collection of feedback; however, feedback serves as a vital resource for the artist or designer, informing the iterative improvement of the work. *Ritual media* is not confined to scientific methods, but these can be applied in experimental and open-ended ways to enhance the creative process.
- **Developing an Evaluation Method** The evaluation process in this research has not only provided information to improve the prototypes of the installations, but has also gone through various iterations aimed at enhancing its method, progressively refining the scope of the research. In other words, it has become a methodological inquiry in itself, seeking to build a design framework that responds to the specific needs of the research, particularly in dealing with the subjective nature of consciousness. In the Evaluation chapter, I will explain in detail the experimental and interactive process for

implementing methodologies to evaluate *ritual media*. The proposed method combines methodologies from diverse disciplines, providing a foundational base with objective elements while also nuanced to avoid constraining subjective aspects. Balancing subjective and objective characteristics is key to guiding participants to share their feelings, sensations, and thoughts on the specific topics the artist is interested in exploring—particularly consciousness—while avoiding over-biasing their responses. This approach has been applied throughout the evaluation processes of this research.

- **Application of the Framework** This design framework integrates principles from ritual studies, immersive art, phenomenology, and interactive technology to create *ritual media* art that induces altered states of consciousness. It incorporates multi-sensory immersion, psychological triggers, and feedback collection methodologies—both qualitative and quantitative—to assess participants’ subjective experiences. By doing so, this framework provides artists and designers with a structured yet flexible model for crafting immersive art experiences that extend beyond aesthetics, engaging participants in profound cognitive and emotional exploration. My vision is that interdisciplinary creators adopt *ritual media* as a design framework to produce artistic experiences that shift consciousness and collect and analyse the feedback from their engagers and that these artistic experiences bring about the benefits of rituals for consciousness exploration and personal and community growth.

While this research draws upon both technoetics and somaesthetics, *ritual media* constitutes a distinct conceptual framework that shifts the focus from individual perception or technological innovation toward symbolic transformation and ritual design. Technoetics, as framed by Roy Ascott, emphasises the telematic and cybernetic expansion of consciousness through technological interfaces, often privileging disembodied or virtual modalities. In contrast, *ritual media* foregrounds embodied presence, situated experience, and symbolic ecology. It engages technology not as an end in itself, but as a tool for shaping affective and liminal environments where transformation is framed through ritual structure. Similarly, while somaesthetics focuses on refining bodily awareness and aesthetic self-cultivation, *ritual media*

shifts the emphasis toward the co-creation of shared symbolic space. It is less concerned with the self's inward development and more with the relational and ritualised conditions under which consciousness is altered and meaning is collectively produced. *Ritual media* draws from both fields but proposes an alternative lens: one that centres ritual as medium—not merely as subject or context, but as a compositional principle guiding aesthetic, sensory, and technological design.

3.4. Distinctions: *Ritual Media*, Technoetics, and Somaesthetics

While this research draws upon both technoetics and somaesthetics, *ritual media* constitutes a distinct conceptual framework that shifts the focus from individual perception or technological innovation toward symbolic transformation and ritual design. Technoetics, as framed by Roy Ascott, emphasises the telematic and cybernetic expansion of consciousness through technological interfaces, often privileging disembodied or virtual modalities. In contrast, *ritual media* foregrounds embodied presence, situated experience, and symbolic ecology. It engages technology not as an end in itself, but as a tool for shaping affective and liminal environments where transformation is framed through ritual structure. Similarly, while somaesthetics focuses on refining bodily awareness and aesthetic self-cultivation, *ritual media* shifts the emphasis toward the cocreation of shared symbolic space. It is less concerned with the self's inward development and more with the relational and ritualised conditions under which consciousness is altered and meaning is collectively produced. *Ritual media* draws from both fields but proposes an alternative lens: one that centres ritual as medium—not merely as subject or context, but as a compositional principle guiding aesthetic, sensory, and technological design.

Notes

- 1 E.g. the theoretical framework of the spectrum of consciousness proposed by Ken Wilber; the narrative structure from *The Hero's Journey* by Joseph Campbell; Stoic philosophy or Vedas philosophy; Aristotle's poetics of Greek tragedy.
- 2 However, it is crucial to avoid cultural appropriation, as this can replicate colonialist dynamics. While this topic lies outside the scope of this research, it serves as a reminder to approach such work with sensitivity and respect.
- 3 Here, 'religion' is understood as institutionalized religion, defined by a set of dogmas or relatively strict traditions.

Chapter 4

Artworks

4.1. Design of the Artworks/Proof of Concept

In this section, I present the outline of how I developed *Ethereal Phenomena* and *Convergences of the Spirit*, and how these installations apply and accomplish the characteristics I introduced in the last section, making them, hence, *ritual media*.

4.1.1 From Mind and Body Wellness Towards Self-Transcendence

The artworks I created combine meditation, breathing techniques, and breathing biofeedback, mainly because they all have in common that they entail a connection between body and mind. For thousands of years, diverse traditions from Hinduism and Buddhism have developed meditative and breathing techniques that bring extraordinary benefits to the mind and body. Contemporary science has acquired crucial knowledge from traditional meditation. Extensive research underscores the benefits of meditative practices. (Choi and Ishii 2020)(Gervais et al. 2016)(Khut and Howard 2020)(Van Der Zwan et al. 2015)(Sampaio et al. 2017)However, most studies have dissected the techniques and isolated them from their context, setting apart from meditation, among others, the role of art, music, and symbols. In the process of secularisation, mainly the easier-to-measure and definite characteristics have been considered, and meditation as a practice aspiring to pure consciousness has been overshadowed by more evident practical wellbeing benefits. (Rinpoche and Zangmo 2013)

While through these installations I seek to highlight physical and mental benefits, their fundamental purpose is to bring about the deeper dimension that is present in Buddhist meditation: self-transcendence. (Travis 2014) Looking to recover such dimension, I started to investigate different techniques and elements

from Buddhist rituals, particularly from esoteric traditions, finding that they have an extensive amount of elements, symbols, and techniques that serve to induce altered states of consciousness. These were the first to be left outside by secular methods because they are rooted in the particularities of culture, for instance, Tibetan or Indian culture. Yet, when one comprehends the core intention of these rituals, it is possible to see through religious or contextual limitations and grasp the universal power of this knowledge. By reintroducing symbolic and perceptual elements from a transcultural approach, I aim to highlight and recover the benefits of these holistic, ancient meditation practices, which are among the most effective methods for transforming consciousness and developing awareness.

4.1.2 Meditation and Art

In various Buddhist traditions, art has not only a devotional purpose or an aesthetic appeal but its contemplation is a form of meditation. (Beer 2004). This is the case of Tibetan thangka paintings or the Japanese Diamond and Womb Realms Mandalas (see Fig. 4.1), which are primordially from Shingon Buddhism. Besides having a rich symbolism that shows a complex metaphysical view of reality, thangkas and mandalas are characterised by their layered composition and multi-dimensional spatialisation that are meant to produce a state of self-transcendence through contemplation (A Huh 2010). As for music, these two traditions also share the use of diverse instruments and chants in meditation rites. Esoteric Buddhist traditions recite mantras, repetitions of phrases, words, or syllables considered sacred and that come from ancient Sanskrit and Pali. Shōmyō, the traditional Japanese chanting practice from Shingon Buddhism, involves a unique and profound shift in perception, often achieved through specific vocal techniques, repetition, and the conceptual significance of the chants usually prayer to invoke deities and Buddhist teachings. Beyond their intellectual meaning, the sound influences the body directly, it produces physical affection, it induces a sort of trance both listening or chanting them, especially for a long period of time.



Figure 4.1 Mandala of the Diamond Realm

4.1.3 From Buddhist Traditional Knowledge to Embodied and Gamified Interactions

The use of more or less explicit Buddhist ritual iconography and elements in the artwork invites participants to approach them with a ritualistic and meditative disposition, crucial for guiding their experience toward a sense of transcendence. A ritual disposition involves a process of signification, assigning meaning to an act, and symbolising and imbuing movements, objects, and spaces with intention. A ritual act can manifest in countless ways, not only in religious or formal ceremonies but also in encounters with oneself or others, where we connect spiritually, physically, and symbolically.

For me, live concerts are powerful rituals. There is dancing and singing; through the music, we become one—artists and audience—a sort of hive, exchanging energy and connecting with the environment, the song, the rhythm, our heartbeats, and our breath. Another recurring kind of ritual in my life is reuniting with close friends and sharing experiences and emotions. It is simple, and while it may seem like we are just hanging out casually—which we also do—it is our way of sharing life paths and collectively processing our internal states. It is a matter of bringing intention to an action. The installations aim to evoke this kind of ritualistic connection, partly through Buddhist symbolism.

However, it is through actual breathing techniques, drawn from various meditation practices, and the gamified interaction that the installations exert a tangible psycho-physiological influence on the engager's perception. Both artworks stem from a Buddhist practice—a specific breathing technique that involves physical methods and a set of spiritual teachings. In both cases, these are transposed into audio and visuals through biosignal interaction. This interaction is not just simple biofeedback but part of a gamified system, where the image and sound components respond dynamically based on the engager's breathing. For instance, each breathing period may be marked by a bell sound, the blooming of lotuses, figures morphing, a change in background colour, or smoother movements when the breath is deeper and slower. In other words, the interaction rewards the engager by introducing new elements when they correctly follow the breathing technique specific to each installation. This game-like experience is designed to intuitively teach the engager how to breathe while fostering motivation and engagement.

4.1.4 Experimental Meditations

One of the most practised meditation methods is mindfulness, which involves a non-judgmental approach where you are meant to simply notice thoughts and sensations without avoiding them, allowing them to pass naturally. I often practice mindfulness and find it very effective for stabilisation. However, the approach and methods utilised in the installations differ from this. In fact, they do not strictly follow any pre-existing type of meditation but rather combine several kinds into a unique, experimental meditation.

Some of the characteristics of the artworks that contrast with mindfulness are that they integrate biofeedback and gamification, which requires a certain level of judgment, encouraging the engager to adjust their breathing, not merely observe it. Another characteristic of the installations is that they incorporate audio and visual elements, seeking to be strongly stimulating. Other forms of meditation, by contrast, are often practised with closed eyes, in silence, or without external stimuli. Furthermore, the installations make use of technology, whereas many traditional forms of meditation require only the body and mind. These practical aspects, I believe, have contributed to the globalisation of secular meditation practices like mindfulness.

As a counterpoint, there are traditional forms of meditation that do involve a "correct" way of practice, requiring practitioners to apply a certain level of judgment to adjust their posture or breathing. This is the case with Zen meditation. In *zazen*, or sitting Zen, if the meditator loses proper posture, the priest or monk may strike them on the shoulder with a stick to refocus their concentration. Similarly, in several esoteric meditations, such as *ajikan*—the basic practice in Shingon Buddhism—there is a specific way to maintain hand posture and count breaths, and it does not aim to empty the mind. Instead, practitioners focus on the character "A," a symbol of universal truth and oneness. While not mandatory, there is often a physical representation of the "A" character, whether on paper, in a statue, or through another medium.

The techniques that help deepen focus and concentration are quite diverse and sometimes even contradictory. From my perspective and personal experience, while a spiritual dimension can certainly be experienced through secular mindfulness, traditional Buddhist meditations symbolically evoke transcendental and philosophical aspects, inviting practitioners not only to relax, reduce stress, and focus but also to deepen their spiritual and metaphysical understanding. It is important to emphasise that my intention is not to claim one type of meditation is superior to another, as this is a highly subjective preference. Rather, my goal is to experiment and explore new approaches that can emerge by blending traditional practices with contemporary wellness science, new media art, biofeedback, and modern technologies.

4.2. *Ethereal Phenomena*

Ethereal Phenomena is a digital Buddhist thangka (see Fig. 4.2). Its interaction is meant to produce slow, abdominal breathing, a basic technique from Yantra Yoga, the Tibetan yoga of movement. Its mandala structure evokes the mind and cosmos. Buddhist instruments and a mantra-like chanting compose an abstract soundscape.

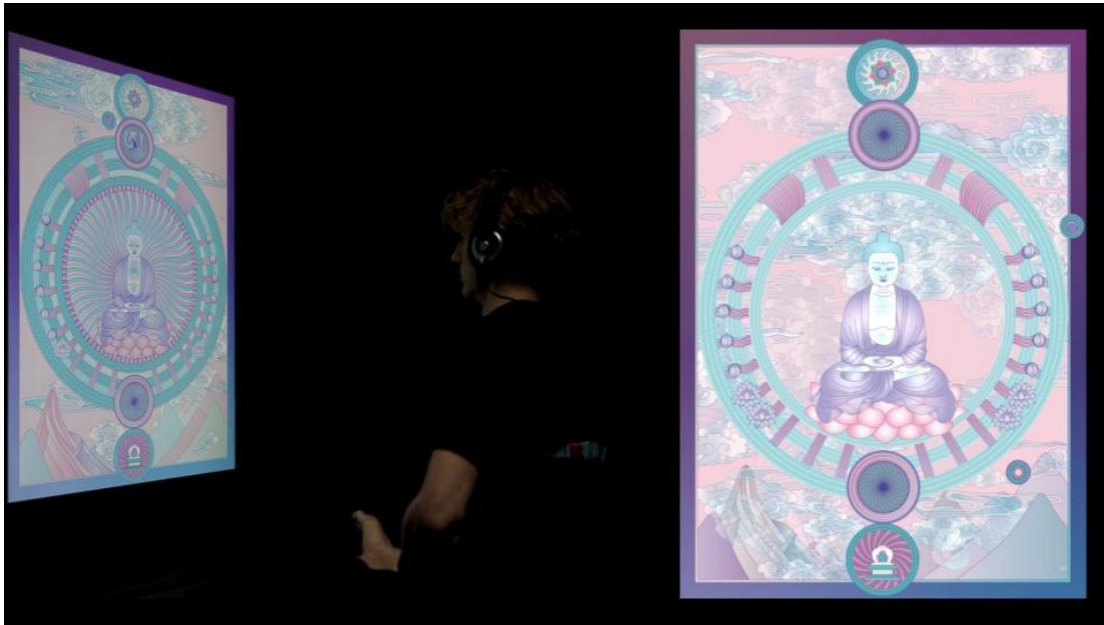


Figure 4.2 *Ethereal Phenomena*: setup with engager; still frame

4.2.1 Abdominal Breathing and Yantra Yoga

The main inspiration for *Ethereal Phenomena*'s breathing technique is Tibetan Yantra Yoga, the Tibetan Yoga of Movement. As practitioners, Anyen Rinpoche and Allison Choying Zangmo explain that Yantra Yoga looks for mental and physical health together with the development of wisdom, compassion, altruism, and, at the core of all these, the non-dual state of pure consciousness, known also as Buddha Nature (Rinpoche and Zangmo 2013). One of Yantra Yoga's primary techniques is training deep abdominal breathing which consists of isolating the abdominal breath by trying to not move the chest, inhaling and directing all the air into the stomach, inflating it, and then exhaling slowly, letting down the abdomen (Hazlett-Stevens and Craske 2003). The advantages of abdominal breathing are also supported by recent research focused on breathing retraining (Faust-Christmann et al. 2019) (Hazlett-Stevens and Craske 2003). From both the perspectives of Western medical research and Tibetan tradition, it is possible to consider two main types of voluntary breath: thoracic and abdominal. Thoracic breathing tends to be more common in our stressful contemporary lifestyle. Shortness of breath—thoracic and shallow breath—occurs when we are unsettled,

anxious, stressed, worried, or physically ill. Breathing with the chest is not harmful by itself but it indicates the absence of health and it can negatively condition our mental and physical states. In opposition, when breathing abdominally, lower lungs exchange oxygen for carbon dioxide seven times more efficiently and deep breaths contribute to slowing down the heart rate, stabilising blood pressure, and inducing muscle relaxation (Rinpoche and Zangmo 2013).

In *Ethereal Phenomena*, the engager wears two breath sensor straps, one around the chest and another around the abdomen, so that thoracic and abdominal breathing can be identified. The interaction is designed to induce abdominal breathing, providing a series of health benefits to the engagers and, following the Yantra Yoga precepts, potentially also inducing a sense of compassion and pure consciousness.

4.2.2 Media

Ethereal Phenomena is composed of a screen monitor placed vertically so that it matches the illustration—, a pair of headphones, and two breath sensor straps. The above devices are connected to the interaction program. The breath sensor straps are self-made hardware to be worn around the thorax and around the abdomen.

4.2.3 Symbolism

The style of the illustration in *Ethereal Phenomena* follows the aspect ratio and rules of composition from thangka painting (see Fig. 4.3). The central figure is a buddha or enlightened being sitting on top of a lotus flower, a symbol of purity and enlightenment (Beer 2004). Behind it, a circular and translucent rainbow represents the fully enlightened body that becomes pure light, an ethereal phenomenon. The symbol of the rainbow signifies the body-mind-spirit connection and the transcendence of the self. The mountains and clouds evoke the primary element that wants to be expressed through the work: air and wind. Other traditional elements can also be found, like the stupa, a relic that represents the body of the historical Buddha (Shakyamuni), the sun and moon discs that mean enlightenment, and the sacred syllable ‘om’, recalling the idea of emptiness with



Plate 24: Rainbow phenomena

Figure 4.3 Plate 24. Rainbow Phenomena from the book *The Encyclopedia of Tibetan Symbols and Motifs* by Robert Beer (1999)



Figure 4.4 *Ethereal Phenomena*: stills from different stages of the experience

compassion (Lingpa et al. 2020) and providing from the visual perception a link to the sound. All the components follow the standard measurements of traditional thangka painting, a sacred geometry in which every figure is interconnected by having harmonic proportions. The colours, however, do not follow the traditional symbolism. The blue, purple, green, and pink gradients align the style of the illustration to the digital format of the work. This palette also happens to induce relaxation and calmness, setting the atmosphere for meditation.

4.2.4 Interaction

Each layer of the image interacts in a particular way with the breathing of the engager (see Fig. 4.4). With every abdominal inhalation, the outer frame turns more purple and pink, the buddha comes closer to the engager, and the rainbow rotates counter-clockwise. With every abdominal exhalation, the outer frame turns more blue and green, the buddha becomes smaller, and the rainbow rotates clockwise. If the engager breathes only with the chest, these elements will barely move. Seeking to produce a harmonious motion, the engager intuitively breathes deeply with the abdomen. A slower pace contributes to making the motion smoother and also activates different features. If the period of inhalation-exhalation is long and deep enough, the moon disc rotates around the rings and the background landscape becomes alive, the clouds softly fly and the mountains change colour. Thoracic breathing is synchronised with the upper wheels while abdominal breathing is synchronised with the lower wheels, mirroring the body. To incite more abdominal

breathing, if the thoracic amplitude is higher than the abdominal, the speed of the wheels is reduced and the buddha's chest emanates a pink glow. Altogether, the interaction of the elements is perceived more intuitively than rationally, so the appropriate breathing—deep, slow, and predominantly abdominal—occurs more or less automatically. To provide support to the biofeedback, seven pairs of lotus flowers surrounding the buddha were added. With each breathing period, a pair of flowers blooms. After seven periods, the sun disc rotates around the rings, and the cycle re-starts. Thus, the engager is not focused on counting breaths—so the meditation does not become a sort of quantifiable contest—but still has a sense of progression that aids them to concentrate. Every cycle of seven periods progressively activates a new feature: the motion and glowing of the rings around the buddha, the transparency of certain circles so that the background landscape can be better appreciated, and the spatialisation of sound. In this aspect, *Ethereal Phenomena* has a component of gamification, since it motivates the engager to maintain their focus in order to gradually unveil the artwork. The engager is guided through their aesthetic sense. The audio of *Ethereal Phenomena* is a 'sound mandala'. There is a sound for each layer of the illustration and there are various kinds of sounds. The most evident is the constant repetition of the mantra-like chanting in Japanese that means: "Reality is hidden, Reality is an illusion, it is actually a dream". The interpretation resonates with Buddhist philosophy. But the fundamental of this singing is that, through repetition, the meaning starts to vanish and becomes sound, just like a mantra. The audio effects are composed of several types of Tibetan bells; some of them mark the period of inhalation-exhalation, working as an audio biofeedback mechanism together with the rotation of some objects in the image. Low frequencies subtly but powerfully induce the engager's perception into a sort of trance. Certain organic sounds mixed with digital keyboards represent a union between apparent opposites, mind and body, the traditional and the modern.

4.3. *Convergences of the Spirit*

Convergences of the Spirit is an installation that stages a Buddhist thangka by recreating its composition through the enactment of an engager (see Fig. 4.5). It

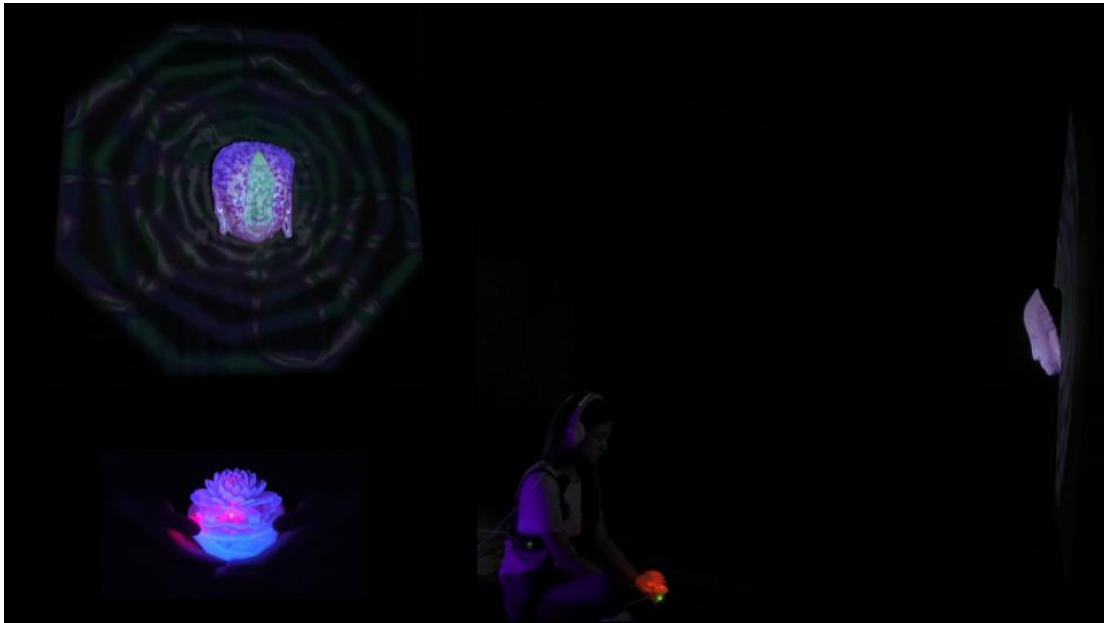


Figure 4.5 *Convergences of the Spirit*: projection mapping over the mask and wall; lotus-shaped heartbeat sensor, Lotus Heart; setup with engager

is composed of a mask with a projected animation of a buddha-like face changes, a circular frame projected surrounding the mask rotates following the breath and heart rhythm, and a lotus sculpture—that I named Lotus Heart—held by the engager that also reacts to their heartbeat. The interaction is meant to induce the engager to adopt the coherent breathing technique. The symbol of the mask and a recited poem invite the engager to reflect on the nature of the self.

4.3.1 Coherent Breathing

Coherent breathing, also known as resonant or deep breathing, is a breathing technique that involves maintaining a regular and balanced breathing pattern (Nestor 2020) (Elliott 2005) (Brown and Gerbarg 2012). It consists of inhaling and exhaling for an equal duration, usually of an average of six breathing periods per minute, which would be approximately eleven seconds per period. This technique has been studied for its potential effects on consciousness and overall wellbeing. Coherent breathing induces relaxation by activating the parasympathetic nervous

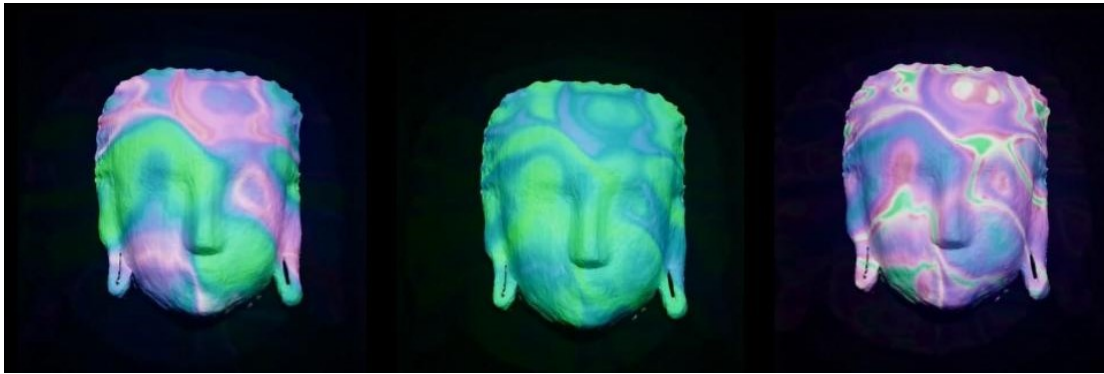


Figure 4.6 *Convergences of the Spirit*: three moments of the projection mapping over the mask

system, it helps enhance heart rate variability (HRV), improving cognitive function, and regulating emotions. Coherent breathing has been shown to affect brain activity and promote synchronisation between different brain regions. Studies using electroencephalography (EEG) have demonstrated that coherent breathing can lead to increased alpha brainwave activity, which is associated with a relaxed and alert state of consciousness. It may also influence other brainwave patterns, such as theta and gamma, which are linked to creativity, insight, and heightened awareness. This technique also deepens the body-mind connection. While the term coherent breathing is Western and modern, there are several Buddhist meditation techniques that resonate with it.

4.3.2 Media

Convergences of the Spirit is composed of a breath sensor strap, a pair of headphones, a three-dimensionally printed sculpture of a lotus with a heartbeat sensor and an LED that reflects the pulse of the engager, a gesso mask that insinuates the face of a buddha, and a projector that maps an interactive animation onto the mask and the wall that where it is placed (see Fig. 4.6) (see Fig. 4.7) (see Fig. 4.8). The engager also has a crucial role in the installation because they personify the deity of a Tibetan thangka by adopting a sitting meditation posture and holding the lotus in their hands.



Figure 4.7 *Convergences of the Spirit*: animation stills

4.3.3 Symbolism

The main element of *Convergences of the Spirit* is the mask which represents an ever-changing character, perhaps a god or an enlightened being. Masks are part of traditional rituals from different cultures all around the world. They question our identity. They are performative objects that allow us to become another. They confront us with the idea of self and other, self and ego. This idea can be reviewed in Joseph Campbell's work, *The Hero with a Thousand Faces* (1949), often drawn from Carl Jung's concepts of the ego (the conscious self) and the Self (the total, unified consciousness, including the unconscious) (Campbell 2004). The mask would represent the ego, the persona or identity we show to the world. The hero's journey, in part, is about moving beyond this superficial mask to connect with the deeper, universal Self. In this artwork, the mask unveils new faces as a metaphor for unveiling the Self and it is also a mirror of the participant's psychological and physiological state which is reflected through the biofeedback.

While masks are a universal symbol, I particularly draw the inspiration for the buddha-shaped mask from two artworks/objects. First, from a rare noh theatre mask that represents the Shakyamuni Buddha (see Fig. 4.9) (Udaka 2010). This mask is used only for a single noh play in which, curiously enough, the performer wears the mask on top of another, evoking a similar idea of questioning and unveiling identity, the ego and the self. Second, from a wooden statue of the Chinese Buddhist monk Baozhi (see Fig. 4.10) in which his face is splitting in two and revealing the face of the bodhisattva Avalokiteshvara (Kannon or Guanyin), following a similar idea as the noh mask in which the upper face is the ego and underneath or behind is the enlightened being.

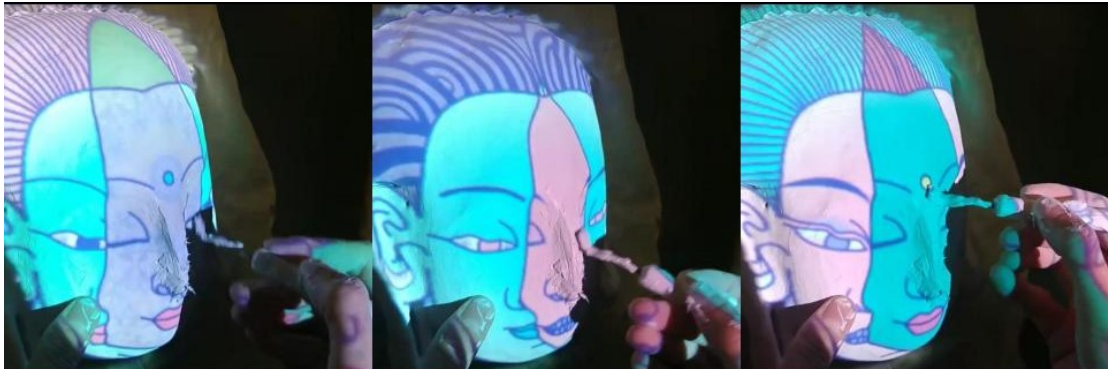


Figure 4.8 *Convergences of the Spirit*: mask-making process with projection mapping



Figure 4.9 Shaka Noh Mask

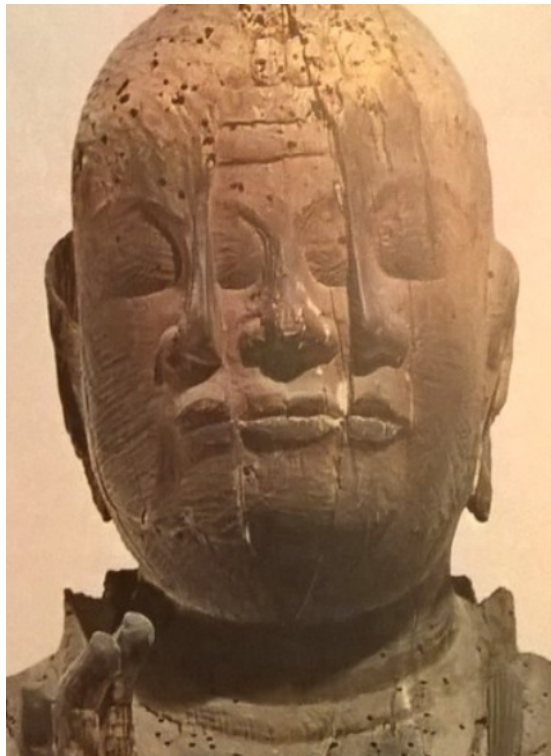


Figure 4.10 Baozhi Statue

In *Convergences of the Spirit*, the mask itself as well as the mirroring between the mask and the engager represent the relationship between ego and self or enlightened being. The elements of the installation show a sort of recomposed thangka. The engager and the mask are the central deity, the halo around the mask is the aura that represents enlightenment always found in thangkas, and there is also the most relevant Buddhist symbol, the lotus which makes the engager adopt a mudra with their hands; they directly embody the symbols of the thangka.

