

# **States of Suspension: Exploring suspended experience of sound and light in popular music and imagery**

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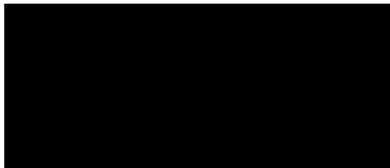
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## Statement of Authentication

The work presented in this thesis is, to the best of my knowledge and belief, original except as acknowledged in the text. I hereby declare that I have not submitted this material, either in full or in part, for a degree at this or any other institution.

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(Signature)

## Declarations

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## Abstract

This practice-based research project explores, defines and demonstrates the state of *spatio-temporal suspension*, or suspended experience, where abstract characteristics of sound and light in music and imagery coalesce to afford audience and performer the experience of liminal or “between” aesthetic zones, in turn providing a gateway into imaginative worlds. Informed by the author’s background in the performance and composition of forms of experimental popular music as well as graphic design and photography, the investigation utilises a combination of creative research methods and research-led analysis within a phenomenological framework to interrogate the physiological and neurological basis for this state.

In order to better understand and define this concept, relevant creative exemplars including music and music videos, experimental films and site-specific installations are examined. The analysis draws upon a range of relevant philosophies and theories of perception relating to time and space, including phenomenology, liminality, the Japanese concept of *Ma* and heterotopia. Perceptual and psychological theories, including affect as felt experience and its role in aesthetics are considered, as well as embodied cognition in aesthetics and ecological approaches to perception. These theories and concepts consider humans as integral parts of a dynamic ecosystem of individual and shared information and perception, providing insight into the perceptual basis of suspension and why it is often encountered as a cross-modal experience.

Through the analysis of creative works and the author’s self-observation and journaling of the audiovisual exploration of suspension in performance and practice, the research identifies compositional features that are prevalent in works that facilitate and enhance the potential for suspended experience. These features are explored and realised through creative works that examine how suspension is imparted through an audiovisual composition, how it is experienced by the practitioner through the recording process and as an improvised performance, and how the works are received and experienced by others, via examination of responses to specially designed reception tests. The findings are expressed in the conception and realisation of two major bodies of work: an audiovisual suite,

*Suspension Studies* (2020), comprised of musical and visual studies of suspension as an immobile work; and a site-specific performance work, *States of Suspension* (2018), which affords audiences and performers an active aesthetic experience of suspension *in situ*.

The enquiry contributes to the understanding of a relatively unexplored phenomenon in music and visual arts and intends to encourage further discourse and investigation into this topic.

## Chapter 1 Introduction and overview

### 1.1 Background to suspended experience

It was 1974. My sister and I, ensconced in the back of my father's Dodge utility, were being driven back from Aldinga Beach in South Australia where my parents worked on the holiday shack they were building on land bought next door to my grandparents. We were often bored: Aldinga then was a wind-swept, salt-encrusted plain leading to the beach, the only point of interest a convenience shop selling ice-creams and fishing tackle. My father would throw our bikes into the back of the truck to keep us occupied, though there was nowhere to ride to: only the shop, the beach and the house. We would wander aimlessly while our parents worked, until it was time to go home. The bikes were loaded in the back as well as us, with a blanket and some cushions to keep us comfortable—so much for seatbelts. As we rode home in the cool evening air, my sister and I would tell stories and sing songs, perhaps something we had heard on the radio or *Countdown*. As the sun lowered on the horizon, the light beginning to flicker through the trees along the ridgeline of the Adelaide hills, my mind would drift in a heady world of music, light and wonder...

Fast forward five years. I had asked my grandmother who was travelling to the United Kingdom to bring me back an English pressing of The Beatles' *Revolver* (1966). Listening intently to the new vinyl, I soon realised the final track was no ordinary song. An ominous drone, displaced by a cacophony of reverberating drums, the white-noise wash of cymbals and a pulsating bass line, lingered upon a single note. Weird, unearthly sounds swooped across the stereo image like bizarre creatures, while the vocalist exhorted the listener to "surrender to the void". Dark figures dancing around a raging fire, entranced in the rhythm, appeared in my mind. A strange serpentine instrument suddenly appeared from right field, writhing and angrily spitting notes before disappearing into the background, while the vocalist, now distant yet omnipresent, intoned, "listen to the colour of your dreams" as bass and drums pounded out the unrelenting rhythm. Finally, the song ran out of energy, the dancers and musicians exhausted, with creatures still swooping while a lone pianist played on under the spell of the music. The pianist wasn't the only one—I wanted to hear this track and the strange images it conjured again, and again...



As a young teenager in 1979, my latent interest in 1960s popular music had been reawakened by an influx of new bands that wore their '60s stripes proudly—The Jam, Elvis Costello and The Attractions, XTC, and others that appeared in the wake of punk. There was an excitement and energy to these bands that I could relate to, with music that was familiar. Paul Weller of The Jam had cited *Revolver* as an influence, but it barely rated a mention in music magazines of the time. With intricate, hand-drawn and collaged artwork and stark black-and-white photography on the rear, the album seemed sophisticated, more adult, somehow detached. The guitars contained a bite and ring that was instantly attractive, the bass and drums full and clear, with striking vocal harmonies I had come to expect from the group. However, the best was saved for last. “Tomorrow Never Knows”, the final track on *Revolver*, conjured a new sound-world unlike anything I had ever heard before. I would discover later that the bizarre creatures I perceived on that first listen were sped-up tape loops, the strange serpentine instrument was in fact an electric guitar recorded backwards, the distant and remote vocals of John Lennon had been sent through the swirling speakers of a Leslie speaker cabinet, and the world I thought I had seen and heard resided largely in my imagination. I was amazed that this short song, at just under three minutes in length, could conjure such vivid imagery.

In the intervening years I have been intrigued by music that appears to have the capacity to elicit visible worlds, in particular where sounds and instruments are altered to the point that their origin and the environment in which they were captured are uncertain, obscured. The resulting experience, where there is a temporal and spatial sense of occupying another reality, like a self-contained world, has a vivid sense of interiority, yet is situated in the real world as a corporeal, entire-body experience, as if I were *in* the space created. However, it wasn't only music that held this experience for me. Qualities of light have also evoked a similar sense of wonder and imagination. During early morning or late afternoon when the sun was low on the horizon and forms were stretched and elongated, light conjured a comparable imaginary space, where it appeared to have a materiality unto itself. This was more apparent where there was distortion or refraction and a sense of movement, as if light was infused with a life-force. These parallel phenomena appeared to have similarities: both had a physicality that neither should possess; each had a processual quality, in that continuity and movement seemed to be key

features. Both were ambiguous and abstract in nature, and both phenomena were strange yet fascinating, leading easily to a sense of another place, an imagined world of sound and light. This experience, where there is a sense of immersion in another world leading from these phenomena, is what I have termed *spatio-temporal suspension*, or more simply, *suspended experience*. From my own observations, it can occur spontaneously or develop gradually, however is typically characterised by an intense fascination, wonder and immersion into a new world of thought and imagination, as if time and space were suspended.

## 1.2 Contextualising suspended experience

The idea of imaginary worlds is hardly new. Literature has an established tradition of creating illusory, self-contained environments through story. In the essay “On Fairy-Stories” delivered at the Andrew Lang Lecture at St Andrews University in 1939,<sup>1</sup> *Lord of the Rings* author J.R.R. Tolkien (1966) observed the capability of the human mind in “forming mental pictures of things not actually present” and considered art to be “the operative link between Imagination and the final result, Sub-creation” (p. 68). For Tolkien, the use and advantage of fantasy was the ability to create a “Secondary World”, typically characterised by an “arresting strangeness” (pp. 69–70). Historian and musician Mark Achtermann (2016) has compared Tolkien’s notion of “secondary worlds” to the ambient sound environments of Brian Eno, arguing they serve as “constructs of the imagination” (p. 92), a point I will expand in the literature review in Chapter 2. It can be observed that characteristics of sound in combination with music also have a rich capacity to elicit imagery, particularly in recorded music. Writer and musician Peter Doyle (2004) identified a practice of “sonic pictorialism” beginning to emerge in popular music recordings from the 1930s onwards, in which “reverb and echo effects deployed in combination with certain lyrics to render aural vistas” (2004, pp. 31–32). Doyle observed the emergence of “twilight settings” in these early recordings representing transitory shifts from “consciousness to dream, from the realm of the ego to that of the id” (p.

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<sup>1</sup> In his introductory note to *The Tolkien Reader* (1966) Tolkien says the lecture was delivered at the University of St Andrews, Scotland in 1938, although the University of St Andrews has stated the lecture was delivered on 8 March 1939. University of St Andrews (2004, March 4). Inside Tolkien’s Mind. *St Andrews University News*. <https://news.st-andrews.ac.uk/archive/inside-tolkiens-mind/>. Accessed 30 July 2020.

36). He positioned these “zones *between* day and night” as “implicitly hypnagogic rather than fully conscious or unconscious”, demonstrating how the combination of recorded music and audio can conjure ambiguous, dream-like spaces that begin to move away from the purely representational into the fantastic and imaginary (p. 36, original emphasis). Early attempts at creating secondary worlds in audio can be heard in the early 1960s, with Joe Meek in *I Hear A New World: An Outer Space Music Fantasy* (1960) but with the emergence of psychedelic music and the concept album in the mid-1960s, culminating in The Beatles *Sgt. Pepper's Lonely Hearts Club Band* (1967), the idea of consciously constructing worlds of sound in popular music began to take hold. Doyle observes “unlikely, impossible or purely expressionist virtual architectures” emerging from the 1960s onwards, and that “spatiality was on call, to be used as seen fit” (2005, pp. 226–227).

This powerful capacity of sound, in particular when environmental or spatial characteristics (i.e. reverberation and echo) are altered or abstracted to elicit vivid “between” spaces that appear audibly and visually as encapsulated worlds, informs much of this investigation. Notably, the role of light in this experience is often inferred through recognition of its character *in sound*. Both the cross-modal aspect of suspended experience, where a sensual perception in one modality appears to fill in sensory information in another, and its potential for imaginative thought and creativity, are my primary interests.

### 1.3 Purpose of the investigation and research questions

This investigation endeavours to determine the nature and possible causes of suspended experience by examining auditory, musical and visual characteristics in examples of this phenomenon, including a range of creative exemplars in music and visual arts that I consider epitomise the experience. It compares related philosophies, psychology and theories of perception to examine “between” experiences of space and time elicited in artworks to gain further insight into them, and how these may contribute to the perception of worlds of sound, music and light. The investigation also seeks to understand the cross-modal nature of suspension through my own creative exploration and by comparing my experiences with the responses of others to studies of suspension in music and imagery. The results are realised through *Suspension Studies* (2020), an audiovisual suite of suspended

works that encapsulates an “immobile” or passive experience of suspension in light and sound; and *States of Suspension* (2018), a site-specific performance work that seeks to actively convey the suspended experience musically, visually and spatially for performers and audience alike. The creative half of this doctoral project is comprised of these two major works, accessed at (<https://vimeo.com/showcase/7450723>) (Long, 2020).

Four research questions are posed to which the project will respond:

- What is the nature of suspended experience?
- What are the elements of audiovisual artworks that elicit suspended experience for myself and others?
- What is the possible basis for the cross-modal aspect of suspended experience?
- How can suspended experience be conveyed in an audiovisual artwork for myself and others?

## 1.4 Significance of study

The study considers music and other spatio-temporal artforms in terms of affectual response as entire-body, multi-modal experiences, and in this sense anticipates whether music and other temporal art forms where sensory modes are blended may lead to more visceral, immersive experiences of art. It also contemplates whether these kinds of artworks are reflective of environmental or natural processes, as self-contained worlds or environments of sound and light. Finally, it considers the notion that between-zones as sites of ideation and improvisation are highly conducive to creativity.

## 1.5 Outline of chapters

The literature review commences with two artists, Brian Eno and James Turrell, alongside the music and imagery of alternate rock band Radiohead, all of whose work I feel exemplifies suspended experience in music and light respectively.

Chapter 2 is concerned with the philosophical framework employed to examine suspended experience, including phenomenology, liminality, the Japanese concept of *Ma* and heterotopia. Chapter 3 considers perceptual and psychological theories

pertaining to perception to time and space, including affect, embodied simulation, flow experience and ecological perception. Chapter 4 outlines the methodology used for the study, including an overview of the practice-led process and creative research methods, including journaling, audiovisual exploration and reception tests on participants, and the design of the audiovisual event *States of Suspension* (2018). Chapter 5 discusses the creative and empirical outcomes from the audiovisual *Suspension Studies* (2020) suite and reception tests, as well as the performance event *States of Suspension* (2018). Chapter 6 responds to the research questions posed in 1.3 as to possible explanations for suspended experience and finishes with observations on how the aesthetic interpretation of suspended experience may be applied in future projects.

## Chapter 2      Literature review: philosophical frameworks of time and space

### 2.1 Overview

This chapter discusses exemplars and philosophies relating to suspended experience as it manifests through perception, creativity and performance. These range from philosophical theories of perception in relation to time and space including phenomenology, liminality, the Japanese concept of Ma and heterotopia.

Throughout the chapter I draw on musical and visual exemplars to propose and illustrate the key characteristics pertaining to suspended experience. These exemplars, in combination with the literature, mobilise the investigation by providing a historical overview as well as informing and inspiring my practice.

### 2.2 Spatio-temporal exemplars of suspended experience

The creative work of the artists Brian Eno and James Turrell, along with the music and videos of alt-rock band Radiohead epitomise for me several key aspects of suspended experience in sound and vision. The explorative sonic environments of Eno, which invite listeners to participate in imaginative worlds of sound, and Turrell's aesthetic exploration of light as a medium to create unique experiences of space, have provided a great deal of the creative inspiration for this project. Likewise, the songs of Radiohead in conjunction with often highly compelling and immersive music videos, impart for me a sense of suspension in sound and vision. I discuss here the relevance of these artists in regard to my own artistic practice and provide a brief overview of their respective works and relevance to the aims of this investigation.