The sound of *Convergences of the Spirit* is also a key part of the artwork. It is composed of an eerie atmospheric base and a distorted narration of a poem that evokes precisely several dichotomies: “Nobody. Anybody. Inside. Outside. Now here. Nowhere. Memory. Oblivion.” At the beginning of the experience, the words are intelligible, but throughout the meditation, they start to amalgamate, the meaning becomes harder to discern, and they become practically just noise. The use of words and a not-exactly-relaxing soundscape proposes a different approach from the one taken in *Ethereal Phenomena*. I opted for a slightly spooky sound atmosphere because the *shōmyō* chantings and instruments from Shingon Buddhist ceremonies I have gone to are actually noisy, dense, mysterious and not calming or soft so I speculate that there must be some particular consciousness shift produced by it.

4.3.4 Interaction

The interaction of *Convergences of the Spirit* is designed to induce the coherent breathing rhythm. If the engager breathes slowly—more than 5.5 seconds per inhalation and more than 5.5 seconds per exhalation, for a total of eleven seconds per breathing period—the face opens completely, displaying a new face and making the halo around the mask rotate. On the contrary, if they breathe too quickly, the face will open for the inhalation but only up to a certain point and then it will close back, remaining in the same face, and the halo will remain static. The audio works similarly. Each inhalation and exhalation is marked by a sound. However, when the breath is too quick, the sound is glitchy. The poem that makes up part of the audio is also played only when the engager breathes slowly. This gamified movement incites the engager to attempt opening the face, producing a sense of progression and, at the same time, a sense of staying in a loop. Additionally, the

halo has a sort of ripple that displays the direct heartbeat of the engager

Chapter 5

User Studies

The evaluation process of this research can be divided into three different groups: (1) user studies, (2) ethnographic fieldwork, and (3) artist interviews. The first one evaluates the experience of a non-specified target audience in a controlled environment of an experimental setup. The second one seeks to understand the reception of the artwork at a Buddhist temple. The third one is an evaluation of how another media artist resonates and adopts the concept and design framework of *ritual media*.

5.1. User Study 1: *Ethereal Phenomena* as a Meditation Tool

In order to evaluate the impact on the engagers of *Ethereal Phenomena* as a meditation tool, I carried out a test comparing the experience with a non-interactive and non-guided meditation. I recruited 20 people, including 9 females, 10 males, and 1 participant who preferred not to disclose their gender, with ages ranging from 23 to 42 years old and an average age of 27.7 years. Participants had a diverse range of meditation experience: no participant meditated almost every day; six meditated once a week; two meditated once a month; two meditated a few times a year; four had meditated a few times in life; and six had never meditated. While most of the participants have had at least one meditation experience, it is not possible to state that they are a group of frequent or experienced meditators. This implies that the results reflect the impact of *Ethereal Phenomena* for beginners.

5.1.1 Wellness Evaluation

For the test, every participant did a ten-minute session of each of the two types of meditation. Half of the participants did first the non-interactive and the other half did first the interactive meditation. They were asked to fill out questionnaires before and after each session. The questionnaire taken before worked as the baseline to evaluate the effect of the sessions. On five-point Likert scales, from strongly disagree to strongly agree, participants selected if they felt (a) relaxation, (b) focus, (c) awareness of the breath, and (d) awareness of the mental state, (e) awareness of the present moment, (f) awareness of the body, (g) awareness of the environment, (h) awareness of sounds, (i) anxiety, and (j) distraction. These parameters were selected based on the potential positive or negative influence on wellbeing meditation can produce.

A repeated-measures ANOVA with a post hoc pairwise comparison using the Bonferroni correction showed that the level of (a) relaxation, (b) focus, and (c) awareness of breath was not significantly different between the baseline and the non-interactive meditation. On the contrary, when comparing the baseline with the interactive meditation there is a significant increase. In the case of the level of (d) awareness of mental state, there is not a significant difference between the baseline and the interactive meditation but there is a significant difference when comparing the non-interactive and the interactive meditation; in this case, there is a higher score for the interactive meditation. However, levels of (e) awareness of the present moment, (f) awareness of the body, (g) awareness of the environment, (h) awareness of sounds, (i) anxiety, and (j) distraction were not statistically significant.

The overall significant difference in some parameters suggests that the interactive meditation had a more positive impact than the non-interactive version. The breathing biofeedback interaction, in particular, seemed to play a significant role in this. However, some parameters may have been confusing due to the nature of *Ethereal Phenomena*, and the choice of parameters might not have been completely apt for this type of meditation. Feedback from participants also indicated that *Ethereal Phenomena* can make meditation more appealing and immediately beneficial for some engagers. The qualitative feedback provided insights into how participants experienced the interactive meditation, highlighting its potential ben-

efits and areas of improvement.

5.1.2 Interaction and Media Design Evaluation

The analysis of the interaction design reveals a strong preference for the interactive meditation session, as participants found it engaging and deeply immersive. According to the quantitative data, participants rated the interaction highly for increasing their awareness of breathing. The ability to see and control the visuals in real-time through their breath helped maintain their attention throughout the session. They noted that the feedback from both the visuals and the sound created a synchronised loop that made them feel actively involved in the experience. One participant, who regularly meditates with music, found the non-interactive session strange without such stimuli, highlighting how the interactive session filled this gap with its multimodal feedback.

Qualitative responses underscore the depth of involvement in the interactive session. Participants frequently described it as a "mesmerising" and immersive experience that allowed them to track their breathing visually and sonically, reinforcing their focus. The real-time feedback acted as a guide, preventing them from drifting into random thoughts or distractions, a common struggle in the non-interactive session. Without the interaction, several participants found it harder to stay concentrated, with one person noting they began to daydream during the non-interactive session. This shows how the interactive session provided an external structure that helped participants maintain mental clarity and concentration, especially for those less experienced with traditional meditation practices.

However, not everyone responded positively to the sound design. While some found the sonic elements crucial to the experience, others felt the sound was overwhelming, even suggesting an option to remove the audio to focus solely on the visuals. One participant mentioned that the system sometimes required them to breathe forcefully to activate the interaction, suggesting the need for improved sensitivity to accommodate different breathing patterns. Despite these critiques, most participants expressed a preference for the interactive session. Several even expressed a desire to use the system regularly, envisioning it as a tool to improve their quality of life through consistent, guided mindfulness practice.

5.1.3 Consciousness State Evaluation

When evaluating the state of consciousness during both meditation sessions, participants experienced two distinct forms of awareness. The interactive session placed a strong emphasis on breathing, with many participants feeling an immediate connection between their breath and the visuals and sound that responded to it. This biofeedback made participants feel like an integral part of the interactive art piece, increasing their sense of presence within the meditation. One participant described how their awareness shifted away from their body and towards the visual representation of their breath, creating a unique meditative focus on external feedback rather than internal sensations. Others expressed that the interactive session helped maintain mental clarity, as the feedback loop between breath and visual cues provided a continuous point of focus.

In contrast, the non-interactive session elicited a broader sense of bodily awareness, with some participants feeling more connected to their physical selves and the surrounding environment. One notable distinction was the freedom in this session to focus on the entire body rather than just the breath. Without the visual and auditory cues, participants were left to self-guide their meditation, which led to mixed results. Some found this liberating, able to focus on their body holistically, while others felt lost without the structured feedback and reported feeling distracted or even anxious.

A recurring theme in the feedback was that the interactive session not only helped participants focus on their breath but also made the time pass quickly, with some noting that the 10-minute session felt much shorter. This stands in stark contrast to the non-interactive session, where participants were more likely to experience boredom or struggle with maintaining focus. One participant specifically remarked that while they enjoyed the body awareness aspect of the non-interactive session, they found themselves daydreaming and losing focus, something that was much less likely to happen during the interactive meditation.

In both sessions, participants reported feeling more relaxed and aware of their breathing afterwards, but the route to these outcomes differed. The interactive session's biofeedback created a more immersive and engaging experience that anchored participants to their breath, while the non-interactive session provided a more traditional, introspective form of meditation that some found difficult to sus-

tain. Overall, the interactive design appeared to foster a stronger, more immediate connection between mind and body, highlighting its potential for creating a more effective meditation experience for a wide range of engages, especially those new to the practice. However, the less structured, non-interactive meditation offered a broader bodily awareness that might appeal to more experienced meditators. Both approaches seemed to promote relaxation and focus but through distinct mechanisms.

5.1.4 User Study Design Evaluation

The first user study was developed with the understanding that evaluating consciousness is inherently complex, and therefore, testing the evaluation method itself was necessary. In addition to assessing the impact on wellness and awareness and testing the interaction functionality, this study aimed to gather information to refine the overall design of the user study. This initial iteration, both of the installation and the user study, was crucial for the second user study. Rather than simply making adjustments, the second study was redesigned from scratch, opting for an approach less constrained by the need to quantify data or produce scientifically validated results.

5.2. User Study 2: Transcendence and Altered States of Consciousness

While the first user study highlighted wellbeing benefits, it did not address the core research focus: altered states of consciousness and transcendence. Thus, in the second study, I adopted a showroom approach, which I introduced in the Literature Review. Half of the participants interacted with *Ethereal Phenomena* and the other half with *Convergences of the Spirit*. To ensure a comfortable environment, the studio was set with these two installations, additional projections, halogen lights, subdued lamps, black rugs, and cushions (see Fig. 5.1). Unrelated elements were covered, and participants were asked to remove their shoes, cultivating a calming atmosphere. In this context, I wanted to avoid the sterile atmosphere of the previous experimental setup that might have made partici-



Figure 5.1 Studio Setup for the Second User Study

pants feel too observed during the first user study. This environment and the comprehensive experience became foundational to *ritual media*.

The feedback, though integral, was subjective and demanded experimental methods that maintained a balance: invoking a ritual disposition without overly biasing participants. The first study's questions were more about wellbeing and evaluated the artworks akin to mindfulness meditations. However, these artworks differed from mere mindfulness and used biofeedback, encouraging adjustments to breathing.

In the second study, the emphasis moved from mindfulness to participants' states of consciousness providing consciousness-related topics, and perspectives on meditation, spirituality, and self-perception as returns. I designed the questionnaires based on a series of psychological questionnaires about transcendence. Participants were then asked to articulate their experiences post-meditation through drawing or writing, only filling out questionnaires afterwards. Open-ended discussions ensued about meditation, art, perception, and religion.

A short section of Likert scale questions was also included, addressing wellbeing before and after sessions. I collected breathing biosignals (see Fig. 5.2) and, for

Convergences of the Spirit, heartbeat data too. While these might give objective insights into the installations' effects on breathing techniques and wellbeing, their alignment with my research scope remains uncertain.

Asking participants to remove their shoes at the entrance was a further step in setting a serene atmosphere. I foresaw all these elements and actions would facilitate a meditative and ritualistic disposition from the onset. As a result, the user study transformed into a private performance where participants experienced the artworks, the space, the process of answering the questionnaires, and the conversation with me as a comprehensive experience. The immersion in the space and the journey through a series of actions transformed the evaluation process—like the questionnaires and talk—as well as the practical aspects of the experiment—like the moment of assisting participants to put on the sensors—into a ritual experience.

This second user study dives deep into the first research question, examining art installations' role in fostering altered states and, via feedback and participant reflections, it gives insights into the second research question: What psychological, physiological, and subjective benefits and insights do engagers derive from the *ritual media* art installations, and how does their feedback contribute to the broader discourse on consciousness, transcendence, and the efficacy of *ritual media*?

5.2.1 User Study Design

For the second user study, my goal was to explore participants' states of consciousness. I designed an experimental method that balanced guiding participants toward a ritual disposition without overly influencing them. Many studies strive for anonymity or distance to obtain more manageable or objective data; however, this approach did not suit the aims of this research. Studying consciousness presents countless complexities, linguistic contradictions, and paradoxes that resist conventional evaluation methods. Instead, it calls for a response tailored to the unique aspects of each participant's experience. Crucially, it also requires acknowledging the ongoing subjective decisions made by both the participants and myself. Here, subjectivity does not equate to arbitrariness but involves analytically considering specific points of view. The user study was carefully curated by combining various evaluation methods, providing an immersive atmosphere, and executing the steps



Figure 5.2 Biosignal Recording Setup for *Ethereal Phenomena*

so that the interaction with the installation would expand and integrate with the before and after. This unification of the experience implies that the artwork is not only the installation but also the surrounding steps, giving it a ritual character. Participants pointed out this aspect. For instance, when asking about having experienced changes in their emotional state, one of the answers was "I initially felt more cluttered, followed by a deeper release. This includes both the audio-visual experience and this reflective questionnaire."

For the design of the questionnaire, I reviewed a series of psychological questionnaires that assess transcendence (Pekala 1991)(Barrett et al. 2015)(Piedmont 1999)(Büssing et al. 2009)(Reker 1992)(Silver et al. 2011)(Hood et al. 2001). Each of these had tens of questions. To prevent overwhelming participants with lengthy questionnaires and synthesize more systematically the huge amount of information, I consolidated all the questions and provided Chat GPT with the context of my research and art installations. I then requested it to summarise them into thirty-five questions. I further refined these questions to align with my research objectives.

Another experimental method I introduced was asking participants to express

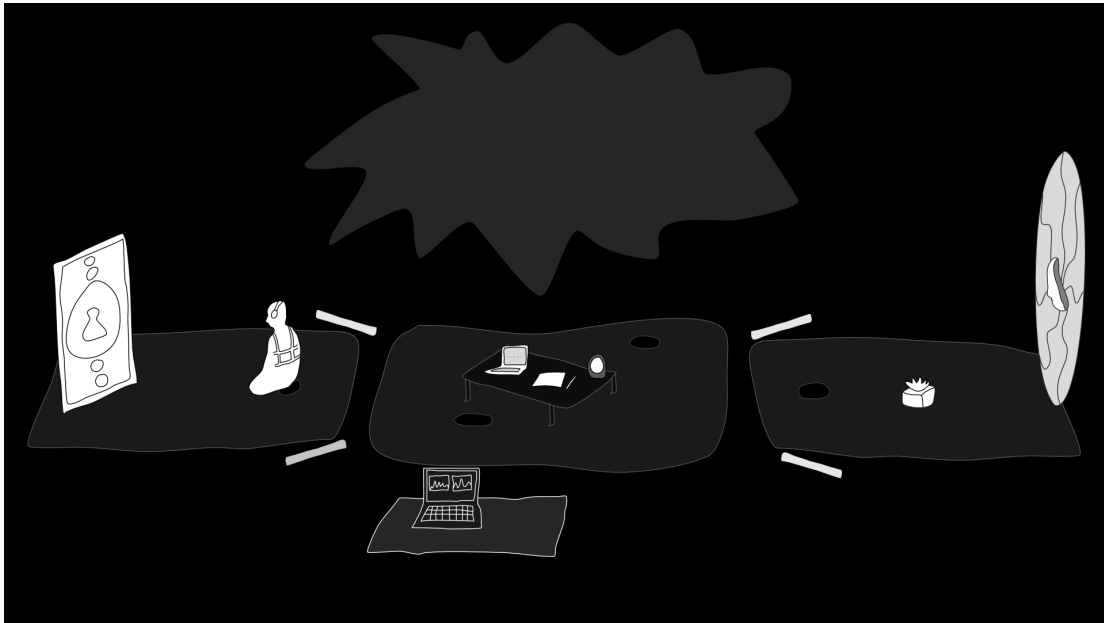


Figure 5.3 User Study Layout

their experiences with the artworks through drawing or writing on a paper sheet immediately after their meditation session. The aim was to capture a spontaneous creative outcome while still in the reverberance of the meditation. I only asked them to complete the questionnaires afterwards. Upon completion, I engaged in open-ended conversations with participants about their reflections. Instead of predefining a guide for all participants, I opted for improvising and adapting to the individual characteristics of each person and the circumstance, while still guiding the conversation with the research topics.

5.2.2 Setup and Elements

I arranged the studio space (see Fig. 5.3)—the Media Studio at the Graduate School of Media Design, Keio University—to create an immersive atmosphere. Since the whole studio is black (walls, ceiling, and floor), I opted to create ‘a warm darkness’. The ceiling is considerably high, so the space would not feel confined or oppressive. I covered the floor with black rugs and installed halogen lights and subdued lamps to illuminate indirectly, a minimum to make the space

movable. “Floating” in this sort of void, I installed *Ethereal Phenomena* on one extreme, *Convergences of the Spirit* on the opposite side, and in between, I projected an animation. At the centre of all, on a central rug, I put a table destined to be the “socialisation space”, separated from the space of each artwork. This “socialisation space” is where the participant and I talk and they go through the evaluation process. Another crucial element was the ambient music which imbued the whole space with calmness. This background music would not be hearable during the actual meditations with the artworks in which the sound was designed for headphones. Apart from the installations and the “socialisation space”, I set a desk with my computer and controller and positioned panoramic GoPros and 360-degree cameras discreetly. Instead of hiding them, the cabling and machines were integrated into the atmosphere, with the halogen lamps highlighting them with blue and purple tones, in this way, nuancing the experimental nature of the experience. During the conversation time, one of the participants mentioned: “The low lighting, this kind of colour cycling of the light in front of the drawing, all of those things were just as influential as the installation, I think.” Another replied to the question about the significance of the elements of the interactive art installation: “I found the audio and video to be very significant, of course; however, I also found the atmosphere of the room itself and the lighting, rugs, cushions, and floor seating to all be greatly significant as well.”

5.2.3 Session Overview and Workflow

Each participant was first greeted by an assistant at the entryway, where they read the information about the experiment and signed a consent form. After completing these formalities, the participant entered the studio, where I welcomed them. They removed their shoes and sat with me at the centre of the room on a black carpet. While I helped them put on the breathing sensors (a type of harness or double belt), I introduced the project, explaining that they would try an experimental meditation using biofeedback interaction, but without giving much more detail initially.

Some participants had asked questions beforehand when invited to the user study, while others came without any prior knowledge, making it difficult to generalise how previous information influenced their experience, particularly in terms

of interaction. Right before starting the meditation, while wearing the sensors, some participants asked for more specific instructions regarding the sensors, and I did provide answers, not avoiding biasing the experience. While prior knowledge of the project cannot be considered a formal evaluative parameter, the overall feedback gathered reflects a variety in the levels of pre-knowledge, which I consider a positive foundation.

5.2.4 Participants' Information and Meditation Experience

The user study comprised 15 people, including 9 females, 6 males, and 1 participant who preferred not to disclose their gender, with ages ranging from 23 to 41 years old and an average age of 28.6 years.

Participants had a diverse range of meditation experience: 13% reported never practising meditation, 20% practised very rarely (a few times in their life), 20% practised rarely (a few times a year), 20% practised occasionally (once a month), 13% practised frequently (once a week), and 13% practised very frequently (almost every day). They reported a variety of meditative experiences and techniques. Some mentioned using silent meditation as a way to manage anxiety, focusing their attention on one object in the room. Others practised Vipassana meditation, breath awareness, loving-kindness meditation, mind-body exercises, and thought-realignment. Yoga was a common theme, with participants engaging in traditional yogic meditation from India, including practices like bhakti yoga meditation, Kapalabhati breathing, and Hatha yoga meditation. Several people also mentioned using mindfulness apps like Headspace for guided meditation or breath-focused meditation. Group settings, such as yoga classes, were also mentioned, along with the incorporation of prayer and Quran reading for guidance and calmness. Overall, the responses reflected a diverse range of meditative techniques, highlighting individual preferences and adaptations based on personal experiences and needs, including managing anxiety, improving focus, and fostering a sense of calm and presence.

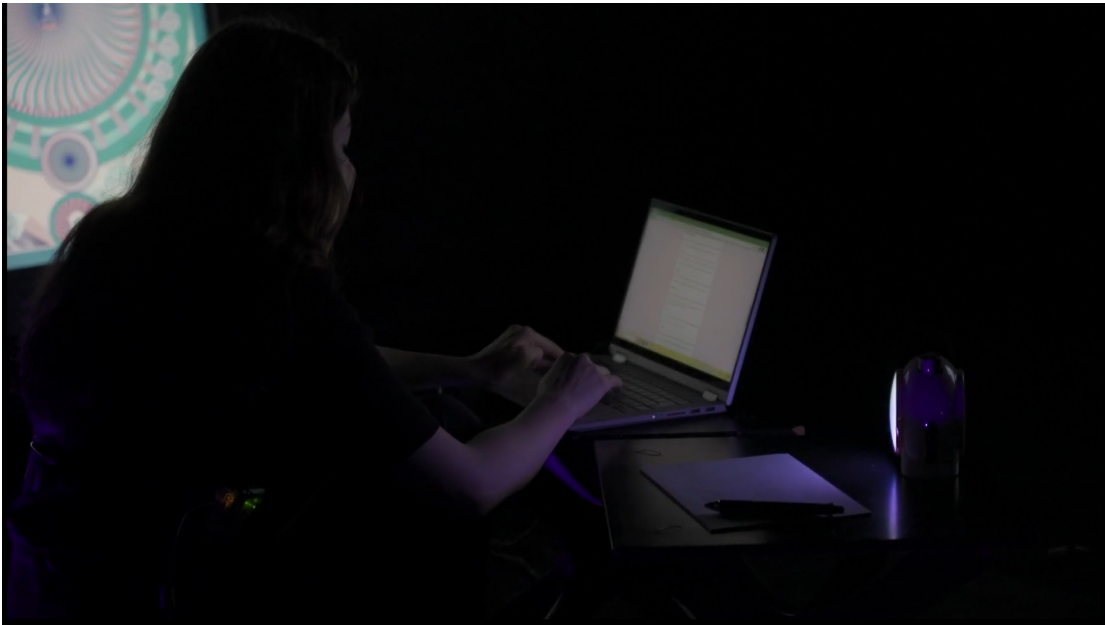


Figure 5.4 Participant Answering a Questionnaire During the Second User Study

5.2.5 Wellbeing Aspects

Participants were required to answer on a Likert scale from 1 (strongly disagree) to 5 (strongly agree) a series of questions regarding their wellbeing state both before and after the art installations' meditative experience (see Fig. 5.4). This information gives an overall idea of the benefits and impact of the artworks on mental and physical wellness. Here are the comparative results:

- **Feeling Relaxed:** During the meditation, there was a significant 13.3% increase in participants who agreed with feeling relaxed compared to before the meditation.
- **Feeling Focused:** Participants showed a notable 13.4% increase in feeling focused during the meditation session compared to before, which is considered significant.
- **Feeling Anxious:** The percentage of participants feeling anxious decreased significantly by 20% during the meditation compared to before.

- **Feeling Distracted:** There was a noticeable 6.7% decrease in feeling distracted among participants during the meditation session, indicating a significant change.
- **Feeling Present (Conscious of the Moment):** Participants experienced a significant 6.6% increase in feeling present during the meditation compared to before.
- **Feeling Aware of Physical State:** Although there was a slight decrease of 6.7% in feeling aware of physical state during meditation, this change was relatively small and may not be considered significant.
- **Feeling Aware of Mental State:** There was a significant 13.3% increase in feeling aware of mental state among participants during the meditation, indicating a notable change.
- **Feeling Aware of Breath:** Participants showed a substantial 26.7% increase in feeling aware of their breath during the meditation session.

In summary, during the meditation, there was generally an increase in the percentage of participants who agreed with feeling relaxed, focused, present, aware of their mental state, and aware of their breath, while the percentage of participants reporting feeling anxious and distracted decreased compared to before the meditation.

The awareness of physical state remained relatively consistent before and during the meditation. This might have to do with the diverse perspectives on the idea of physicality and body awareness. Through the analysis of the language used by participants, meaning the way how they referred to the physical aspects, it seems that some did not consider the breathing process exactly as physical. Indeed, the nature of breathing carries certain ambiguity; while scientifically it is doubtless a physical process, its usual visceral and bodily internal character makes it to be perceived as passive or ethereal. The movement of breathing in the body is subtle. Another possibility is that the biofeedback and general engagement with the installation would induce a trance-like sensation that abstracts one focus from the body. This is not necessarily negative, neither in terms of wellness nor regarding awareness and meditation. It is a point that coincides with the



Figure 5.5 Conversation With a Participant During the Second User Study

effects found in diverse types of traditional rituals in which, through dances and repetition, one can have an out-of-body experience, also perceived as the expansion of the scope of consciousness or an amalgamation with the mental plane. This sort of phenomenological aspects will be developed in the following parts of this section in the light of the open-ended questionnaires and the conversations (see Fig. 5.5) (see Fig. 5.6).



Figure 5.6 Second User Study: a participant answering a questionnaire; a participant drawing; conversation with a participant

5.2.6 Questionnaire Breakdown

In order to have a first way of organising and processing the information collected from the questionnaires, I opted to utilise Chat GPT to funnel. I gave it the description of the installations and the overall context of the research, and then input the answers from all participants for each of the questions, requesting a breakdown of the feedback based on patterns and recurring themes. This helped to obtain a first base analysis less biased by my personal research purposes and perspective and, in this sense, more objective. Afterwards, I reviewed the results, made necessary corrections, and drew a general conclusion for each question. This method fits into the way for data processing used in Affinity Design which serves to structure information, raise distinctions, and manage complex information*. Here is the breakdown of the responses.

- Overall Engagement and Experience: The majority of participants found the installations to be immersive and engaging. The combination of visual, auditory, and biofeedback elements seemed to create an environment where participants felt transported or deeply involved.
- Awareness and Reflection: There were strong indications that the installations fostered a heightened sense of self-awareness. Many participants noticed changes in their breathing patterns and became more introspective or reflexive during the experience. This introspection often extended to physical sensations, highlighting the success of the installation in making engages more attuned to their bodily rhythms.
- Temporal Dislocation: A significant number of participants reported a distortion in their perception of time, either losing track of time or feeling it slow down or speed up. This is often indicative of deep immersion and is a hallmark of transformative or meditative experiences.
- Altered States and Mental Transitions: While not universal, several participants reported achieving an altered state of consciousness or having a shift in their usual mental state. The biofeedback component played a role in

this, allowing participants to visually and audibly connect with their internal rhythms.

- **Creative and Imaginative Stimulation:** The installation prompted creativity and inspiration in a number of participants. While the experience was rooted in the present moment, it also seemed to spark imaginative thoughts for future endeavours.
- **Points of Improvement:** Some participants provided constructive feedback. The clarity and connection between the biofeedback and visuals were occasionally a point of confusion. Additionally, there were mentions of potential distractions, such as the buddha's appearance for a person or the breathing sensor strap's fit.
- **Repeatability:** A strong indicator of the installation's success was the willingness of participants to engage with it again. The majority expressed an interest in revisiting the experience, suggesting that it held value and appeal beyond a one-time interaction.
- **Impact of Biofeedback:** The biofeedback component received mixed reviews. While many appreciated its innovative integration and found it beneficial in deepening the experience, others found it more of a measuring tool or even a potential distraction. However, it was generally viewed as a positive enhancement to the overall experience.

The artworks appear to have been successful in engaging participants on multiple levels—physically, emotionally, and mentally. By integrating technology (like biofeedback) with traditional meditative and artistic elements, they achieved a unique blend of modern and traditional techniques to induce self-awareness, relaxation, and introspection. While there are areas for improvement, the overarching sentiment is that the installation offers a valuable and transformative experience for participants.

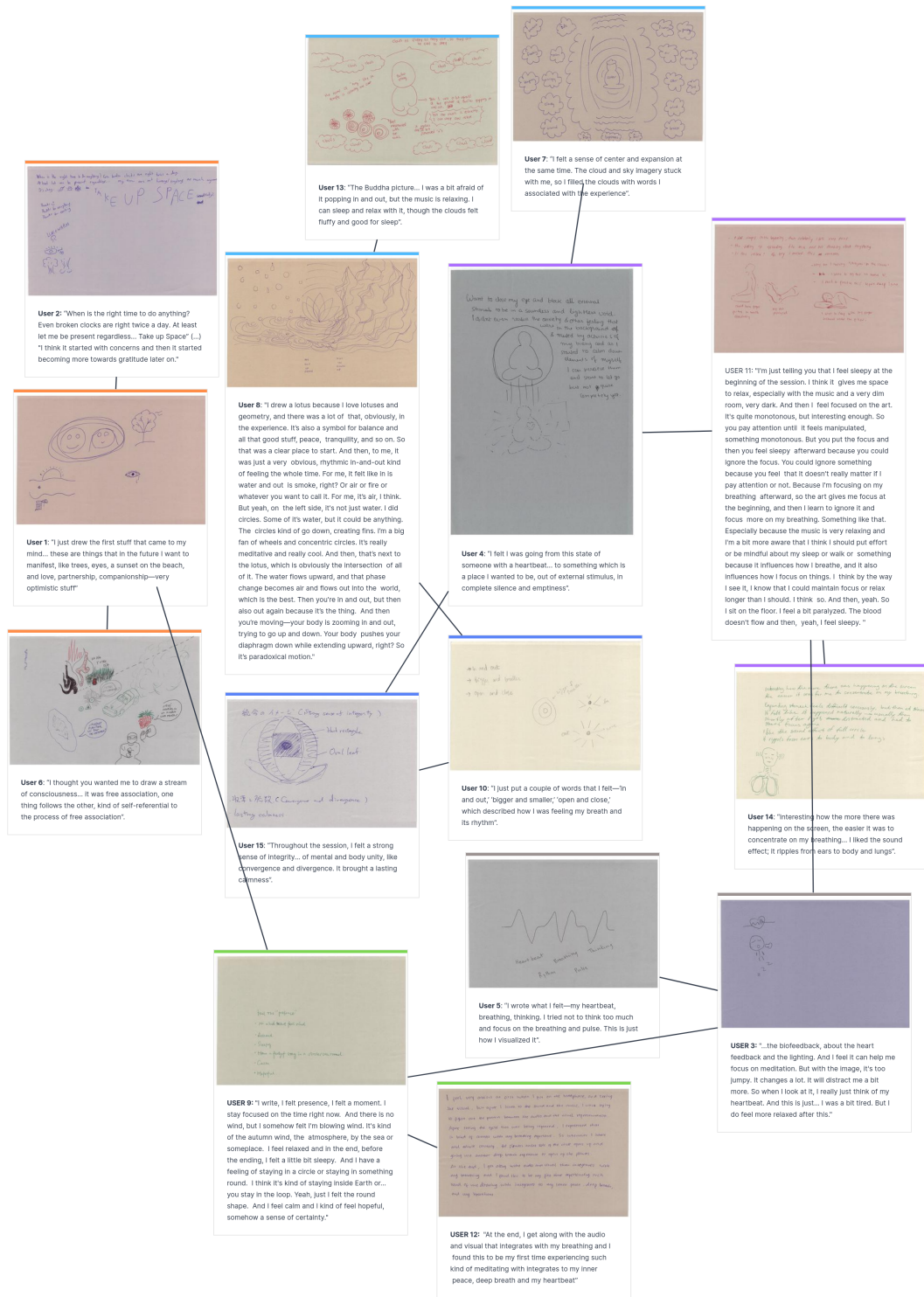


Figure 5.8 Affinity Diagram of Engagers' Drawings

5.2.7 Analysis of the Engagers' Profiles: Integration of Questionnaires, Drawings, and Conversations

I carried out an Affinity design process by articulating each engager's profile, organising quotes into recurrent topics, and commenting (see Fig. 5.7). Each profile was composed of (1) the wellbeing questionnaire, (2) the open-ended questionnaire on transcendence, (3) the drawings on paper (see Fig. 5.8), and (4) the transcription of the posterior conversations. In particular, there were three main groups of topics to point out from the engagers' profiles but that, at the same time, these overlap with each other. First, the cultural and religious background. Second, the ideas on meditation and similar practices. Third, the insights on consciousness. All of these helped to understand the diversity of perspectives and understandings of the elements of the installation and the whole experience as well as of consciousness-related concepts such as time perception, spirituality, emotional states and mind-body awareness. Again, through the showroom and speculative design approach, the objective is not to quantify the data but to navigate consciousness through the multiple subjectivities of the participants.