### 2.2.1 Brian Eno

The significance of the creative output, working methodology and numerous collaborations of Brian Eno cannot be understated. Known primarily for his role as the synthesizer player for Roxy Music and subsequent development of the genre of ambient music, Eno is also highly regarded as a record producer and collaborator, having worked with Robert Fripp, David Bowie and Talking Heads among many other artists. Recognised also for site-specific video and light-based projects, beginning with early video experiments in the 1970s through to more recent site-specific projection works, Eno's views on music and art have been exhaustively documented from the perspective of a self-described non-musician who sees himself much more as a painter of sound, with the recording studio itself representing his real instrument. As observed by Tamm (1995):

When he speaks of himself as a painter of sound, or a constructor of sonic landscapes, [Eno] is being more than metaphorical: for in a very real sense, magnetic tape is his canvas, and he applies his sound substances to the canvas, mixes them, blends them, determines their shape, in specifically 'painterly' ways. (p. 62)

For his early solo recordings of the mid-1970s, Eno advocated for composing *in situ*, using the recording studio as a compositional tool and assembling groups of musicians to provide the different timbral colours he required, often without a preformulated idea of what he was about to create. As Eno claimed in 1979 in a lecture called "The Studio as Compositional Tool", this placed "the composer in the identical position of the painter...working directly with a material, working directly onto a substance" (Eno 2004, p. 129). What Eno himself called an "empirical" approach to music making was a more direct and creative way to work than that of a classical composer who would suffer "transmission loss" in the transference of music from score to conductor to players (p. 129). More pertinently, this approach is reflective of his general philosophy toward music making based on self-organising principles, rather than the top-down hierarchical structures he perceived in orchestras. These self-governing systems, derived in part from cybernetic theory of Stafford Beer and the biological systems of adaption of Morse Peckham (Scoates 2013, pp. 96–102), form the basis of what I identify as Eno's "ecological" approach

to constructing “worlds” of sound. I will return to this concept, which is key to and informs my research, throughout this chapter.

Eno’s interest in the potential of systems to create art was kindled during his days at Ipswich Civic College, through tutor Roy Ascott and painter Tom Phillips. There he was exposed to work by experimental composers such as John Cage, Christian Wolff and Cornelius Cardew, and American minimalist composers La Monte Young, Terry Riley and Steve Reich, with the latter’s tape piece *It’s Gonna Rain* (1965) making a considerable impression. Taken from a short section of a Pentecostal preacher’s speech rendered on two identical tape loops slipping gradually out of synchronisation, the piece produced a notable phasing effect that Eno would describe as “very rich and complex”, but more importantly, showed that “variety can be generated by very, very simple systems” (Eno, in Tannenbaum, 1985, p. 68). Similarly, La Monte Young’s score for *‘X’ for Henry Flynt* (1960) stipulated that a performer “play a complex chord cluster and that you try to play it identically and with an even space between it” (Eno, in Bangs, 1979, para 22). In performing the piece, Eno soon discovered the difficulty in trying to reproduce exactly the same cluster each time. He observed that:

your brain starts to habituate so that you cease to hear all the common notes, you just hear the differences from crash to crash, and these become so beautiful...it’s like the opposite of sensory deprivation, but it’s the same effect. You start to hallucinate, because you telescope in on finer and finer details. (Eno, in Bangs, 1979, para. 22)

The idea that complexity could be generated by very simple systems greatly appealed to Eno and, based on organisation principles derived from cybernetics as well as chance operations and indeterminacy from Cage’s book *Silence* (1961), he developed his own ideas of generative systems for music creation. This led to the tape-looping technique he employed in his collaboration with Robert Fripp, *No Pussyfooting* (1973) and Eno’s first “ambient” album, *Discreet Music* (1975a). Eno’s organic approach to music making, where processes are set in motion by a creator who then steps aside to allow the “system” to generate increasingly complex permutations, has the sense of a living ecosystem, perhaps not surprising given the influence of Peckham’s theories on evolution and adaption. This emergent “ecology



of sound” approach evident in Eno’s music work has been observed by several authors, and it is this idea of generating a “sonic ecology” that informs my own thoughts on how suspended experience can be enacted through music and imagery.

Much of Eno’s defining work is suffused with a sense of place. Although early solo efforts were characterised by quirky, experimental pop songs, signs of his later ambient style, with allusions to landscape, began to appear by the third album *Another Green World* (1975b). As noted by Brian Dillon (2013), Eno’s landscape is:

overlain by theories, maps, and images of elsewhere, but which nonetheless breaks the surface here and there in his music with remarkable specificity of reference or recall, in sounds and lyrics, or simply in song and album titles. (Dillon, 2013, p. 188)

Dillon suggests that in a sense, Eno is part of a tradition of English landscape artists, and it is “the fact of his abstracting himself from the landscape that in both his music and the visual art is most striking”, observing that although the composer has often referred to “imaginary landscapes”, he has not adhered to this term simply because “his interests are more abstract and his frame of reference, in terms of place, more specific” (pp. 188–9). Dillon suggests the most compelling tracks on *Another Green World* are “those that refuse an easy lyrical conjuring of an imaginary landscape, but seem themselves to enact a movement across or through it” noting that these “depend on rhythm tracks that suggest at once forward propulsion and a steady or at least repetitive state” (p. 191). This is suggestive to me of natural processes in motion, or as Dillon speculates, “a repetition that cedes without warning to certain evocative details” (p. 192). Eno has related this aspect of music to natural phenomena himself:

It seems necessary to me that the music must be generally constant but specifically unpredictable. Watching clouds form, change and dissolve is a good analogy: the overall nature of the experience is consistent but the details of it are unpredictable. (Eno, in Korner, 1986, p. 77)

Dillon relates this to Eno’s early experiments with tape loops, “with systems that allow for a degree of unpredictability within repetition...and here cast exactly in terms of landscape” (p. 192). This idea of evolving change in the “landscape” being

generated through cyclic repetition is a common theme running throughout Eno's work and contributes further to the idea of natural process in his work.

David Pattie and Sean Albiez (2016) observe in Eno's recordings that he "is somewhere in the system as part of the ecology of the recording, but not its focal point" (p. 2). Pattie and Albiez suggest that Eno's interest in sound is born of experiences as a youth wandering the Suffolk coastline, searching for fossils. This was a place that "seems to have lodged itself in his imagination, not as a series of images, but as a sensual environment that had to be experienced in minute detail" and that this was "as much aural as it was visual" (Pattie and Albiez, 2016, p. 2). They note that rather than an outward focus, "the system that Eno creates takes in the opposite direction, towards the particular detail, towards the exact quality of the sound" (p. 3). This "sensitivity to timbre", as the authors observe:

can't be divorced from the landscape. The sound is already part of a system – of other sounds, of images, of ambient temperatures, interacting with the perceiver's immediate awareness of the world, and the memories that shape his perception.

(Pattie and Albiez, 2016, p. 3)

I suggest that Eno's approach to the creation of these highly sensual, interrelated and idiosyncratic environments is that of exploring new worlds with a sense of open-eyed wonder, an approach that also carries through to his site-specific work. The particular sounds he creates, although abstracted, are reminiscent of or allude to known sounds in the environment. His method of generating systems within this sound environment contributes to the impression of an organic, self-supporting ecosystem of sound, feeding, growing and supporting its own organisms. Pattie and Albiez (2016) suggest that in Eno's work, "music is an environment" but is also "the expression of a particular ecology; a specific location, a specific set of technologies, a specific group of people assembled at a specific time or a specific mechanism" (p. 7). In short, the method or system can be applied in any number of ways to any manner of projects within Eno's oeuvre, but as the authors note:

If music is an environment and a system, it is not one that needs to be controlled; if the conditions are correct, the system will generate an answer to the initial problem, which will surpass the answers that any one person within the system could have created on their own. (Pattie and Albiez, 2016, p. 7)

Mark Achtermann (2016) recognises that the tools and techniques, systems and “philosophic and critical vocabulary to describe the systems and the relationships between art, artist and audience” that Eno employs, all contribute to an “ecology of sound, emotion and idea” (p. 86). Achtermann employs theories on aesthetics proposed by fantasy author J.R.R. Tolkien (1966) in order to define ambient music and whether it can be considered as art. Achtermann observes the element of fantasy in Eno’s work and notes that Tolkien’s ideas of “fantasy, escape, recovery and consolation...speak across the years to Eno’s work” (Achtermann, 2016, p. 88). In particular, Achtermann observes a correlation between Eno’s music and Tolkien’s view of an artist’s ability to create:

a Secondary World sufficiently convincing to allow Secondary Belief...the assignment of reality to something *known rationally* to be improbable or impossible. Secondary belief is assigning to a Secondary World the value of reality due to the Primary World. (Achtermann, 2016, p. 91, original emphasis)

Achtermann posits that “Secondary worlds are therefore constructs of the imagination” and that music, “though it may manifest in the physical, primary world, is largely a secondary world, constructed in the mind” (2016, p. 92). The capacity of music to enable these kinds of worlds is dependent on genre as this may “limit the possibilities of movement of the imagination”. However, the “arresting strangeness” that exists in Eno’s music aligns with Tolkien’s view of fantasy, and that in “music which has no obvious preconceived genre form, the possibilities obviously are greater” (p. 92).

Like Pattie and Albiez (2016), Achtermann (2016) discerns Eno’s music “does not imitate specific sounds from an existing environment, but instead recreates the sense of some existing environment by imitating the processes and systems of the natural world” (p. 96). He notes Eno’s interest in designing systems initiated by basic elements that re-combine to form more complex structures and that his ambient work “often seems to be more science than art, a kind of physical and even metaphysical exploration” (p. 96). Achtermann observes that by Eno’s fourth official ambient release, *Ambient 4: On Land* (1982), the identification of sound sources and instrumentation has all but fallen away and “the album suggests an environmental re-creation as much as a music composition” (Achtermann, 2016, p. 103).

The environments created by Eno provide an invitation to participate in an imaginative and interrelated ecology of the mind. This immersive quality of thought, an almost child-like wonder in stepping briefly into a secondary world, provides impetus for this investigation. I contend these self-contained worlds are largely representative of suspended experience, and though this investigation is mainly centred on his musical works, I shall also examine the visual output of Eno, including his light-based environment works. These include *Quiet Clubs* (1986–2001), which have been discussed extensively in Scoates (2013) and *77 Million Paintings* (Eno, 2013) and will be detailed in Chapter 4.3.2.

### 2.2.2 James Turrell

In June 2015, I attended *James Turrell: A Retrospective* at the National Gallery of Australia in Canberra, after experiencing the work *Aten Reign* (2013) at the Guggenheim Museum in New York. For Turrell, light is itself a tangible, material substance, not just a transfer medium: “It is physical. It is photons. Yes, it exhibits wave behaviours, but it is a thing. And I’ve always wanted to accord to light its thing-ness. That was very important for me to do” (Turrell, 2015, p. 17). Turrell is interested not only in how light informs perception of space, including a sense of depth and distance, but how space can be formed and altered by using light as a *medium* of illusion in an “architecture of space created by light”:

The art that I make covers this ground between form and actually forming space using light. For example, when the sun is shining, we see atmosphere—we can’t see through the atmosphere to see the stars that are there. The same applies if you are on a stage with footlights and stage lighting—you can’t see the audience. However, if you step in front of the footlights, the audience is revealed. The space is architecturally the same, but the location of the light actually changes the penetration of vision such that some people see each other and others cannot....This quality of working *the space in between* so that it limits or expands the penetration of vision is something that intensely fascinates me. (Turrell, in King, 2002, para. 7, my emphasis)

My own interest with light and its tangible effects in the environment, shaped by the frequent climatic events in the Blue Mountains landscape, has informed key aspects of my investigation into how between states contribute to suspended experience; in

particular, how atmospheric effects of light can affect perception of depth and distance, especially at dawn and dusk. The exaggerated shadows and colour that emerge when the sun is low on the horizon, in conjunction with rapidly changing light conditions, contribute to a physical experience of light, with the visual sensation of entering a threshold zone of experience or altered perception of reality. This effect was particularly apparent during the summer of 2019–2020 in the eerie golden hue cast by bushfire smoke over the Blue Mountains. The materiality of light as a palpable presence, not as a benign, transparent ether but made volumetric by organic matter, has aesthetic properties similar in respect to those that I associate with sound, and by extension suspended experience.

Turrell acknowledged the difficulty of working with light in his earlier work, as it was “something that I had to learn how to mold and form, because it isn’t formed with the hand like clay or hot wax. It’s more like sound...it was really hard to form and control light” (Turrell, in King, 2002, para. 28). He recognised that light, like sound, had to work in conjunction *with* space, and perceptually could also inform that space. To this end he created the *Mendota Stoppages* (1969–74) at his studio at the Mendota Hotel in Ocean Park, California. By sealing the studio doors and windows, painting the interior walls white and gradually introducing small amounts of light into this controlled environment, Turrell observed how it could affect a sense of space:

if you open anything, light will come into this perfectly bare room in a very strong and amazing way. I then began to open up the space, particularly at night, to different areas of light. All forms of light were available—the path of the moon, cars, street lights, and shop lights. I made a series of spaces where I could change the space by virtue of how I let in light. I literally made a whole new space out of the same physical space, which remained the same, although that’s not what you encountered perceptually. (Turrell, In King, 2002, para. 16)

Importantly for Turrell, these “whole new spaces” created in light exist alongside real-world experience, in much the same way that music or literature has capacity to create self-contained environments:

The example I like to give is the experience of sound when you are wearing good earphones or have a good stereo system. You find yourself in a music space that’s larger than the physical space you’re in. It’s the same when you’re reading: you

become so engrossed in the book that you're more in the space generated by the author than you are in the physical space where you are sitting....This extension to the physical, awake state, a kind of daydream space that we superimpose on it, is the space that we should really discuss, because it's actually the space of our reality. The arts, without a doubt, extend these spaces, whether it's in literature or in music or visual art. (Turrell, In King, 2002, para. 16–17)

These alternate “spaces”, much like the imaginary secondary worlds of Eno, appear as a superimposition upon reality, as part of the everyday world, yet existing apart from it. As noted by Adcock (1990) “The *Mendota Stoppages* comprise Turrell’s first efforts to establish direct relationships between inside and outside spaces. [They] were conceptualized in terms of one space ‘sensing’ the light quality present in another” (p. 88). The capacity of light to establish space within space, informs much of the artist’s later work, including *Wedgeworks* (1974–), in which projections of light create an illusion of walls or barriers, and *Corner Shallow Spaces* (1967–), where projected light into a corner creates an illusion of a three-dimensional object.

Turrell has felt constrained by the physical limits of most galleries as they do not afford enough space to gain perspective on the work: “Now of course, the space to do [the work] is in the sky. One of the biggest examples of this light-making space is the change from night to day or day to night” (Turrell, in Govan, 2011, para. 27).

Turrell has explored perception of light on a massive scale with his ongoing project at Roden Crater, an extinct volcano near Flagstaff in Arizona, where he has carved a series of tunnels, chambers and specially designed apertures into the volcano’s bowl since 1977. However, it is his more modest but no less impressive *Skyspaces* (1974–), specifically designed to observe the effects of transitioning light in the open sky, that has directly influenced this investigation.