For this part of the evaluation, I adopt a more philosophical and even literary approach to analyse the experience with each engager. Instead of attempting to homogenise the participants' characteristics to reach measurable parameters that would provide objectifiable results, I opted for stressing subjective aspects and a wide diversity of perspectives. I sought out each participant's ideas and the way they expressed them. Therefore, the analysis relies strongly on revising the participants' direct quotes; I bring about a terminological discussion in which paraphrasing to explain what they said is not enough but it is fundamental to consider how they convey it.

Cultural and Religious Background

Cultural aspects, religious practices, and beliefs provide a foundation for analysing the participants' perspectives. In some cases, a participant's background directly reflects their identity, while in others, there is a certain distance or contrast. For instance, Engager 2 comes from a Buddhist country where this religion is institutionalised and linked with a political stance characterised by repression,

indiscriminate violence, and dictatorial control for much of the population. Engager 2 noted that this is what Buddhist iconography initially reminds him of, though he is aware of the diverse interpretations of Buddhism and did not perceive the artworks as representing his country's political values. He expressed interest in "philosophical Buddhism," showing that he acknowledges the diversity of perspectives and distinguishes between political, religious, spiritual, and experiential aspects of Buddhism.

Both *Ethereal Phenomena* and *Convergences of the Spirit* utilise relatively explicit Buddhist iconography. As the artist, I conceive of these symbols not merely as religious but, like Engager 2, in a philosophical way. I believe the experience can convey a more universal perspective and that these icons or symbols need not be limited to Buddhism as a religion. The diversity within Buddhism itself, encompassing many traditions, schools, and sects—sometimes even in opposition—complicates any attempt at generalisation. While a comprehensive discussion of these various interpretations is beyond the scope of this research, a key distinction could be made between 'religious Buddhism' and 'philosophical or spiritual Buddhism', with religion understood as an institutionalised social entity and spirituality as a more personal journey. Naturally, these elements exist on a spectrum and may overlap. Engager 2 also shared this perspective, mentioning that his parents practise a more religious form of Buddhism, which, while not tied to political implications, is rooted in tradition: "Because I was raised in a Buddhist background, I kept some of those meditation practices with me... I think the practices of meditation and spirituality are beneficial in more ways than one."

Engager 10 resonates with Engager 2 in several ways, though she comes from a very different background—which is significant as it illustrates how different paths can reach a similar sense of universality. Engager 10 is from an Islamic country and practises Islam daily. She commented:

I do practise, but it's interesting because in different religions, meditation takes different forms. While I was here, breathing, I realised that in Islam, we pray five times a day. Because it's so habitual, I sometimes forget to be conscious during it. This experience reminded me of the benefits of awareness. I think practices like these exist in different religions, just in different forms. What you're creating here

is an art form that feels universal, allowing people to practise without feeling inclined toward a specific religion.

Engager 10 demonstrates an open-minded perspective, noting the common traits across religious practices. She related meditation to her prayer practice, finding the artwork, despite its Buddhist symbols, personally relevant. This contrasts with other participants, who, though they are Buddhist practitioners, were more sceptical of the experimental approach of meditating with the artworks than this Islamic participant. While a comprehensive analysis of Islam is also beyond this research's scope, it is generally perceived as more dogmatic than Buddhism. Engager 10, however, shows openness to diverse interpretations, raising the question of whether this is due to her personal outlook or the particular tradition of Islam she practises.

Interestingly, a considerable portion of the study's participants (4) were from Islamic backgrounds. This variety enriches the study by offering multiple perspectives, contrasting with the Japanese Buddhist context of the iconography and meditative practices. Engager 12, similar to Engager 10, replied to the meditation experience question with, "Praying and reading my Quran, asking for guidance and calmness," showing that he, too, relates the artwork to his religious practice. While we didn't discuss religion directly, he reported a greater awareness of mind-body connection, reduced stress, and a profound sense of peace, mentioning that he would like to meditate with the installation regularly and was inspired to create his own meditative and stress-relief installation. The conversation with Engager 12 felt natural and free of religious contrasts; he focused more on the perceptual effects of the installation, which he found extremely positive in terms of wellbeing.

In contrast, Engager 13 explicitly stated that she found the buddha unsettling, which distracted her: "As I was distracted by Buddha popping in and out, it actually made me anxious (I'm sorry). However, the music slightly alleviated my emotional distress, and the clouds animation helped as well. I felt more at ease when I could see the clouds behind the Buddha, which seemed to reduce my distress." A few other participants mentioned that visuals could sometimes be distracting, but Engager 13 specifically referred to the buddha figure. She emphasised that while the cloud visuals relaxed her, the buddha's presence seemed to be

the cause of her anxiety. While her view was unique among the 14 participants, her feedback is relevant when considering how to integrate symbolic meaning into a *ritual media* experience. It highlights the importance of balancing traditional symbolism with more abstract forms, which may feel more universally accessible yet lack certain cultural significance.

Beyond the individual responses to religious symbolism, it is also important to acknowledge the broader spatial and cultural context in which these artworks were created and exhibited. Many of the installations emerged from ongoing collaborations with Japanese temple communities and were either designed for or inspired by these environments. The quiet architectural rhythm of temple spaces, their emphasis on transience and contemplation, and their subtle but pervasive aesthetics informed both the spatial logic and affective tone of the artworks. These environments offered more than a setting. They shaped the participants' experiences by reinforcing a meditative atmosphere and framing the interaction as something sacred, even if non-religious. While some may interpret this contextual influence as a form of bias, from the perspective of *ritual media*, it is understood as a critical component of the methodology itself. Rather than adhering to the objectivist expectations of reproducibility common in scientific paradigms, *ritual media* embraces the curatorship of the environment as an active design strategy. The goal is not to abstract experience from its context, but to cultivate symbolic and sensory conditions that enhance participants' openness to transformation. This approach challenges conventional standards of neutrality by recognising that meaning is always situated, and that carefully composed spatial, cultural, and aesthetic environments are essential for activating the full potential of ritual experience in contemporary art.

Meditation Practices

As previously presented, participants came with various types of prior meditation knowledge related to different practices and traditions. Some of these are seen as more spiritual, others more secular, focused on wellbeing or as psychological and physiological practices. In most cases, the participants' perspectives did not interfere with the experimental approach offered by the artworks but served more as a contrast or relative point. However, there were cases where prior knowledge

implied a sort of opposition or reluctance towards the unusual elements of the installations.

For Engager 3, the installation failed to help her enter what she considered a proper meditative state:

I was a bit confused as I thought meditation is about not thinking, but the installation would distract me and let me think (...) When I look at the image, I will think ‘oh, Buddha’s nose’. And then ‘this Buddha’. And then ‘this colour’. It infused a lot of thoughts in me.

Engager 3 mentioned she was quite tired and busy before the experiment started. Therefore, I did not press for a long discussion with her on this topic. I did open a discussion with Engager 4, who had a similar concern regarding meditation with open eyes and various audiovisual stimuli:

To be successful at meditation is... you are just able to let everything go. That is for me. I would start with some kind of intention. But those intentions would also stop mattering. Being there, if my eyes are open. I try to over-correct myself. ‘No, not this. Maybe that. Open the eyes even more.’ Or ‘this is what should be entering my eyes’ and stuff like that. I feel when my eyes are closed that variable is not there to let go or control or whatever. Meditation becomes the least number of variables for me as a jumping point.

Engager 4 provides a strong reason for preferring meditation without visual input, considering that to empty the mind implies dealing with “fewer variables”. The art installations in this research are experimental meditations in that they do not have the main purpose of “letting go of everything” but rather producing a perceptual shift or an altered state of consciousness. In this sense, some elements that may not be beneficial for conventional meditation work effectively within the context of the artworks.

During our conversation, I discussed this point with Engager 4. I argued that, in most conventional meditation practices, focusing on the breath serves as an anchor to prevent the mind from wandering chaotically. In the case of the installations, the biofeedback connected to the audiovisuals becomes that anchor, holding the attention of the engager. I commented that perhaps the ultimate

stage of meditation would indeed be to achieve a truly mindful or empty state of mind, though this is extremely rare even among the most experienced meditators. This is why there are different techniques, such as focusing on parts of the body or an external stimulus like surrounding sounds, which help us develop focus and awareness. Furthermore, several traditions incorporate visual and auditory stimuli in meditation. In tantric traditions, there are visualisation techniques involving imagining a deity representing a metaphysical aspect. This process deliberately creates mental content, which contrasts with Engager 4's understanding of a meditative state. In tantra and other Buddhist esoteric traditions, certain meditations are conducted before an image. This is the case in the Japanese Shingon *ajikan* meditation, which involves meditating in front of the Sanskrit character 'a', a symbol of oneness. The 'a' directs the intention of the meditation towards a reflection of a spiritual or philosophical nature, encouraging a perceptual shift and sense of transcendence. In contrast, mindfulness meditation in its rawest form addresses wellbeing factors, which are crucial, but may not reach higher states of consciousness.

It is worth noting that Engager 4 is from India, a context in which meditation is ubiquitous, with a wide variety of meditative practices, many based on visual support. The conversation with Engager 4 was enriching, and despite differences in viewpoints, he expressed having experienced a sense of transcendence and reacted positively to the artwork. Regarding this, he interestingly differed with my approach, commenting that, for him, exploring transcendence should be free from academic constraints: "If I go through the academic route, it takes away the fun. So I'm not going to play with that. Journey assumes a sense of time, but transcendence is about being outside of time." Indeed, addressing such a subjective topic is not easy, but here I am. These sorts of discussions show that the process of realisation is bilateral and mutual; participants' ideas enrich and challenge my own understanding, and this exchange characterises the experience as a ritual.

As I mentioned before, it is curious that some participants with a Buddhist background or cultural link to meditation—like Engager 4, who is Indian and a frequent meditator, or Engager 6, a formal practitioner of the Soto Zen sect—held more rigid conceptions of meditation than even the Islamic participants. It seems almost paradoxical that the universal character of the works is more accessible to

a seemingly more distant culture or spiritual approach.

This brings about a relevant reflection regarding the potential of *ritual media*. It is undoubtedly valid for people to subscribe to a religion or specific spiritual path. In many cases, this is what benefits an individual or community most. Knowledge from tradition carries the proof of time and a guiding structure. However, how common is it for practitioners to forget the original meaning behind practices, which may become routine, void of meaning, and followed out of dogma, duty, or habit? For instance, my friend and Zen Buddhist monk Ootake Yutai from Sanmyoji temple in Shizuoka maintains that, within his school's training, the emphasis is on following rules, though often without explanation or genuine engagement with the teachings behind those rules. I too was raised within the Catholic religion, attending mass every Sunday without feeling any profound connection. Christmas and Halloween also illustrate this loss of meaning, having become largely secularised and consumerist rather than spiritual rites. In religious practice, awareness can sometimes be lessened or lost. I speculate that *ritual media* could be an antidote or alternative, especially in our contemporary, largely secularised society, because art does not require subscribing to an ideology and it produces a direct experience. It also does not necessitate a departure from any belief or ideology. *Ritual media* offers the freedom and flexibility to explore one's spirituality and consciousness.

Beyond the reluctance towards visuals and open-eyes meditation from Engager 3 and Engager 4, two other elements proved controversial, with differing opinions: the heartbeat biofeedback and sound in general. For Engager 6, "The soundtrack was a bit unsettling at times." This is not necessarily an unwanted reaction; for example, the *shomyo* chantings in Japanese Buddhism are unsettling but can transform into a trance-like experience. Engager 8 had another view: "The sound was really interesting; I think the part that was really effective was the gong-type effects and the lighting when you expanded your stomach. There was something satisfying about that experience." For one, the sound produced some anxiety; for another, it contributed to relaxation. Engager 5 commented: "I didn't focus too much on the sound," contrasting with most participants for whom sound was impactful.

The same range of experiences regarding visual stimuli applied to the heartbeat,

with Engager 4 expressing displeasure: “Hearing my heartbeat was definitely an unusual experience for me. And initially, I did not like it. It felt similar to my dislike of hearing the sound of my voice.” Here, again, discomfort and aversion are not fully negative for altering consciousness, though they may hinder relaxation. In contrast, for Engager 2, the heartbeat was significant:

The heartbeat visual, the morphing face, and the heartbeat sounds definitely made me more self-aware. It was interesting to feel the heartbeat rate change throughout the meditation. It was a little startling and visceral at times because what’s happening inside your chest is being sounded and displayed.

Engager 1, however, was more indifferent or saw it as secondary: “The heartbeat feedback was not as helpful for entering a meditative state for me.” These perspectives demonstrate that meditation and other spiritual practices cannot be generalised for a majority but depend on each individual’s subjective preferences and circumstances.

The notion of distraction is also important to review as it reveals various aspects of participants’ diverse ideas on meditation and puts into perspective the purpose of the artworks to induce an altered state of consciousness. Several questions in the questionnaire asked about achieving focus, such as being in the present moment or entering a meditative state. However, participants interpreted these differently, particularly depending on their prior conceptions of meditation. For example, Engager 6, who, as mentioned, practises meditation within the Soto Zen school, considered the experience a distraction: “The differences (with other meditative experiences) are several, but I could simplify it as being distracting, as I am used to settings where I only watch myself and my own body, and the devices added a second layer that distracted me.” On the contrary, Engager 15, who occasionally practises Bhakti yoga, observed changes in his perceptual abilities, noting: “my body movement and mental distraction got eased by the intervention of the audio and visual loop.” Engager 14 had a similar opinion: “it was easy to come back from distractions because of the movement of the artwork.”

As explained earlier, the artworks were designed with audiovisuals and biofeedback intended to anchor the mind and prevent it from wandering. In this sense,

focusing on these elements would not be a distraction. However, for some participants, these elements were perceived not as attention anchors but as distractions, adding perceptual or mental content that hindered them from focusing on their bodies or from fully emptying their minds. Engager 7 points out this paradoxical experience: "At first, I was almost hyperconscious of my breathwork and how deeply I was breathing, almost to the point of distraction—almost like a distracted focus or a focused distraction? I'm not sure if that makes sense..." Although she seems confused or uncertain, her comment actually acknowledges the complexity of meditation through the artworks.

When contrasted with focus, distraction may appear to have a negative character. It is, in principle, something to be avoided and perceived as unwanted. The concept of distraction implies being dragged away from something, which could be seen as the opposite of being present and aware. Nevertheless, it should be remembered that, in rituals, trance-like experiences can involve a 'drag away', an out-of-body experience, a transcendence of oneself. Perhaps, a sense of awareness can only emerge when distancing oneself from our usual identity. From this perspective, focus could imply a narrow scope, while transcendence suggests an expansion, a non-focus, a 'distraction', or even 'extraction'. The topics in this research and the user study thus bring about several terms and concepts that can be interpreted differently and require addressing in their complexity.

Insights on Consciousness

The subjective nature of consciousness brings about the need for a terminological discussion, and it is from this that the insights or 'returns' on consciousness—and by no means are these closed objectifiable results or definitions—arise. The main topics related to consciousness that emerged during the affinity diagramming process are: (1) body/mind connection/dissociation, (2) sense of presence, (3) self-perception, (4) temporality, (5) transcendence and spirituality, (6) emotional state, and (7) creativity and inspiration. Again, these topics are interconnected and overlap. It is important to consider them as a whole, together with the previous two sections on the Cultural and Religious Background and Meditation Practices.

1. Body/Mind Connection/Dissociation

In the same way, as with the topic of distraction, the idea of awareness of the body has to be deconstructed. At first, one might simplistically understand the increase in physical awareness as positive, which it is, but this has to be nuanced. Engager 1 comments: “I was very focused on the artwork and lost track of what I was doing with my body.” Engager 15, in a similar line, expressed during the interview regarding transcendental experiences, “You can go to the depth of losing your sense of body or losing sense of yourself, right?” Losing the connection with the body is not necessarily being unconscious of it; it could imply transcending it up to a certain level. Engager 15 gives the parallel of “losing yourself”. Without context, “losing yourself” is negative. Yet, from a Buddhist perspective, for instance, overcoming the ego and achieving selflessness is a higher state of consciousness. Losing the connection to the body also has this dual nature.

Ethereal Phenomena and *Convergences of the Spirit* were conceived to produce awareness of the breath, which is a physical process, and breath itself brings other sorts of bodily and mental awareness. But conceptually, they attempt to induce an ethereal experience. The breath has this double character; it is both tangible and intangible, internal and external. Engager 4 states that the experience was mostly mental and also that her awareness of her breath increased, showing that the breathing process, although occurring in the body and as an exchange with the environment, is perceived as mental or at least not exactly as corporeal.

Other participants implicitly conveyed the acknowledgement of the duality/non-duality of the experience. Engager 5 and Engager 8 respectively commented: “I felt very present and connected to my own body.”; “I did find myself becoming more aware of my body in space.” Later, they offered more details about the relationship with their bodies: “It was interesting to observe my body from a detached perspective... a kind of awareness that I don’t usually get in my day-to-day activities.”; “My breathing matched with the visuals, and I became aware of my muscles and my posture... I felt grounded yet light at the same time.” In their experiences, there is both awareness of the physical state and also detachment and lightness, reflecting the non-dual nature of the mediation with the artworks. Engager 10 and Engager 12 expressed the connection between their bodies and minds: “This was the first time I felt my mind and body align so clearly. When I

got into the rhythm, the breathing visuals brought a sense of calm integration.”; “I felt the changes in my physical state because the integration between my mind and body connected somehow (mind-body connection).”

Body/mind coherence is one of the most significant aspects of the experience that evidences a sense of transcendence. It is one of the primordial Buddhist teachings to reach liberation or enlightenment, and it is also a main characteristic of rituals, in which the physical, spiritual, and mental realms amalgamate. Engager 7 offers an insightful analysis of how and why this process occurred for her during the meditation with the installation:

My mind wandered less on its own to other thoughts because I had a task to focus on making the Buddha come forward to open a lotus flower. Usually, my mental focus precedes my physical focus (i.e., I need to let my mind wander and come back before my body calms down to a meditative state), but in this experience, I was compelled to make my breath more consistent first, and my mind was focused on that, which led my mind to wander less.

The element of the breath seems to be the ‘key’ to the overall improvement in participants’ connection between body and mind. Engager 7 also expresses a point that coincides with Byung-Chul Han (Literature Review), that, in a ritual, the spirit follows the body and not the other way around.

2. Sense of Presence

Several participants pointed out that the combination of breathing with the audiovisuals during the experience brought them to the present moment, showing that these were not distractions but, as it was intended, anchors to their attention: “Focusing on my breathing and the audio kept my mind from wandering. It made me feel present in my body, something I don’t feel often.” (Engager 12); “The visuals and breathing helped me stay grounded in the moment. I wasn’t thinking about anything else, just being here now.” (Engager 8); “For a few moments, it felt like my mind was empty, and I could just focus on being, without worrying about anything else.” (Engager 11). Engager 5 describes a progression in her experience:

In the beginning, I still had thoughts in my head. But then, I slowly focused, became more immersed and focused more and more on the breathing and also looking at the visuals, I felt presence, I felt a moment. I stay focused on the time right now... I feel relaxed and in the end, before the ending, I felt a little bit sleepy.

The sense of immersion is another crucial purpose of *ritual media*. It is a matter transversal to all the consciousness-related topics but it can be particularly elucidated in relation to presence. The immersive character of the experience is what brings participants into a different state, allowing them to take some space and time from their routines and common places and enter a deeper body/mind-set. The immersion occurs at many levels. First, with *Ethereal Phenomena* and *Convergences of the Spirit* as the installations, the biofeedback of the heart and breath is an interactive experience in which the engager becomes part of the artwork. But the ritual aspect is due not only to the installations as objects but to the atmosphere. Many participants highlighted how the characteristics of the space and even the questionnaires influenced and integrated into their experiences, acknowledging the artwork or meditation as a whole with the ‘outer’ elements. Engager 4 makes emphasis on this:

I initially felt more cluttered, followed by a deeper release. This includes both the audio-visual experience and this reflective questionnaire. (...) So I think once you are out of that session. So it unleashes some thought chains and reflective processes. So the questionnaire becomes one of the touch points. Probably it would have hit me anyway once you start thinking about the experience. But as it happened, the questionnaire was there.

The initial origin for creating a questionnaire came from the academic need to evaluate the artworks. However, they became more than that. They were curated with the purpose of also evoking and guiding reflections on the participants towards transcendental matters. Furthermore, during the experiment, the moment of drawing, answering the questionnaires, and then talking with me ended up transforming into a self-reflective and then socialisation time and space—the space for it was different from the installations, placed at the centre of the studio

and curated with special lighting. The before and after the meditation sessions with the installations consisted of a sequence of actions, with both practical and symbolic meaning, that would produce a sense of journey, of progression, of passage in a ritual-like manner. The drawing session was also significant for various participants. Engager 7 talks about it: “The installation made me feel more relaxed and calm, particularly after the experience ended even more than during the experience itself. I really enjoyed the drawing exercise.” *Ritual media*, then would not be only the installations but the surrounding actions and conditions.

The influence of the setup, the atmospheric elements, is highlighted especially by Engager 6 and Engager 7: “The low lighting, this kind of colour cycling of the light in front of the drawing, all of those things were just as influential as the installation, I think. (...) the setting and the lights did feel psychedelic and a bit unreal in a good way”; “I found the audio and video to be very significant, of course; however, I also found the atmosphere of the room itself and the lighting, rugs, cushions, and floor seating to all be greatly significant as well.” I opted to refer to this as a ‘layering’, a fundament of *ritual media*. Layering is curating as much as possible the context where the media work is displayed to immerse engagers as much as possible. For this user study, the series of actions—not only the evaluations but also taking off the shoes and wearing the sensors—and the studio curatorship were this layering process but it will be discussed in the following chapters how displaying the work Fudo Myoo at the Fire Festival at Jyōrakuji temple was too a layering process. I also discuss this with the artist Julian Dupont, as it will be presented later.

3. Self-Perception

A great majority of participants expressed experiencing a shift in their self-perception. Many mentioned feeling connected to the installation and becoming part of it: “I felt my physical body grounded, and my consciousness or soul arose from my body and melted into the installation” (Engager 2); “I felt a sense of merging with the installation, like my consciousness was part of the visuals and sounds... it was a deep connection.” (Engager 15); “I was trying to identify with the face that was changing, trying to assign some sort of meaning and connection from myself to the artwork” (Engager 1). Engager 5 and Engager 12 founded their

connection to the artwork in the breathing exercise: “The breathing biofeedback was so in sync with my own rhythm that it felt like the installation and I were part of the same experience.”; “As I kept watching and breathing, it felt like the artwork and I were in harmony. I almost felt like I was part of the installation, not just observing it.” These quotes allow us to state that there was effectively a process of dissolving the separation between subject and object, a unification between engager and the artwork.

For Engager 2, however, identity or reflecting on it was a different process from breathing: “I think I was more focused on the breathing to think about my inner self too much.” This is not entirely surprising if we consider that self-reflection is sometimes more of an internal dialogue or mental content while focusing on the breath serves more to empty the mind. Engager 1 had a different perspective: “I felt like I was exploring myself in some way”; “My identity felt unchanged, but I was able to explore my mind.” For him, the breath did not impede self-reflection, but this notion seems to be understood in a distinct way. Yet, the unchanged identity suggests that he might not have had the same level of connection with the artwork as the previously quoted participants. Engager 7 mentions having experienced a sense of selflessness: “I became a bit more detached from myself, perhaps somewhat more removed from my sense of self and my ego than normally.” Merging with the installations implies becoming selfless or, from another approach, expanding the sense of self beyond the ego or usual individual identity perception. Engager 7 explicitly described this effect in her experience. Overall, the meditations with the artworks altered participants’ self-perception or at least ‘awoke’ a form of self-exploration.

4. Temporality

Phenomenologically, shifts in time perception characterise altered states of consciousness and transcendence. Participants expressed it in different ways, but several stated experiencing a perception of timelessness. Engager 1, who had earlier commented that his “identity was unchanged,” wrote: “I lost track of time completely and felt like I was floating—it was as if I was outside myself.” There is a kind of contradiction between these reflections or the suggestion that Engager 1 does not associate that distancing from himself with changing his identity, which

he might perceive as a more definitive matter.

Other participants mentioned the pace, with some difficulty defining it, before pointing out the loss of time perception: “I honestly couldn’t tell you how long I was there. It felt like it went by so quickly, but at the same time, I felt deeply immersed, like everything else just faded away” (Engager 14); “It was as if time wasn’t moving at all, especially when I was focusing on my breathing and the images—it made the session feel timeless” (Engager 10); “I remember being pulled into the visuals and sound so much that it felt timeless, almost like a meditation without a sense of start or end” (Engager 6); “At first, I kept thinking about how long I’d been sitting there, but then I started to let go of that awareness, and time just became a background element” (Engager 3). It is noticeable that in most of these responses, there is a temporal convergence or paradox.

This aspect is even easier to identify in comments from Engager 1 and Engager 15: “I completely lost track of time. It felt like time was both slower and faster, a strange suspension where I was just floating.”; “I lost all sense of time and was fully in the experience. It was only after it ended that I realized how much time had passed—it felt like both a short moment and a long experience.” Could the antitheses slower/faster, short/long imply a sense of transcendence?

Engager 13 and Engager 11 did not refer to having lost the sense of time. Nevertheless, they still experienced a shift in their time perception: “There were moments where I felt the pace of time change, like it slowed down when I was fully focused on the breathing visuals. It felt like a natural rhythm.”; “I was aware of time passing but kept wondering how long I’d been there. It made me conscious of each moment, but in a peaceful, almost detached way.” In these cases, there was also an alteration of time’s pace.

Like Engager 11, Engager 12 pointed out a sense of peacefulness or calmness: “For a few cycles, it was like time wasn’t moving at all, just me and the breathing visuals in a constant loop. It was a strange, calming feeling of timelessness.” If for some participants the sense of time was kept—in contrast to losing track of it—the sensation of tranquillity or lightness might partly relate to the emphasised breathing cycles in the installations’ interaction. A traditional and common meditation technique is counting breathing cycles, which marks time, linearity, and progression. The purpose of this is not to assume meditation as a practice

with a beginning or end, start and goal—that would make it a race, which would be counterproductive. In this practice, counting simply becomes a means for the mind to avoid getting lost in thoughts.

Time, in phenomenological terms, is not a clock-measurable, objectifiable fact. It is a subjective and layered experience directly linked to ourselves. For the Russian film-maker and philosopher Andrei Tarkovsky, time is a condition for self-identity, and existence can only unfold in continuity and depth within the passage of time. He conceived time as a medium, an artistic and malleable medium. Through art, it is possible to alter the subjective experience of time and thereby transform self-perception, which is what *Ethereal Phenomena* and *Convergences of the Spirit* produced, according to the participants of the user study.

5. Transcendence and Spirituality

Several participants perceived the experience with the installations as spiritual or even transcendental. Engager 7 placed particular emphasis on this aspect on various occasions: “A few minutes into the experience, my breaths became markedly deeper; as an experienced meditator, I notice this shift when it occurs during my meditations and see it as a signal of a deeper mental and physical state, perhaps signifying something like transcendence.”; “The whole experience felt spiritually enriching, like I was touching on something transcendent within myself that isn’t usually reachable through daily life.” Her drawing and comment on it also show a deep or high level of consciousness directly linked to the imagery of the artworks. Similarly, Engager 15 expressed several times traits and sensations that characterise a transcendental experience: “I felt my consciousness rise from my body and melt into the installation, like merging with the audio and visual guides.”; “The audio and visuals guided me into a state of spiritual awareness. It felt as though I could let go of my ego, reaching into something deeper within myself.” The union with the artwork and detachment from the ego are correlated and convey an altered state of consciousness.

Most of the participants were able to feel not only a meditation exercise with well-being benefits or an artistic experience with aesthetic enjoyment but ‘something’ beyond: “The session felt like a spiritual meditation, an immersion into something sacred beyond the art, helping me reflect on my own inner state and

beliefs.” (Engager 12); “The installation had a reverence that felt almost sacred. It brought me a calm that I usually associate with spiritual spaces, allowing me to reflect inwardly in a new way.” (Engager 4).

Engager 13, Engager 6, and Engager 10 related the spiritual or introspective character of the artwork with its Buddhist elements: “The Tibetan and Buddhist elements in the installation felt like a journey; it was almost like a pilgrimage experience, offering a glimpse into a different spiritual realm.”; “The whole setup reminded me of the calm I feel in Buddhist temples, with an added energy from the breathing biofeedback—it was a blend of peace and introspection.”; “The Buddha image added a touch of spirituality for me, even though it was outside of my usual beliefs. It felt welcoming, like it was helping me access a peaceful mindset.”