As explained in the catalogue to *James Turrell: A Retrospective*:

*Skyspaces* are a leading motif in Turrell’s oeuvre. A *Skyspace* is a simple, enclosed chamber with seating, with a circular or rectangular opening in the ceiling. The contrast between the light inside the work and the changing external atmosphere affects the appearance of the sky: the sky is brought down to the plane of the ceiling. (2015, p. 18, original emphasis)

One of these works features at the National Gallery of Australia. *Within without* (2010) (see Figures 2.1 and 2.2), installed in the front grounds of the gallery, is a pyramid-like construction containing an internal stupa arrived at via a descending walkway surrounded by water. Once inside the pyramid, the basalt stupa, also surrounded by still water, becomes apparent and upon entering this structure one encounters a circular chamber with minimal seating, with an oculus contained within the roof as the primary source of light. This is interesting on several levels. There is a sense of entering a chamber designed for the specific purpose of contemplation, and there is a marked division between outside and inside, so the effect is similar to stepping across the threshold of a church or place of worship into a special place, albeit a particularly minimalist one. Given Turrell's upbringing as a Quaker, this is perhaps not surprising. However, there is no requirement for genuflection or observance of a deity, as the only focal point is that of the circular oculus contained in the ceiling (Figure 2.2).



Figure 2.1 Exterior of *Within without* (2010). National Gallery of Australia. Photograph by Russell Street / Creative Commons

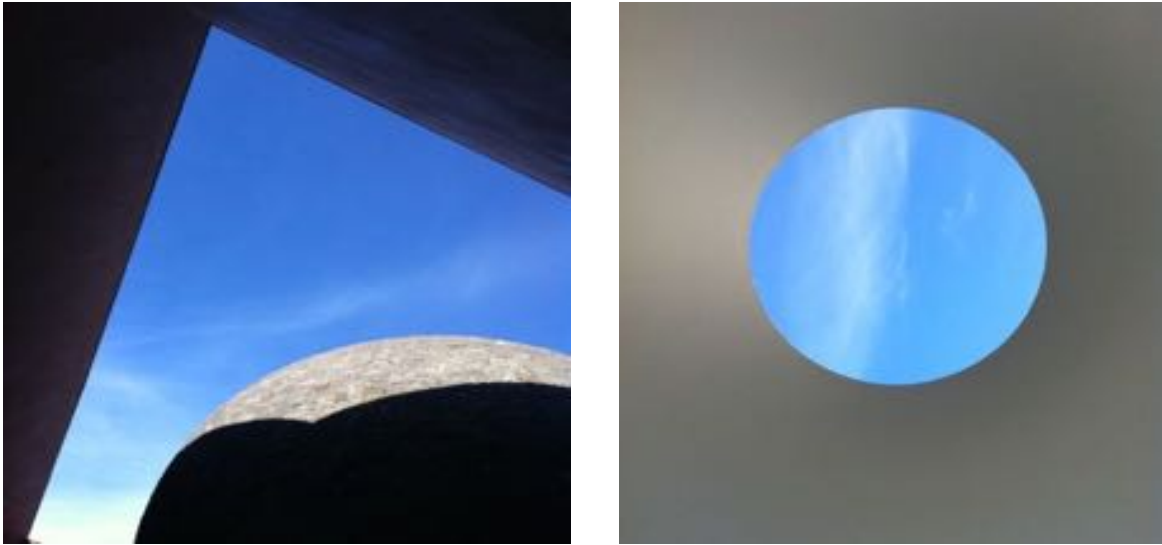


Figure 2.2 View of exterior top of dome and from the interior toward the oculus. Photographs by the author

Like the focus of much of Turrell's work, the oculus itself serves to frame light in a way that makes it appear tangible—the qualities of the sky, set against the neutral interior become the centrepiece, an infinitely changing canvas where time appears to slow, creating a unique space of contemplation. As the artist has remarked:

You can have a space that's absolutely opaque as you get toward the night, where it's ink-black or blue-ink-black, or even a little bit before that, and it looks like it's been painted on the ceiling....It becomes quite impenetrable with vision. But there are other times I like this transparency, too, where you go from transparency to translucence to opaqueness. And that quality of plumbing a space with vision was very important to me in the poetry of the work. (Turrell, in Govan, 2011, para. 27)

As well as being an invitation to contemplation, I feel that another compelling aspect of this architecturally designed space is that it contains a sense of creative potential, in a similar way to the Japanese concept of *Ma*, as a space that invites interaction and creativity, which I discuss in Chapter 2.3.3. The smooth, evenly spaced walls of the domed interior of *Within without* contribute to an unusual acoustic quality, encouraging low frequency standing waves. This lends the space a slightly surreal auditory quality and potential for creative interaction, in my case auditory and musical. It is notable that Ireland-based sound artist Robert Curgenven has already exploited the acoustic properties of *Within without* and other Turrell *Skyspaces* in his audio work *Climata* (2016), observing that while “changing the way people perceive



their environment through sound, it creates heightened awareness that may lead to people...perceiving space or time differently” (Curgenvin, in Colley, 2015, para. 12).

Turrell’s fascination with light’s capacity to shape our experience of space has had considerable bearing on my thoughts toward the conception of the major work, particularly with the use of lighting and projections to create an imaginative environment to impart qualities of light that I associate with suspended experience.

Eno and Turrell exemplify the potential for visitor observance and activation of the acoustic and light characteristics of a designed ecology. Their work has contributed to my conception of the major candidature work *States of Suspension* (2018). *States of Suspension* is consciously sited in a built environment on the edge of a national park. It incorporates the ambient sound of that place and the influence of changing light, aerial and terrestrial conditions within the work. *Within without* has contributed significantly to the conception of *States of Suspension* in regard to incorporating transitioning light conditions and existing acoustic properties as an integral part of a site-specific work, and as a potential site of interaction and movement. This is detailed in the section “States of Suspension: an exploration of suspension in performance” in Chapter 4: Methodology.

### 2.2.3 Radiohead

As a contemporary music exemplar for this investigation, the songs and graphic imagery of the English alt-rock quintet Radiohead epitomise for me how suspended experience manifests in popular culture. Hailing from Abingdon in Oxfordshire, the band’s early material drew on prevailing styles in guitar-based grunge and indie-rock in the mid-1990s, but from their third album *OK Computer* (1997) developed an individualism notable for its embracing of unusual timbres, increasingly odd rhythmic figures and sometimes unconventional harmonic changes. Based musically around the singular songwriting of vocalist Thom Yorke, Radiohead also presents a unique visual style due to the idiosyncratic artwork of Stanley Donwood, who in conjunction with Yorke has designed the band’s album artwork and promotional material since 1994. As noted by academic and musician Brad Osborne (2017) Radiohead’s success can largely be attributed to “an ability to write music that balances expectation and surprise” by alternately combining expected formal, tonal, rhythmic and instrumental conventions representative of rock music with “myriad

surprises and disjunctures” (p. vii). This conspicuous adherence to wrong-footing an audience’s expectations, by maintaining a “balancing act that maximises a hyperactive cognitive space” contributes to a quality that Osborne positions as “salience” by “building upon a host of expectations inherited from classical and popular music while at the same time subverting those expectations several times over” (p. ix). Osborn’s discussion of Radiohead in terms of ecological perception and a “sonic ecosystem” is discussed in further detail in chapter 3.1.4.

By way of an example, “Pyramid Song” from the *Amnesiac* album (2001b) provides a cogent illustration of suspension in Radiohead’s oeuvre and exhibits many of the musical qualities I attribute to suspended experience. The song on first impression imparts an uneven, shifting rhythm in the prominent piano figure that underpins the rhythmic and harmonic basis of the song. This is rhythmically divided into a symmetrical distribution of eighth notes over two bars, in two groups of 3 followed by a group of 4 and another two groups of 3. Complicated further by a swung jazz feel, the metrical complexity of this track contributes to a floating, unsettled sensation, which Osborn describes as a “dizzying, hypnotic undulation” (2017, p. 177). This is an aspect of what I perceive as a suspended approach to rhythm, where there is a push/pull relationship between an underlying pulse and another overlaid rhythm, a feature of polyrhythmic approaches that I explore in detail in chapter 4.3.2. Harmonically, the song employs major chords moving in a parallel fashion that appear to hover in a nowhere-land between major and minor, with sustained flat 9<sup>th</sup> scale degrees sometimes held over at the end of phrases, delaying a sense of resolution and inviting tonal ambiguity. Instrumentation, although at its core a familiar jazz combo of voice, piano, double bass and drums, also incorporates the rarely heard *ondes Martenot*, an early electronic keyboard instrument invented in the 1920s and favoured by Olivier Messiaen. Played by guitarist Jonny Greenwood, the instrument’s gliding tone between pitches lends the track an unfamiliar, otherworldly quality. A string ensemble, arranged by Greenwood reinforces dynamic peaks and follows the gliding vocal line, but also provides a shimmering, uneasy presence throughout, commencing with atonal swoops and fidgeting figures, like a sea of chattering, uncertain voices. In combination with lyrics that allude to “Egyptian underworld and tomb art... people who were being ferried

across the river of death” according to bassist Colin Greenwood (Greenwood, in Douridas, 2001) it’s perhaps not surprising that this song possesses an unearthly, almost transcendent quality. The accompanying video produced by the art collective Shynola, echoes the dynamic and temporal contours of the music in its depiction of a post-apocalyptic underwater world lost to the waves, being explored by a lone diver. Osborn reads this as mankind’s indifference to global warming and the inevitability of rising sea levels due to climate change, “a past society that has literally drowned itself in technology” (2017, p. 192). The contrasting of the familiar, in this case our everyday modern existence with its electronic trappings, placed in the unfamiliarity of an underwater setting, sets up an eerie sense of unreality, reflected in the slow-moving, floating technological detritus – this is indeed a world in suspension, set apart from reality yet ultimately familiar and recognisable.

Similarly, the music and accompanying video for “Daydreaming” from Radiohead’s most recent album *A Moon Shaped Pool* (2016) for me is strongly representative of suspended experience, not only from a musical and auditory point of view but also in terms of visual correspondence.<sup>2</sup> Visual concepts and techniques employed by filmmaker Paul Thomas Anderson appear to correspond with musical and auditory elements in the song, and conceptually the video keep the viewer in a state of spatial and temporal uncertainty for much of its duration as singer Thom Yorke moves through a series of familiar yet unconnected spaces. The audio track, commencing with an unstable tape-speed fluctuation, establishes from the outset a sense of temporal fluidity. Layered, echoing bell-like sounds imbue spatial and temporal unreality with diffuse, synthesised timbres and a lack of definable pulse, entering the listener into a nebulous, dream-like auditory space. The repeated piano figure that gradually emerges forms the rhythmic basis for the song, by employing a polymetric arpeggiated motif of three beats over two, forming a hemiola or sesquialtera. This gives the song a floating, yet insistent quality that visually appears to propel Yorke’s constantly moving figure in the video as he enters doorway after

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<sup>2</sup> This is a condensed version of an analysis of the music video for Radiohead’s ‘Daydreaming’ (2016) in P Long, “The In-Between Zone: Suspended Experience in Popular Music and Imagery”, *Peer Reviewed Proceedings of 8th Annual Popular Culture Association of Australia and New Zealand*, (PopCAANZ), Wellington, 10–11 July, 2017, pp. 78–87. [http://popcaanz.com/wp-content/uploads/2017/11/E-ECOLOGIES\\_Long-2017.pdf](http://popcaanz.com/wp-content/uploads/2017/11/E-ECOLOGIES_Long-2017.pdf)

doorway into different rooms. As noted by musician and doctoral candidate Sean Davis, the competing rhythms “do little to provide a sense of progression due to the almost soporific polymeter that pervades the song” (2019, p. 73). Harmonically the piano appears to be in a holding pattern, with arpeggiated triplets forming a series of suspended chords in the right hand underpinned by insistent octaves in eighths in the left. When an expected cadence finally appears, instead of resolving to the expected tonic, the piano reverts to the original motif. Throughout this section in the video, Yorke is seen walking in a daze, self-consciously blinking as if attempting to wake, apparently caught in a time warp where space and temporality are distorted, cyclic and unending, not unlike an M.C. Escher lithograph folding in upon itself. Davis notes that the interaction between the triple and duple meters “is our daydream, the space between signification that resists attempts to break free” (p. 80).

This spell is broken by an unanticipated shift in tonality to the parallel major key, with the piano brightening by moving into a higher register and doubling triplets to sextuplets, an effect not unlike stumbling into a sunny clearing, reflected in the video as the first sequence shot outdoors in a forest setting. Although there is no change in tempo, there is an increased sense of urgency as high-pitched synthetic sounds enter the mix, heightening a sense of unreality and as Davis places it, “leading listeners to believe that they are somewhere new while they are actually still in the dream” (2019, p. 80). The addition of a bass guitar, entering for the first time, provides an insistent pedal point, joined by a sustained and synthesised high-pitched motif, increasing tension. However, as Yorke emerges into a beachside setting, the doubled piano arpeggio gradually falls away to the gentler dynamic of the first section, with the synthesised motif fading out. This alternation between sections forms the principal structural basis for the song, however as noted by Davis, “While the change is audible, the original rhythmic structure remains consistent, sustaining the daydream...and staving off wakefulness” (2019, p. 81). This rhythmic continuity pervades the remainder of the song despite changes in dynamics, instrumentation and timbre, with the insistent piano motif almost propelling the listener through, as if travelling through an unfamiliar landscape. Reversed elements only add to the sense of unreality, especially in the final scene of

the video as Yorke wearily collapses by the flames of an open campfire. At this point, the music dynamically pulls back, reverting to the original piano motif accompanied only by highly abstracted reversed and extremely slowed-down spoken vocal. The camera, tilted at forty-five degrees focuses on Yorke's face mouthing the unrecognizable words, the only reversed visual footage in the video. Although somewhat surreal, the overall affect is calming as the piano fades out, with Yorke drifting off to sleep as the screen turns to black.

The music and video for "Daydreaming" is a compelling example of how affect is mirrored musically and visually, with abstraction of music and visuals contributing to the sense of a self-contained, dream-like "secondary world". Distortions of linear time, narrative and innumerable locations in the video combine with the music to inject a sense of unending cyclic continuity throughout, providing an illusionary, disorienting experience of time and space in suspension. The crossing of thresholds, such as the endless passing through doorways throughout the video also cannot be discounted. Transformative effects of liminal experience arise in these transitional zones between inside and out, day and night, waking and sleeping that are especially conducive to imagination and creativity. Conceptually, it is of interest to observe how closely Anderson's completed video maps dynamic changes in the music and how much of this would have been intuitive. Music videos are a more overt example in popular culture of where possibility for correspondence between art forms occurs, which can be seen in many forms of art in which the human body interacts dynamically within a spatial environment.

All of the exemplars provided here for me illustrate suspended experience as expressed through artworks, and all contain aesthetic elements that I have found to appear consistently in artworks that impart a sense of suspension. Brian Eno's systems-based approach to the creation of sound worlds as contained ecologies emphasising change through repetition, abstraction and a focus upon timbre reflect my own observations of suspension in sound. James Turrell's creation of designated spaces to experience the materiality of light such as his *Skyspaces* (1974–) resonate with my own experiences of suspension in light and also bear some resemblance to Eno's designed spaces such as *Quiet Clubs* (1986–2001), which I examine further in Chapter 4.3.2. Radiohead's enthusiastic adoption of

unusual approaches to timbre, irregular and often insistent time signatures and frequently unorthodox harmonic shifts are all qualities I find compelling and common among popular music that imparts for me a feeling of suspension.

The following section outlines the philosophical frameworks I have found useful in my analysis of the temporal and spatial aspects of suspended experience, including Foucault's theory of heteretopia, the Japanese concept of Ma, the threshold experience of liminality and importantly for this investigation, the philosophy and methodological application of phenomenology.

## 2.3 Philosophical frameworks

The scaffold outlined below draws on philosophies that with varying degrees contribute to my definition of the idea of suspended experience. All are theories of instances of embodied perception where there is a sense of moving into and occupying a between or alternate space, and all are marked by a sense of spatio-temporal suspension in some form. They acknowledge the creative potential latent within these spaces, as well as foregrounding cross-modal aspects of sensory modes of perception, particularly in regard to sound and light.

### 2.3.1 Phenomenology

Phenomenology provides the overarching philosophical and methodological framework for this enquiry. As both philosophy and practical method, the phenomenological view strives to describe lived experience as richly and vividly as possible. Given the nature of suspension and its somewhat intangible nature, phenomenology provides a method of coming to understand the experience directly within a theoretical framework that prioritises embodied responses before analysis and conceptualisation.

As conceived by Edmund Husserl and expanded upon by Heidegger and Merleau-Ponty in the first half of the 20<sup>th</sup> century, the term phenomenology literally refers to the “study of presences and appearances” and summarised by Bowman (1998) as:

a ‘first philosophy’ whose concern is to elucidate the primordial ground for human knowledge and experience before it becomes overlaid with conceptualization, systemization, abstraction and reason. (p. 254)

Husserl’s conception of phenomenology was a reaction against prevailing rationalist and positivist thought of the early 20<sup>th</sup> century that allowed little room for experiences unable to be explained through reasoned analysis, deduction or logic. Phenomenology provided a way of examining first-hand experience without first asking why or how a particular phenomenon occurs, but rather describing its occurrence as richly and comprehensively as possible. For Husserl, this was a viewing of the world “from the natural standpoint”, as expressed in the first chapter of *Ideas: General Introduction to Pure Phenomenology* (1931):

I am aware of a world, spread out in space endlessly, and in time becoming and become, without end. I am aware of it, that means, first of all, I discover it immediately, intuitively, I experience it. Through sight, touch, hearing, etc., in the different ways of sensory perception, corporeal things somehow spatially distributed are *for me simply there*, in verbal or figurative sense ‘present’, whether or not I pay them special attention. (Husserl, 1931/2013, p. 101, original emphasis)<sup>3</sup>

For Husserl, the natural world as presented to consciousness is perceived as constant, and although always evolving and changing “remains one and ever the same. It is continually ‘present’ for me, and I myself am a member of it” (p. 103). Phenomenology takes the view that a conscious, sentient being cannot be considered apart from the world in that they are always conscious of something in that world, and being part of it, subjective and objective experience cannot be considered as separate. In this respect, phenomenology distanced itself from Cartesian methods of analysis that define a division between the mental and physical. Although Husserl admired the logic and method of René Descartes’ *cogito* of systematic doubt (“I think, therefore I am”) he saw this ultimately as a means to an end, an essential truth void of sensory perception.

According to Husserl, phenomenology’s purpose was to discover the *essential* nature of things, to know the world “more comprehensively, more trustworthily, more perfectly than the naïve lore of experience is able to do” (p. 106). Specifically, phenomenology foregrounds and examines human embodied responses to sensory experience, setting aside signification, symbolism or meaning. Therefore, as a philosophy that seeks to account for the nature of lived experience, phenomenology provides a foundational start point for the analysis and reception of creative outputs.

Husserl’s method for the observation of phenomena is that of *epoché* or “bracketing”: “a temporary abstention from judgement in order to allow total attention to the objects and processes of consciousness as they exist in and of themselves” (Bowman, 1998, p. 257). This method of suspending or temporarily

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<sup>3</sup> The original edition of *Ideen zu einer reinen Phänomenologie und phänomenologischen Philosophie* was published in 1913. An English edition was published by Allen and Unwin in 1931 with a translation by W.R. Boyce Gibson and republished by Routledge in 2002, 2012 and 2013. All quotes are from the 2013 edition.



setting aside all presupposition of what an object may constitute or signify enables an emergent consciousness of phenomena through the “*richness and fullness of the experientially given*” (p. 255, my emphasis). Husserl’s approach was adapted by *musique concrète* pioneer Pierre Schaeffer in his conception of the “sound object” (*objets sonores*) or the perception of a sound when isolated from its source, and the method of bracketing sound, which he termed *écoute réduite* or “reduced listening” (1966/2017). Schaeffer’s method is expanded upon in the methodology section, with counter arguments to Schaeffer’s ideas provided by Brian Kane and Suk-Jun Kim in chapter 4.2.2.

Husserl’s method for observing phenomena is applicable to my focus on suspended states in both my own audiovisual exploration and those of participants in reception tests. Bowman frames phenomenology in relation to the experience of music:

...the phenomenological method typically resists efforts to explain what music is 'about', resembles, symbolises, or is useful for, preferring instead to describe as richly as possible what music itself says, how music is experienced. Instead of explaining, it describes. (1998, p. 255)

As a philosophical approach, phenomenology is readily transferable to the examination of perceived phenomena, whether this be visual, auditory or a combination of sensory modalities. It is notable that Husserl did not differentiate between a physical object and that which exists in the mind: both are available to consciousness, and both involve perception. This consciousness of something other than oneself, what Husserl terms “intentionality”, is a crucial aspect in examining suspension as both a felt experience and one involving imaginative thought, as intentionality gives equal weight to perception whether manifest in the real world or the imagination (Husserl, 1931/2013, p. 241). Husserl’s objective was for phenomenology to be an eidetic science of *essential being* by establishing a “knowledge of essences” and he was keen to differentiate it from psychology as the “science of realities” (1931/2013, p. 44).

### Cross-modal characteristics of phenomenology

This research project argues for and explores a cross-modal audience response in suspended states that is across both aural/embodied and visual sensory modalities. Several authors of phenomenology have addressed cross-modal aspects of the phenomenological approach, which are detailed here.

F. Joseph Smith (1979) employed a phenomenological approach to music analysis, observing cross-modal associations between the auditory and visual senses. He argued for an *akumenal* or auditory approach, finding Husserl's eidetic reduction via the use of the Greek term *eidos*, the essence "of any sort of phenomenon, whether visual, haptic or audial" useful, but unfavourably biased towards the visual (p. 166). Smith suggested instead that we consider a *tónos* in regard to music or even an *echos* "that describes things not only as seen but as felt and heard...echos takes in what we call the primordial world, as it sounds and swells all about us and within us" (p. 168). Smith advanced that:

In postulating a primordial echos, as possibly more convincing to musicians and musicologists, we need not thereby imply that it is a substitute for the *eidos*.

Merleau-Ponty is of service at this point, for it was he who wrote of a *syn-esthesis*, which would take in both the visual and the audial. And thus it is possible to 'see sound' and to 'hear sight,' strange as this may sound. (1979, p. 171, original emphasis)

Smith suggested that unlike the "colour-music" experiments of composers such as Scriabin, synesthesia is exemplified in hybrid artforms such as opera, although he was keen to differentiate this from overtly representational works such as Beethoven's *Pastoral Symphony* (1979, p. 171). For Smith, this synesthetic approach to phenomenology is more apparent in the writings of Maurice Merleau-Ponty and Mikel Dufrenne than Husserl, especially given the first's focus on the body as a site of experience. Like Merleau-Ponty, Smith advocated for a return to the bodily experience of music to discover meaning in both creation and performance but argues it is music as active, engaged experience that is the *work*, not the result. Drawing from Husserl's idea of intentionality, Smith observed that:

... in order to listen to either spoken language or to musical sound, we have to 'lend our ears'. Listening is not merely passive reaction; it is its own kind of activity. It has its own kind of intentionality....In sound the voice of the music shapes itself and presents itself bodily to us as hearers. It is there *as given*; it is not merely a question of sense data affecting our audial apparatus. (1979, p. 111, original emphasis)

Like Husserl, Smith considered the divisions of mind and body to be artificial constructs, and the experiencing of music as affecting the entire body, not just the senses or intellect. He suggested that instead of employing “aesthetics” as a “metaphysical remnant of the past” that we consider an “*aesthesis*” or “the *feeling response* of a person to the experience of a work of art” (1979, p. 207, original emphasis). For Smith, this “bodily” response “must not be understood only in a sense of a physical or physiological response” but as “one living experiencing unit” (1979, p. 207). His observation supports my research focus on the nature of suspension as inherently corporeal: there is an intention and fascination in suspended experience that extends to the entire body.

By employing a phenomenological approach to aesthetics, Mikel Dufrenne (1973) also recognised the primacy of the body in relation to spatial and temporal constructs. In examining musical work, Dufrenne posits that perception is not passive, nor simply a matter of a perceiving object/subject response, but an interrelation between the aesthetic object and the receiver:

...we are disturbed and moved by the harmony of music, and even more so by its rhythm—i.e., the organization of *movement within us* which corresponds to sound or, more precisely, the means by which *sound is constituted as sound in us* (1973, p. 251, my emphasis).

Noting the “rhythmic schemata” at play in music, Dufrenne (1973) suggests that these “will awaken certain echoes in the body. We are most conscious of the movement of an object when the *movement is within us*” (p. 260, footnote 18, my emphasis). Dufrenne suggests the body itself attains its own intelligence:

The transcendental activity which intellectualism assigns to the mind can also be attributed to the body...we may talk of a corporeal intellection. As living and as mine, the body itself is capable of knowledge. (1973, p. 337)

Dufrenne (1973) introduces the concept of the “aesthetic object” containing and affording spatiotemporal expressions of movement as human experience (p. 241). Given that aesthetic experiences are often understood through felt sensation, as much as they are audibly and visibly perceived, the notion of the “aesthetic object” here is valid. However, Dufrenne (1973) diverges from Smith (1979) in that the aesthetic object possesses its own spatiality and temporality, and in this respect,

the artwork becomes in effect a “quasi-subject capable of a world which it expresses” (Dufrenne, 1973, p. 248). Importantly, the quasi-subject is only considered complete when perceived by and interrelating with the spectator or receiver which, for Dufrenne, defines the aesthetic experience itself:

The aesthetic object is above all the apotheosis of the sensuous, and all its meaning is given in the sensuous. Hence the latter must be amenable to the body. Thus the aesthetic object first manifests itself to the body, immediately inviting the body to join forces with it....It is primarily our body that is moved by rhythm and that resonates with harmony. It is through the body that the aesthetic object is first taken up and assumed in order to pass from potentiality to act. And it is also through the body that there is a unity of the aesthetic object. (Dufrenne, 1973, p. 339)

Further, these characteristics can be imparted to other artforms:

This spatiality, experienced by the body on hearing the music, cannot be given a definite form or measured. No spatial representation intrudes on or alters the purity of the music. But analogies and correspondences are at least possible between musical and plastic arts, based on the secret affinity between the temporal and the spatial. (Dufrenne, 1973, p. 272)

Don Ihde (2007) also observes musical listening as a “dense, embodied experience” (p. 155). Noting the immediacy of sensual response to music, he suggests that:

music is not different from other sound presences, although it accentuates and emphasizes possibilities in its own unique way. Its ‘reference’ is not things, but it enlivens one’s own body. To listen is to be dramatically engaged in a bodily listening that ‘participates’ in the movement of the music. (Ihde, 2007, pp. 155–56)

Ihde (2007) considers that the body participates in a “dance” with music, not only literally but as an “enticement to bodily listening”, which entails everything from actual dance to an internal “dance of rhythms and movements felt bodily” (p. 156). Like other phenomenologists, Ihde considers the mind/body split an artificial construct:

It is my subject-body, my experiencing body, which is engaged, and no longer is it a case of a deistic distance of ‘mind’ to ‘body.’ The call to dance is such that

*involvement and participation* become the mode of being-in the musical situation.  
(Ihde, 2007, p. 156, original emphasis)

Like Smith, Ihde (2007) observes overlap between visual and auditory realms. Noting that vision and sound often tend to be “atomized” and regarded as separate, he suggests there are many instances where the two modalities pair (pp. 49–50). Ihde discerns that in the visual realm the static, unmoving object is effectively “mute” and in the auditory realm objects are rendered “invisible” unless their presence is indicated by movement. Ihde uses the example of wind: “No matter how hard I look, I cannot see the wind, *the invisible is the horizon of sight*. Listening makes the invisible *present* in a way similar to the presence of the mute in vision” (p. 51, original emphasis). This auditory signalling of visual presences, or “anticipatory clues for ultimate visual fulfillments” (p. 54) highlights not only the importance of sound in perceiving the physicality of external objects and the sensation of their movement but also underscores the interdependence of sensory modes in this perception.