While designing the art installations, I strongly hesitated to use explicit Buddhist iconography. I was advised to avoid it for various reasons but mainly because of the lack of universality and limitations it might imply for people from a distant context. I was recommended, for instance by Mariko Mori—who was introduced in the Literature Review chapter—to use more abstract shapes. In her artistic process, Mori’s earlier works contain much more explicit Buddhist iconography, but through her experience, she opted for figures less marked by a specific religion and cultural tradition. Her personal understanding of Buddhism, as it is for me, is quite open and non-dualistic—a philosophy more than a dogmatic doctrine. However, this is not evident for all audiences. Nevertheless, I preserved—at least for the series of works in this research—the Buddhist iconography because I wanted to recover the spiritual dimension brought by its symbolism to meditation, which nowadays has been secularised and perceived as beneficial only for its impact on well-being, as discussed in previous chapters.

The responses of the participants show that the Buddhist imagery did influence the experience and guided it towards a transcendental realm, beyond its character as a meditation tool for stress relief and relaxation. Their feedback also shows that the majority was not hindered by the cultural differences, as Engager 9 specifically points out: “The music and imagery helped me feel closer to something greater, a kind of universal peace. It was less about specific beliefs and more about connecting to calm and clarity.”

6. Emotional State

Participants were asked about their emotional state. From their answers, it is possible to tell that the understanding of emotionality varies mainly between two almost opposite ideas: considering relaxation and calmness as emotions and, on the contrary, not considering these as emotions. In this respect, Engager 1, Engager 8, and Engager 6 express not having had shifts in their emotional state but still point out they achieved calmness: “I did not experience an emotional change. I was relatively neutral the whole time, though I did feel more relaxed.”; “I did not experience significant emotional changes, but I feel calm and relaxed”; “Only relaxation. No emotions arose.” Their statements imply they conceive emotionality as opposed to neutral states.

Notions of, for example, happiness, sadness, and anger are relatable but not exactly in the same category as relaxation, focus, calmness, or even stress, which, instead of emotions, are more general states. It is a subjective matter of how these are interpreted by different people. They can be perceived as the same because they are all psychosomatic; they are both mental and physical. However, etymologically, emotionality implies excitement and movement. From this conception, neutrality, which is reflected by calmness and relaxation, would be the opposite of emotions.

Engager 14 also differentiates emotions from relaxation: “I think I was too focused on the breathing to notice any emotional changes. A certain calmness came from being detached from usual surroundings by having the feel of the carpet on my legs and the music in my ears.” For him, maintaining focus on the sensorial and atmospheric elements disengaged him from emotions. Engager 7 shares a similar idea: “My emotional state became more neutral and less passionate about extraneous matters; I felt more focused on the task at hand (i.e., breathing deep enough to bring the Buddha forward and open a lotus flower).” The absence of emotionality is a positive return in terms of meditation. While there are diverse approaches to this matter, in general meditation is a neutralising process that seeks not exactly to eliminate or avoid emotions but more to acquire awareness and observe them in perspective, taking distance from them, detaching from them. This is one of the greatest psychological benefits of meditation.

According to cognitive psychology, emotions are not inherently bad or harmful;

they still originate as functional responses that are useful in many circumstances. However, emotions become problematic when disproportionate to the situation. It is necessary to regulate them. Emotionality is linked to our self-perception and, in this sense, transcendence of the ego also implies transcending emotions. Therefore, the detachment from emotions in participants indicates a positive trait in terms of achieving transcendence.

In contrast with the previous participants, Engager 5 and Engager 12 stated that they had ‘emotions of relaxation,’ implying they conceive relaxation and calmness as emotions: “Emotionally I felt relaxed”; “I think that is pretty much important for me to have, increasing my emotional states to become more relaxed and to get more inspired and more focused.” Despite the difference in assuming emotionality, in all cases, the experience led to relaxation.

Engager 2 tries to convey a more complex emotional processing: “I think I feel more confronted with my emotions, but it doesn’t necessarily mean more overwhelming. It was like I felt my emotions more but I also had the space and capacity to do it.” The neutralisation of emotions tends to be desired in meditation, but when referring to rituals, this is not necessarily the case. Several ceremonies serve as spaces/times for emotional release and processing. For this, it is also necessary to have a sense of awareness, but a ritual allows for emotions to be unlocked, to emerge, to be expressed, and, in this way, to be purged, exorcised. For instance, Amazonian Siona and Inga Indigenous groups from the Putumayo region in Colombia utilise a preparation of plants called *yajé* that is drunk during ceremonies that physically and energetically purges participants, with very positive healing results afterwards. The Siberian Buryat and Yakut groups also have rituals in which they enter an altered state of consciousness and have an emotional release through drums and chanting. Very likely, Engager 2 did not experience the level of emotional purge that occurs during those ceremonies, but his comment and his drawing suggest that he somehow felt an aperture to process emotionally.

Engager 2 explained that in his drawing, he first realised being overwhelmed by obligations and had the need to “take up space,” which he graphically transmits on the paper. Then, this transformed into a series of nostalgic and personal elements and an overall sense of gratitude. This sort of expression suggests the meditation

with the installations moved him to a creative emotional release.

7. Creativity and Inspiration

Almost all participants recount feeling creative and inspired by the artworks. Like Engager 2, Engager 1 had a positive sensation that encouraged him to envision: “I felt very optimistic after the experience, and so these are things that in the future I want to manifest.” Their drawings, more than a reflection on the artworks, are projections of their internal states from a hopeful mindset brought by the calmness of the experience. Engager 13, Engager 8, and Engager 12 also felt inspired and even excited to take action and carry out their tasks, create, and explore: “Instead of feeling tired, I felt ready to think about my project ideas... it felt refreshing, and somehow inspiring, to try something new with my mind. (...) The sensory elements of the installation inspire a sense of discovery”; “I do feel more creative and inspired after this installation. It was a really great way of combining the worlds of science, engineering, art, and design”; “Reducing stress and connecting with the visuals made me feel more inspired, like I could go straight into creative work afterward.” The experiment, multimedia, and interdisciplinary character of the experience invited some participants to want to keep developing their own creative pursuits.

During the conversation, Engager 13 was excited about developing an installation integrating nature sounds and water interaction with the purpose of inducing relaxation and stress relief. We brainstormed about it, discussing the impact of meditation on treating anxiety, technical aspects of the design, and even difficulties in conveying how to evaluate those sorts of projects within the academic context. Engager 13’s project aligns at many points with *ritual media* in terms of the installation idea and also regarding the need for a method to obtain and process engagers’ feedback.

The drawings from Engager 13, Engager 7, and Engager 8 mirror the artwork’s visuals and the meditation. Engager 10, Engager 4, and Engager 15 also reflect the meditation posture and represent more abstractly the sensations of the experience. Their drawings are already the first creative outputs from participants, the reverberation of the meditation. However, for Engager 12, there was no sense of getting inspired: “In order for me to get inspired, or be focused on, it still

needs a few more times to engage with the art installation.” He opts for writing instead of drawing, which is not necessarily less creative, but perhaps he was more in a rational state than properly creative. Engager 3’s drawing is also not exactly committed. But again, they emphasised from the start of the session that they were tired, rushed, and sleepy.

Sleepiness is another element worth revising. While it was not a main goal, the design of the installations integrated a gamified biofeedback interaction in part to counteract the quick loss of attention and sleepiness in certain meditation practices. This was overall successful, but there were some exceptions since some participants got sleepy. After all, sleepiness is also an effect of relaxation, which is a positive aspect. Furthermore, it leads toward another state of consciousness, the unconscious or subconscious, and even the oniric state. Besides Engager 3, the participants expressing sleepiness also showed a deep engagement with the experience, suggesting that this feeling was not due to boredom or lack of interest but, on the contrary, it could be a sort of trance-like sensation, characteristic of rituals.

Chapter 6

Autoethnography at Jyōrakuji

The art installations I created are strongly influenced by Buddhism. Even though the development of *ritual media* is not restrained to the Buddhist context, I consider that it is also relevant to address the cultural aspects that are involved. For this reason, I started carrying out fieldwork at Jyōrakuji, a temple founded in the year 1280, in Tatebayashi, Gunma (Jyorakuji 2025). This is a Shingon Buddhist temple, a sect different from Tibetan Buddhism—that has the strongest influence in *Ethereal Phenomena* and *Convergences of the Spirit*. However, Tibetan and Shingon Buddhism share several points in common. They both contain esoteric teachings and count with meditative and ritual practices that involve imagery and sound; mantras and mandalas are present in both, for instance, and there are many similarities in the philosophical aspects.

Jyōrakuji is a temple with a strong community that regularly shares activities not always related to religious practices. They also offer craft workshops, yoga classes, and they carry out music festivals (see Fig. 6.2). I first went to Jyōrakuji in May 2023 and I had the opportunity to chat with the priest in charge. He shared with me that the temple's principle is to honour joy, which is why they love music and arts. They are truly open-minded and, while they respect tradition, they can appreciate the value of other ways beyond the specific Shingon Buddhist sect. This is why they are happy to welcome a yoga teacher, or they display contemporary paintings related to Buddhism but perhaps have more traits of other sects from India. Therefore, I realised this was an ideal context and community to share my artworks and seek to understand their reception of new technologies integrated into meditation and other kinds of Buddhism.



Figure 6.1 Jyōrakuji's Fire Ceremony



Figure 6.2 Music Performances During the Fire Festival at Jyōrakuji

6.1. Methodology

Using an autoethnographic methodology to evaluate the artwork I presented at Jyōrakuji offers a series of justifications and advantages (Ellis et al. 2011):

First, as an artist and researcher, incorporating my personal experiences, perspectives, and reflections directly into the evaluation process is crucial. My subjective insights as the creator provide valuable context, meaning, and intentions behind the art installations. By including my own experiences, perceptions, and even emotions related to the creation and presentation of the artwork, I offer a more nuanced and holistic evaluation.

Second, autoethnography enables me to explore the cultural context in which the artwork was situated, such as the setting of Jyōrakuji, its community dynamics, and the religious and artistic traditions that influence the reception of the artwork. This approach allows for a deeper understanding of how cultural factors impact the interpretation and appreciation of art and meditation, especially within a specific cultural and religious setting like Jyōrakuji.

Third, engaging in autoethnography encourages reflexivity, which involves crit-

ically examining my own role, biases, and assumptions throughout the research process, a fundamental critical aspect in order to deal with the subjective character of consciousness. When evaluating my artwork, I can assess how my identity as an artist, my background, and my beliefs may have influenced the creation and reception of the artwork. This self-awareness enhances the transparency and credibility of my evaluation.

Fourth, autoethnography facilitates a rich and deep analysis of the artwork by integrating personal narratives, participant observations, and cultural interpretations. This multifaceted approach enables me to explore not only the aesthetic qualities of the artwork but also its cultural and emotional impact, symbolic meanings, and the interactive experiences of participants at Jyōrakuji. By delving into these layers of analysis, I can provide a comprehensive evaluation that goes beyond surface-level assessments.

Fifth, autoethnography allows me to engage with diverse perspectives, including my own as the artist, the perspectives of participants who interacted with the artwork, and the broader cultural and religious perspectives of the Jyōrakuji community. This inclusive approach fosters a dialogue between different voices and viewpoints, enriching the evaluation process and contributing to a more holistic understanding of the artwork's significance and reception.

The cultural and spatial contexts in which this research was conducted played an active role in shaping both the artworks and the methodology. My long-term residence in Japan and ongoing collaborations with temple communities, particularly Jōrakuji in Gunma and Sanmyōji in Shizuoka, influenced how I approached site-specificity, sensory design, and symbolic language. The aesthetics and atmospheres of Japanese temples—marked by spaciousness, subtlety, and layered symbolism—provided more than an exhibition setting; they informed the ontological assumptions and ritual logics that guided the creation and interpretation of the installations. These spaces allowed for the emergence of a methodology grounded in sensitivity to silence, impermanence, and embodied attention, revealing how local cultural practices can shape the possibilities of research through art.

In summary, using an autoethnographic methodology to evaluate the artwork I presented at Jyōrakuji is relevant because it embraces subjectivity, cultural em-



Figure 6.3 Flyer for the Fire Festival at Jyōrakuji

beddedness, reflexivity, depth of analysis, and engagement with diverse perspectives. These elements are essential for a comprehensive and nuanced assessment of consciousness and art within a specific cultural and experiential context.

6.2. Fire Ceremony and Development of the Installation Fudō Myōō

On November 3rd, 2023, Jyōrakuji held a Fire Ceremony and festival with music bands, contemporary performances, and independent food stands and shops (see Fig. 6.1) (see Fig. 6.3). Jyōrakuji actively holds cultural events with marketplaces and workshops and the frequent participants (usually from North Kanto) are the ones who form the community.

I arrived a week in advance to share with the chief priest—whom I will call from now on Jūshoku-san—, his wife and administrator of the temple, Hiroko-san, my musician friend Saku-chan, who was the one who invited me to participate, and the people from the community.

During the evenings, they would receive at their table any person passing that had a link to the organisation of the festival or other temple matters: the sake



Figure 6.4 Jyōrakuji's Honzon or Altar with Fudō Myōō's Images

provider, the musicians that would perform, people's kids, *ojiisans* that came for a cup of *nihonshu*. Jūshoku-san has a lively and welcoming personality. I felt I could speak to him without much formality. He would always keep my '*nihonshu*' glass filled and share part of his food portion. It is not out of topic to mention that the food was always incredible, a generous banquet that would be served for several hours in the night; vegetables of the season gifted by a friend, fish from the region, a cake or some bread to share that visitors would bring as *omiyage*. Anyone could request the *ofuro* (bath) or a *futon* to sleep in any of the temple's rooms. I would help with any small task, carrying things or cleaning. It was all very natural, there was truly a certain harmony flowing around, a sense of Jyōrakuji's '*raku*', '*ease*', '*joy*', shared joy.

During those days, I was arranging the setup of the installation (which at first I thought would be *Ethereal Phenomena*) and by being accompanied by the images in the *honzon* (altar) (see Fig. 6.4), I realised that I wanted to make a specific artwork for the Fire Festival with the main figure of Jyōrakuji, Fudō Myōō.¹

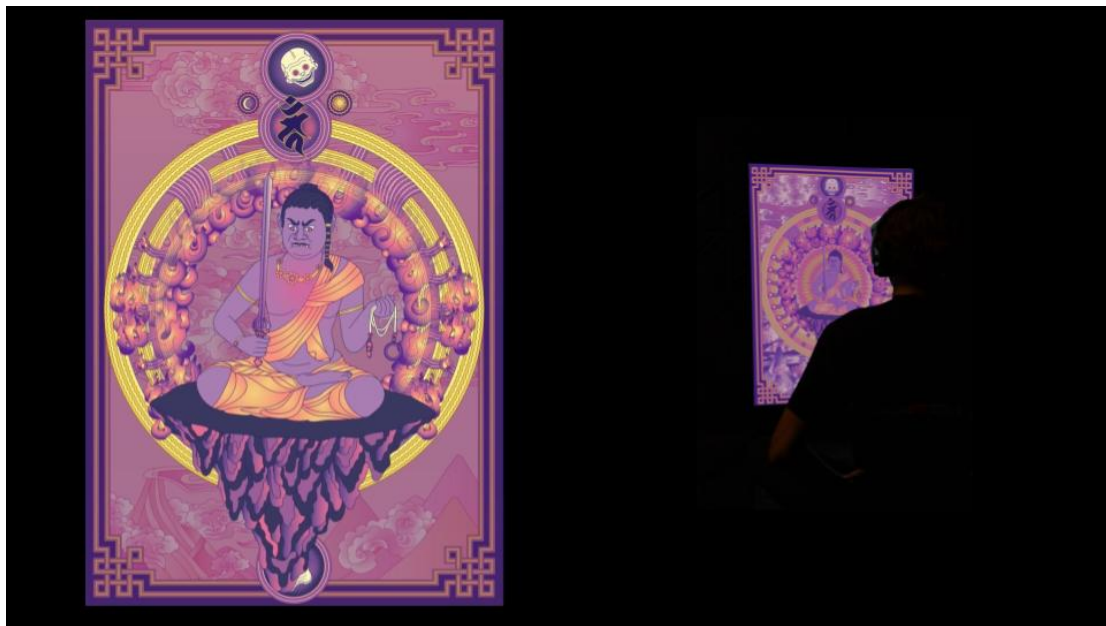


Figure 6.5 Fudō Myōō: still frame; setup with user/performer

I took as base the overall composition and interaction of *Ethereal Phenomena*. I created a new illustration that would be a sort of mix of Tibetan thangka and the iconography of Fudō Myōō (see Fig. 6.5).

Then, I reprogrammed the breathing biofeedback so that instead of promoting abdominal breathing (which is the breathing technique from *Ethereal Phenomena*) it would incite a faster breath pace, a Fire Breath similar to Tibetan tummo breath or to Wim Hof breathing technique.²

I switched the lotus flowers that would open around the central enlightened being in *Ethereal Phenomena* to flames that would mark each period of inhalation-exhalation, and changed the syllable ‘om’ and sound for ‘hām’, the characteristic syllable of Fudō Myōō. The colour palette for this work was a strong purple and yellows which, again, are not traditional yet they evoke the energetic nature of Fudō Myōō.

I decided to integrate Lotus Heart—the lotus-shaped heartbeat sensor from *Convergences of the Spirit*—to incite a quicker cardiac rhythm through the visualisation of the pulse reflected as a pink halo in the chest of Fudō Myōō.

For the audio, instead of the calming chantings of *Ethereal Phenomena*, I took a

shōmyō (Shingon Buddhist chants) audio recording which—in contrast to the general conception that there is regarding meditation as a relaxing practice—provokes exaltation and its rhythm makes you enter an energetic trance-like state, more attuned to the idea of fire.

While I was making the design, many people were curious, helped me test the interaction, and shared their thoughts with me. The night before the Fire Festival, I asked Jūshoku-san to try the installation. When he saw the image, he said immediately: “*mottainai!*” (“What a waste!”). He told me I put an extra third-eye in Fudō Myōō which was not the iconography that his ancestors kept for many generations in a way for a reason. He said that the rest was amazing but that single aspect was ruining all the work. I told him I would get rid of the eye, which was more of the Tibetan iconography, and had chosen it simply because I found it beautiful and evocative of enlightenment. Then I explained I was really curious about the differences and similitude of symbols in different traditions. He laughed, replied something I could not get about *mikkyō* (secret Buddhist teachings), and then he put the sensors on to try the interaction for some minutes (even though the third eye was still there). I could see in the movement of the image that his breath, as expected, was incredibly deep, and his heartbeat was constant, traits that indicate physiologically he meditates often. He was smiling afterwards. He told me “Do not get rid of the eye if it takes too long, we want you to come to share with us”, and left to the dinner table where everyone was.

I think this interaction conveys a lot about that balance between the protection of tradition and novelty, between the rigidity of shape and the actual openness behind it. Ultimately, what matters is experience. The creation of the work felt collective and dynamic, and the work itself would turn out to be not a finished piece but the whole process around, that time spent together, and the conversations included.

The next day, I woke up early and helped other monks separate chopsticks to burn at the fireplace that would be transformed into a fire path for people to walk barefoot and purify themselves.³

While most of the activities were happening outside in the outer space of the temple’s complex, I set my installation Fudō Myōō in the room division at the left of the central *honzon* room. Part of the time I was inside talking with my



Figure 6.6 Jūshoku-san Walking On The Embers

customers/performers/audience and helping them to wear the sensors—and I will discuss more about their experiences and feedback in the next section— but I also participated in the Fire Ceremony.

The festival had hundreds of visitors, and as I observed, the atmosphere was charged with anticipation and respect. The flames from the consecrated fire pit swayed in intricate patterns, casting a mystical light on the assembled faces. The steady rhythm of mantras, led by Shingon priests, filled the environment with a tangible spiritual ambience.

Throughout the Fire Ceremony, the chants grew in intensity, creating a resonant backdrop that seemed to penetrate deeply. The repetition of “*Namu Fudō Myōō*” felt like an affirmation of strength, evoking the protective and transformative essence of Fudō Myōō.

The climax arrived with the glowing embers, prompting the fire-walking ritual. Participants, under the guidance of skilled priests, approached the heated path with a mix of trepidation and resolve.

Observing the participants’ progression across the embers revealed a noticeable shift in their disposition. Faces that had shown moments of hesitation or nervous-



Figure 6.7 Tribal Assassin's Fire Performance at the Fire Festival

ness now radiated determination and courage. It was as if the act of walking on fire was not just a physical feat but a symbolic journey of purification and inner strength.

I also threw to the flames an *onegaigoto* (a wish written on a wooden stick) and walked over the embers holding a strong hope for genocide to end. Afterwards, we talked with friends about this transformation of people's energy throughout the ceremony. We were all aware of the collective fulfilling sensation. Everyone was smiling.

The night continued and we kept enjoying and sharing. A contemporary fire performance by the artist Tribal Assassin (see Fig. 6.7) took place and my DJ friends, Aoki and Backass, played some crazy electronic music (see Fig. 6.8). Somehow this combination of traditional and modern ways of expression brought a unique and dynamic way of honouring Fudō Myōō and connecting with the community. Backass commented about the Fire Festival: "Dentō aru gishiki ni DJ ya live soshite Marushe nado gendai no bunka o toriirete iku matsuri", ("A festival that incorporates modern culture such as DJs, live music, and marches into traditional ceremonies"). After the party outdoors (see Fig. 6.9), some of us went inside, we



Figure 6.8 Backass and Aoki (aka Perdominant) DJing at the Fire Festival

had eel and, of course, very good *'nihonshu'*. I cannot recall how many times I heard people saying “*shiwase da ne!*” (“This is happiness!”). Hiroko-san held my hands for one moment and told me “*Mata kite ne, Shirubi, sugu ne*” (“Come back, Silvi, soon, okay?”). I hugged her and we both had watery eyes.

6.3. Art Installation Fudō Myōō Experience

The setup of the artwork represented the culmination of my efforts in creating *ritual media* installations. The temple space offered an ideal atmosphere: dimly lit yet rich with traditional Buddhist imagery, creating an immersive environment amidst the context of the Fire Festival, which fostered a spiritual and ritualistic ambient. Feedback, especially from the second user study, highlighted how



Figure 6.9 Jyōrakuji After the Fire Ceremony

participants' subjective and contextual experiences significantly influenced their ability to enter an altered state of consciousness. While no formula guarantees a specific shift in consciousness, curating various aspects of the environment played a vital role in shaping people's perceptions and aligning them with the intentions of *ritual media*.

I wanted to collect feedback from the people who tried the installation yet the priority was to provide an interesting and engaging experience, and I did not want to bother with long questionnaires. Thus, the feedback I received was from informal conversations. I was surprised because several people gave quite imaginative comments, compared to the answers in questionnaires from the user studies. These are some of the comments that different people made and I could write down: "I felt I was surfing", "I felt my heart burning but it did not hurt", "I stopped feeling the passage of time", "I felt Fudō Myōō's presence inside my body", "I was so relaxed I forgot I was here", "I was surprised I could focus with open eyes", "It felt shorter and I was very relaxed". Nevertheless, there were a couple of people that were more critical: "I want to try again to understand better", implying a one-time experience is insufficient; "I did not understand what

to do and breathing was very difficult”, showing that for some people there might be a lack of instructions and the interaction might not be evident enough.

At the beginning of the ethnography, I was wondering how would be the reception of new technologies and innovative ways of meditation for Jyōrakuji’s community. However, what I actually perceived is that the installation was received naturally, without giving much relevance to the fact that it was not traditional. In general, people were impressed by the artwork, they particularly mentioned it was beautiful, but they were not shocked or conflicted by the use of technology. In this sense, I think I choose quite an open-minded community that appreciates and welcomes diverse forms of creativity. After the festival, several people congratulated me for my work and I can tell it was well received in general. Jūshoku-san and Hiroko-san also found the work interesting but, from my perspective, they were even more excited to have me participating and sharing. They asked me to go back to the temple to do live visuals projected over the *honzon* for the *Gomataki* Fire Ceremony in New Year, which I did.

6.3.1 Cultural and Spatial Situatedness

The cultural and spatial context in which this research was conducted—particularly my long-term residence in Japan and collaboration with temple communities—inevitably shaped the conceptual and experiential dimensions of the installations. Japanese aesthetic and spiritual traditions offered both inspiration and constraint, encouraging a form of minimalism and symbolic ambiguity that informed the design language of *ritual media*. At the same time, these contexts challenged me to bridge cultural modes of emotional expression and to translate contemplative practices across symbolic frameworks. This research is thus embedded in a specific geography of experience, one that modulates how ritual, art, and altered states are understood and enacted.

6.4. Conclusions

Here I review how the ethnography at the temple is related to the research questions:

1. *Exploration of Consciousness through Art:* The ethnography at Jyōrakuji explored the potential of interactive art installations influenced by Buddhist rituals to induce altered states of consciousness. Specifically, the study focused on the creation and reception of the art installation Fudō Myōō during the Fire Ceremony. By integrating elements such as breathing biofeedback, symbolic imagery, and immersive soundscapes, I aimed to understand how these technologies and artistic interventions contribute to exploring altered states of consciousness and transcendence. The interactions with participants, including Jūshoku-san's experience with the installation, provided insights into the effectiveness of these techniques in facilitating deeper introspection and spiritual experiences.

2. *User Experience and Impact:* The ethnographic study collected feedback from participants through informal conversations during the Fire Ceremony. These conversations revealed diverse psychological, physiological, and subjective experiences among users of the art installation Fudō Myōō. Comments such as feeling Fudō Myōō's presence, losing track of time, and experiencing relaxation or focus shed light on the impact of *ritual media* on users' perceptions and states of mind. This user feedback contributes to understanding the psychological and subjective benefits of engaging with such immersive art installations, thereby adding to the broader discourse on consciousness exploration and the efficacy of *ritual media*.

3. *Reception and Future of Ritual Media:* The reception of the art installation at Jyōrakuji reflects the attitudes of a specific cultural and religious community towards innovative approaches to meditation and spiritual practices. The acceptance and enthusiasm shown by Jūshoku-san, Hiroko-san, and the community members suggest a positive outlook on integrating *ritual media* into traditional ceremonies and artistic expressions. This reception not only addresses how cultural and religious communities perceive and interpret *ritual media* but also hints at the potential future integration of these concepts into broader artistic and spiritual contexts. The invitation for future collaborations indicates a growing interest in exploring the intersection of art, technology, and spirituality within such communities.

In addition to the methodological strategies discussed above, it is essential to acknowledge the influence of the specific cultural and spatial context in which this research unfolded. My long-term residence in Japan and continued collabo-

ration with temple communities across the country shaped not only the thematic orientation of the artworks but also the rhythms and aesthetics of their execution. The installations were deeply informed by the subtle spatial qualities of Japanese architecture and the contemplative sensibilities embedded in Buddhist practice—qualities that emphasise emptiness, temporality, and restraint. These settings not only provided physical sites for exhibition but also informed the embodied logic of the research process, influencing choices in sound design, spatial layout, and symbolic abstraction. Rather than designing in a neutral or placeless manner, the works evolved in response to culturally specific environments, asking how ritual and reflection could be reimagined through a dialogue with Japanese spiritual aesthetics.

Notes

- 1 In Shingon Buddhism, Fudō Myōō holds profound symbolism representing the transformative path from ignorance to wisdom. As one of the Five Great Wisdom Kings, he embodies the fierce and wrathful aspect of enlightenment, wielding a sword to cut through illusions and a rope to bind negative forces. Fudō Myōō's fiery appearance symbolises the intensity of spiritual practice required to overcome obstacles and attain enlightenment. His protective nature as a guardian of the Dharma (Buddhist teachings) signifies the power to shield practitioners from harm and guide them on the path of awakening.
- 2 Tummo breath, also known as fire breath or inner heat meditation, is a Tibetan Buddhist practice that involves controlled breathing techniques to generate inner warmth and energy. Practitioners visualise a flame at their navel and use specific breathing patterns, such as forceful inhalation and exhalation, to ignite this internal fire. Tummo is believed to have physical and spiritual benefits, including improving concentration, promoting physical health, and facilitating deeper states of meditation.
The Wim Hof breathing technique involves a series of controlled deep breaths followed by a period of breath retention. This method aims to increase oxygen intake, improve circulation, and boost energy levels. Practitioners often report heightened focus, reduced stress, and improved overall wellbeing after practising the Wim Hof technique.
- 3 Fudō Myōō, a revered deity in Shingon Buddhism, is often associated with the Fire Ceremony (*Goma*), a profound ritual that involves walking on fire as a symbol of purification, courage, and spiritual transformation.

In the context of the Shingon Fire Ceremony, the act of walking on fire is not a mere physical feat but a deeply symbolic and spiritual practice. It is believed that by walking

across the embers, practitioners can purify their minds, transcend worldly attachments, and deepen their connection to Fudō Myōō's fierce compassion and wisdom.

The Fire Ceremony begins with the preparation of a consecrated fire pit, typically adorned with offerings such as wood sticks, rice, and symbolic objects representing the elements. The fire represents the transformative power of Fudō Myōō, capable of burning away negative karma and delusions, leaving behind clarity and spiritual strength.

As the ceremony unfolds, Shingon priests and practitioners chant mantras, including the mantra of Fudō Myōō ("*Namu Fudō Myōō*"), invoking his presence and blessings. The intensity of the chanting and the ritualistic atmosphere create a heightened state of mindfulness and devotion among participants.

When the time comes for the fire-walking portion of the ceremony (see Fig. 6.6), participants, often guided by experienced practitioners or priests, walk barefoot across the hot embers. This act is a powerful metaphor for overcoming fear, doubts, and worldly attachments, as well as a demonstration of trust in the protective power of Fudō Myōō.

The experience of walking on fire is said to be transformative, instilling a sense of inner strength, resilience, and purification. It is not about defying physical laws but about transcending limitations and embracing the spiritual journey with courage and determination.

Fudō Myōō's connection to the Fire Ceremony in Shingon Buddhism highlights the profound symbolism and transformative potential of ritual practices in cultivating wisdom, compassion, and spiritual awakening.

Chapter 7

Artist Interview

7.1. Introduction

In order to prove the value of *ritual media* as an art manifesto and design framework, I interviewed twice the artist Julian Dupont whose artworks and creative processes resonate with the concept in question. In the analysis of the interviews, I evaluate his reactions to the *ritual media* concept, while also probing his current integration and potential adoption of *ritual media* principles in his work.