Cross-modality in a phenomenological “experiencing body” affords us potential for suspended experience. In particular, Dufrenne’s (1973) aesthetic interrelation between artwork and receiver has aligned with and informed this current research into suspended experience. Specifically, and key for this research project, is that there is a union with the artwork—almost an immersion—to the extent that one becomes part of it; acquiring an intimate, bodily knowledge of the artist’s intent. The emergent experience inhabits a border area between conscious and unconscious thought, sleep and wakefulness, where reception is particularly acute to certain types of artwork and music that possesses characteristics conducive to suspended experience. Similarly, Dufrenne’s observance of alternation between perception and bodily sensation in aesthetic experience, or the “perpetual oscillation between the reflective and the unreflective, the perceived and the lived – an oscillation best exemplified in aesthetic perception” suggests that imagination “somehow creates the liaison between mind and body” (p. 345):

Reflection prepares the way and then clarifies feeling. Conversely, feeling first appeals to and then guides reflection. This alternation between reflection and feeling designates a dialectical progress toward an increasingly complete comprehension of the aesthetic object. (Dufrenne, 1973, p. 423)

This reflective and dynamic oscillation of the perceiving body and mind as an integrated whole, informs my research and practice toward the experience of suspension as relating to both aesthetics and imagination. As I will detail later in this chapter, this has parallels in literature on affect and ecological perception.

In summary, a phenomenology-based approach has advantages in addressing an aesthetic investigation into the perception of spatio-temporal auditory and visual phenomena, particularly where cross-modal tendencies may be perceived. The value in adopting the bracketing approach provides a necessary objectivity to examine the essence of phenomena, whichever sensory mode is engaged. Bowman notes that in employing a phenomenological approach to the experience of time and space “the act of bracketing requires the suspension of everyday assumptions and associations so as to focus upon ‘lived’ time and ‘lived’ space” and that lived time consists of an “infinite succession of ‘nows’, rather than in a past, present and future...time is always now” (1998, pp. 257–258).

From my own experience, the acts of both creativity and reception as explored in this thesis are rarely perceived in terms of clock time but rather as a moment-to-moment simultaneity, and in this regard phenomenology as both a philosophical approach and a source of research, creation and audience response methods has considerable benefits in this examination of suspension.

### 2.3.2 Liminality

Liminality can be understood both as a threshold or transitional space, or as a psychological mode of consciousness. The word is derived from the Latin *limin* meaning threshold, in the respect of a doorway to be crossed, with the liminal stage defined as a period of transition and transcendence where the initiate may feel, according to Thomassen (2006), “nameless, spatio-temporally dislocated and socially unstructured” (p. 322).

I will first draw from liminality’s basis in early 20<sup>th</sup> century anthropology, as it demonstrates spatial and temporal aspects of how human activity and culture is intimately connected to environmental factors. As proposed by anthropologist Arnold Van Gennep in *Rites de Passage* (1909/1960), liminality is an experience of time and space *in suspension* and as a site of transition and potential

transformation. When devising categories for observed rites and social rituals, Van Gennep defined “liminal” as the central stage in a threefold structure, in what were considered primitive societies of the time:

I propose to call the rites of separation from a previous world, *preliminal rites*, those executed during the transitional stage *liminal* (or *threshold*) *rites*, and the ceremonies of incorporation into the new world *post-liminal rites*. (1909/1960, p. 21, original emphasis)

According to Van Gennep (1909/1960), our existence is inextricably linked to naturally occurring forces; he notes that phases of the moon, seasons, equinoxes and solstices all display intermediate stages. He observes that “man’s life resembles nature, from which neither the individual nor the society stands independent” (p. 3). Van Gennep’s observations about spatial and temporal aspects of the liminal stage in relation to the natural environment are evocative in their scope, in that he noted human inter-dependent relations with the natural environment: “the universe itself is governed by a periodicity which has repercussions on human life with stages of transition, movements forward, and periods of relative inactivity” (p. 3).

Van Gennep (1909/1960) observes that a threshold stage in rites of passage acknowledges both a suspension of linear time during the liminal state and a reflection of cyclic events occurring in nature. Building on Van Gennep, Victor Turner suggested rites of passage could be found in all societies, though tend to “reach their maximal expression in small-scale, cyclical societies, where change is bound up with biological and meteorological rhythms and occurrences” (1967, p. 93).

Van Gennep (1909/1960) observes the spatial characteristics and importance of “neutral zones” during the “territorial passage” between physical or imagined territories and the “magico-religious aspect of crossing frontiers” (pp. 15–18):

Whoever passes from one to the other finds himself physically and magico-religiously in a special situation for a certain length of time: he wavers between two worlds. It is this situation which I have designated a transition...this symbolic and spatial area of transition may be found in more or less pronounced form in all the ceremonies which accompany the passage from one social and magico-religious position to another. (Van Gennep, 1909/1960, p. 18)

Turner (1967), reinterpreting Van Gennep's work in the 1960s, observed the "ambiguity and paradox" of the liminal stage, noting it to be "a realm of pure possibility whence novel configurations of ideas and relations may arise" (p. 97). He expanded Van Gennep's definition of the liminal state to include, according to Thomassen (2009) "liminal experiences in modern consumerist societies [that] have been replaced by 'liminoid' moments, where creativity and uncertainty unfold in art and leisure activities" (p. 15). However, he considers that "liminoid experiences are optional and do not involve a resolution of a personal crisis or a change of status. The liminoid is a break from normality, a playful as-if experience, but it loses the key feature of liminality: *transition*" (p. 15). Thomassen (2006) considers that Turner's extended version of liminality "can refer to any 'between or betwixt' situation or object" and may "include both a personal and collective liminality, temporal as well as spatial" (pp. 322–323). Turner's (1967) notion of the "liminoid" state in its spatial and temporal contexts can be employed as a threshold concept applied to time-based arts such as music, dance, video and site-specific artworks, in particular where an artist/performer or audience member physically moves into a different zone or space of experience. However, the *transformative* aspect of advancing from everyday existence into a new realm of possibility suggests the imaginative and creative aspect that I relate to suspended experience. I aim to bring this into the final stage of this project.

### **A liminal exemplar: Bill Viola's *Ocean Without a Shore* (2007)**

The transformative aspect of the liminal state has been explored in the contemporary video work of Bill Viola, as observed by Holly Rogers (2013). In *Ocean Without a Shore* (2007), conceived as a site specific work in the Church of St Gallo for the 2007 Venice Biennale, Rogers notes that Viola employs three video screens, each portraying pixelated greyscale footage of a figure emerging from a darkened background in slow motion, gradually approaching the camera. As the figures draw closer, each encounters an invisible wall of water, at which point the image transforms into vivid, high definition colour, a change that "propels the characters into the visitor's space with alarming acuity" (Rogers, 2013, p. 527). Viola has said of this work that "The crossing of the threshold is an intense moment of infinite feeling and acute physical awareness. Poised at that juncture, for a brief instant all beings



can touch their true nature, equal parts material and essence” (Viola, in Baker, 2014). Rogers considers that the “fragility of these borders is also articulated through the passage of each of the characters”, however notes that the audience “although feeling thoroughly immersed in the work and its context, is not asked to participate physically. Although the work is certainly influenced by its audience, as is every performance, it is not *performative*” (2013, p. 527, original emphasis). She suggests that although pieces like this “tend to be more physically self-contained”, the “activation of space and the audio-visual relationships enabled within it are nevertheless articulated” (p. 528). Similarly, I feel that the application of a liminal aesthetic in a major creative work can be realised through a mix of performance and video projections in combination with lighting to produce an experience of between. Although an audience may not interact directly, their presence “within” the work ensures their tacit participation.

Van Gennep’s (1909/1960) “wavering” between two worlds, coupled with ideas pertaining to time, space and transformation through threshold experiences, is further taken up in discussions of the Japanese concept of *Ma* and of heterotopia. The notion of wavering and “pure possibility” has also provided the impetus for a creative exploration and designing of the suspended state, which is expanded upon in the methodology in Chapter 4. The final performance work, *States of Suspension* (2018), will provide insight into what I believe to be liminality in the creative process, as I consider the threshold nature of the liminal zone to be analogous in many respects to creativity in improvisation and Turner’s (1967) “realm of pure possibility” which itself has parallels with flow experience which I will expand upon in Chapter 3.

### 2.3.3 *Ma*

The Japanese word *Ma* according to Richard Pilgrim (1986) simply indicates “an interval between two (or more) spatial or temporal things and events” and in Western visual terms would be more often thought of as negative space (p. 255). However, Pilgrim is quick to point out that *Ma* “clearly begins to take on a relational meaning – a dynamic sense of standing in, with, among, or between” (p. 256). To think of *Ma* in only a physical sense is limiting, especially when considering the

common Japanese conception of space and time as unified (space-time). As Japanese architect Isozaki Arata states:

in Japan space and time were never fully separated but were conceived as correlative and omnipresent...space was perceived as identical with the events or phenomena occurring in it; that is, space was recognized only in its relation to time-flow. (1979, p. 13)

This conception of time and space as interrelated can be attributed as far back as the Chinese philosophy of Taoism and can also be seen in aspects of Buddhism and Shinto. However, it is Ma's dynamism, as a space to be *interacted with* or according to Pilgrim (1986) its "pregnant nothingness" that reveals its experiential nature (p. 259). A passage from the Taoist writing, the *Tao Te Ching* illustrates this concept:

Thirty spokes share one hub;  
Adapt the nothing therein to the purpose in hand,  
*and you will have use of the cart.*  
Shape clay into a vessel;  
Adapt the nothing therein to the purpose in hand,  
*and you will have the use of the vessel*  
Cut out doors and windows in order to make a room;  
Adapt the nothing therein to the purpose in hand,  
*and you will have the use of the room*  
Therefore profit comes from what is there;  
*Usefulness from what is not there.* (Lao Tzu, 1963, my emphasis)

Pilgrim (1986) observes the pictogram which designates Ma (Figure 2.3) consists of two elements, that of a gate or doorway (*mon*) and an inner character meaning either the sun (*hi*) or the moon (*tsuki*). Thus, the character suggests an image of light shining through a doorway, or symbolically "the gate itself as representing the things or phenomena and events of the world, the opening in the gate becomes a *ma* or interval between" (Pilgrim, 1986, p. 258, original emphasis). Pilgrim suggests that this principle of Ma "operates at and bridges the boundaries between the traditional and contemporary arts, between religion and art, between one religion



Figure 2.3 A pictogram of Ma

and another, and between religion and culture” and that “the deeper meanings of *ma* can be found most explicitly in the arts” (p. 257, original emphasis). Sanford Kwinter (2004) likewise sees *Ma* as “dynamism in repose, an interval or gap between two things that does not separate but binds and relates” and interestingly observes syncopation and layering as aesthetic tendencies inherent in “space-time” (para. 3–5). Jonathan Chenette (1985) observes that “*Ma* in its aesthetic sense...refers to intervals of space and time that become meaningful only when filled with motion” (p. 2). As a concept that deals in not only the conceptualization of space and time aesthetically but operates in a dynamic, active sense, the idea of *Ma* bears relation to my conception of suspended experience and has parallels with the threshold concepts contained within liminal experiences. Notably, Pilgrim observes that *Ma* “takes us to a boundary situation at the edge of thinking” (1986, p. 256).

Importantly, it is also the *cyclic* nature of *Ma* contributing to a sense of suspended time that further underscores the relation between *Ma* and the liminal state.

Composer Toru Takemitsu frequently employs the concept of *Ma* in his compositions. Chenette (1985) observes that in Takemitsu’s piece *Garden Rain* (1975) the composer makes use of cyclic events “on a number of different levels”, noting that;

cycles of sustained chords connected by silence is itself the end of a larger cycle covering the piece as a whole; and the return of silence...at the end of the piece completes a cycle encompassing higher level events that occurred before the piece began and after it ended. (Chenette, 1985, p. 16)

He notes that the “*ma* or silent intervals of waiting between the phrases in this example, require the listener to make connections and become part of the cycles of the music” (Chenette, 1985, p. 15, original emphasis). In this respect, Chenette is suggesting that as listeners we are engaged in an active and ongoing process of creation, not just passively receiving music, with periods of quiet “which depend for their meaning on the bridges built in the mind of the listener” (p. 16). For Chenette, the act of incorporating a sense of *ma* into music is creative engagement, the opening of a space of possibility, which “reflect[s] the aesthetic quality of *ma*, the quality of intervals inviting human involvement” (p. 16, original emphasis).

Cheryl Stock (2005) also observes “the notion of a gap into and from which something can emerge...is a key concept in various Asian philosophies and cultural perceptions” (p. 3) and notes the influence of cyclic concepts throughout Asian philosophy, with “cycles of expansion and collapse” evident in Hinduism and Buddhism (p. 4). The idea of the harmony of opposites, evident in Buddhism but also in the Taoist Chinese philosophy of *yin/yang*, is not just a symmetry of dual elements but are “unified, interactive and in an infinite process of transformation”:

It is in the place and time of transformation that the invisible gap or ternary notion of *yin/yang* exists – as an invisible area of possibilities, creation and essences out of which something else/new may emerge. (Stock, 2005, p. 7)

She notes many Japanese and Chinese arts aspire “to capture the essence of things and the ‘betweenness’ of space and time” (Stock, 2005, p. 8). It is this sense of betweenness that this research project, including the creative outcomes, strives to capture, and to this end I employ a range of musical and visual techniques, including the use of extended periods of space, stillness and cyclic events on micro and macro levels, which I will detail in the methodology section of the thesis.

### **2.3.4 Heterotopia**

I have discussed the roles of the embodied participant and the aesthetic object in liminal states and the potentialities which open up between them. Michel Foucault’s (1986) theory of heterotopia, or “other spaces”, brings an understanding of the role of designed environments in affording liminality and suspended experience, by employing a shifting metaphor from the chronological to one of spatial flows in and between sites that are “defined by relations of proximity between points or elements” as if plotted on a grid, in a delimited, formalized manner (p. 23):

The present epoch will perhaps be above all the epoch of space. We are in the epoch of simultaneity: we are in the epoch of juxtaposition, the epoch of the near and far, of the side-by-side, of the dispersed. (Foucault & Miskowiec, 1986, p. 22)

In the prescient essay “Of Other Spaces”, which was originally presented as a lecture in March 1967, Foucault observes that “life is still governed by a certain number of oppositions that remain inviolable” including binaries of public and private, family and social and leisure and work spaces, suggesting that they are still

“nurtured by the hidden presence of the sacred” (Foucault & Miskowiec, 1986, p. 23). He also proposes sites “that have the curious property of being in relation with all the other sites, but in such a way as to suspect, neutralize, or invert the set of relations that they happen to designate, mirror, or reflect” (p. 24). Arguing against equivalence with utopias (“utopias are sites with no real place” and “fundamentally unreal”), Foucault articulates “real places” that could be considered “counter-sites”:

a kind of effectively enacted utopia in which the real sites, all the other real sites that can be found within the culture, are simultaneously represented, contested, and inverted....Because these places are absolutely different from all the sites that they reflect and speak about, I shall call them, by way of contrast to utopias, *heterotopias* (Foucault & Miskowiec, 1986, p. 24, my emphasis).

Fundamentally for Foucault (Foucault and Miskowiec, 1986), heterotopias are spaces that exist outside those of normal social functioning and afford an inversion of social norms, or normalised experiences, through temporal and spatial difference. He identifies two main categories: “crisis heterotopias” evident in “primitive” societies as “privileged or sacred or forbidden places”, and “heterotopias of deviation” where “individuals whose behaviour is deviant in relation to the required mean or norm are placed” (p. 25). Heterotopias also have thresholds. Echoing Van Gennep (1909/1960), Foucault observes that “Heterotopias always presuppose a system of opening and closing that both isolates them and makes them penetrable” and that to gain access to these places, the individual “has to submit to rites and purifications” (Foucault & Miskowiec, 1986, p. 26).

Foucault (Foucault and Miskowiec, 1986) discusses aspects of temporal perception in heterotopia: “heterotopias are most often linked to slices in time” and begin to “function at full capacity when men [*sic*] arrive at a sort of absolute break with their traditional time” (p. 26). He observes museums and libraries to be “heterotopias of indefinitely accumulating time” whilst those that are “fleeting, transitory, precarious” such as festivals, fairgrounds and circuses offer temporary suspension from the everyday (p. 26). Like Ma, heterotopias “have a function in relation to all that remains...between two poles” and their role is to create “a space of illusion that exposes every real space...as still more illusory” (p. 27). Foucault uses a final analogy of a boat or ship as a “floating piece of space, a place without a

place...given over to the infinity of the sea” that represents “the greatest reserve of the imagination. The ship is a heterotopia *par excellence*” (p. 27, original emphasis). Foucault’s theory of the heterotopia is also suggestive of aesthetic strategies for the creative development of the major performance work, for example, attributes such as a boundary, border or threshold in a ritualized entry, modified behaviours in the heterotopia and altered perceptions of time.

### A heterotopic exemplar: Burning Man

I would argue that the annual Burning Man Festival is a contemporary heterotopia. Originating from the symbolic burning of a wooden effigy on a San Franciscan beach during winter solstice of 1983, it has grown to become a temporary yet entirely self-supporting society of over 70,000 people, held over five days each year in the Black Rock Desert in Nevada. Burning Man is notable for its adherence to ideals of alternative culture and radical self-expression, where there are no spectators, only participants; attendees are encouraged to explore their own creativity in whatever means they see fit, without fear of judgement or recrimination. According to the *Burning Man 2018 annual report*, the event’s vision is to:

bring experiences to people in grand, awe-inspiring, and joyful ways that lift the human spirit, addresses social problems, and inspire a sense of culture, community, and civic engagement. (N/A, 2018)

Among the ten principles devised by founder Larry Harvey in 2004 are “radical inclusion, gifting, decommodification, leaving no trace, radical self-expression, communal effort, civic responsibility, radical self-reliance, participation and immediacy” (2004). The event is notable for its rejection of consumerism and the attendant waste (food and merchandise etc.) and exchanges of cash during the event are strongly discouraged. The ideal of “radical inclusion” excludes no individual, and it is expected that each participant partake fully in “radical self-expression” to gain the most from the event. Everyone is required to support themselves, including food, water and shelter. The ritual burning of an effigy of a man at the culmination of the event is symbolic of the rejection of “the man” or authority inherent in modern society. Burning Man is a “counter-site” where “all the other real sites that can be found within the culture, are simultaneously represented,

contested, and inverted”, and can be seen as a “heterotopia *par excellence*” (Foucault & Miskowiec, 1986). As suggested by Allegra Fortunati (2005) Burning Man represents “a willful [*sic*] jumbling of our ordered and fragmented world”; despite the myriad disparate groups represented, “none of these utopian types eclipses any of the others; rather, they operate in a state of peaceful co-existence” (p. 159). In this respect, the event is, in Foucault’s words, “capable of juxtaposing in a single real place several spaces, several sites that are in themselves incompatible” (Foucault & Miskowiec, 1986, p. 25) and has sustained this over a successful 37-year history.

Burning Man perhaps requires a new category of heterotopia, being both a “heterotopia of deviation” but also meeting criteria of those that are “fleeting, transitory, precarious” (pp. 25–26). One of the aims of Burning Man is to question consumerist society by providing a temporarily unorthodox alternative; as such it represents a model that seeks to derive profound pleasure and sensual experience in the unusual and innovative, without resorting to easy gratification or commercial gain. The event provides an ideal for reimagining how an alternate society could work, a place of Ma-like creative possibility and potential, and of transformation through liminal experiences.

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The philosophical scaffold outlined above contributes to the idea of suspended experience. All concepts here are representative of experience where there is a sense of moving into and occupying a between or alternate space, and all are marked by a sense of spatio-temporal suspension in some form. The creative potential within these spaces can be observed, as well as cross-modal aspects of sensory modes of perception, particularly in regard to music, sound and vision.

In the following chapter the suspended experience will be elaborated on through a combination of perceptual, psychological and ecological frameworks that give further insight into this phenomenon.

## Chapter 3 Literature review: perceptual and psychological frameworks

### 3.1 Overview

This chapter sets out current perceptual and psychological theories relating to time and space, including the idea of affect as felt experience and its role in aesthetics. Embodied cognition and the role of mirror neurons in aesthetics are also considered. These are complemented by ecological approaches to visual and musical perception, placing the enquiry within the context of environment. The chapter concludes with thoughts on the role of abstraction and perception of abstracted phenomena in the environment leading to realms of imagination in suspended experience.

#### 3.1.1 Affect

The concept of affect as felt experience is fundamental to understanding the neurological and aesthetic basis of suspended experience. For this project, affect is understood as articulated by Brian Massumi in the introduction to Gilles Deleuze and Felix Guattari's *A Thousand Plateaus* (1987):

an ability to affect and be affected. It is a prepersonal intensity corresponding to the passage from one experiential state of the body to another and implying an augmentation or diminution in that body's capacity to act. *L'affection* (Spinoza's *affectio*) is each such state considered as an encounter between the affected body and a second, affecting, body. (Massumi, 1987, p. xvi)

Massumi writes that Deleuze and Guattari's conception of affect, "a prepersonal intensity" is derived in part from Part III of Spinoza's *Ethics*, "Concerning the Origin and Nature of Emotions". Originally published in 1677, Spinoza's rejection of the mind-body dualism of Descartes repositioned the human body as a unified, non-divisible entity and defined "the affections of the body by which the body's power of activity is increased or diminished, assisted or checked, together with the ideas of these affections" (Massumi, 2002, p. 278). For Spinoza, affections are intrinsically tied to emotion by *activity* for which there is distinct cause and effect: "if we can be the adequate cause of one of these affections, then by emotion I understand



activity, otherwise passivity” (p. 278). Massumi, drawing on Deleuze and Guattari’s use of the term, extends the concept of affect to that of an “intensity”, transmittable between bodies, preceding thought or emotion:

Intensity is embodied in purely autonomic reactions most directly manifested in the skin—at the surface of the body, at its interface with things. Depth reactions belong more to the form/content (qualification) level, even though they also involve autonomic functions such as heartbeat and breathing. The reason may be that they are associated with *expectation*. (Massumi, 2002, p. 25, my emphasis)

This anticipatory aspect of affect, where the body has an expectancy toward action, is important in understanding the role of affect in suspended experience. Massumi observes affect as preceding emotion: “the primacy of the affective is marked by a gap between *content* and *effect*: it would appear that the strength or duration...is not logically connected to the content in any straightforward way” (2002, p. 24, original emphasis). He also notes the stasis inherent in this “state of suspense”:

Intensity is qualifiable as an emotional state, and that state is *static*—temporal and narrative noise. It is a *state of suspense, potentially of disruption*. It is like a temporal sink, a hole in time, as we conceive of it and narrativize it. It is not exactly passivity, because it is filled with *motion, vibratory motion, resonation*. And it is *not yet activity*, because the motion is not of the kind that can be directed...toward practical ends in a world of constituted objects and aims. (Massumi, 2002, p. 26, my emphasis)

Eric Shouse (2005) further clarifies this position. Although sometimes used interchangeably with emotion, “affect is not a personal feeling. Feelings are *personal* and *biographical*, emotions are *social*, and affects are *prepersonal*” (para. 2, original emphasis). Noting that affect is “the body’s way of preparing itself for action...by adding a quantitative dimension of intensity to the quality of an experience”, Shouse observes that infants display emotion directly from affectual impulses, having “no language skills with which to cognitively process sensations, nor a history of previous experiences from which to draw”, effectively bypassing feeling altogether (para. 5). For the infant, affect is innate and the display and the control of emotion is learnt as we transition from childhood to adulthood (para. 6). This further suggests that as a pre-conscious intensity, affect occurs early in development and takes

place before cognition or emotion as it is “unformed and unstructured (abstract)” and “precedes thought” (Shouse 2005, para. 15). But what is the relevance of the intensity of affect to aesthetics, especially in regard to suspended experience?

Daniel Stern (2010) also observes that in the relationship between infants and caregivers, affectual responses, or “vitality affects”, emerge in pre-linguistic infancy as embodied call and response patterns, as the infants mirror learned movement. These in turn trigger neurotransmitters associated with the autonomic nervous system, which are neurologically mapped onto human consciousness and perception. These mappings inform how we are “attuned” in later life to other vitality affects, including aesthetic waveforms, such as those contained within music and the visual arts. For Stern, vitality affects are “the felt experience of force – in movement – with a temporal contour and a sense of aliveness, of going somewhere” (p. 8). Stern suggests as infants, we learn empathy through the mirroring of vitality affects and as we grow, respond via “affect attunement” to “matching and sharing dynamic forms of vitality...across different modalities” including those evident in visual and auditory phenomena (p. 42). Like Dufrenne (1973), Stern observes that “vitality forms [affects] are readily transferable between art forms, in large part because of their meta-modality and potential speed of modulation” (Stern 2010, pp. 78–79). Stern notes vitality affects in the arts tend to “elicit similar felt states regardless of what modality they arise from” and provide opportunity for collaboration across art forms, or what he terms “correspondences”:

‘Correspondences’ between artforms are necessarily created because of the meta-modal nature of vitality forms [affects] that assure a common ability to render similar, but not identical, experiences. The magic lies in pairing the similar with the ‘not exactly the same’. (p. 78)

This interrelation may also help to explain the phenomenon of synesthesia with Stern (2010) observing “cross-modal merging and synesthesias...are initially more common in infancy, and in fact are the norm” (p. 35). This suggests that a response to a particular visual stimulus, say the shimmer of light on the surface of moving water, may have a neurological equivalence in sound, or vice versa—not identical, but similar, and in this sense, recognisable *across* the senses. Stern observes “the time-based arts are largely about the dynamics of experiences” and it is this idea of

the nature of movement as being intrinsic to the perception of music and sound, and the potential for correspondence across sensory modes (Stern, 2010, p. 75) that underpins much of this investigation.

### Abstraction and the shaping of affect

Investigating the evolutionary origins of tonality, Mine Doğantan-Dack (2013) suggests that perceived movement in music may be affect-based abstracted experiences of physical movement, analogous to “patterns of movement that are observed in the context of dynamic natural phenomena” (p. 210). She notes that Western music has a long-held interest in the nature of movement in music and “employing affect-based conceptualizations and terminology has been a frequent strategy in accounting for this phenomenon”, including that of Schenkerian analysis, as part of an ongoing “anthropomorphic tradition” (p. 210). Doğantan-Dack observes a conceptual strategy that accounts for movement perceived in music, including “notions of inertia, gravity and gravitational fields and to forces of attraction”, that explain “the generation of movement in physical and tonal spaces” (p. 211). She notes that “common consensus in recent theory is that we experience and understand tonal movement by metaphorically transferring our embodied experience of physical forces such as gravity into the domain of music”, further implying not only the felt experience of movement in music through affect but also emphasising its *abstract* nature (p. 211).

Doğantan-Dack suggests that “our recognition and identification of certain movement patterns in the physical world...is based on our capacity to generate and experience such patterns subjectively and intersubjectively in an embodied-affective manner” and our ability to recognise these patterns is formed early in life as an *affective schema*, citing studies from Stern (1981, 1985) among others (Doğantan-Dack, 2013, p. 212). Importantly, she notes that in the interactions between infants and caregivers, “sequences of vocal, facial and kinetsic [*sic*] movements...played a central role in the affective – as well as cognitive – evolution of our species”:

These repeated patterns – involving changing intensities, tempos and shapes of multimodal movements accompanied by positive affective states – form the structure of arguably the earliest affective schema humans acquire in life,

representing an affective process that is employed to make sense of the world at a very early stage. For the sake of my argument, I shall call this the *attraction schema* (Doğantan-Dack, 2013, p. 212, original emphasis).

However, she is quick to point out that the recognition of movement patterns in everyday phenomena is not necessarily indicative of an “attraction schema”, rather “that affective understanding is rooted in embodied first-person feelings, and not in the mere observation of the actions and gestures of other agents or of the motions of natural phenomena” (Doğantan-Dack, 2013, p. 213). In other words, our *affective* understandings of the world are formed through active interrelation with others, as “multimodal temporal shapes constituting the schema reflect non-linguistic, intersubjective exchanges or turn-taking” (p. 213). Doğantan-Dack emphasises that to “interpret the motions and dynamic shapes in the world as affectively meaningful, the first-person experience of one’s own embodied feelings appear to be essential” (p. 213). In respect to suspension, I would suggest that our guides in formative experiences, our parents and caregivers, provide a crucial link in aiding us to discover the wonders of the world around us

Doğantan-Dack (2013) observes that an attraction schema “concerns an affective episode that extends in time; as such it is experienced as having a trajectory and a shape” and a possible way of explaining this is through cross-modal and cross-domain mapping (p. 213). She notes that some of the earliest research on spatial and temporal shape in different modalities by Gestalt psychologist and philosopher Christian von Ehrenfels (1859–1932) holds that “each experience we have of a Gestalt or form *in any sensory modality* is cognized as *structurally analogous* to the experience of a *spatial shape*” (p. 214, original emphasis). She also notes that authors such as Stern and Susanne Langer “have argued along similar lines for the existence in our minds of abstract ‘amodal’ forms that we utilize in making sense of the world through different modalities of perception” (Doğantan-Dack, 2013, p. 214). Doğantan-Dack even suggests that “the attraction schema provides the essential basis for developing a *concept* of space that goes beyond the immediate *percept* of space”, moving beyond a physical perception into the conceptual and abstract, which has obvious ramifications not only for the conception and development of music but any arts-based practice working with conceptual space (p. 214). Although

somewhat open-ended, Doğantan-Dack (2013) leaves us with an interesting question as to whether music has provided an abstracted method of conceptualizing and traversing space by means of melodic contour and harmonic movement. This has relevance to this investigation not only in terms of how suspension is perceived in terms of tonality and melodic direction, but also the conceptual space contained within music as it pertains to imagination and how this may transfer in an abstracted sense to the visual realm.