The first interview focused on understanding Dupont's artworks and their resonance with *ritual media*. For the second interview, I introduced my work and we addressed more in detail each of the characteristics of *ritual media* in a collaborative way, brainstorming ideas on how to deal with certain difficulties.

Based on the interviews, in this section, I explore Dupont's interpretations of rituals, the understanding and role of technology in creating immersive experiences, and the relationship between body, mind, and art. I also investigate the artist's methods of balancing symbolic elements with stimuli for a holistic experience, his thoughts on feedback collection mechanisms, and his openness to iterative art creation based on audience reception. Overall, I received very positive comments about the installations *Ethereal Phenomena* and *Convergences of Spirit*, as well as about the user studies' and the process of socialisation at Jyōrakuji. Moreover, Dupont recognised the value of the *ritual media* manifesto and framework. He points out that identifying with it and also finding several points that would contribute to aspects of his own creative process that he struggles to deal with. From my conversations with him, I got insights into potential collaborations and visions for the future evolution of art within the *ritual media* framework.

7.2. First Interview: Julian Dupont's Artworks and Vision

Dupont is a Colombian artist based in France. He explores how to view the concept of artificiality through the lens of Abya-Yala's unique viewpoint.¹ Dupont uses sculptures and performance-based installations to challenge and reshape our usual ways of thinking. His goal is to move beyond fixed identities and he emphasises the importance of nature as a way to free ourselves from colonial influences.

I first shared with Dupont my artworks and the *ritual media* manifesto and simply asked him which sort of resonances could he perceive with our lines of work and this concept of *ritual media*. Dupont's way of sharing his work was quite fluent and detailed, so I preferred allowing him to talk freely, instead of making many questions and comments that would have interrupted him.

Dupont shares a project centred around collective dreaming (see Fig. 7.1) and immersive experiences. He is using a vegetable textile called *yanchama*, sourced from the Amazon, and incorporating elements from indigenous cultures, such as medicinal plants like coca leaves and *toé*. The sculptures and installations he makes aim to create spaces for shared dreaming and exploration of consciousness:

At the Museum of the Bank of the Republic in November, I'm gonna do a workshop where we're gonna be dreaming. It's gonna be wonderful because it's also the first time that the museum will allow people to sleep in the museum.

This artwork converges at many points with *ritual media*. It is an installation/performance based on traditional Indigenous rituals that uses plant technology—Dupont is non-dualistic in this respect and considers plants as technologies—and proposes a collective experience in which participants enter an oneiric state. One of the key aspects of his works is the integration of modern technologies with traditional materials. For example, he uses digital pigmentation alongside natural materials like achiote: "Departing from that relation with materials that has to do with sleeping with the materials to see what you dream with them. It is establishing a type of bond that doesn't have to do with an object-oriented ontology." Through the exploration of materiality, Dupont seeks to dissolve the division between subject and object, coinciding with *ritual media*



Figure 7.1 Collective Dreaming (art installation/performance/ritual) at the Museo del Banco de la República in Colombia (2023)



Figure 7.2 El Sueño del Cóndor (exhibition view including the works El Colibrí, El Lobo Blanco, El Trueno) at the Instituto de Visión New York in the USA (2023)

Dupont emphasises engaged bodily participation and symbolic meaning in his art. He signifies a stick by bringing it to sacred lakes, he incorporates elements like hair and nails into the plants used in the work's research, and he incorporates performative actions. For him, this approach aims to challenge conventional notions of artificiality and explore new possibilities of connection and resonance with materials (see Fig. 7.2).

His process is iterative and experimental, evolving from creating masks that he mentions come "from presences that have emerged in the space of dreaming with these plants", to larger sculptures like Potosí, which integrates magnetic levitation technology (see Fig. 7.3). This process reflects a sense of 'layering' experiences, deep exploration of consciousness, bodily engagement, and the relationship between humans, technology, and the natural world.

Dupont's artworks are symbolic and multi-layered, drawing inspiration from



Figure 7.3 Potosí: The Inverse Uncanny Valleys (art installation) at the Museo del Banco de la República in Colombia (2023)

dreams, indigenous practices, and personal experiences. He creates sculptures that represent presences from dreams and evoke themes of nature, spirituality, and transformation. Overall, Dupont's work embodies a fusion of art, technology, ritual, and consciousness exploration, creating immersive and thought-provoking experiences for viewers.

7.2.1 Dupont's Work and *Ritual Media*

Dupont's work and perspective resonate well with the concept of *ritual media* outlined in the six-point manifesto introduced earlier. Here are the main connections between the artist's work and the characteristics of *ritual media*:

- **Ritual Disposition and Immersive Experience:** Dupont's sculptures and installations aim to create immersive experiences that go beyond mere observation. By using materials like yanchama (vegetable textile) and incorporating elements from indigenous cultures and rituals (such as medicinal plants and traditional practices), the artist invites viewers to approach their work with

a ritual disposition. This aligns with the idea of *ritual media* as artworks that invite engagement and participation in a ritualistic manner.

- **Technological Integration:** While Dupont draws from traditional practices and materials, they also integrate modern technologies into their art. For example, using digital pigmentation alongside natural materials like achiote creates a blend of ancient and contemporary techniques, similar to how *ritual media* integrates technologies to dissolve the barrier between engagers and the artwork.
- **Engaged Bodily Participation and Altered States:** Dupont's emphasis on bodily experiences, such as sleeping in the museum as part of a workshop or using bodily elements like hair and nails in connection with plants, reflects the idea of engaged bodily participation in *ritual media*. The goal of inducing altered states of perception and consciousness is evident in his process of Collective Dreaming and exploring new possibilities beyond traditional forms of artificiality.
- **Symbolism and Direct Stimuli:** Dupont's use of symbolic elements like masks representing presences from dreams and sculptures inspired by indigenous practices aligns with the symbolic nature of *ritual media*. These artworks combine symbolic meanings with direct stimuli (such as using achiote and magnetic levitation) to create a multi-layered, encompassing experience.
- **Process-Oriented Approach and Iterative Experimentation:** Dupont's journey from creating masks to larger sculptures like Potosí reflects a process of iterative experimentation and creative evolution, which is a core aspect of *ritual media*. The focus on collecting feedback from experiences and continuously improving the artworks mirrors the iterative nature of *ritual media* as a design framework.

7.2.2 Insights on Consciousness from Julian Dupont's Artworks

Several aspects of the artist's work show potential insights into consciousness and transcendence.

- **Collective Dreaming:** The concept of 'collective dreaming', hints at a shared or collective consciousness. The artist's exploration of creating spaces for people to unite and collectively dream suggests a belief in the power of shared experiences to transcend individual perspectives and tap into a communal consciousness.
- **Connection with Nature and Rituals:** The use of materials sourced from the Amazon, in collaboration with Indigenous communities, and the incorporation of ritualistic elements like medicinal plants and traditional practices point to a deep connection with nature and ancient rituals. This connection is an exploration of states of consciousness that are intertwined with the natural world and traditional wisdom.
- **Technology and Consciousness:** The juxtaposition of ancient materials and practices with modern technologies, such as magnetic levitation, introduces a dialogue on the intersection of technology and consciousness. Dupont questions the impact of modern technologies on our consciousness and suggests that a critical engagement with these tools is essential for a holistic understanding of our relationship with the world:

My intuition has to do more with the constellation that I've experienced in relation to the ritual practices in the Amazon and with Indigenous communities than the ultimate technological dispositive as the Western has conceived it.

- **Embodied and Symbolic Invocation:** Drawing parallels with the indigenous approach to creating art not as a representation but as an invocation, Dupont hints at a transformative power in artistic expression. The act of dreaming with plants, using one's own body elements, and engaging in rituals could be seen as ways to access altered states of consciousness and transcend conventional modes of perception.
- **Sensory Engagement:** The emphasis on bodily participation, the incorporation of plants with known psychoactive properties, and the potential for altered states of perception through the immersive sculptures suggest an in-

terest in exploring the relationship between sensory experiences and altered states of consciousness.

Dupont's work embodies many elements of *ritual media* as outlined in the *ritual media* manifesto, showcasing a deep exploration of consciousness, bodily experiences, technological integration, and symbolic storytelling within immersive art experiences.

7.3. Second Interview: Discussing *Ritual Media*

For the second interview, I requested Dupont to brainstorm together around *ritual media* and see what this concept evokes in him and understand how it can be useful or significant for creators to work from the approach of the *ritual media* design framework, and if they could apply it in their creative processes or use it as a blueprint. I organise the conclusions we reached together into a series of topics corresponding to the *ritual media* manifesto.

7.3.1 Ritual Disposition and Intention

A defining feature of *ritual media* is the invitation to engage with the work through a 'ritual disposition', a mindset of deep immersion and intentionality. Rituals are not simply actions but immersive experiences, requiring participants to inhabit them fully. As Dupont notes, "Rituals invite a sense of shared intention; they are not merely enacted but inhabited, demanding the participant's full presence, where the experience transcends the sum of its actions." This disposition transforms participants from passive spectators into active contributors, aligning their presence with the work's essence and allowing them to imbue the experience with personal meaning. The vision of *ritual media* calls for an open framework where intention catalyses engagement, crafting each interaction as a deeply felt ritual rather than a mere performance or task.

7.3.2 Integration of Technologies and Media to Dissolve Subject-Object Separation

Ritual media integrates diverse technologies not for technological allure but as tools to blur the boundary between participant and artwork. The goal is to merge engager and media in a way that dissolves the traditional subject-object separation. Dupont encapsulates this, saying, "The finest technology in ritual art is that which vanishes into the experience, blurring the lines so deftly between observer and observed that the medium itself feels almost irrelevant." This subtle use of technology allows participants to feel wholly immersed as if they are part of the work's fabric rather than external observers. By carefully integrating technology to create seamless interactions, *ritual media* invites participants to experience profound interconnectedness, a hallmark of ritualistic engagement.

7.3.3 Fostering Body and Mind Connectivity

An essential characteristic of *ritual media* is the cultivation of connectivity between body and mind, inviting participants to engage both physically and mentally. Even subtle bodily actions, such as breathing, can create powerful connections between physical and inner realms, enabling a type of kinetic awareness that grounds and elevates simultaneously. Dupont articulates this dynamic, stating, "True ritual art is anchored in the body; it is through our senses that we bridge the intangible with the tangible, invoking a kind of kinetic awareness that grounds and elevates the experience simultaneously." By emphasising the body's role, *ritual media* encourages active physical engagement that bridges the mind and the tangible world, creating an experience that feels as deeply rooted as it is transcendental.

7.3.4 Inducing Altered States of Perception and Consciousness

Ritual media also aims to evoke altered states of perception and consciousness, drawing participants out of habitual awareness and into heightened states of being. The use of multi-sensory stimuli, such as sound, visuals, and interaction, fosters

experiences that transcend ordinary consciousness. As Dupont observes, "Altered states arise not from the exotic alone, but from carefully orchestrated experiences that bring us out of our habitual awareness and into a heightened, almost timeless now." This characteristic speaks to the transformative power of *ritual media*; by crafting layered, immersive environments, it guides participants into expanded mental states, where traditional boundaries dissolve, and awareness deepens.

7.3.5 Symbolic and Direct Stimuli for an Encompassing Experience

Ritual media artworks are holistic, combining symbolic elements with direct sensory stimuli to create rich, encompassing experiences. This approach reconnects participants with cultural and spiritual symbols while grounding them through immediate, sensory engagement. Dupont captures this dynamic, saying, "Symbol and sensation combine to create ritual depth; without the former, the experience risks superficiality, and without the latter, it risks becoming a mere intellectual exercise." By integrating both symbolic depth and tangible stimuli, *ritual media* transforms the encounter into a layered experience, where symbols provide context and depth while sensory elements anchor participants in the present, ensuring the experience resonates on multiple levels.

7.3.6 Iterative Process, Socialisation, and Feedback Integration

Unlike static artworks, *ritual media* is envisioned as a dynamic, evolving process that grows with each engagement and integrates feedback from participants into its structure. This iterative aspect of *ritual media* highlights its communal nature, where shared experience and feedback refine the work, enhancing the collective knowledge and consciousness it seeks to explore. Dupont encapsulates this in his observation, "Rituals are living processes that adapt to those who engage with them, evolving not in isolation but in community, where each interaction subtly shapes and reshapes the whole." Through iterative refinement and participant feedback, *ritual media* becomes more than an experience—it becomes a communal journey that evolves alongside its audience, deepening its impact and significance.

over time. Dupont highlights the need for a creative feedback recollection method that integrates into his works. He particularly recognises this lack in his collective dreaming work, in which he sustains a more structured way of gathering the posterior dream and experiences' stories missed.

7.3.7 Conclusions of the Interview

Dupont's insights offer valuable support for the concept of *ritual media* by articulating how art can transcend conventional boundaries, engaging participants in profoundly immersive and communal experiences. His views on ritual as something to be 'inhabited' rather than merely observed resonate with the call for intentionality in *ritual media*, where each participant brings their presence and meaning to the experience. Dupont's thoughts on technology—that it should “vanish into the experience”—reinforce *ritual media*'s aim to dissolve the separation between subject and object, using technology as a bridge rather than a barrier. His emphasis on body-centred engagement aligns with *ritual media*'s focus on embodied experience, viewing the senses as vital to accessing deeper layers of awareness. Furthermore, Dupont's reflections on altered states, symbolic depth, and the iterative, communal nature of ritual reinforce the idea that *ritual media* is not simply art but a transformative, evolving process. By framing rituals as dynamic, socially interactive events that grow through participant feedback, Dupont underscores *ritual media*'s potential to cultivate knowledge, expand consciousness, and create spaces for meaningful connection. Thus, Dupont's perspectives not only enrich the theoretical foundation of *ritual media* but also validate its practical potential as a design framework for immersive, resonant, and participatory artworks.

Notes

Chapter 8

Conclusions

This research solidifies the *ritual media* framework as a transformative approach that uniquely combines art, meditation, and sensory immersion to explore the nature of consciousness. Through the integration of body-mind engagement, symbolism, and participatory design, *ritual media* creates an experiential platform or blueprint for both individual and collective reflection, offering users/performers an opportunity to approach altered states of consciousness and consciousness-related topics through an interactive and immersive artistic experience. The findings addressed in the evaluation process show that *ritual media* has considerable potential as a methodology to improve creative processes, deepen the discourse on consciousness, and foster personal transformation.

8.1. Main contributions

The research on *ritual media* introduces an innovative and impactful framework that extends beyond conventional art practices by merging art, technology, and ritual practices to explore consciousness. This approach contributes both practically and theoretically in the following ways:

1. Introduction of the *Ritual Media* Framework: The concept of *ritual media*, as proposed in this study, forms a comprehensive framework for designing and executing immersive art experiences aimed at consciousness exploration. This framework combines traditional ritualistic elements with technology and new media to foster states of heightened awareness, emotional introspection, and transcendence. *Ritual media* serves as both a new genre of media art and a practical design methodology, establishing a model for creators interested in developing experiences that impact users on a deeply

personal and sensory level.

2. **Bridging Art, Meditation, and Technology:** By integrating meditation and biofeedback technologies, the artworks developed in this research illustrate how art can extend into realms traditionally associated with wellness. The use of biofeedback through breathing techniques, for instance, provides users/performers with real-time feedback on their physiological states, linking bodily sensations with symbolic and sensory input to create an enhanced self-awareness. This intersection of fields enriches both the artistic and scientific understanding of interactive art's potential to alter perception and mood.
3. **Cultural and Transdisciplinary Relevance:** The *ritual media* framework draws on diverse cultural and spiritual traditions—particularly Buddhist meditation and symbolism in the case of *Ethereal Phenomena* and *Convergences of the Spirit*—making it adaptable across various cultural contexts. This transdisciplinary approach promotes a nuanced appreciation for different traditions of consciousness exploration and introduces these practices to a contemporary audience in an accessible and engaging way. Through the design and production of the installations, the research also shows the potential of digital art to preserve, reinterpret, and share cultural rituals in a way that is meaningful and immersive.
4. **Development of a Unique Evaluation Methodology:** The study pioneers new evaluation techniques for understanding subjective experiences, which are crucial for consciousness-related research. The evaluation framework combines qualitative feedback with biofeedback data to gather a well-rounded perspective on the impact of *ritual media* on participants. This methodology recognises the importance of referring to objectifiable and scientific bases while still acknowledging subjective experience in art and consciousness studies, which may serve as a valuable tool for other interdisciplinary artists.
5. **Advancements in Interactive and Immersive Art:** The installations designed as proof-of-concept for *ritual media* provide insights into how interactive media can cultivate introspective and transformative experiences. By offering

a gamified, sensory, and symbolically rich environment, *ritual media* installations enable participants to actively shape their experience, thus shifting from passive to participatory art. This study positions *ritual media* as an experience that goes beyond conventional aesthetic appreciation, urging users to engage deeply with their internal states.

8.2. Insights on Consciousness

The exploration of consciousness through *ritual media* provides several meaningful insights into how interactive art can influence and reflect users' inner experiences:

1. **Facilitation of Altered States of Consciousness:** *Ritual media* demonstrates how sensory engagement can foster altered states of consciousness that are often associated with meditation or ritual practices. The installations' users/performers' real-time interactions with visual and auditory elements create a sense of presence and immersion, encouraging a shift from ordinary perception to a focused, inward-facing awareness. This controlled environment thus provides a unique context for exploring consciousness that combines art's symbolic power with the physiological benefits of meditative techniques.
2. **Consciousness as a Multi-Sensory, Embodied Experience:** The study highlights the significance of engaging multiple senses and the physical body in the experience of consciousness. *Ritual media* leverages sound, visual imagery, and breath to create a feedback loop between the body and mind, encouraging participants to focus on their physical sensations as a pathway to greater self-awareness. This multi-sensory approach suggests that consciousness is not only a mental process but also an embodied one, influenced by our immediate sensory experiences and surroundings.
3. **Symbolic and Ritualistic Elements as Pathways to Self-Reflection:** *Ritual media* incorporates traditional symbols and repetitive patterns, which guide users toward a contemplative state. Symbols used in the installations, drawn from Buddhist traditions, act as focal points for reflection, fostering deeper

contemplation and personal interpretation. The presence of ritualistic structure and cultural symbolism enriches the exploration of consciousness by connecting participants to collective, archetypal meanings, suggesting that consciousness is intertwined with cultural and spiritual narratives that shape our perception of self.

4. **Subjectivity and Variability in Consciousness Exploration:** The varied responses among participants underscore the subjective nature of consciousness, which is shaped by personal, cultural, and experiential factors. The insights gained from participant feedback reveal that while *ritual media* can create conducive conditions for consciousness exploration, each user's journey is unique. This variability highlights the need for flexible and personalised approaches to consciousness studies and underscores the limitations of attempting to quantify or generalise consciousness as a singular experience.
5. **Potential for Personal Transformation and Emotional Insight:** Many participants reported experiencing emotional release, clarity, or a sense of unity during the *ritual media* experiences, indicating that interactive art can support meaningful self-reflection and psychological insight. The *ritual media* framework thus not only invites participants to explore consciousness but also acts as a catalyst for personal transformation, echoing the benefits of traditional meditation practices. This suggests that consciousness is not static but rather a dynamic state that can evolve through intentional, ritualised interaction.
6. **Exploring the Mind-Body Connection in Contemporary Contexts:** *Ritual media*'s use of biofeedback underscores the interdependence of mental and physical states, with changes in breathing impacting visual and auditory responses. This reinforces the concept that the mind-body connection is central to consciousness exploration and can be effectively emphasised in interactive art. By demonstrating how conscious control over the body—especially breathing—can alter mental states, *ritual media* affirms that bodily awareness is an essential component of conscious experience.
7. In sum, *ritual media* illuminates consciousness as a deeply personal and

sensory-rich experience shaped by cultural, physiological, and symbolic factors. This approach expands our understanding of how consciousness can be accessed and transformed, presenting a pathway for future studies to delve into the relationship between art, technology, and the human experience. Through this framework, the study ultimately invites new possibilities for both individual introspection and communal ritual in the digital age.

8.3. Final Considerations

8.3.1 What *Ritual Media* Can Do

The *ritual media* framework effectively addressed the core research questions, underscoring its strengths in facilitating ritual-like, immersive experiences that invite participants to connect with their bodies, minds, and environments. By blending ritual elements with new media and technology, *ritual media* offers a structured yet flexible format that guides participants through an altered state of consciousness, fostering introspection, emotional connection, and, in some cases, a sense of transcendence.

The use of biofeedback, particularly through breathing techniques that modulate visual and auditory elements in real time, helps anchor participants in their bodily experiences while elevating their perceptual states. The iterative design process, participant feedback, and observational studies conducted throughout this research provide insight into the capacity of *ritual media* to deepen consciousness awareness and cultivate transformative experiences.

Furthermore, this research demonstrates how *ritual media*'s versatility enables it to resonate within various cultural and spiritual contexts, creating a bridge between traditional and contemporary modes of consciousness exploration. The inclusion of Buddhist-inspired symbolism and breathing practices, for example, allows the installations to evoke familiar spiritual motifs while also encouraging participants to explore them through modern interactive technologies. By situating *ritual media* within both art and meditation domains, the framework engages users not only through sensory interaction but also by encouraging them to view the artwork as an extension of themselves, thus fostering a more unified

self-perception and awareness.

Through the participants' feedback, the study highlights how *ritual media* experiences can evoke a range of responses related to consciousness and transcendence. Many users reported feelings of heightened awareness, clarity, or emotional release, suggesting that *ritual media* can guide participants beyond mere relaxation toward profound states of inner connection and insight. This response underscores *ritual media*'s potential to cultivate psychological and spiritual benefits, making it a valuable framework for creators who seek to produce art that goes beyond traditional boundaries of aesthetic appreciation.

8.3.2 Limitations of the *Ritual Media* Framework

However, the *ritual media* framework also presents limitations. The subjective nature of consciousness presents challenges in producing consistent or universally interpretable insights. Since consciousness is inherently personal and context-dependent, participants' responses to *ritual media* are likely to vary widely based on individual backgrounds, experiences, and perceptions. This variability complicates efforts to standardise findings or establish generalisable patterns, as each participant's journey through the *ritual media* experience is shaped by deeply individual factors. While the framework accommodates these variations by valuing personal interpretation, the challenge of measuring its impact on consciousness remains, especially when compared to more established practices like mindfulness, which often have a more structured methodology for assessment.

Moreover, *ritual media*'s deep reliance on sensory engagement and symbolic meaning can be overwhelming or challenging for some participants, particularly those unfamiliar with the specific cultural or spiritual elements embedded in the artwork. Although the *ritual media* framework invites a diverse range of responses, the layered symbolism and sensory stimuli may create barriers to accessibility or understanding for audiences unfamiliar with its themes, possibly diluting the intended experience for these users. Addressing these interpretative and accessibility issues remains a key consideration for the broader application of the framework.

One important limitation of this research lies in the temporal nature of its implementations. While the installations were designed to evoke ritual structures, including symbolic environments and altered states of consciousness, the short-

term nature of the exhibitions meant that participants could only engage once or over a very limited duration. A defining aspect of many traditional rituals is repetition over time — the cyclical or iterative return to a space, gesture, or symbolic act that deepens its resonance and anchors transformation in embodied memory. Without this repetition, the integration of altered states or symbolic meaning may remain provisional or incomplete. Future iterations of *ritual media* would benefit from longitudinal engagement, where participants could return to the experience across weeks or months, allowing the ritual structure to unfold more fully and organically.

8.3.3 Future Directions for *Ritual Media* Research

This research opens several avenues for continuation. One direction involves deepening the integration of biofeedback and sensory interaction with symbolic frameworks drawn from multiple spiritual traditions, further refining the balance between technological mediation and intuitive participation. Another path is the development of long-term collaborations with temple communities and alternative cultural spaces, enabling sustained participatory cycles where installations are revisited and transformed over time. Cross-cultural comparisons could also be explored: How does *ritual media* operate in different spiritual or aesthetic contexts? What shifts when the symbolic and spatial language changes? In parallel, more in-depth qualitative research with participants — particularly longitudinal and ethnographic approaches — would help assess the integration of these experiences into everyday consciousness. Finally, a more public-facing exploration of *ritual media*, through workshops, teaching, or community-based practices, could extend its relevance beyond academic settings into everyday ritual innovation.

The development of adaptive evaluation methods would be beneficial for capturing a more nuanced and meaningful understanding of participants' experiences. Current evaluation methods rely heavily on qualitative feedback, which, while rich in detail, limits the ability to draw broader conclusions about the framework's effectiveness and about consciousness in general. Future studies might incorporate mixed-method approaches, such as psychophysiological measures alongside qualitative feedback, to better assess the transformative impact of *ritual media*. Such methodological refinements would enhance the framework's capacity to collect and

interpret data on subjective experiences, making it more robust for future applications. Ultimately, as *ritual media* continues to evolve, it holds significant potential to inspire creators in the fields of art, wellness, and interactive design. By continuing to iterate and adapt, the *ritual media* framework can serve as a pathway for more inclusive and expansive approaches to consciousness exploration, bridging the domains of sensory engagement, ritual tradition, and technological innovation.

8.4. Final Notes

At its core, *ritual media* seeks to return to the experiential origin of ritual: not as a fixed tradition or doctrine, but as a dynamic and situated process of transformation. Many traditional rituals, while once grounded in direct experience, eventually become codified into forms whose original affective power fades with time. What begins as a felt, living encounter can calcify into repetitive structure, where the rules remain but the meaning slips away. Over generations, rituals risk becoming disconnected from the shifting contexts and needs of the people they serve, maintained as externalised dogmas rather than renewed as living experiences. *Ritual media* proposes an alternative: an open, participatory aesthetic form that resists institutional rigidity and instead foregrounds presence, embodiment, and awareness. It invites a renewed encounter with the sacred and the symbolic, not through imposed belief, but through immersive, affective, and personally meaningful experience. As such, it does not reject tradition but seeks to revitalise it — to design for awareness, not adherence.

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Appendices

A. User Study 2

A.1 Questionnaire Breakdown

1. Did the interactive art installation and the breathing biofeedback help you to enter a meditative state?

The responses offer a rich mix of feedback from participants regarding their experiences with the art installations and the breathing biofeedback. Here is a breakdown of the feedback based on patterns and recurring themes.

- **Meditative State Induction:** Most participants mentioned that the installation did help them achieve or move toward a meditative state. This indicates that the installations were successful in their primary goal for many participants.
- **Distractions and Interferences:** Several participants mentioned they were accustomed to meditating with their eyes closed, so the visual aspect was somewhat distracting for them. The brightness of the screen was also noted as a distraction for one participant. At least one participant mentioned a lag between their physiological states and the system's response, which led to distraction. The image of the Buddha popping in and out was distracting and even anxiety-inducing for one participant.
- **Breathing Awareness:** A common theme across many responses was heightened awareness of breathing. The biofeedback, whether through visuals or audio, seemed effective in making participants more conscious of their breathing patterns.
- **Comparisons to Traditional Meditation:** Several participants compared the experience to their usual meditation practices. For some, the installation

added value and provided a novel experience, while for others, it clashed with their usual practice.

- **Initial Hesitation and Adjustment Period:** A few participants mentioned that they needed time to adjust or understand the installation before they could fully engage with it. Once they figured out the patterns or the requirements, their experience improved.
- **Positive Feedback and Validation:** Several participants provided affirmative responses like "yes," indicating that the installation was effective for them.
- **Uncertainty and Varied Experiences:** At least one participant mentioned they were unsure about what a meditative state feels like, indicating varied experiences and levels of familiarity with meditation among participants.

The installations seem successful in making participants more aware of their breathing, which is a foundational element of many meditation practices. For many, they also facilitated entry into a meditative state. Visual distractions, the feedback lag, and certain design elements (like the Buddha imagery) can be re-considered or adjusted in future iterations to better cater to a wider range of participants. The brightness of the display and the gamified elements could also be re-evaluated. Participants' feedback indicates diverse experiences, which is to be expected given the subjective nature of meditation and consciousness. It is essential to consider this diversity when interpreting results and making design decisions.

2. What changes (if any) did you notice in your physical and mental state while engaging with the artwork?

Participants experienced a range of physical and mental changes when engaging with the artwork. This is the analysis of the feedback based on recurrent themes:

- **1. Physical Awareness and Sensations:** Participants became more aware of their posture and bodily position. One person mentioned not being conscious of their body's posture, while another noted the stiffness in their stomach muscles. Several participants mentioned feeling physically relaxed.

One participant felt a tingling or burning sensation in their arms, which seemed to fade as they engaged with the artwork.

- 2. Mental Focus and Awareness: Several participants noted an increase in focus on the artwork, often accompanied by reduced external distractions. Some felt an initial hyper-awareness or hyper-consciousness, where they were overly attentive to certain stimuli or feedback from the artwork. Some participants' minds wandered, with thoughts intruding into their focus. However, the artwork helped pull their attention back, acting as a focal point.
- Emotional and Cognitive Changes: A recurring theme is the sense of relaxation and calmness experienced by participants, both physically and mentally. Some participants became self-conscious, especially in the beginning, questioning whether they were interacting with the installation "correctly." A few mentioned feelings of contentment, satisfaction, or happiness. This seemed to relate to their interaction with the artwork and its feedback mechanisms.
- Breathing and Breath Awareness: The installations heightened participants' awareness of their breathing. Some were consciously adjusting their breathing in response to the artwork, while others simply became more aware of their natural breath patterns. The artworks' feedback on breathing provided a focal point for several participants, helping them redirect their attention when their minds wandered.
- Engagement and Interaction with the Artwork:
- Artwork as a Feedback Mechanism: Participants were responsive to the feedback mechanisms in the artwork. The breathing visuals, the Buddha imagery, and the light emanating from the depicted person's chest all elicited responses. While many found the artwork engaging and immersive, some aspects were also found distracting. The Buddha imagery was mentioned more than once in this context. However, participants also noted the artwork's ability to pull their attention back when distracted.

- **Uncertainty and Exploration:** Some participants seemed to approach the installation with curiosity, testing their interactions and breathing patterns against the artwork's responses. A few participants expressed uncertainty or ambiguity, either about their own experiences or about their understanding of the installation.