Denis Smalley's (1997) descriptive tool for auditory perception, "spectromorphology", provides further clues as to how sound is perceived in terms of shape and motion (p. 107). Smalley recognised electroacoustic music required a method of description that could take in an increasingly wide array of sounds available to composers, conceiving of spectromorphology "not [as] a compositional theory or method, but a descriptive tool based on aural perception" (p. 107). Acknowledging that "intuitive knowledge of the human physical gesture involved is inextricably bound up with our knowledge of music as an *activity*", Smalley recognised in electroacoustic music that this is sometimes not the case as "there may be no real sounding body involved nor any aurally identifiable causal action supposedly responsible for making the sound" (p. 109, original emphasis). Smalley's spectromorphological approach therefore focuses on intrinsic features *within* the music but also acknowledges extrinsic factors given that music is a "cultural construct" and "an *extrinsic* foundation in culture is necessary so that the intrinsic can have meaning" (p. 110, original emphasis). Drawing on the reduced listening approach of Pierre Schaeffer with whom he studied, Smalley provides an illustration of this push/pull relationship between the identification a sound and the shift of focus to its intrinsic features:

There is quite a difference in identification level between a statement which says of a texture, 'It is stones falling', a second which says, 'It sounds like stones falling', and a third which says, 'It sounds as if it's behaving like falling stones'. All three statements are extrinsic connections but in increasing stages of uncertainty and remoteness from reality. If a listener, elaborating on either statements two or three, comments on qualities and features of the texture as heard within the musical context, then attention turns away from the primarily extrinsic towards special

intrinsic features and therefore *moves more deeply into the particular musical experience* (Smalley, 1997, p. 110, my emphasis).

This perceptual sweet spot that occurs between the identification of a sound and its abstraction contributes what I believe to be between characteristics of sound, in turn contributing to suspended experience. Like Schaeffer, Smalley (1997) observes:

The wide-open sonic world of electroacoustic music *encourages imaginative and imagined extrinsic connections* because of the variety and *ambiguity* of its materials, because of its reliance on the *motion* of colourful spectral energies, its emphasis on the acousmatic, and not least through its *exploration of spatial perspective*. (p. 110, my emphasis)

Smalley also notes that in the intrinsic and extrinsic links from the work itself to the “sounding world outside”, these need not necessarily refer to a sounding experience and may be “based on human physical movement...or environmental experience...sonic motion can suggest real *or imagined* motions of shapes in free space” (Smalley, 1997, p. 110, my emphasis). This acknowledgement of interiority that can be suggested through motion in music is key to understanding the role of suspended experience in imagination and aligns with the phenomenological idea of *directionality* where perception of an object existing in the mind or in the “real” world has equal validity. Smalley defines the intrinsic/extrinsic link between a sound and its apparent source as “source bonding”:

the *natural* tendency to relate sounds to supposed sources and causes, and to relate sounds to each other because they appear to have shared or associated origins. (1997, p. 110, original emphasis)

These source bondings may be “actual or imagined...they can be constructs created by the listener” (Smalley, 1997, p. 110). Smalley notes that although listeners may share a similar experience of these bondings when listening to music, they are also personal and individual: “the bondings may never have been envisaged by the composer and can occur in what might be considered the most abstract of works” (p. 110). Again, this would tend to indicate that despite degrees of abstraction, the natural inclination is towards identifying a sound’s origin, and when this is significantly abstracted or difficult to identify, the mind will attempt to invent a source, drawing on the deep reserves of imagination. Smalley’s perspective on

source bonding is discussed further in Osborn's writing on ecological perception and Young's perception of abstraction in electroacoustic music in chapter 3.1.4.

Eldritch Priest (2013) also investigates affectual response to music in terms of abstraction, or as he places it, where this "concerns the virtual...the imaginary experience of music" (p. 48). Drawing on Susanne Langer's philosophy of feeling, Priest (2013) suggests the use of "abstraction as a mode of access to the domain of potentiality" has particular relevance for the arts, as "they show themselves as elaborate techniques of abstraction and vehicles *for* speculation" (p. 46, original emphasis). Like Ihde (2007), he considers the felt experience of music in the body to be essentially innate, regardless of whether the body appears to be moving or not:

the perception of all music entails some form of somatic comportment...Musical cultures that conduct their engagement around less animated actions, such as sitting quietly and being motionless, are no less bodily. The still body is still a body doing....Its doings simply take place at another level of activity. (Priest, 2013, p. 47)

For Priest (2013), abstraction in forms of music has similarity with other forms of vitality, and echoing Stern, "one gains an understanding of one's capacity to feel the *possibility* of feelings", suggesting that musical abstraction is not "a cognitive byproduct, but the experience of sound being *felt as thought*" (p. 47, my emphasis).

Priest (2013) considers that only certain types of music would qualify as truly abstract, and by way of comparison with abstract art, identifies "the ambient works of Brian Eno, as well as those works indebted to the lyrical meanderings of Erik Satie and the chance-derived principles of John Cage" in that these are "characteristically un-thematic and a-syntactical" and "do nothing but relay potential" (p. 53). He also considers that music is rife with Stern's vitality affects, and quoting Massumi suggests "these are arguably more pronounced in music that draws its 'experiential power from suppressing its figurative element[s] as much as possible'" (Massumi, 2011, as cited by Priest, 2013, p. 54).

Interestingly, Priest (2013) also identifies that music can be "swallowed" by the "simple drift of reverie", or the act of daydreaming (p. 60). He notes that reverie, like art, "obeys the same law of abstraction and principle of assimilation such that it,

too, transfigures whatever affects its image of thought, its semblance, into elements of daydream” (p. 62). Significantly for this investigation, Priest observes that:

Music, particularly in the quasi-passive act of listening distractedly, where its tonal perceptions are not so discernable [*sic*] from other background perceptions, becomes an element in the daydreamer’s coming virtual experience. (2013, p. 62)

Similar to the way Eno defined ambient music’s capacity to be “as ignorable as it is interesting” in the liner notes for *Ambient 1: Music for Airports* (1978), I propose that when music is abstracted significantly from its source and backgrounded to the point that it melds with sounds of the immediate environment, it provides the basis for a state where we are receptive to suspended experience. For example, when writing in acoustically challenging environments with high levels of acoustic reflection from glass and hard surfaces, like the Blue Mountains Cultural Centre café or the Katoomba Sports and Aquatic Centre, I have often found in the diffusion of ambient sound co-mingling with music played from within the venue or by a local street performer outside, an experience that is highly conducive to imaginative thought and moments of suspension. A similarly mesmerising effect emerges from plays of light, such as the iridescent reflections of moving water being bounced and reflected onto another surface. I attended hydrotherapy regularly in 2016 to alleviate an injury and regularly found myself captivated by patterns of sunlight reflected from the waves of the pool onto the white walls of the interior, producing a distinctive shimmering effect. In combination with the echoed sound of the interior, these apparently simple yet exceedingly complex patterns of light would find me drifting into a trance state, buoyed by the balmy water, oblivious to time passing. The capacity to drift into suspended states when these types of external phenomena are presented suggests that highly abstracted and dynamic stimuli may contribute to a state of suspension, and that undifferentiated affectual response could give rise to situations where imagery elicits a musical-auditory response and vice versa. As Stern (2010) says “the infant early on is largely multimodal. Experience is multisensory because the qualitative aspects of the modalities are not yet fully discriminated” (p. 111). This suggests that captivations of light or sound in early development may imprint onto neurology as cross-modal traces of sensory



information and memory, to be accessed when we experience these again in adulthood.

In this respect, I suggest that as the primary neurological response in humans to external stimuli, affect has direct bearing on the understanding of suspended experience given that the suspended state as an interior, yet corporeal, experience can be triggered as a direct result of external phenomena in the environment.

### **3.1.2 Embodied simulation and cognition**

Neuroscientist Vittorio Gallese (2017) confirms Stern's observations, suggesting that that aesthetic response to imagery may be related to the comparatively recent discovery of mirror neurons, and this response is inherently multimodal. Framing this approach as "experimental aesthetics", Gallese proposes a model of "embodied simulation" that "reveals the constitutive relationship between body and creative expression, showing that human experience...should always be understood as a natural form of relational experience" (p. 43). Gallese notes that within our everyday relations with objects, people and landscapes in the "real world", we relate to "the imaginary fictional worlds displayed by the arts" within the system of brain and body (p. 43). Tracing a path back from motor neurons through premotor neurons, he notes that mirror neurons are activated not only "during the execution of action and its observation performed by someone else" but also "when imitating it, or when imagining performing it, in spite of being perfectly still" (pp. 43–44). This "embodied simulation of action", Gallese suggests, allows for "the phenomenal quality of the experience of imagined or observed actions" and is the basis for empathy in that this "enables us to experience others as experiencing emotions or sensations we know from the inside, as it were" (p. 44, original emphasis). This manifests as an "intercorporeality...the main source of the basic knowledge we entertain of others" (p. 44). But how does empathic response via a model of "embodied simulation" relate to aesthetics?

Gallese proposes that embodied simulation is revealed in aesthetics in two ways: firstly, as the "bodily feelings triggered by art works we relate to, by means of the MMs [mirror mechanisms] they evoke"; and secondly:

...the symbol-making gesture and its reception by beholders, in virtue of the motor representation that produces the image and, by means of simulation, enables its experience. (Gallese, 2017, p. 45)

Gallese (2017) posits that when we observe graphic symbols there is an unconscious simulation of the gesture that created it. Visual art experiments examining participants' brain wave response to symbols such as Roman letters, Chinese ideograms, hand-drawn scribbles and paintings, showed motor responses of the hand were triggered in the brain: "The sensory-motor component of image perception, together with the jointly-evoked sensory and emotional reactions, allow beholders to *feel* the artwork in an embodied manner" (p. 45, original emphasis). However, he also observes embodied simulation at work in imagination and fictional worlds:

because of the feeling of body they evoke by means of the potentiation of the mirroring mechanisms they activate....Such potentiation supposedly boosts the bodily memories and imaginative associations fictional content can awake in our minds, thus providing the idiosyncratic character of its appreciation. (Gallese, 2017, p. 47)

Gallese hypothesises that in the "temporary suspension" of everyday perception, we liberate "new simulative energies" which can be interpreted as a "liberated embodied simulation" when adopting an aesthetic attitude. Thus:

Through an immersive state in which our attention is focused on the fictional world, we can fully deploy our simulative resources, letting our defensive guard against daily reality slip for a while. (Gallese, 2017, p. 47)

He further posits that in engaging with fictional worlds, allowing the body to be still helps to be further immersed in the experience as it enables us to "fully deploy our simulative resources at the service of the immersive relationship with the fictional world" (Gallese, 2017, p. 47). Noting that this state is characterised by a "neotenic look", similar to the way infants passively observe the world in early development, Gallese suggests that immobility "probably allows us to allocate more neural resources, intensifying the activation of bodily-formatted representations" noting some of the most vivid imaginative experience occurs when dreaming, "paralleled by massive inhibition of the muscle tone in our body" (p. 48). He advances that:

what we see is not the simple ‘visual’ recording in our brain of what stands in front of our eyes, but the result of a complex construction whose outcome is the result of the fundamental contribution of our body with its motor potentialities, our senses and emotions, our imagination and our memories. (Gallese, 2017, p. 48)

For Gallese, vision is “intrinsically synesthetic”, literally having a haptic quality in that “our eyes are not just optical instruments, but also a ‘hand’ touching and exploring the visible, turning it into something *seen by someone*” (2017, pp. 48–49, original emphasis).

Clearly from a neuroscientific point of view, the embodied simulation model has parallels with affectual response, and positioning the body as an *entire* sensing source, rather than defining sensory modes as contained and discreet, aligns with views from Stern (2010) and Doğantan-Dack (2013) and the phenomenological viewpoints of Smith (1979), Dufrenne (1973) and Ihde (2007). But Gallese’s (2017) aesthetic point of reference is essentially optical, situated almost entirely within the visual arts. How does an embodied cognitive approach relate to music and sound, and in particular, how does imagery combine with sound to produce an experience of suspension in audiovisual artworks?

### Audio-Vision

There has been a growing body of audiovisual theory examining embodiment and multimodality in recent years, particularly in the areas of cinema and game design. Film maker, composer and theorist Michel Chion in the influential *Audio-Vision: Sound on Screen* (1994) first identified what he termed “transsensorial perception” where there is “no sensory given that is demarcated and isolated from the outset”:

The eye carries information and sensations only some of which can be considered specifically and irreducibly visual (e.g., color); most others are transsensory.

Likewise, the ear serves as a vehicle for information and sensations only some of which are specifically auditive (e.g., pitch and intervallic relations), the others being, as in the case of the eye, not specific to this sense. (p. 137)

For Chion, “the senses are channels, highways more than territories or domains” (p. 137) and in this sense, undifferentiated. He suggests that once an auditory or visual phenomenon “has entered the ear or the eye, the phenomenon strikes us in some

region of the brain connected to the motor functions, and it is solely at this level that it is decoded” (Chion, 1994, p. 136). Although Chion does not elaborate on how this occurs, he observes that when “kinetic sensations organised into art are transmitted through a single sensory channel, through this single channel they can convey all the other senses at once” using the examples of silent cinema, which “sometimes expressed sounds better than could sound itself” and *music concrète*, that “carries with it visions that are more beautiful than images could ever be” (p. 137). Chion’s discussion of Schaeffer’s reduced listening approach is explored further in the Methodology chapter at 4.2.2.