The artworks seemed to amplify participants' awareness of their bodies, though this manifested in varied ways, from posture to sensations like tingling. This heightened awareness is a cornerstone of many meditation practices, suggesting the installations' success in this domain. The artworks acted as both points of focus and, for some, sources of distraction. While many experienced heightened concentration and reduced external distractions, others felt an initial hyper-awareness. These varied responses might be a product of participants' prior meditation experience or personal preferences. The emphasis on breathing was evident in the feedback, with many participants noting increased breath awareness. The artworks seemed to serve as anchors, focusing participants' attention on their breathing patterns, a fundamental aspect of many meditative practices.

3. Could you tell differences between this experience compared to other meditative experiences you may have had?

- **Unique and Curated Experience:** Participants found this experience tailored for meditation, offering a different and sometimes easier gateway into meditative states. The gamified aspect, especially tied to the lotus petals in *Ethereal Phenomena*, presented a novel approach that some found engaging. Some participants felt it was reminiscent of Vipassana in its approach to emptying thoughts, indicating a level of depth in the experience.
- **Biofeedback and Physiological Engagement:** Biofeedback, especially related to heartbeat, was appreciated by participants. It offered a direct, tangible connection to their internal states.
- **The audio-visual feedback connected to breathing patterns** provided participants with a unique form of interaction, creating an immersive loop between the individual and the installation.

- **Visual Engagement vs. Distraction:** The necessity to meditate with eyes open was a significant departure from traditional practices for many, and this was met with mixed reactions. The visuals, particularly the Buddha imagery and the light emanating from the chest were both engaging and distracting for different participants.
- **Mental Engagement and Focus:** Some participants appreciated having a specific task (like making the Buddha come forward or opening and closing the mask face), as it provided a clear focal point and reduced mind wandering. The experience enhanced mindfulness for many, making them more present and aware of their actions and reactions. The lag between their actions (like breathing) and the system's response was a source of distraction for some.
- **Comparative Experiences:** Participants highlighted differences from traditional meditation, such as the lack of a set pattern or explicit guidance. Some felt more physically present and aware during this experience compared to other meditative practices.
- **Emotional Responses:** The spectrum of emotional responses ranged from anxiety (especially in the beginning) to deep relaxation and calmness. Many participants indicated a sense of exploration, curiosity, and experimentation while engaging with the installation.

The interactive art installations offered participants a blend of curated and unique meditative experiences. They successfully merged traditional meditative cues (like focusing on breathing) with modern technological features such as biofeedback and gamification. While the visual elements were a point of contention for some, possibly due to deviations from traditional closed-eye meditation, for others, it added a dimension of engagement. Biofeedback emerged as a significant aspect, emphasizing the tangible connection between participants' internal states and external feedback. The installation's task-oriented approach, while unconventional in the realm of meditation, seemed effective in anchoring participants' attention. However, like all experiences, it came with its set of distractions. The visual stimuli and system lag in response were elements some participants found distracting. Despite these hitches, many participants felt the experience rivalled traditional

meditation methods in terms of depth and focus.

4. Do you think that the artwork installation helped to change your perception of yourself in some way?

- **Self-Awareness and Self-Connection:** Some participants felt a connection with the changing faces of the artwork, trying to draw a parallel between themselves and the visual representation. The heartbeat visual and audio feedback made participants more self-aware, particularly of their internal physiological states. This heightened self-awareness was often tied to their heartbeat rate changes. Participants noted a heightened focus on their breathing, especially when they realized the visuals were tied to it. Some participants became more cognizant of their body's position and presence in space.
- **Relaxation and Calmness:** Some participants expressed that the artwork allowed them to achieve a relaxed mental state. The artwork visuals, reminiscent of clouds, were perceived as relaxing elements for some, linking them to thoughts of comfort and rest.
- **Reflection and Realization:** Some participants recognized their need to invest time in meditation or breathing techniques, suggesting that the installation served as a mirror reflecting their current mental and emotional states. At least one participant felt a sense of cyclic existence or recurrence, possibly an allusion to life's repetitiveness or recurring challenges.
- **Spiritual Connection:** The combined audio and visual elements of the installation were conducive to spiritual immersion for some, suggesting the artwork touched on deeper existential or spiritual elements for these participants.
- **Ambiguity and Uncertainty:** Several participants expressed ambiguity or uncertainty regarding any definitive change in their self-perception. Some were unsure if their sense of self underwent a transformation, indicating that while they experienced heightened awareness or relaxation, it did not necessarily translate into a change in self-perception.

The art installations effectively heightened participants' self-awareness, drawing attention to their internal states, breathing patterns, and bodily presence. While this heightened self-awareness was consistent across many participants, changes in self-perception were more varied. For some, the experience led to reflections about their need for meditation, while for others, it deepened their connection to spiritual or existential elements. However, a significant portion of participants felt ambiguity regarding any definitive change in self-perception.

In sum, while the installations succeeded in fostering heightened self-awareness and offering a reflective space, changes in self-perception were less consistent, emphasizing the deeply personal and subjective nature of such experiences.

5. Did you observe any changes in your physical or perceptual abilities, and if so, how did they differ from your typical experiences?

- **Enhanced Awareness and Focus:** Several participants mentioned being especially focused on the face and audio elements of the installation. Participants frequently mentioned heightened awareness of their breathing patterns, some noting differences in inhalation and exhalation duration. Many participants remarked on being distinctly aware of their heartbeat, a new experience for some. While this heightened awareness was intriguing for some, others felt discomfort, similar to hearing one's own voice.
- **Physical Sensitivity and Posture:** Some participants noted heightened awareness of their posture, and the ability to maintain it, a departure from their usual restlessness. A participant mentioned feeling more sensitive after the exercise, likening it to their initial experiences with practices like yoga or martial arts. A few participants recognized a stronger mind-body connection, especially when focusing on their breathing, leading to relaxation and stress release.
- **Comparison with Typical Experiences:** Some participants felt they entered a meditative state faster than usual, indicating the installation's potential efficacy. A participant noted that their mind typically remains busy, but during this experience, they were largely present, focusing on their breathing and the artwork. A participant who hadn't experienced meditation before

did not observe significant changes in physical or perceptual abilities but did note increased focus.

- **Immersion and Comfort:** The looping music and video elements provided a sense of comfort and immersion for some participants, allowing them to lower their guard and deeply engage with the installation. The installation helped some participants to lower or change their usual level of consciousness, easing physical movement and reducing mental distractions.

The interactive art installations appeared to heighten participants' awareness, particularly regarding their breathing and heartbeat. The incorporation of audio and visual elements played a pivotal role in focusing participants' attention and making them more conscious of their internal states.

Additionally, participants noted heightened physical sensitivity, postural awareness, and an enhanced mind-body connection. Compared to their usual meditative experiences, many found the installation either more engaging or more effective at guiding them into a meditative state.

Interestingly, while many participants drew comparisons with their regular meditation practices, a few experienced something entirely new, showcasing the installation's broad appeal and versatility. Overall, the installation appears to have provided a novel, immersive experience that heightened many participants' internal awareness and focus.

6. How did the installation affect your overall wellbeing?

- **Relaxation and Calmness:** Several participants mentioned feeling immediate relaxation and calmness during their experience with the installation. For some, the sense of relaxation and calmness persisted even after the experience ended, indicating a lingering positive effect.
- The installation served as a refreshing break or pause, providing an opportunity to disconnect from their busy routines.
- **Reflective and Focused State:** The installation seemed to push some participants into a reflective state, prompting them to introspect and consider

their wellbeing. Some participants mentioned feeling more focused after the experience, ready to resume their daily tasks with increased clarity.

- **Appreciation and Aesthetics:** Some participants appreciated the aesthetic qualities of the installation, which helped set the mood and create a conducive atmosphere for relaxation and reflection. The drawing exercise associated with the installation was specifically mentioned as an enjoyable experience by a participant.
- **Mind-Body Connection:** Participants noted an enhanced mind-body connection during the interactive art installation, suggesting the installation's success in fostering holistic engagement. The experience promoted a sense of wholeness or integrity between the mind and body for some.
- **Ambiguity and Neutrality:** Some participants were unsure or neutral about the direct impact of the installation on their overall wellbeing, suggesting that the effects might be subtle or require more reflection to discern.

The installations predominantly elicited feelings of relaxation, calmness, and enhanced focus among participants. The aesthetic and interactive qualities of the artworks, along with associated activities like drawing, contributed to this overall sense of wellbeing. The experience also seemed to foster a deeper connection between the mind and body for several participants, highlighting the holistic benefits of the installation.

While most feedback was positive, some participants were neutral or uncertain about the installation's impact, highlighting the varied and deeply personal nature of experiences with art and meditation. Nonetheless, the majority of participants seemed to derive some form of positive wellbeing benefit from their engagement with the installation.

7. Did the interactive art installation help you to focus on the present moment?

- **Enhanced Focus and Presence:** Participants frequently mentioned feeling engaged and focused on the artwork, suggesting that the visual components played a crucial role in anchoring their attention. A substantial number of

participants affirmed that the installation helped them feel present in the moment, indicating its efficacy in grounding users. The depiction of natural elements like mountains and clouds provided some participants with a sense of being immersed in the scenery, further emphasizing the power of the visual component in the installation.

- **Mixed Levels of Presence:** Some participants experienced moments of distraction or wrestling with inner thoughts. These moments interspersed periods of being present, suggesting a fluctuating level of engagement. For at least one participant, the experience was likened to entering a trance rather than being acutely aware of the present physical reality, suggesting a deeper level of mental immersion.
- **Conditional Focus:** For some participants, the ability to focus on the present was tied to their understanding or familiarity with the patterns in the installation. As they got used to the installation, their focus improved. The duration of engagement with the installation seemed to play a role for some participants, with extended interaction potentially leading to enhanced focus.
- **Ambiguity and Varied Experience:** Some participants expressed uncertainty regarding the level of focus they achieved during the experience. At least one participant mentioned difficulty in continuously staring at the installation, indicating moments of distraction or need for a visual break.

The interactive art installations appear to have been largely successful in guiding participants to focus on the present moment. The visuals, particularly the natural elements like mountains and clouds of *Ethereal Phenomena*, played a significant role in creating a sense of immersion and grounding participants in the present.

While many experienced enhanced focus, some participants experienced fluctuating levels of presence, wrestling with their thoughts at times or entering a trance-like state. Familiarity with the installation's patterns and the duration of interaction also seemed to influence the level of focus.

Despite the overall positive impact, the varied feedback underscores the individual nature of meditative and art experiences, where participants' reactions can

span a broad spectrum based on their personal contexts and predispositions.

8. Did you experience any changes to your emotional state, and if so, how did these changes compare to your normal emotional state?

- **Calmness and Relaxation:** Several participants mentioned moving from an anxious or cluttered state to a more relaxed and calm one after the experience. This calming effect was noted especially by those who started in a heightened state of anxiety, such as after public speaking. Some participants felt a particular type of calmness stemming from detachment from their usual surroundings, emphasizing the immersive qualities of the installation.
- **Enhanced Emotional Awareness and Stability:** Some participants felt more confronted with their emotions, but in a capacity that allowed for reflection without feeling overwhelmed. A few participants described a shift toward a more stable emotional state, feeling more neutral and less swayed by external influences or concerns. At least one participant specifically mentioned becoming more aware of their emotional state, suggesting the installation's ability to foster introspection.
- **Neutral and Unchanged Emotional States:** Some participants felt neutral throughout the experience, indicating no significant emotional changes. Some participants did not note any significant emotional changes, suggesting that while the installation may have impacted their focus or awareness, it did not necessarily elicit strong emotional responses in everyone. For at least one participant, the intense focus on breathing and the immersive aspects of the installation meant they did not particularly notice or pay attention to their emotional state.
- **Specific Emotions and Sensations:** One participant mentioned feeling a strong sense of security throughout the session. A few participants started the session feeling anxious, either due to prior activities or the beginning of the session, but most noted a shift to calmness by the end.

The installations appear to have had a calming and relaxing effect on many participants, especially those who started in a heightened emotional state. The sense of calmness derived was sometimes associated with detachment, emphasizing the immersive quality of the installation. A significant theme was heightened emotional awareness and stability, with some participants noting a more confrontational relationship with their emotions but in a manageable and reflective capacity. However, the installations did not elicit strong emotional changes for everyone, with some participants remaining neutral or unchanged throughout. These varied responses highlight the deeply individual and subjective nature of emotional experiences with interactive art. Still, the predominant feeling of calmness and relaxation underscores the installations' potential for emotional regulation and introspection.

9. After using the installation, do you experience a different level of awareness or understanding?

- **Heightened Breath and Body Awareness:** Many participants noted a heightened level of awareness, specifically in terms of their breath and physical body. The installation seemed to encourage them to focus on these aspects of their experience. Some participants mentioned becoming more aware of their breathing patterns, such as realizing they were focusing more on exhaling than inhaling. A few participants described an increased awareness of specific bodily sensations or tensions, such as tension in their lower back.
- **Improved Clarity and Reflection:** Several participants reported feeling more clear-headed and reflective after using the installation. At least one participant mentioned experiencing a change in their understanding of awareness, particularly regarding suppressed thoughts and emotions that were released, leading to a lighter feeling.
- **Uncertain or No Change in Awareness:** Some participants expressed uncertainty about whether they experienced a different level of awareness or understanding, suggesting that more time or reflection might be needed. A couple of participants did not feel a significant shift in their level of awareness or understanding after using the installation.

The installations appeared to have a significant impact on participants' awareness, primarily in terms of breath and body awareness. Many participants noted increased attention to their breathing patterns and physical sensations, suggesting that the installation successfully encouraged mindfulness in this regard.

Furthermore, some participants reported improved clarity and reflective capacity, indicating that the installation may have fostered introspection and mental focus.

While some participants expressed uncertainty or did not notice a significant change in awareness, the predominant theme was one of heightened awareness, particularly in relation to the breath and physical sensations. This suggests that the installation effectively facilitated mindfulness and self-awareness for many users.

10. Do you feel as if the installation altered your understanding and perception of time?

- **Loss of Time Perception:** A significant number of participants expressed that they could not accurately gauge the duration of the experience, with some stating they had lost track of how long the session lasted. Participants mentioned being so engrossed in the audiovisuals, their breathing, or other elements of the installation that they did not think about the passing of time. Some noted that while they initially thought about the duration, they soon let go of such considerations as the session progressed.
- **Time Slowing Down:** A few participants felt that time seemed to move more slowly during their engagement with the installation. This elongated perception of time is common in deep focus or meditative states.
- **Comparison to Other Activities:** One participant likened the time perception during the installation to doing a plank, where a short duration can feel much longer due to the intensity of the activity.
- **Minimal or No Time Distortion:** A few participants did not notice any significant change in their perception or understanding of time.

- **Dichotomy in Time Perception:** Some participants experienced a duality in their perception, feeling that the session was long in its felt experience but understanding that it was short in actual duration.

The installations appear to have significantly impacted many participants' perceptions of time. The predominant theme was a sense of lost or distorted time perception, with many unable to accurately gauge the session's duration. This suggests that the installation succeeded in deeply immersing participants, causing them to lose track of external temporal cues. However, not everyone experienced this time distortion, highlighting the individual and subjective nature of such experiences. The installations' ability to evoke a sense of time dilation similar to deep meditation or intense focus suggests potential therapeutic or relaxation benefits.

11. Do the sensory elements of the installation inspire a sense of discovery or transformation?

- **Heightened Body Awareness:** A recurring theme is the heightened awareness of one's breathing, with participants becoming more cognizant of their breath as the experience progressed. Some participants felt the sensory elements made them aware of the interaction, with the installation observing and responding to their bodily changes.
- **Audio-Visual Efficacy:** Several participants felt that the audio elements, whether heartbeat sounds or other aspects of the soundtrack, evoked a sense of transformation. The visuals, from the Buddha to the lighting effects, were noted for evoking various reactions. For some, it was about discovery, for others, it provided an effective feedback loop.
- **Mixed Feelings toward Sensory Elements:** While some participants appreciated the sensory elements like the heartbeat sounds, others found them unsettling or wanted to occasionally zone out. At least one participant noted that prior knowledge of the installation concept might have influenced their sense of discovery.

- **Elicited Emotions:** The fusion of music and visuals gave at least one participant the feeling of being on a spiritual journey or pilgrimage, akin to Buddhist practices. The sensory elements were described as “emanating kindness” by a participant.
- **Comparison to Traditional Meditation:** One participant felt that the installation helped immerse them in meditation faster than conventional techniques.

The sensory elements of the installation played a pivotal role in altering the participants’ experience. For many, these elements heightened their awareness, especially towards their breathing, and evoked a sense of transformation. The auditory components, whether evoking comfort or discomfort, seemed particularly influential. The visuals, too, garnered varied reactions, underlining the deeply subjective nature of such immersive experiences. Some participants even related their experience to spiritual journeys or traditional meditation practices, indicating the profound potential impact of the installations.

12. Did you experience any changes to your body awareness, and if so, what type of changes?

- **Breath Awareness:** Participants became more conscious of the length and depth of their breaths. Some also noticed the relation between their pulse and their breath, recognizing changes in their heart rate with inhalation and exhalation. Some users became cognizant of where the air was filling within their body (belly versus chest) and how they were breathing.
- **Internal Sensations and Physiology:** A few participants attempted to control or were simply more aware of their heartbeats during the experience. At least one participant felt more attuned to their internal organs, especially as they noticed the expansion and contraction of the abdomen.
- **Distractions and Overthinking:** One participant was distracted by the thought that the equipment might not be functioning optimally, which affected their breathing technique and focus. A participant realized their usual breathing pattern was quite superficial and the installation helped in recognizing that.

- Heightened Vs. Reduced Physical Awareness: Some participants felt less aware or detached from their physical bodies during the experience. Heightened Awareness: In contrast, others felt a heightened sense of body awareness, observing their bodies from a different perspective or noticing specific needs, like the need for stretching.
- Mental and Environmental Awareness: Some participants noted a shift in their focus, either becoming more internally attentive or more attuned to their surroundings.

The installations served as catalysts for many participants to become more attuned to their bodies, particularly their breathing patterns and heart rate. This heightened awareness, however, varied across participants with some becoming more introspective, focusing on internal sensations, while others felt a bit distracted. The equipment itself, intended to augment the experience, occasionally became a source of distraction, indicating the delicate balance required when introducing external elements into a meditative experience.

13. Did you experience any changes to your sense of identity and self-awareness, and if so, how did these changes differ from your typical experiences?

- Enhanced Self-Awareness: Some participants expressed an increased awareness of physiological processes, specifically their breathing and heartbeat. This increased awareness made them more attuned to these processes than usual. Some users mentioned a "quietness" in their inner thoughts or more attention to aspects of themselves they typically ignored.
- Detachment from Self: At least one user felt more removed from their ego, suggesting a possible sense of detachment from their self or identity. One participant tried to associate or identify with the changing face in the installation, suggesting a shift in self-perception anchored to external stimuli.
- No Change: A significant portion of participants did not feel any change in their sense of identity or self-awareness, indicating that for some, the installation did not influence this particular aspect of their experience.

- **Spatial Awareness:** One user became aware of the physical space they occupied, specifically the floor space, suggesting an increased sense of physical presence.
- **Descent into Subconscious:** One participant mentioned delving deeper into their subconscious, suggesting the experience allowed for introspective depth.

The installations seemed to evoke varying levels of introspection and self-awareness among participants. While some felt more attuned to their inner workings and physiological processes, others experienced a sense of detachment from their usual egoic state. A substantial portion, however, did not report any changes in their sense of identity or self-awareness. The divergent feedback underscores the deeply personal nature of meditative and reflective experiences and highlights the varied ways individuals can interpret and respond to the same stimulus.

14. Does the installation create a sense of connectivity to yourself?

- **Enhanced Self-Connectivity:** Some participants felt as if they were delving deeper into their own self, exploring their thoughts, feelings, and sensations. Several users expressed an increased connection to both their body and mind. The installation facilitated a synchronization of mental and physical states.
- **Limited Connectivity due to Time:** A few participants believed the session was too short to establish a profound connection with themselves. They felt on the cusp of a deeper experience that was cut off prematurely.
- **Detachment from Self:** While some users experienced greater self-connectivity, others felt a detachment due to the external stimuli from the installation. These participants felt more connected to the surroundings or the screen rather than their inner self.
- **Clarity and Self-Awareness:** A few participants expressed having a clearer mind after the session, which helped them feel more connected to themselves. At least one participant felt a heightened connection to the created space, feeling dissociated from their external environment. This suggests that the installation could provide an atmosphere conducive to introspection.

- **Neutral or No Change:** Some participants did not feel a stronger connection to themselves, indicating that the installation's effect was neutral or non-influential in this regard for them.

The installations' ability to foster a sense of connectivity with oneself varied across participants. While many felt a heightened connection to their inner selves, others felt detached, often citing the session's short duration or the external stimuli as reasons. This variability underscores the deeply personal and subjective nature of such experiences. Different individuals may need different conditions or durations to truly connect with their inner selves, and the installation may not cater universally to all such requirements.

15. To what extent did the installation reduce your sense of physical pain or emotional distress?

- **No Initial Discomfort:** Some participants stated that they were not experiencing any physical pain or emotional distress when they began the session, making it difficult for them to ascertain the installation's efficacy in alleviating discomfort.
- **Emotional Calmness:** A few participants felt the installation made them calmer and less anxious. Some users reported feeling detached from external worries, focusing solely on the installation, which provided a respite from their concerns. The installation provided a brief reprieve from the stresses or intensity of their day, acting as a buffer against daily pressures.
- **Ambivalence or Limited Effect:** At least one participant mentioned feeling physically uncomfortable due to their sitting position, suggesting that physical comfort may impact the overall experience. A participant felt both anxiety due to certain visual elements of the installation and relief from others, indicating that different components can evoke varied emotional reactions.
- **Enhanced Present-Moment Awareness:** Some participants felt the installation helped them stay in the present moment, preventing them from making assumptions or getting lost in thoughts. One respondent felt a heightened sense of inner peace during the session.

- **Neutral or No Effect:** Some participants did not perceive any change in their emotional distress levels during or after the installation.

While several participants experienced a sense of calmness and a reduction in emotional distress due to the installations, others did not perceive a significant change in their discomfort levels. A few experienced mixed emotions, with certain elements of the installation evoking anxiety and others providing relief. Physical comfort, such as the sitting position, emerged as a factor that might influence the overall experience. The varied responses highlight the subjective nature of art installations and their effects on individual experiences. It suggests the need for careful consideration of all installation elements to maximize positive outcomes for all users.

16. Are your physical reactions to the installation distinct from your mental reactions?

- **Distinct Physical and Mental Reactions:** Some participants indicated that their physical and mental reactions to the installation were distinct or separate experiences. They perceived a difference between how their bodies and minds responded to the artwork.
- **Awareness of Connection:** A few participants mentioned that they initially followed the visuals as a breathing pace guide and only later realized that they were controlling the breathing visuals. This suggests an evolving awareness of the connection between physical and mental reactions during the experience.
- **Uncertainty or Lack of Distinction:** Some participants were uncertain about whether they had distinct physical reactions, or they felt that their mental and physical reactions were not significantly different. This suggests that for some individuals, the lines between physical and mental reactions may be blurred during the installation.
- **Integrated Mind-Body Connection:** A couple of respondents noted that their physical and mental reactions were connected and intertwined. They felt that their mind and body influenced each other during the installation.

- **Lack of Impact:** A few participants did not perceive any significant physical or mental reactions to the installation.

The responses indicate that individuals may have varying degrees of awareness and distinction between their physical and mental reactions to the installation. Some participants clearly distinguished between the two, while others felt they were interconnected. The evolving awareness of the mind-body connection during the experience suggests that the installation may prompt users to recognize and reflect on the relationship between their physical and mental states. Additionally, some participants did not experience strong physical or mental reactions, highlighting the variability in individual responses to such interactive art installations.

17. How did the installation alter your sense of reality and identity?

- **Reflective State and Calmness:** A number of respondents mentioned that the installation brought them into a reflective state and made them feel calm. The process seemed to have a soothing effect and enabled a moment of introspection.
- **Pause and Disconnection from Routine:** Several participants described the installation as a welcome break or pause from their day. This suggests that the installation provided a temporary escape from the hustle and bustle of daily life.
- **Heightened Self-awareness:** Some respondents expressed that the experience heightened their self-awareness and highlighted certain aspects of their psyche, like the need to release pressure or stress.
- **Aesthetic Appreciation:** A few participants mentioned their aesthetic appreciation for the installation. They felt more inclined to appreciate art and sensed a deeper connection to the artwork.
- **Relaxation and wellbeing:** A significant number of participants mentioned feeling more relaxed after the experience. The installation seemed to have a positive effect on their overall wellbeing and mental state.

- **Uncertainty:** Some participants expressed uncertainty regarding the effect of the installation on their sense of reality and identity.
- **Enhanced Focus:** A couple of participants mentioned that the installation improved their focus, suggesting that it might have an impact on their immediate cognitive function.

Many participants found the installations to be calming and reflective experiences that offered a pause from their regular routine. The art installation seemed to act as a catalyst for introspection and heightened self-awareness. The theme of relaxation was prevalent, with many users noting an improvement in their overall wellbeing. While some participants were uncertain about the profoundness of the impact, others found the installation to be a positive influence on their mental state and focus. The varying degrees of influence suggest that individual reactions to such installations can be highly personal and subjective.

18. Does the installation create a feeling of heightened awareness or insightfulness?

- **Heightened Insightfulness:** Participants found that the installation allowed for deeper insight into personal aspects, especially regarding their physiological processes.
- **Ambiguity:** Several participants were unsure or neutral about whether the installation significantly influenced their awareness or insight.
- **Increased Self-Awareness:** Some respondents felt that the installation made them more in tune with their bodies, specifically in the context of their breathing or physiological reactions.
- **Relaxation vs. Awareness:** For a few participants, the primary outcome was relaxation, which may be viewed as a separate or contrasting experience to heightened awareness or insight.
- **Comparison to Previous Experiences:** Some participants made references to their prior experiences with meditation or similar practices, indicating that their reactions to this installation were contextualized by past encounters.

The feedback regarding heightened awareness and insightfulness varies across the spectrum. While some users felt a deeper connection to their physiological processes and a heightened self-awareness, others leaned more towards relaxation and calming effects of the installation. The ambiguity in responses suggests that the installations' effects on individual awareness and insight may be subjective, with some participants needing more exposure or different conditions to discern notable changes. For those who felt a heightened awareness, the focus seems to be on the physiological aspects, such as breathing patterns and heartbeat. This could indicate that the interactive elements of the installation, especially those related to bodily functions, were successful in drawing attention and cultivating a sense of introspection. The comparison to previous meditative experiences is valuable. It suggests that while the installations offer a unique experience, their effects might be more pronounced or recognizable for those already familiar with meditation or introspective practices. For those new to such experiences, the installations offer relaxation and a glimpse into meditative practices.

19. Does the installation lead to a feeling of relaxation or heightened energy?

- **Relaxation:** Most participants reported a sense of relaxation after experiencing the installation.
- **Combination of Relaxation and Energy:** There's an interesting nuance where some participants mentioned feeling both relaxed and energized, suggesting a type of focused or calm energy.
- **Lessened Energy:** A few participants felt that while the installation brought relaxation, it might have lowered their energy levels.
- **Contributing Elements:** Some participants cited specific elements like the audio or visual components as contributing factors to their relaxation.

Overwhelmingly, the dominant feeling experienced by participants after the installation was one of relaxation. This suggests that the installation's design and intent, possibly with its focus on breath and heartbeat, were effective in creating a calm environment for users. A subset of participants felt an intriguing mix of

both relaxation and a form of energy. This "calm energy" is particularly interesting because it points to a specific type of mental state where participants are relaxed but also alert and focused. This kind of state is often sought in meditation practices, so it's noteworthy that the installations were able to induce it for some individuals. Only a small portion felt a reduction in energy, which is worth considering in the broader context of the installations' intent and the experiences it aims to create. The audio and visual elements played a pivotal role in the overall experience. Given that some users attributed their relaxation directly to these components, future installations could consider emphasizing or diversifying these aspects for enhanced effects.

20. To what extent did the installation induce relaxation and stillness of mind?

- **High Degree of Relaxation and Stillness:** Multiple participants mentioned experiencing a significant or high degree of relaxation and stillness during the session.
- **Distraction from External Responsibilities:** For some, the installation provided a break from external stresses and responsibilities, helping them to be present and in the moment.
- **Visual Elements Contributing to Relaxation:** The visuals, especially the repetitiveness and certain elements like spinning wheels, were highlighted as particularly effective in inducing relaxation.
- **Comparison to Other Practices:** A few respondents compared the experience to other relaxation techniques or mentioned that the installation was more effective than non-guided practices.
- **Quantitative Feedback:** Some participants gave a quantitative assessment, estimating the extent of relaxation in percentages.
- **Neutral/Indecisive Feedback:** A few participants expressed uncertainty or neutral feelings about the installation's impact on their relaxation or stillness of mind.

A notable majority of participants felt a strong sense of relaxation and stillness during the installations. This suggests that the art piece successfully taps into sensory and cognitive elements that foster a calm state of mind. The visual components of the installations, specifically the repetitive nature and certain captivating elements appear to be especially effective in driving this relaxation. This points to the potential of harnessing certain repetitive or rhythmic visual patterns in future installations to enhance their calming effect. The feedback that some participants felt more relaxed with this installation compared to other non-guided practices suggests that the interactive and immersive nature of the art piece is particularly potent in achieving desired outcomes.

21. To what extent did the installation lead to mental transformations and a shift of consciousness?

- **Moderate to High Mental Transformation:** Several participants felt a moderate to high level of mental transformation as a result of the installation.
- **Breath Consciousness:** The installation made certain participants more aware of their breathing pattern, indicating a heightened sense of self-awareness.
- **Minimal or No Change:** Some participants felt that they experienced minimal to no change in terms of mental transformation or a shift in consciousness.
- **Increased Focus and Relaxation:** A number of respondents described a heightened sense of focus and relaxation, implying that their mind became less cluttered or preoccupied with external factors.
- **Uncertainty:** Some participants were uncertain or unsure about the changes they experienced, suggesting that the transformation might be subtle or that they might need more time to process the experience.
- **Quantitative Feedback:** A couple of respondents provided a quantitative evaluation, offering a specific percentage to describe the extent of their transformation.

The feedback suggests that while a notable portion of participants did experience a mental transformation or a shift in consciousness, this was not universal. The changes ranged from moderate to high, indicating a broad spectrum of reactions to the installations. The installations' ability to heighten participants' awareness of their breathing indicates that they successfully tap into fundamental aspects of mindfulness and meditation, which often emphasize breath awareness as a means to anchor oneself in the present moment. The feedback indicating minimal change or no transformation is an essential reminder that art installations and meditative experiences, especially those attempting to invoke profound internal changes, may not resonate with everyone equally.

22. How would you describe the intensity of the experience?

- **Varying Levels of Intensity:** The feedback shows a range of intensity levels experienced by participants, from mild to medium.
- **Heartbeat Sounds:** The heartbeat sounds played a significant role in the experience for some participants. For a few, it was soothing, while for others, it became a point of anxiety or was perceived as intense.
- **Transitional Experience:** Some participants felt the experience started intense but eventually mellowed, indicating a process of acclimatization over the duration of the experience.
- **Calmness:** Multiple participants found the installation to induce calmness, suggesting a predominant relaxing effect of the installation.
- **Unique Sensory Experiences:** Words like "trippy" and "dream" were used, suggesting that for some, the installations offered a unique, almost other-worldly sensory experience.
- **Uncertainty:** Some participants were uncertain about how to describe the intensity, suggesting the experience might be multi-faceted and challenging to pin down in a single term.

The feedback showcases a spectrum of intensity experienced by participants. This varied reaction underscores the subjectivity inherent in interactive art in-

installations, where individual backgrounds, current emotional states, and prior experiences can influence perceptions. The prominence of heartbeat sounds as a theme underscores the importance of audio elements in interactive installations. While for some, the sounds were calming or grounding, for others, they created discomfort. Future iterations might consider offering users the ability to adjust the volume or intensity of certain audio elements. The transitional nature of the experience, as described by some participants, indicates that the installation's impact might evolve as participants spend more time.

23. Was there a sense of losing track of time, or a feeling of slowing down or speeding up the flow of time?

- **Loss of Time Perception:** Several participants reported losing track of time entirely or experiencing a sense of timelessness during the installation.
- **Varied Perception of Time:** Some participants mentioned a feeling of time speeding up, while others described a sensation of time slowing down during the experience.
- **Focus on Breathing and Visuals:** The focus on breathing and the immersive visuals contributed to the altered perception of time for many respondents.
- **Surprise at Time Passing:** A few participants expressed surprise at how much time had passed, indicating that the experience may have caused time to slow down in their perception.

The overarching theme of losing track of time aligns with meditative experiences where individuals often enter a state of deep focus or relaxation, causing temporal awareness to diminish. The variation in time perception, with some feeling time speeding up and others feeling it slowing down, suggests individual differences in how people perceive and experience time during meditative activities.

The focus on breathing and the engaging visuals likely played a significant role in altering participants' perception of time, either by intensifying their focus and causing time to speed up or by inducing a state of calmness that makes time seem slower.

The surprise expressed by some participants at how much time had passed further highlights the impact of the installations in distorting time perception, a common phenomenon in immersive and meditative experiences.

The installations appear to have effectively influenced participants' sense of time, with responses ranging from complete timelessness to altered perceptions of time flow, indicating the immersive and engaging nature of the experience.

24. To what extent did the installation help you to become more aware of your inner self?

- **Mixed Responses on Inner Self Awareness:** Some participants expressed that the installation did not significantly increase their awareness of their inner selves. Others mentioned moments where they felt a connection to their inner selves, often triggered by specific visual or sensory elements.
- **Visual and Sensory Triggers:** Certain visuals or sensory experiences within the installation, such as the heartbeat lotus, the face within the face, or the overall aesthetics, led to increased awareness of the inner self for some individuals. The beauty and aesthetics of the installation, including colours, graphics, and movements, evoked a sense of awe and transcendence for several participants.
- **Shift in Mental and Physical State:** A few participants noted a shift in their mental and physical state during the experience, such as deeper breaths or a feeling of reaching somewhere profound. The experience of deeper breaths or mental shifts was seen as a signal of a deeper state of awareness or transcendence by some participants.

Responses regarding inner self-awareness varied, with some participants experiencing moments of transcendence or deeper awareness triggered by specific elements within the installation.

Visual and sensory triggers played a significant role in enhancing inner self-awareness for those who experienced it. The imagery of the heartbeat lotus, the face within the face, and the overall aesthetics of the installation contributed to this effect.

A sense of awe and transcendence was commonly reported, especially in response to the graphics, colours, and movements within the installation. These elements not only enhanced the overall experience but also fostered a deeper connection to the inner self for many participants.

The shift in mental and physical states, such as deeper breaths or a feeling of reaching somewhere profound, indicates that the installations had a tangible impact on participants' inner experiences, even if they varied in intensity among individuals.

Overall, while not everyone experienced a significant increase in inner self-awareness, those who did often attributed it to specific visual, sensory, or emotional elements within the installation that resonated with their personal experiences and perceptions.

25. Did you find yourself more reflexive or aware of your thoughts during the installation?

- **Increased Reflexivity and Awareness:** Many participants reported feeling more reflexive and aware of their thoughts during the installation. They described moments of letting thoughts come freely without judgment, focusing on breathing and sounds, and being aware of where their thoughts wandered.
- **Mindfulness and Focused Attention:** Several participants mentioned actively trying not to think too much and instead focusing on specific elements like breathing, sounds, or visuals.
- **The installation facilitated a sense of mindfulness,** where participants directed their attention to the present moment and their internal thought processes.
- **Escapism and Emotional Awareness:** Some participants noted that the installation allowed them to momentarily escape from distress or external worries, leading to increased awareness of their thoughts afterward.

The experience helped in steering thoughts back to focus on breathing and the visuals, indicating a heightened level of awareness and control over their mental

processes.

The majority of participants experienced heightened reflexivity and awareness of their thoughts during the installation. This was often facilitated by focusing on specific elements like breathing, sounds, or visuals, as well as adopting a non-judgmental attitude toward their thoughts.

Mindfulness played a crucial role, with participants actively engaging in the present moment and observing their thoughts without getting carried away by them. This reflective practice likely contributed to a deeper understanding of their inner experiences during the installation.

The installations also served as forms of escapism for some participants, allowing them to momentarily detach from external stresses and become more emotionally aware. This led to a post-experience reflection on their thoughts and emotions, further enhancing their overall awareness.

Overall, the installations fostered a state of mindfulness and introspection, enabling participants to be more reflexive and attentive to their thoughts, emotions, and the present moment.

26. Do you feel more creative, imaginative or inspired during and/or after the installation?

- **Moderate Increase in Creativity and Inspiration:** Some participants reported feeling more creative, imaginative, or inspired to varying degrees during and/or after the installation.
- This increase was described as moderate, indicating a noticeable but not overwhelming impact on their creativity and inspiration levels.
- **Post-Installation Effects:** Several participants noted that they felt more creative and inspired after the installation experience than during it. This suggests that the effects of the installation had a lingering or delayed impact on their creative mindset. The post-installation period was associated with feelings of being more open-minded, relaxed, and ready to engage in creative or imaginative activities.
- **Connection to Art and Design:** For some participants, the installation served as a bridge between science, engineering, art, and design, sparking creative

thoughts and inspirations related to these fields. The drawing reflection portion after the installation was specifically mentioned as a time when creativity was heightened, indicating that the interactive aspects of the experience contributed to this effect.

The installations had a notable but not overwhelming effect on participants' creativity, imagination, and inspiration levels. This suggests that while they did contribute to these aspects, the impact may vary from person to person and in different stages of the experience (during vs. after).

Post-installation effects were particularly significant, with many participants feeling more creative and inspired after the experience. This indicates that the installations had a lasting impact that continued to influence their mindset beyond the immediate interaction.

The connection between art, design, science, and engineering was highlighted by some participants, showcasing how the installations' multidisciplinary approach stimulated creative thinking across various domains.

Overall, the installations fostered a sense of openness, relaxation, and receptiveness to creative ideas and inspirations, contributing to a more imaginative and inspired mindset among participants.

27. Was the interactive art installation immersive and engaging?

- **Immersiveness:** Many participants described the interactive art installation as immersive. This suggests that the experience captured their attention and created a sense of being deeply involved or absorbed in the visuals and audio elements.
- **Engagement Levels:** Engagement levels varied among participants. Some felt highly engaged throughout the experience, while others mentioned a gradual decline in engagement as the session progressed.
- **Positive Feedback:** Positive feedback was expressed, with participants mentioning aspects they enjoyed, such as the biofeedback, audio-visual connection, glowing heartbeat, animation, colours, and the overall immersive nature of the installation.

- **Mixed Engagement and Immersion:** A few participants noted that while the installation was immersive, they did not feel as engaged or actively involved in the experience, possibly due to the passive nature of their interaction. The majority of participants found the interactive art installation to be immersive, indicating that it effectively captured their attention and created a captivating environment.

Engagement levels varied, with some participants maintaining high engagement throughout the experience, while others experienced a decline in engagement over time. Factors such as the duration of the session, the nature of the interaction, and individual preferences may have contributed to these differences.

Positive feedback about specific elements like biofeedback, visuals, and colours suggests that these aspects played a crucial role in enhancing the overall immersive and engaging quality of the installation.

The combination of audio-visual elements, biofeedback, and interactive features contributed to the immersive nature of the experience, making it a memorable and engaging encounter for many participants. However, some participants also noted that while they were immersed, they may not have been actively engaged in interactive tasks.

28. Which changes in your breathing did you notice when using the installation?

- **Conscious Breathing Awareness:** Participants became more aware of their breathing patterns during the installation, noticing changes such as slower breaths, fuller breaths, more conscious breathing, and deeper breaths.
- **Connection with Visuals and Graphics:** Some participants mentioned trying to coordinate their breathing with the visuals or graphics displayed during the installation. This included efforts to match their breathing with the movements or changes in the visuals.
- **Distractions and Forgetfulness:** A few participants mentioned getting distracted or forgetting about their breathing at times during the experience. This could indicate moments of reduced focus on the breath due to other stimuli or internal distractions.

- **Stable Breathing Rhythm:** There were observations of breathing rhythms becoming more stable or consistent during the installation, indicating a sense of regulation or control over their breathing patterns.
- **Shifts in Breathing Focus:** Some participants noted a shift in their focus on breathing, with changes occurring around the middle of the experience or after a few cycles of the installation.

Participants exhibited varying degrees of awareness regarding their breathing patterns during the interactive art installations. This awareness ranged from conscious efforts to coordinate breathing with visuals to moments of distraction or forgetfulness.

The connection between breathing and visuals was evident, with participants describing attempts to synchronize their breathing with the movements or changes in the projected graphics. This suggests an interactive and engaging aspect of the installations that influenced participants' breathing behaviour.

Some participants experienced shifts in their breathing focus, such as becoming more stable or noticing changes like slower, fuller breaths. These observations indicate that the installations had an impact on participants' breathing rhythms and awareness, potentially leading to a more regulated or controlled breathing experience for some individuals.

29. What elements of the interactive art installation did you find most significant?

- **Visual Representation and Interaction:** The changing face, gentle smile, changing size, rotating sphere behind the Buddha, and the rotating lotus flower were significant visual elements. Participants found the visual loop of the statue of Buddha and the rotating lotus flower to be impactful and engaging. The calming colours, subtle movements, movement in the graphics, and the flowers accompanying the circle were also mentioned as significant visual aspects.
- **Audio and Biofeedback:** The lotus heartbeat, biofeedback with heartbeat sound and light, and music were mentioned as significant auditory elements.

Participants engaged with the audiovisual experience, highlighting the significance of the heartbeat sound and the music in creating a meditative atmosphere.

- **Breathing Visualization:** The breathing visualization, which tracked inhaling and exhaling, was found to be interesting and engaging. Some participants mentioned trying to coordinate their breathing with the visuals, indicating the significance of this interactive aspect.
- **Atmosphere and Setting:** The overall atmosphere of the room, including the lighting, rugs, cushions, and floor seating, was considered significant in enhancing the experience. The installation's atmosphere and setting contributed to the immersive and relaxing nature of the experience, making it more meaningful for participants.
- **Hypnotic and Engaging Design:** The hypnotic design of the moving objects on the screen was highlighted as significant, contributing to the immersive nature of the installation. Participants found the interaction with the installation to be significant, suggesting that the design elements played a crucial role in engaging them during the experience.

The most significant elements of the installations included the visual representations, audio elements like the heartbeat sound, the engaging breathing visualization, the immersive atmosphere created by the setting and design, and the interactive aspects that allowed participants to engage with the artworks on multiple levels. These elements combined to create a meaningful and impactful experience for the participants.

30. Was the installation easy to understand and interact with?

- **Clarity and Guidance:** Some participants found the installation easy to understand, especially with the brief introduction or guidance provided before the experience. The clarity of instructions or concepts, such as focusing on breathing or understanding the purpose of certain elements like the glowing heartbeat, contributed to ease of interaction.

- **Confusion and Uncertainty:** A few participants expressed confusion or uncertainty about certain aspects of the installation, such as the concept of "coherent breathing," the purpose of specific elements like the glowing heart-beat, or how much the face was supposed to open.
- There were mentions of initial confusion or distractions during meditation, which affected the ease of interaction for some participants.
- **Intuitiveness and Familiarity:** Many participants found the installation intuitive and easy to interact with, especially if they had some prior knowledge or experience with meditation techniques like focusing on breath. The familiarity with meditation practices or Zen concepts contributed to the ease of understanding and engaging with the installation.
- **Personal Experience and Learning Curve:** Some participants mentioned that while they eventually understood and interacted with the installation, there was a learning curve or initial self-consciousness that they experienced. For those with minimal knowledge of meditation, the installation was still manageable and easy to understand due to its descriptive nature or guidance provided.

The feedback suggests that the ease of understanding and interacting with the installations varied among participants. Clear instructions, familiar concepts, intuitive design, and guidance before the experience contributed positively to the ease of interaction. However, some participants experienced initial confusion or uncertainty about certain elements, indicating potential areas for improvement in terms of providing clearer explanations or instructions.

31. How would you suggest improving the experience?

- **Visual and Audio Adjustments:** Some participants suggested making the visuals less jumpy or bright and more soothing to enhance the meditative experience. Adjusting the brightness of the screen or dimming the visuals was recommended by a few participants to create a more relaxing atmosphere. One suggestion was to reduce or change the frequency of the Buddha image

popping in and out, considering potential discomfort or distraction it may cause to some participants.

- **Interactive Elements and Feedback:** Improving the interaction by making it easier to focus on multiple elements simultaneously, such as the heartbeat and the face, was suggested. Providing clear indications or feedback, such as when to breathe or out, was recommended to enhance the sense of security and reduce distractions.
- **Duration and Structure:** Increasing the duration of the experience was suggested by some participants to allow for a deeper immersion into the meditation and a more gradual transition into a meditative state. Adding variety or more changes in the beginning instead of repetitive rounds was proposed to keep the experience engaging and avoid monotony.
- **Additional Sensory Elements:** Introducing smell elements to evoke awareness and relaxation was suggested as a way to enhance the multisensory experience and deepen the sense of immersion.
- **Guidance and Explanation:** Providing clearer guidance or instructions on how to interact with the installation, particularly regarding the breathing technique and its connection to the art installation, was recommended to help participants better understand and engage with the experience.
- **Gamification and Transcendence:** Some participants expressed concerns about the gamified elements potentially working against the goal of transcendence, suggesting a balance between gamification and the meditative aspects of the experience.

The suggestions focused on improving the immersive quality, ease of interaction, clarity of instructions, and balancing the gamified elements with the meditative intent of the installation. Incorporating these insights could enhance the overall experiences and make them more accessible and enjoyable for participants.

32. Would you be interested in trying the experience again?

- **Positive Interest:** Many participants expressed a positive interest in trying the experience again. They used terms like "Yes," "Sure," "Definitely," and "Of course" to convey their willingness to engage with the installation once more.
- **Curiosity and Exploration:** Some participants mentioned being curious and interested in exploring certain aspects further. They expressed a desire to delve deeper into the experience to gain more insights or to fully explore what the installation has to offer.
- **Self-Insight and Reflection:** A few participants highlighted the self-insightful nature of the experience, indicating that they would like to revisit it for further reflection and introspection.
- **Interest in Other Installations:** One participant mentioned being interested not only in trying the same experience again but also in exploring other installations. This suggests a broader interest in the interactive art offerings.
- **Longer Duration:** A couple of participants mentioned that they would be interested in trying the experience again, especially if it were extended or provided a longer duration for engagement.

The responses indicate a positive reception of the installations, with participants expressing curiosity, a desire for self-reflection, and an openness to further exploration. This feedback suggests that the installations have piqued the interest of participants and left them wanting to engage with them again to gain more insights or experiences.

33. How would you rate the effectiveness of the breathing biofeedback component in helping you reach an altered state of consciousness?

- **Positive Impact:** Several participants rated the biofeedback component positively, indicating that it helped them reach an altered state of consciousness effectively. They rated it between 7/10 to 10/10 in terms of effectiveness. This suggests that for these participants, the biofeedback aspect played a significant role in enhancing their experience and achieving a meditative state.

- **Mixed Feelings:** Some participants expressed mixed feelings about the effectiveness of the biofeedback component. While they acknowledged its role in encouraging deeper breathing and aiding in reaching a meditative state more quickly, they also mentioned concerns or uncertainties about its consistency or its role as a measuring device rather than a direct aid to altered consciousness.
- **Desire for Additional Information:** One participant mentioned that it would be helpful to receive information about the best posture for improving breathing technique. This suggests a desire for more guidance or instructions to enhance the effectiveness of the biofeedback component.
- **Specific Rating:** Participants provided specific ratings ranging from 4/5 to 8/10, indicating varying degrees of effectiveness as perceived by each individual.
- **Visual Feedback:** Some participants highlighted the positive effect of seeing the visual representation of their breathing, mentioning that it helped them course-correct and stay focused during the experience.

While there were positive ratings and acknowledgements of the biofeedback's role in enhancing the experience, there were also some reservations and suggestions for improvement or additional guidance. This indicates that while the biofeedback component had a notable impact for many participants, there may still be room for refinement or clarification to further enhance its effectiveness in aiding altered states of consciousness.

B. Interviews with Julian Dupont

B.1 Interview 1: Discussing Dupont's Works

Dupont: Well, first thank you for thinking about my work in resonance to the questions you're inhabiting. I find them really resonant and very interesting in relation to the path and the practice that I've been pursuing recently. I think that probably the most accurate way to tell you about what I'm thinking in relation to those subjects will be to show you where I'm going with the sculptures currently.

This is the current sculpture that I'm working on. Basically, it's collective dreaming. I'm creating a sculpture in a vegetable textile called yanchama. It is the skin of the trees that is worked by the Moca community and the Amazon. This is like two hours inside the Amazon River and basically, after visiting those territories we established good conversation and a deep connection with one of the elders who work there with medicinal plants. After sharing our experiences, they were like, "Okay, we trust in your path". So they kind of open the possibility to work with this material. After that, I started to envision this idea of how it will be to articulate the possibility of creating spaces to reunite and together to share.

The possibility of dreaming collectively. The interior of this culture it's filled with plants that are used in rituals. For example, the coca leaves, also the flower and the leaves of toé, that it's what in Colombia we call borrachero or floripondio. They're plants that for a few years I've been cultivating in the backyard of my house in Popayán. Now I have fourteen, fifteen plants that I've started to also experiment with forms of connecting with the plants. For instance, cutting my nails or cutting my hair and putting it in the plants, That's something that I'm really really interested in in relation to another possibility to rethink artificiality. I'm interested in the technologies used by indigenous communities. In the territories of el Cauca specifically. The approach and the understanding I have of technology. It's also the possibility of a radical form of alterity in the conversation with plants. This is also, in a way, we could say an evolution of what started as these.

These were the first masks that we decided to dream with. This is when we started to work in the Indigenous University that we work currently in Popayán. The traditional doctors of the place gave us some plants, the plants that I'm telling you about that I have in the backyard. This was a very intuitive form of thinking about how we could start to have a relation with the plants. After we created these masks, we started to have dreams and, from the dreams that we started to have, emerged an imaginary that I will show you here. These are sculptures produced in that same line. This is the colibrí. These are los cóndores. This is the white wolf. This is the fire. These are masks from presences that have emerged in the space of dreaming with these plants. And this is the thunder. So they're all worked on this material. And they're all also working a pigmentation

with digital materials.

And then there's this other sculpture that's called Potosí. This could be an interesting articulation towards what you're thinking in relation with the *ritual media*. I think I could go in that direction. This is the gathering of two technologies. Potosí: The Inverse Uncanny Valley. It's a sculpture that is 1.50 meters high and 4 meters in diameter, quite impressive in terms of dimensions. This is the articulation of two technologies. One is grains of achiote and the other one is a dispositive of magnetic levitation.

For me, the drive of thinking towards this constellation has to do with something that for me is very important when I talk about my work, and I think it's a good way to explain it, is that for the traditional doctors of the Putumayo, for instance, to become a jaguar has never been a metaphor. This is very interesting. The way to think of painting in ancestral times, for instance, when you go to these caves and you see these drawings with achiote there, the mindset implied in making those drawings was not to do a representation of the jaguar, but was to call the jaguar, to invoke the jaguar.

There's another form of relation in that mindset that I'm really interested in. Departing from that relation with materials that has to do with sleeping with the materials to see what you dream with them. It is establishing a type of bond that doesn't have to do with an object-oriented ontology. It's not precisely this dialectic of distance implied in. We are the subject as humans. What we are not. Everything is an object. For me, it's very interesting in that sense to think about the 'who' of things somehow, and that has to do with entering into these forms of relation. As the achiote is part of the conversation in this culture, the other part is this positive of magnetic levitation.

There's some sort of critique, a biased fascination that we have towards the technological dispositive as result of a western objectified world that has to do with, for instance, not thinking in the extractivism that all the infrastructure of the Internet and the devices that we're communicating with. This all has a principle of extraction. And for me, it's very important to think precisely in the same logic that we were talking about the relation with the achiote. How could we relate with the chips of gold that are inside this computer in the same way that the traditional way does with the plants? From that perspective, the use and the

articulation of the levitation dispositive has to do with the seduction of the viewer. In that sense, I'm interested in this conversation between two technologies that also is somehow the history of colonization. That's why the name of this sculpture is Potosi, the Inverse Uncanny Valley. (...)

What I'm trying to do precisely is bringing decolonization to the conversation, to try to think, let's say, that the computer that we have not been able to see doesn't have a form of a computer, but it's more for me. My intuition has to do more with the constellation that I've experienced in relation to the ritual practices in the Amazon and with indigenous communities than the ultimate technological dispositive as the Western has conceived it. (...) How could we envision not the artificial we know but the artificial that we have not been able to imagine? What does that look like? (...)

For me the connection point that I wanna trace towards that conversation on technology, that in the end is a paradox between these two forms of technology, what you saw as the achote the dispositive of magnetic levitation that articulates a critical perspective towards the use of both technologies. But also, I think it's the beginning, in my work, of a question that I want to resolve in different ways in the future. So I think what I show you at the beginning, is this collective dreaming. It's more where I'm going now.

Now, at the Museum of the Bank of the Republic in November, I'm gonna do a workshop where we're gonna be dreaming. It's gonna be wonderful because it's also the first time that the museum will allow people to sleep in the museum. That's something that I'm really excited about. In the end, it's precisely the understanding of the forms of relation that inhabit something as incredible as a wooden walking stick for the traditional doctors, the stick is how they start every ritual, and when they're gonna start the ritual they put the stick in the earth and that stick has been taken to lakes that are beings of power. When you start the ritual of harmonization you're connecting to those lakes. So to have the sticks back in those waters is what allows the connection for the traditional doctors to start the ritual.

There's a form of connection, of connectivity there that I'm really interested in, and I think that precisely to try to think how to envision a possible resonance of articulated materiality that could give us experiences that don't necessarily vali-

date the artificial that we already have but imagine new possibilities of resolving the artificial is where the interesting question is. I wonder about the possibility of establishing from this perspective of interrelation, a different resolution of artificiality. (...)

Me: It's amazing. I'm fascinated by all the things you're sharing. It has so many levels, it has so many layers. It connects so many things that I also resonate with. I think the works you're developing are just beautiful in so many ways. the concept, what it implies culturally, philosophically, socially, the material, the vision, and the interpretation of certain patterns like technology and artificiality. It's just really fascinating. I'm delighted to listen to you.

B.2 Interview 2: Resonances with *Ritual Media*

Me: Now I want to share a little bit of what I'm doing and to know what you think about it. And then specifically to talk about this concept that I am trying to develop as a design framework or art manifesto, however, you want to see it, which I call *ritual media*.

So what I would like is to brainstorm together around this concept and to share my ideas, but also to see, what does this concept evoke in you? How can it be useful or significant or meaningful for creators to have this *ritual media* design framework in mind? Maybe they can apply it in their creative process, or just like to have a sort of blueprint to create.

Julian: Wonderful.

(artworks presentation)

Me: I did a user study. I did many, but one was particularly interesting because it was for me like a ritual in one sense.

(user study presentation)

So this concept of *ritual media* again. I'm trying to understand what it is that I'm really looking for with this concept. Why is it useful for me? Why could it be useful for you, for example, as an artist that resonates in many points? I feel even though it's so different. I think there are so many things in common. "*Ritual media* are artistic experiences that invite users/performers to approach them with a ritual disposition." So, for example, already I think that's kind of the core of it. But what makes an experience a ritual? I imagine the opposite. Many things that

are marked as a ritual, for example, and by no means do I want to offend anyone, but let's say a Catholic mass. I used to go when I was way younger, I would just go to church. It was supposed to be a ceremony, but I was not taking it in that: sense because I was not giving it that meaning. On the contrary, maybe I go, and watch a performance and then I'm part of it. Or especially when I go to concerts. Because I love music. I feel a concert is awakening more of all these elements that are actually part of rituals, as I understand them. It's secular. It's not religious. It's not marked as a ceremony of anything. But it has more of the character of a ritual. Right? So the intention it's crucial there. That's one point. Then, I put "new media". In another part, I talk about what new media is. Because, you know, when we talk about media art, you get a terminological discussion. Is media art defined as art that uses technology? But then, can't we say that a brush or a pen are also technology? Or a plant. It's definitely also technology. So yeah, it gets complicated. But yeah, "they integrate technologies to create immersive and interactive experiences with the aim of dissolving the separation between users and work, between subject and object." So, I like the example of theatre, in which you have the performance on one side and the audience on the other side, and they're just subject and object, they are separated. But in a ritual, all the people that are witnessing the ritual are kind of adopting an active position. They are part of it. Even if it's contemplative, it's actively contemplative. Then "*ritual media* require engaged bodily participation". I put that this could be through physiological sensing. But I actually think it's not necessary to have a sensor for it. It's just bodily participation, something that you do with your body. In the case of my installations, it doesn't even seem so active because it's breathing. And I've actually had questions from people saying but is breathing physical? So yeah, just to recapitulate a little bit: the ritual disposition, the ritual intention. Then the idea of integrating technologies, but maybe the most important part of this second point is to vanish the separation between subject and object. And then the third one is physical participation. So there's this idea from a philosopher called Byung-Chul Han, and he talks about rituals, and his book is called *The Disappearance of Rituals*. To paraphrase it, he says it is the body that moves the spirit. It's the body that makes the physical realm, the mental realm and the spiritual realm become one during the ritual. It's done

through the body. In the ritual, you realise they are the same. In one way or another, the relationship is awakened. You become conscious in certain ways of that relationship. The highlight is that body movements and this kind of material reality are what activate the other ones. Then, it attempts to produce altered states of perception and consciousness. What I'm doing is trying to experiment with different stimuli, with whatever I have around me, with audio, with music, with images, with sensors. You know, the mask I made is made of clay. So that was also a very analogue process. There was also programming. I integrated with all these things. How can we produce different ways of perception? How can we alter consciousness in different ways? The same happens with plants. I mean not the same, because plants are too powerful, but so many plants can also induce this. So for me, it's about producing richness and diversity of experiences. It's one of the goals of my being and I think it's something I want to integrate into this concept of *ritual media*. I just think it'll make everyone more aware. Then point five: "*ritual media* reunite symbolic elements with direct stimuli to produce an encompassing experience." The point here is about the symbolic elements. I was researching meditation. And so many things have been written on meditation. Within our current Western contemporary medicine and science meditation is approached in a very dry way. It's secularized, first of all. This is positive because it becomes more universal, of course. But I argue that somehow by setting apart the symbols just to avoid a cultural context we're kind of also missing the potential that is also provided by its symbolic meaning. Solely through symbolic meaning or through the intellect you cannot necessarily produce a direct experience, but it does influence it too. I want to recover the power of symbols, and this is why I use Buddhist iconography in my works. Instead of just, I don't know, very beautiful things I'm thinking right now, randomly, James Turrell's work, you know the lights. That's very abstract. There's nothing figurative about it. So this makes it very universal, very beautiful. But I'm just contrasting. This is another way. I believe in the power of symbols.

Then, finally, "more than finished outcomes, *ritual media* are processes of iterative experimentation that incorporate creative evaluation methods to collect feedback from users to produce knowledge on consciousness and improve the experience of the artworks. One thing is to present an artwork and another to curate

the whole setup, the more external parts of the experience. Then also a ritual is a sort of little journey, right? It's a little trip. So I think it is also really significant every time I present these artworks, and especially during the user study I was talking about, it was so significant to think of how to get feedback from the people. By talking about their own experiences, they are expanding the experience and processing it, you know, like just the process of drawing afterwards. And then answering some questions that make them think about "how was I feeling regarding my body at this moment?". All of these questions and the conversations evoked different things on them, at different levels. Some may be more metaphysical, others more grounded, or more emotional. Some people were just sleepy. Whatever. As I was saying at the beginning, all these stories are maybe the real output, more even more so than the pieces of art, the installations, and a screen with some sensors. That's the chat.

Julian: I think it's really exciting to see what you showed me last year and how all the conversation has evolved in a really exciting way. I was really impressed by the pieces, and somehow, I was bringing the expectation to the lotus flower, I was really taken by that piece. I think that's a really good progression of the work. I think something that comes to mind, I talked to you about two artists last year, I think. From Chile. Patricia Dominguez and Nicole Luelier. They are like talking so much in the direction that you're thinking, you know. Nicole was just in the German pavilion of the Venice Biennale. She's from Chile, but she has been living in Germany for a while. She graduated from a master in media at MIT. All her thesis is about sound and materials. So, for instance, what she does is that she creates these textiles that are produced in a way that uses a materiality that receives or that reads the context, let's say, like you, This textile starts to emit, to produce sounds that are somehow in relation to the context. It's quite beautiful. For instance, in Venice, she had these textiles hanging from a tree. And it's very alien, the nature of her work. What I like about what she's thinking it's something that comes to my mind when I hear you speaking about your work. It's a problematic that resonates. I think a lot about how I resolve this problematic in my work. There's something for me that it's very important when we talk about technology that has to do with the materiality of the infrastructure. For instance, I have like this neuro headset helmet that reads neuronal. I've had it for

ten years now, I think. And I've never done anything with it. Because for me, it's so difficult to somehow not reproduce the colonial history of technology when I'm using those devices. So when I bought one of these devices you know how they use it. And what are they like? This enterprise is called Emotive. It's from Los Angeles, from LA in the States. How they sell it is basically, they put these two workers in enterprises to read their moments of productivity and the moments of concentration. So this is a whole industry that it's working on somehow reading information from brain activity to basically extract data and to improve efficiency of workers. So that's one possibility. The other possibility that fascinated me at the beginning is that you put on this helmet and you can drive a car with it, for instance, just learning to articulate your brain activity in a way that the device will start to somehow learn a few commands. So in that way, like with this helmet, you can turn to the right, you can turn to the left. Anyway, once I got it, it was something that I've been totally fascinated with. But it's what I'm telling you in the end, the only thing I've done is a video with it in where I'm sitting. Next to a traditional doctor, a shaman from the Indigenous communities we're working with, and we just did a video in which I speak about the problematics of that relation and the contrast between what Luis is doing by chewing some coca leaves and what I'm trying to do, putting a nearer headset.

(...)

Julian: We had an interview with the director of Google AI called K. Elada Mcdowell. He's director of Google AI for any specific part related to arts. He's a wonderful mind. He has written two books with Chat GPT3, and Chat GPT4. I will send you that interview because we touch a lot of these problems. In that interview, we invited him to share the space with a traditional doctor from the community here in Cauca. And after he heard the traditional doctor he just told us "to be honest, I don't have anything to bring to him. It will be a mistake on my part to say that I could do something that will expand their knowledge as a community. There's nothing I can bring to that community". And that was quite honest and brilliant for us. Because in the end, this guy that it's always thinking about that outcome, he said "If they invite me to propose something I can go from the best will. But there's something about the colonial history of technology. So coming back to what you showed me. When you were showing me your works,

I was telling you, with this lotus flower and the mask that opens and closes, I think that's a brilliant approach. And I'm wondering if you have not thought, for instance, it would be wonderful to envision some sort of complete installation like the ones you were describing at the end, that it's like a black room, you know, in where you enter. There's something about Mariko Mori that I love, and it's that you can feel that it's a total immersive experience where there's not one single detail that will make you remember your life before entering into that space. Thinking about point number six of the characteristics of *ritual media*, I think that it will be quite interesting if you think also in the way to get the feedback by the participants to not be something completely open in the sense they will make a drawing or they will speak. But I don't know, you know, to think in what way you could capture that outcome. That will already be something that can be very detailed and very pre-worked by you. I'm just thinking, it could be like a camera and an interview in a white room, or like something that will still not dissociate the experience from what they're living before in the state of meditation. This is really resonant. In the last few months we've been working last year in collective dreaming workshops. This has been incredible. We've worked with groups of 15, but also 70. They're all sleeping with helmets and plants inside. And we've always had a moment of conversation after they take out the masks and the ritual is closed. There's a moment of conversation but to be honest I still think that I'm not happy with how that takes shape because, of course, there are incredible experiences. It has been quite important to hear what people have dreamt. That's incredible. And for the moment, we just had a conversation about it. But I am thinking, for instance, at this moment in what way could I articulate with that? Precisely as an extension of the dreamings they're having that will not be a literal experience, like a narrative experience. Let's say a tool, give them a tool to articulate that in a concrete way. I don't have the exact answer. But of course, to begin. I think that it would be wonderful if you could have a giant tablet in a wall where they could all make something. I don't know, to make that something that you will enter the room. The post meditative drawing lab. Something that would also make that experience not like an objective outcome, like "what's the result of these", but, that will also make that part of it. Like a Mariko Mori afterlife experience, kind of thing.

Me: I'm heading precisely towards that direction. Precisely this point six integrates this need for feedback but integrated into the artwork. What I did for the user studies was an experiment of how to make an experiment. How to evaluate? It still feels too divided from the installation. Or in the case of your work on collective dreaming. Yeah, you have some conversations. You had some conversations where I had some questionnaires. But, is there a way to get it more as a whole? I think of a kind of pattern, of many traditional, indigenous cultures around the world. But I'm thinking particularly about the Choctaws, in North America. This exists in many places, but it is basically as a ritual of passage. The young person goes alone into the forest, into nature, and they collect some objects. Then they come back and they show the objects (like a feather, a stone, a shell). The experience itself is going inside the forest inside nature. But then, when they come back, they socialize, they share, they give meaning with probably the ancients of the group, or just more experienced people. And it's shared, it becomes more common. The ritual is this whole thing that I'm describing to you. It's from the beginning, when they're not have not left, and they prepare, go inside, and then they come back. There is also this shape of a ritual that for me has come to make so much sense within artistic creation. As an artist many times you want to just let everyone think whatever they want and interpret it. That freedom is also amazing. But also I think it'd be so valuable to get it. It was so valuable for me to get the feedback of these people, even though so far it has not been like the perfect shape. I'm imagining, what if it's just like a shirt, mural or something? How? A certain way to sort of out a second output or an additional output, or maybe it is the same output. I don't know how to articulate it, but It goes towards that.

Julian: No, no. I feel you. Let's say that will be a wonderful challenge to think in what way you could integrate that, in a form that will not be dissociated from the experience. It will not be "okay, now let's do the conversation". There's something about when you are invited to a festival of performance. We were talking about it with a friend that came from Germany, that she was invited to Bogota. She did a performance for like one hour and then the organizers told her "okay, now, there's like a talk about your work, about the work that you just presented, so we can discuss it." And I told her: "Don't do it. These skills, the

mystery of the work... And they're gonna rip you apart, because also it's the worst thing you can do just finishing a work." And of course, she finishes, she sits in there, and it was like "why doesn't your work have this?". So in the end, how to not do that. You know how to make this after-experience not a dissociated thing that will be "okay, now, let's do the conclusions" or "let's be critical about it". Because I don't think that's what we're talking about when we refer to this sort of feedback.

Me: The kind of impression that we want to get a little bit from the people who experienced our artworks, right?

Julian: Of course. I think that somehow that's something for us to think about, in one way, to give the space, to make that experience, something concrete. There's also something that came to my mind. When I was listening to your experience. At least for us, the strength of our practice in relation with ritual knowledge has become much stronger once we've integrated this in a community. What am I saying with that? I do a collective dreaming workshop. As you know I did it in the Museum of the Bank of the Republic, and it was quite exceptional. It was beautiful. But once we came and we did it inside the Territory, the Indigenous territories with the community, oh, la! la!

Me: For me too. I did this user studies in a studio in the city, and so on. But then it has been different when I've shown the artwork at the fire festival, at a Buddhist temple. And to talk with the people and to see how they experience it, how they receive this reinterpretation of millenary symbols and practices. The reception was really positive. I couldn't get the feedback that I can show. But just everyone was so moved and connected in that moment that that's all like we connected so.

Julian: I'm just wondering, for instance, that in this process that you're trying to envision based on the practice that you know we've walked in this process like it's why I'm telling you probably to go to a Tibetan community, or I don't know, try to propose to do this for six months in where, like every month, or every certain day of the week, the monks will come, and, that makes the work to go somewhere else. And that's really incredible. That's just something that came to mind.

So this is the last (collective dream workshop) we did. This is an Indigenous

resguard. We have all these elements, the masks, in all that we've created. But once that's taken to the experience of the community. That's where the work is becoming something else. And it's becoming quite incredible. Because now, for instance, we've been invited by all these different resguards that are telling us like we want you to come and do a collective dream workshop. That's giving us the chance for kids to see if they have a gift. And if we can identify the gifts of the kids while they're having the collective dreaming workshop. We can start to create the context for them to become traditional doctors, for instance. Those are the outcomes that were not in our minds before. And somehow, in the exercise of articulating this with the community, it's what has become, not just an aesthetic experience but it's now becoming something else, and that's quite interesting. When I'm listening to your reflections, I'm always, as you were saying, when you're defining what's new media, that's quite interesting, because, as I told you, this form that in the end we are articulating now where these vegetable masks that are inside have medicinal plants that, to be honest, it's the outcome of what I was telling you before about the neuro headset. For me, there's something about what these masks are doing that could be much more explicit. Let's say, if I put on a neural headset, and I start to read the variation of neurons and I make something with that, you know. There's something about how to understand that if I put on a mask with certain plants inside, will I have a different type of dreaming than if I don't use that. It's already opening a sense of communication. Let's say that it's already confronting a lot of imperatives of what we understand as technology. In that direction, I always come back to this positive of the lotus flower and the mask showing up. I don't know, for me it was impossible to not imagine how that would be, how you could take that to an installation of collective articulation. I don't know if you've done it. Probably you've done it. But to think of twenty dispositives connected to twenty people meditating at the same time and, let's say, in the ceiling you will have a shape that will reflect all those interactions. I was just kind of excited imagining how.

Me: Yeah, I've thought about it, because it is one of the elements of rituals. It's not that I am trying to make my artworks fit into the definition of ritual. But when thinking of rituals, there's this collective aspect that is not exactly present in the artworks. There is an interpersonal relationship with me as the person that

you know helps to wear the sensors and so on. But it could not be considered exactly as a collective experience, unlike the works you've done that are collective experiences. Of course, there are technical and production reasons. And I'm the only person working on this. All these limitations. But it's a direction that I want to take definitely and the way I've resolved this within myself is to think it's about creating a connection and maybe the first connection that must be created is with oneself. So at least these installations that I've shown you are focusing on connecting with oneself. It's like an inner connection. It's not that the collective one is not an inner connection. But the ritual kind of vanishes this separation between inside, outside, oneself, and others. It becomes more fluid, this exchange. I'm kind of working with a part that it's more towards the inside and a little bit outside, but still not the collective one.

Julian: Coming back to one of the sentences that you were describing, in this separation of subject and object. I think that's a good challenge. When we're also talking about technology it's very difficult to not conceive these as an object. When we're talking, for instance, about the extractive processes to make them happen, I think that that would be a quite a beautiful approach also, if you could think how to integrate that in the process. When you were talking about the spirit that comes when you directly manipulate these things. There's something wonderful about the sense of ritual that we've experienced here with the traditional doctors. For instance, when we go to a specific lake. We take a piece of wood that comes from that lake and then we start to craft. And then those pieces of wood are now in some plants that we have here at home. So there's something about that comprehension that those plants are now connected to those lakes. How all these traditional doctors inhabit reality? Here you sit, you put your stick in the earth, and now you have the connection with the lake. That's how they can treat an ill, a person that is sick. There's something about that embodiment of connection and of material resonance. That for me quite beautiful in terms of how to think after knowing that now I can start to think how I'm going to produce something that will not have the same relation as this. And as I'm telling you it's something that it's not given because it's not how we've been raised. But I think that there could be something about how to not make an object. The dispositives that we're working with, is there a way to produce them, to think in a material

sense, to make them by ourselves, and that will add a layer of complexity that I think it's valuable. But of course if that's not the case, how could we address some reflection towards all these dispositives to how to make an object not an object anymore? Is there a way?

Me: About that, it applies not only to the object, but to an action. I am still coming back to this idea of the intention. 'To intentionate', I don't know if that's a real verb. I have a lot of women I respect in my life. They have told me a lot about plants and they always tell me "you take this little branch of rue, of ruda, and you 'intentionate it'. They're not telling me anything that is within a specific cosmogony or belief system which also could be part of it. But this is wider, a wider understanding. It is a 'skeptical people-friendly understanding', which is to intentionate. I had a class the other day in which I was trying to summarize this idea of the 'aura' from Benjamin. I was comparing a pot that was handmade versus a pot that was mass produced. There are a lot of discussions that come up. The first thing we might say is that the handmade has a certain value, there's some affection, and so on. But then, what if that mass-produced pot was gifted by someone we love? Then, the mass-produced one gains a deeper meaning and ultimately it's how you want to assume these objects. As I was saying, this process of wearing the sensors, I am helping someone wearing something. Maybe you had a similar experience when helping people to wear these helmets you made. Someone might see it as something absolutely practical and dry. But maybe it could also signify "Oh, we're having a physical connection. Here we are having an exchange, I am putting this on me to then do something", My question is, how to produce a setup and create these media artworks that invite for that disposition, invite people to intentionate the experience.

Julian: That's good. There's something that could resolve this in a beautiful and practical way. Once we were doing a ritual here with our friend Luis. He always choose, let's say, like a round of coca for your body, for the work you're doing. And then at some point, he told me "okay, now we're gonna do this round on your vehicle, on your car." He told me there's something about the energies that every single body, every single matter has to where you could access to. He told me if we sit with all the traditional doctors, and we start to concentrate on a satellite, we could make it full. It could be interesting to think in what way us

producers of this agency that you're envisioning in this installation. You could find your own way. Objectify these objects before they enter in the installation process. Get in touch with a community of monks, or I don't know what contextual shape that can take in the context. You are but I think that could give you a direction that could resolve in a very organic way a lot of the details that could make the process incredible. I imagine you going to a monastery or even having all these conversations where you need to convince the community and then they will say "no" or and there will be another one that will say "yes". All that makes the process something else. That could give you a conversation. Okay, I'm gonna do a sound bath of all these dispositives for ten days and then they will be charged with a frequency... I'm thinking about all these details. But somehow I like to think the whole constellation as precisely a whole. I think that is quite beautiful how you defend the use of symbols. You know that for you it's very important that there's a visual articulation that you're not disconnecting yourself from, because, of course, you could think in more abstract forms that will make the work more universal. But in this sense, if you are honouring a tradition or encompassing the strength that it has, probably. It could be wonderful to start to work with the symbols that a community is giving you also as a sense of trust. How that will work for like a group of monks could make that when you bring this work to the art world, or to the city or the university.

Me: Let me tell you an anecdote. I went to this temple called Jyōrakuji. One of the characters of this name is 'raku' and it means 'enjoyment'. It's also part of the word 'music', for example. So enjoyment is a really important part for this temple. In general, Buddhist temples in Japan have their own practices for the monks, but besides people who take monastic life, there are people connected and practitioners. People were only going to temples either for tourism, to check out a nice place, or for funerary ceremonies. But, for example, not for marriages, that was left in the past. Almost no other kind of ceremonies or ways of creating community. If you're just meeting people when they die, when some family member dies, you can imagine how it feels you're creating communities. So this is a problem that I was told by the people from the temple. Not only from that temple, but other people, other other temples, too. Maintaining the temple, making it sustainable, the ways of doing that, it's also a practical problem.

This is why in particular Jyorakuji started to make music and art festivals. Their way of Buddhism is esoteric, which means they have secret teachings. When people ask something, they don't want to share it so much. But actually, they're really open-minded in the sense that they are doing yoga workshops, or displaying artworks related to Hindu things. They rise even beyond Buddhism or other kinds of Buddhism. The piece I did it's connected to Japanese Buddhism, but it's actually, fundamentally Tibetan Buddhism. But they still welcome that. I was making the Fudo Myoo, or the 'angry god' artwork while staying in the temple and I called the chief priest. I said "please come, I want to show you". He sees it and he's like "this is terrible, you put a third eye here, it's a waste.", "I'm gonna get rid of the eye. It's something really simple. I'm already using so many other things from Tibetan culture." And he says "listen, this temple is from a thousand years ago it was created. And we are maintaining the iconography of our ancestors for a reason." "What reason?" And then it's when the esoteric thing comes. And he did not answer. "okay, get rid of the eye" and I said "sure I will do it right now." And he's "but, you know what? If it takes too long you won't be able to come and drink with us. So just come and drink with us. That'd be nicer. I just quickly erased the eye and went there. But what this showed me was that in one sense he was really strict and kept the tradition, because, yeah, they're doing festivals and so on. But they're also keeping the traditional ceremonies intact. He told me his feedback directly, which is really uncommon in Japan because they don't say things directly. So he offered me that trust. It might seem as the opposite, as a rejection of what I was doing. But for me, actually I understood that it was like accepting me. Then, even though he had this strictness, he was like "you know, it's not so important next to actually sharing with you, what we want is to share with you."

This goes a little bit beyond the scope of this *ritual media* thing and all. But ultimately, the context of creation at that moment was that temple. Not only did I go there and display it. I was creating it there and sharing with them and then people would try the experience. Some people would tell me "wow! I was feeling I was Fudo Myoo! I was the deity! It's in me. I feel the fire. I feel the purification inside me." And another person said, "wow, it feels so similar to what I felt after walking on the fire." It is by no means a matter of creating a better experience of

anything. It's just an experience that I think made people more conscious about the other elements during that festival. This is a fun festival where we eat some food and it's cool to see people walking on fire. But it's also about Fudo Myo and through a screen and sensors, new technologies, how can I say the core of those rituals? This is the way I've been kind of socializing it. In the context of where I took the influence for the creation of the artworks.

Julian: Wonderful. That's a layer of richness that could make the work... I'm quite captivated by the two works like the one of the Evil God, and the first that is on a screen. It feels they could totally be in an exhibition. There's a moment in the experience, and then you move into the second layer of immersion when you have the lotus. I really appreciate how the evolution connects the works. It takes you into a spatial realm where you find yourself in position. I also really like the formal resolution of the face opening and closing.

With the same patterns, you could explore a whole immersive experience. Imagine arriving, taking the lotus flower, and depending on how you breathe, you could walk through different spaces. I really like that approach.

Another thought that came to my mind is about the dissolution of subject-object dialectics. I think I mentioned Eduardo Viveiros de Castro, the Brazilian anthropologist. He explains, from the perspective of Amazonian cosmovision, how there's a different way to inhabit your body and reality, one that doesn't rely on object dialectics.

He talks about how, when everything becomes human, the human becomes something else. For example, when a cloud becomes human, we're not talking about the same humanity we once understood. There's something interesting to consider in relation to technology here. How can we understand the computer, with its quantum composition of matter, being connected to all the places these minerals come from?

In that sense, we could expand our understanding of materiality, even of the artificial things we interact with. I'm trying to think of examples or strategies to question the object. It's something we are constantly trying to do.

Anyway, that's about all the outcomes I have from the brainstorming you initially proposed. I don't know if you want to direct our conversation in a particular way or if you'd like to singularize it more. I've already noted the links I'll send

you.

If you're interested, I'd invite you to check the interview with Kelada McDowell and the works of the two artists I mentioned. Whenever you want to have another conversation, I'm totally open to discussing the questions you're thinking about. I'm also quite captivated by the work you're doing, and it would be great to think about a potential collaboration in the future. I believe it could connect wonderfully.

(...)

Me: But thinking about evaluating or validating all these awful turns—it's a bit awful right now for me. This idea of *ritual media* as a design framework, it's more than just setting conditions like, "Oh, these are the requirements for your work to be *ritual media*." It's not about that, of course.

It's more about thinking, "How could this be useful for a creator?" Because, okay, I'm proposing it, I'm developing it, and I'm working on it. All the things you're saying are valuable feedback—feeding back into the concept.

So, yeah, I think it makes sense to propose this framework.

(...)

Julian: As I'm telling you, I think the points are accurate. The only thing for me personally—and I would love for you to check the work of Patricia Nicole, because they challenge my notion of how I resolve my work. They constantly work with technological devices. I've been more inclined to go in another direction to speak about the same subject. But they're actually working with technologies like Arduino.

In my conversations with them, it's always this point I'm giving you—what I think could be missing is the ****hardware**** dimension. If you're going to speak about *ritual media*, there's something about addressing materiality that can't be resolved in software. It has to be resolved as hardware, and that's very important to me. So that's where I would focus more—thinking about how *ritual media* could address that notion.

Even if you take a traditional example—like a doctor telling me, "We're going to do a ritual to cleanse your car"—I'm not saying this is an impossible framework, but it has to encompass that reflection. If you're thinking about *ritual media*, the ****scale of production**** of these elements needs to be envisioned and resonate

with a ritualistic practice. That would be interesting to explore.

That's the only thing that makes me think there could be another direction to be envisioned.

Me: At one point, for example, with the mention of technology again—well, for me, you're also using technology, right? So I kind of think of *ritual media* in that context. It was framed like that in the show, which made it easier to understand.

But at this point, I want to **integrate technologies** more carefully. I feel the need to nuance this, to explain it better, particularly regarding **electronics**. I was even considering removing the emphasis on technology because maybe that's not the central point. Maybe the second point is more about **creating immersion** and **dissolving the object-subject divide**, right? This is one of the corrections I was already thinking about making, even before talking with you.

Another part I'm unsure about is when you talk about **software** and **hardware**. I'm not sure if I fully understand—are you telling me that in the works I've shown you, there is no relationship with hardware? Or could you rephrase that a bit for me?

Julian: Yes, of course.

I think for me, my position towards technology in general is what I discussed with Patricia and Nicole. There's something about the way we use technology, particularly new media, to express our thoughts. For me, this presents a challenge. I'm not saying it's impossible, but I think the main challenge with new media is that it often leads to objectification, even if we're having a sensorial experience.

For example, when I visit media exhibitions, like the work of Rafik and others, you enter a space where artificial intelligence is reading your body through sensors you don't even notice. The data is translated into these beautiful floating pixels. As an experience, it's fascinating, but I tend to be critical of that fascination. There's an entropy in the sense that we're entering a matrix, a space controlled by software that ultimately gives us an object-based experience. Even when engaging in these immersive experiences, we end up objectifying our own bodies.

However, I don't feel that way when I see your work. There are genuine questions in your approach related to meditation and spiritual realms, which I deeply connect with and value. I think the challenge of translating such deep knowledge through new media is significant, and you're resolving it in a meaningful way.

That being said, I'm curious about the experience of the monk you mentioned—the one you trust. I'd love to know how he perceives his ancient meditation practices and how he resonates with the tools you're creating. From that, I think a beautiful question could emerge about bridging the gap between subject and object. It's about practising this in a way that aligns with what you're discussing, although it's challenging because we are essentially working within the limitations of current technology. This doesn't mean we aren't connecting, but when thinking about how to resolve these ideas through infrastructure, maybe we need to imagine a different kind of computer altogether. I'm not sure if I ventured too far into imagination here, or if I fully answered the question.

Me: Oh, I still wanna understand if I'm understanding. Because, for example, I was thinking. I've never actually experienced Refik Anadol's artworks. I've just seen stuff on the Internet, so I don't know. Here we're judging, but something that happens to me with all these things that are called new media is that it gets really stuck with the allurement of new technologies. Oh, it's VR, oh, it's AR, and then something technologically impressive is happening. And it has its own beauty, yet it is sometimes kind of empty of this idea of using technology. One point is first understanding this idea of technology in a wider sense, right? The second point is to not get stuck with using new technologies just for the sake of using new technologies.

Me: And then it also happens a little bit the same with this idea of immersion. Right? So the artwork you described from graphic and all seems very immersive in one sense. But in another, it's kind of objectivizing the person. So they are actually in a kind of passive role. It seems to me that I don't know. You can tell me. Beyond criticizing his work, I just think it's not fitting or matching with the idea I'm trying to propose with *ritual media*, right? That would be more it, for example.

And then I was thinking of your works and the okay, you're not exactly not in, when I mean there's one. The one with the limitation is positive. But let's talk about the collective dreaming one.

I think you're not exactly using any sort of digital technology or anything like that, right? But you're kind of retaking these plants and making new objects, these helmets and stuff, but probably they're made of the materials from there,

and they have been shared by these people with you. You kind of have some sort of trust and permission to work with this in that way.

Kind of the same way I use the Fudo Myo, this angry deity. It's, "Hey, look, I'm doing this. Yeah, it's not mine." But I'm creating a resonance with myself.

Right, so maybe what I'm thinking is, it's more about more than new technologies. It might be about playing with different stimuli.

Too wide, too vague. But that's what I actually think. It's like you use already existing techniques and materials and plants. So here, I'm presenting you these six points that kind of define *ritual media*. And I wanted to discuss with you to see how I can improve this framework. One of the points that seems to be problematic is point number two, which was already problematic for me, even before talking with you, with these ideas of technologies, and so on. But just this point number two. My question is, with those adjustments, what do you think then, overall? Do you think it's kind of convincing this idea of *ritual media* for you? Could you relate better with it, or no?

Julian: To be honest, I definitely like the notion, and I really resonate with it, and I think that it also forces me to integrate a conversation in a way that in my personal experience has taken more like decent resolutions. But that doesn't mean that it's still not there, you know. Now in March, we're gonna be in an exhibition that's produced by SKM. It's totally technology-based. But they're inviting us precisely with these notions of dreaming that we're handling, you know. So that's why I'm telling you that for me it's quite challenging in a beautiful way the dislike and notion that you're proposing as *ritual media*. I do think that the six points you're addressing are in the right direction. In fact, I just had specific comments on the sixth. And of course, on the second, there's I think this really complex way of resolving the dissolution of subject and object when we're talking about artificiality. Because there's something about technology that could be resolved as, you know, taking two sticks and doing fire. You know, that's a technology.

Yeah. And of course, today, we have chat GPT-3. We have all these new realms of new media, let's say, that encompasses a resonance between those two progressions. But in the end, for me, yes, I think that we need a more radical definition of how to dissolve that division between subject and object when we're talking about artificiality. That, as I'm telling you, being sincere, I haven't been

able to resolve through new media. The way I've resolved it in my personal experience is through precisely ritual practices that have to do with a sense of knowledge, and also contextually, like a political stance towards the relation with indigenous communities. That's the way that question has been resolved in my work.

But that for me doesn't cancel the fact that there could be something to resolve even in new media. It just will need to have a path to resolve that. And that's what I find that, you know, somehow could be probably conceptually more radically articulated, probably if you're thinking also in constructing a theoretical document. So if you want, what I can think is that once you send me this page that we're seeing, I will think about it. This conversation that we've had will be haunting me in a good way, and I could think of a few texts of writers, for instance, that address that problematic. Afterward, we could think of what way that could resonate specifically with new media. Because, as I'm telling you, in the last years, somehow I deviated my interest in these theoretical references that I think we talked about last time, like Benjamin Bratton and all these media philosophers. And I've been more concentrated in, somehow, let's say, decolonial politics in the Latin American context. But I still think that there's something about, of course, going in that direction of not thinking ourselves anymore captured by objects, but in fact, I don't know if now I will go somewhere else. But like the way we've resolved that recently is in what way could we resolve ourselves? Not as subjects anymore, because in the end, there's something about the subject-object conversation that in modernity has always been resolved through subjectivity. It's through the self. It's through the subject that will have the possibility of building a better outcome for these. So the thing is that once you question object-oriented ontologies, there's something about the subject that it's inherently encompassed in that. So what we've been thinking is what if we take out those two? Let's say, how can I resolve myself not as an object, of course, but not as a subject anymore? And what that could be. Me: So yeah, I mean, I think now, I'm getting you more, for example. Like this idea came because what I saw is that through the reading biofeedback, people were really reflecting themselves. A very common effect was that they would actually forget their own bodies in one sense and feel that their bodies are the images that they're seeing. Right?

So for me, there is a process of abstraction of the body through the exercise of breathing. So it's not like ignoring it. But it's more like through this physical action, kind of consciousness of the body is expanded towards the artwork.

This is a very common reaction that many people have had with the things I did. And then it was, wow, definitely the strongest part of it was the breathing biofeedback. So my little mind just wrote something logical, like, oh, it was the sensors. Therefore, it's like this use of new technology integrated into all these things that kind of helped me to vanish at least partially the separation between the user or performer or spectator, however you want to call it, and the artwork, right?

You were able to expand their sense of self. Not everyone, of course, but many of them, many, many of them.

So it's kind of I did the works with already the ritual idea in mind, and so on. But this is the result of posteriority, of oh, the work I did! And now I am wondering how much can this work as an a priori, as a theory, as a base for other people to work on top of it, right?

Julian: No, no, I get you. I get the intention, let's say, of how you arrived. I mean, if you want, I propose you send me the points, and I will do an exercise of thinking how each point, for instance, will make me feel in relation to my work, possibly being part of that terminology, to see what can come from that.

Me: It was just like such a rich conversation for me in so many senses.

Julian: I honestly think that the questions you're making are really important ones. And I think that that will be appreciated and valued by your evaluators. So I think it's going in a good direction. It's quite cool to see the evolution of the works.

(...)

C. Exhibitions, Conferences, and Academic Publications

Here I list other ways I have socialized the artworks which have also provided me feedback from participants:

1. **Fire Festival at Jyōrakuji Temple, Tatebayashi, Gunma, Japan, 2023.** At this traditional Shingon Buddhist festival where participants walk over embers barefoot as a rite of purification, I exhibited the art installation Fudō Myōō. More details were presented in the Auto Ethnography chapter.
2. **International Conference Taboo, Transgression and Transcendence, Malta, 2023.** At this art and science conference I presented this research project and entitled it “Exploring Consciousness Through Interactive Art Installations: Unveiling the Potential of Meditation, Buddhist Rituals, and Wellbeing Science”.
3. **Exhibition Consciousness, Gallery Conceal Shibuya, Japan, 2022.** I presented a very first iteration of Convergences of the Spirit which did not have yet the halo around the mask and the lotus sculpture. The feedback from the public helped me understand that the installation needed to be more immersive to actually enter a meditative state.
4. **Exhibition and cultural event Sarau Tokyo, Japan, 2022.** I displayed Ethereal Phenomena. The event was like a party, but thanks to the noise block headphones, people were still able to enjoy the installation, which showed me its potential to be in various contexts, not necessarily only in a quiet empty place.
5. **International Conference Tangible, Embedded, and Embodied Interaction, South Korea, 2022.** I presented the artwork Ethereal Phenomena which also included a published paper entitled “Interactive art, Meditation, and Breathing Biofeedback: From Mind and Body Wellness Towards Self-Transcendence”. The feedback from the jury was rewarding because they recognized I was not attempting to create a better meditation than the traditional ones but simply to expand the possibilities of assisted meditation.
6. **SIGGRAPH Asia Conference, The Future of Rituals and Resonance, Japan, 2021.** I exhibited Ethereal Phenomena for three days with more than 100 participants. A short paper entitled “Ethereal Phenomena - Breathing Thangka” was published. I also participated in an artist talk

about “Our new normal and ritual”, moderated by the artist Etsuko Ichihara.

7. **Change Tomorrow, Keio Media Design Forum, Japan, 2021.** I showed a very first iteration of *Ethereal Phenomena* and requested participants to answer a short questionnaire, which helped me start designing the first user study I did.