Chion interestingly also identifies the phenomenon of “suspension” occurring in cinema. Although different to my conception of suspended experience as it manifests in music and moving imagery, there are nonetheless certain similarities. According to Chion (1994), suspension occurs when:

a sound naturally expected from a situation (which we usually hear at first) becomes suppressed, either insidiously or suddenly. This creates an impression of emptiness or mystery, most often without the spectator knowing it; the spectator feels its effect but does not consciously pinpoint its origin. (p. 132)

More specifically, the withdrawal of sound creates “*phantom sound*”, where:

our perception becomes filled with an overall massive sound, mentally associated with all the micromovements in the image. The pullulating and vibrating surface that we see produces something like a noise-of-the-image. (Chion, 1994, p. 132)

Again, this “filling in” of a sense where its normal mode of reception is removed, resembles cross-modal perception as observed by Stern and others. Notably, this “phantom sound” is characterised by movement. Chion’s (1997) example of a scene from Akira Kurosawa’s *Dreams* (1990) illustrating “a woman’s long black hair twisted about by the wind in a tempest that makes no sound” and “large currents or waves in the swirling of the snowflakes on the screen surface” are highly dynamic and charged visuals that infer energies at force, that although received visually could be “heard” in the imagination (Chion, 1997, p. 132). Chion’s experience of suspension in cinematic terms is perhaps more literal than my own, but still involves the sense of an experience that occurs between sensory modes and appears to exist in a zone outside normal perceptions of space and time.

Sound designer Mark Ward (2015) in examining perception of meaning in sound design for cinema, adopts an embodied cognitive approach by employing both Gallese's (2017) theory of embodied simulation and Mark Johnson's (2007) concept of "embodied meaning...the assertion that all human meaning, abstract conceptual thinking and imagination have basis in our sensory-motor interactions with the world" (Ward, 2015, p. 155). Ward posits that by employing an embodied cognitive approach to cinema "the primary function of sound design is to elicit affective imagery which, in turn, shapes cognition and consciousness" (p. 155). He observes that film studies have traditionally placed more emphasis on visual and narrative elements, with sound design often neglected and rarely theorised, particularly in regard to what is regarded as noise or environmental sound. Ward argues for the "primacy of affect, driven by embodied processes" to establish meaning in cinema and sound, and in particular embraces Wojciehowski and Gallese's (2011) idea of "Feeling of Body", or the recruiting of the "body's innate capacity for *feeling into* another's affective state [that] offers an embodied and noncognitive route to empathy" (pp. 156–57, original emphasis).

Ward (2015) draws on his own practice as a sound designer to outline several key assumptions in regard to the use of sound in cinema:

- i. *Sound modifies visual perception, and vice versa.* Sound has the capacity to shape visual perception and steer visual attention, and may interact with vision to produce synesthetic experience. This crossmodal interaction is complex and dynamic, and leads to the assumption that
- ii. *Cinema is not a visual medium, but multimodal.* What is cinematic about cinema is moving imagery, not moving pictures. And because one may have a satisfying cinematic experience without a concomitant experience of narrative, I assume that
- iii. *Cinema is not primarily narrative, but affective.* Indeed, it is unlikely one may have a meaningful narrative experience without it also being an emotional one. (Ward, 2015, p. 158, original emphasis)

Ward's (2015) observation of the cross-modal capabilities of sound in conjunction with moving imagery has particular relevance for this investigation, especially given identification of the cinematic experience as fundamentally affective in nature. In terms of immersive, felt experience, cinema is often the closest we come to a constructed form of spatial and temporal reality, albeit a particularly heightened

version of it. In the hyper-real and especially controlled environment of modern cinema, the capacity to invent new worlds in sound, space and vision, thanks to the continued evolution of computer-generated imagery and surround sound, has become almost limitless. This recognition of multimodality and potential for synesthetic experience suggests that suspended experience, as an affective phenomenon, can be constructed and enacted through visual and auditory media. This has direct relevance for the audiovisual exploration outlined in Chapter 4.

Ward (2015) observes that humans “perceive the world within a framework comprised of space and time” and that in cinema’s dynamic relationship with these perceptions, movement itself “becomes its defining feature...the unfolding relationship between space and time as an *event*” (p. 159, original emphasis). He also notes the capacity of sound to elicit “the phenomenal quality of visual objects”:

Sound, for example, may communicate the material nature and texture of an object or alter its perceived speed, mass or momentum, or it may suggest the physical contact of objects when no contact occurred. Sound may concretise or dematerialise a visual image. It may supply or suppress a visual image’s apparent tactile or gustatory qualities. Sound may be manipulated to cause the visual image to appear crisper or brighter. Even more astonishing is the capacity of sound to intensify the ‘energy’ of a scene, even if the visual image is ‘slow’ or ‘empty.’  
(Ward, 2015, p. 159)

This tangible, highly expressive capability of sound to not only confer motion, mass, texture and materiality of an object, but also its dynamic interaction within a given space and description of that space, is powerful. Ward asserts that “the human senses exhibit crossmodal interaction to such a high degree that it is untenable to continue to conceptualise them as operating independently or in isolation” (Ward, 2015, p. 160). He cites several scientific studies where “silent moving visual imagery elicits ‘auditory imagery’” not only through speech but also non-speech sounds where “searching for a sound in silence activates the auditory cortex” (p. 160). Conversely, he also observes that audition “wields the capacity to shape visual perception” indicating that “a cinema of the purely unimodal kind is an impossibility: human beings ‘hear’ silent moving pictures” (p. 161). This “filling in” of information between sensory modalities echoes the propositions of Stern and others, further

suggesting that delineation between the senses may not be as defined as might be assumed. Ward notes that the sensory modes “rarely work in isolation, suggesting our perceptual system seeks verification of the reality-status of an event through crossmodal confirmation” further promoting the idea that “human beings are profoundly multimodal creatures” (Ward, 2015, p. 161). He summarises that “the conception of a purely unimodal visual cinema cannot stand in the face of empirical evidence which reveals the radical extent to which the human senses are interconnected” (p. 161). This embodied perspective aligns with my experience of the multimodality of sensory modes, particularly in regard to the marriage of moving imagery with sound in cinema, which I explore in detail in Chapter 4.

## Soundscape

As a term, *soundscape* is usually attributed to music composer and environmentalist R. Murray Schafer, the instigator of the *World Soundscape Project*. In its original context soundscape related to acoustic ecology and the study of how sound is perceived in a given environment. In cinema however, soundscape refers to the construction of an audibly convincing, mediated sound environment designed to impart a sense of place and location. The role of the *sound designer* in cinema, a title believed to have been first bestowed upon Walter Murch for his pioneering work on Francis Ford Coppola’s *Apocalypse Now* (1979), is considered a holistic approach to sound in film from pre-production right through to post-production, and usually separate from that of the music composer for film, with each role clearly delineated. In more recent years however, the borders defining these roles appear to have become increasingly blurred. Sound designer Most recently, Holly Rogers (2020) has perceived a process of “sonic elongation” occurring in instances of location sound captured in documentary film. Rogers posits that when real-world sounds undergo “a transformation so radical that the connection with its associated image is troubled” the audience is compelled to use a process of “creative audition” and their own imagination to reassess their interpretation of presented sound and imagery (pp. 88-89). Rogers suggests this occurs when “film sound is treated creatively to such an extent that it dissolves into musical timbres and structure yet retains a strong and quasi-synchronous hold over its home image” (p. 90). This process engenders a tension between imagery and audio, given the nature of

documentary film as a genre is to depict real-world events, resulting in a form of “stretched reality” which in some respects echoes the abstracted nature of suspended experience (p. 91). Noting since the advent of *cinema vérité* techniques in the early 1960s that documentaries have generally eschewed the addition of sound effects or music for the sake of authenticity, Rogers proposes that when diegetic audio is treated creatively “this sonic mapping initiates a topological change from one audiovisual space into the dimensions of another”, comparing this to the geometric transformational process of a “homeomorphic shift” which “stretches the unmediated material into new and re-imaged sound-shapes” (p. 97). This idea recalls Smalley’s “source bonding” with a gradual shift in focus from extrinsic sonic identifiers to intrinsic characteristics (1997, p. 110). In the case of sonic elongation, by mapping modified location sound to on-screen imagery presented as realistic, it appears to produce a sensory shift that directly challenges perception. This experience resembles suspension in cinematic form, as a kind of sensory conduit between not only the auditory and visual but location sound recordings and music, where the manipulation of audio gradually morphs into a musical form. Aspects of this transformation are explored in the employment of field recordings from the Blue Mountains environs in the design of the performative work *States of Suspension* (2018) detailed in chapter 4.3.5.

Rogers also notes advances in digital audio technologies and the emergence of digital audio workstations (DAWs) from the 1990s onwards have contributed to a more creative use of sound employed in cinema, especially given the roles of sound designer and music composer often merge in lower-budget productions, making “such aural amalgamation the norm” (Rogers, 2020, p. 100). This convergence has also been observed by film scholar Kevin Donnelly (2016) in relation to the sound worlds created in video games, suggesting that sound “tends to take on an aesthetic character, in other words acquiring a distinctly musical aspect” and music can “adopt a cold, mechanical character more akin to the traditional character of sound effects” (2016, p. 73). Donnelly notes that in the video game *Silent Hill* (1999–) the music and sound design are written and produced by a single creator, Akira Yamaoka. He proposes that the composer’s use of “atmospheric ambient music and noisy music that sounds much like an amalgam of machine-like and natural



sounds”, in combination with looping techniques characteristic of computer-based composition, contributes to a “form of stasis [that] foregrounds texture and sonority” (2016, p. 75). This homogenous approach to music and audio is reflective of my own creative practice, by looping field recordings of insects and birds to create suspended beds of sound, detailed in chapter 4.3.5. Observing the employment of Pierre Schaeffer’s acousmatic approach in the soundtrack design, Donnelly suggests that much of the music in *Silent Hill* lacks expected melodic, harmonic and rhythm structures, instead appearing as “ambience or sound effects, in a continuum of sounds that are sustained and loop based, making a bed of continuous sound” that contributes to a soundscape that is “landscape-like, enveloping and unsettling” (p. 77). Much like the work of Eno, the sound design of the game appears “to delineate an interior (mental) landscape, and the mixture of music and sound veers away from conventional representational duties in order to constitute a sense of interiority” (p. 84). As previously observed by Doyle, Donnelly proposes that echo and reverberation “can often indicate more of a state of mind rather than representing diegetic reality”, even positing that “electronic reverb and echo embody technology as a psychological state in audiovisual culture” (p. 84). The ambiguous quality of sound and music when one becomes indistinguishable from the other, often aided by a creative use of echo and reverberation, from my experience can lead to a sense of interiority and mental imagery. Both Rogers and Donnelly suggest that this creative use of sound, particularly location sound, is highly effective in opening new audiovisual spaces and in the case of *Silent Hill*, “a high degree of emotional involvement in the game through a strong sense of immersion” (Donnelly, 2016, p. 84). The sense of immersion, where an audiovisual environment seeks to reproduce conditions convincing enough suspend disbelief, is examined in the following section. Creative experiments with acousmatic approaches to sound and use of echo and reverberation are explored in detail in creative audiovisual explorations conducted in the Methodology chapter 4.3.2.

## Immersion

The term *immersion* has become commonplace in audiovisual arts to describe all-encompassing media-rich experiences, and as noted by composer and musicologist Miguel Mera (2016) is increasingly employed within the humanities to describe user

experience in video games and cinema. He suggests immersion is achieved “by replacing as many real-world sensations as possible with the sensations of a virtual environment”, aided by a range of technologies to “generate a sense that one has left the real world and is ‘present’ in the virtual environment” (pp. 92–3). However, Mera is at pains to differentiate between the “technology driven, objective aspect” of immersion, and a term more commonly employed in psychology and computer science, that of *presence*, or the “psychological perception of ‘being in’ the virtual environment in which one is immersed; the impression that a mediated experience is ‘real’” (p. 93). This distinction is important, for although technology plays a vital role in creating virtual environments, it is the mind and body that convinces an individual that the environment is sufficiently convincing to allow them to be ‘present’ within it:

presence is understood as a cognitive process, it is the result of perception rather than just a series of physical sensations, and it is recognized as multimodal and experiential... mental constructions are more important than the mechanics of the stimuli. (Mera, 2016, p. p 93)

Mera notes that technology, although important in facilitating immersive experience, also has capacity to become “tawdry or gimmicky, restricting rather than enlivening” and that an environment need not be considered more immersive by the inclusion of additional sound channels or a larger screen. Mera proposes a model developed by Wirth et al (2007) of *spatial presence*, that “requires an appreciation and acceptance of the ‘rules’ of a media environment, a process of self-orientation in relation to it, and entry to and exit from the mediated world”, reminiscent of the heterotopic spaces previously suggested by Foucault (2016, p. 94). Using a two-step process where “audio-viewers” first form a mental representation of a space or world presented to them, and then begin to favour that space as point of reference for their sense of location, they become spatially ‘present’ with the consequence that “technology disappears, at least to some degree” (Mera, 2016, p. 94).

Mera’s proposal is interesting, in the observation that “divisions between music and sound design collapse when the spatial domain is enacted as the dominant feature in the construction of a soundtrack” (2016, p. 92). As noted previously by Donnelly, the demarcation between music and what might be considered background noise in these designed environments begins to dissolve as sound is employed in a musical

fashion, and music begins to resemble auditory processes occurring in the natural world. Where the spatial becomes dominant in designing an immersive environment, boundaries delineating what is music and what is noise, and indeed the sensory modes themselves, appear permeable and fluid. This lack of distinction between senses and the types of media employed are a prominent feature of *States of Suspension* (2018) with emphasis on the capacity of the space itself to convey suspended experience, enhanced by auditory and visual technologies. Although Mera's proposition is based on the experience of immersion in cinema, his observations of spatial presence employed in the examination of the 'stargate' sequence in Stanley Kubrick's *2001: A Space Odyssey* (1968) are applicable to my own enquiry. The use of composer György Ligeti's micropolyphonic and highly textured *Atmosphères* (1961) in this section of the film contributes to "a rich, multimodal spectacle that places the audio-viewer directly at the centre of the experience and aligns spatial perceptions within the mediated environment" (2016, p. 98). For Mera "the music is given greater energy by the light fields rushing towards the audience and the corridor of light is given depth and perspective by the music" (p. 97–8). I derive a similar experience, feeling very much contained and immersed *within* the light and sound environment created, especially in the surrounds of multichannel cinema. I was fortunate to view a 70mm print of this film as a teenager and was particularly struck by this sequence, at once captivated by the apparent unreality of what I was seeing, but also the mass of voices in Ligeti's work seemingly expressing the entirety of humanity. The result was an intense and sustained sense of immersion in what I was seeing and hearing for nearly ten minutes, despite a complete lack of narrative. Mera concludes:

the historic divides between music and sound begin to dissolve when the spatial domain articulates the primary relationships between soundscape elements, resulting in a multifaceted, multivalent and integrated soundtrack. (2016, p. 108)

This foregrounding of the spatial, as a void to be filled where music, sound and visual are elements that occupy and imply that space by way of movement and light, are prime factors that inform the design of *States of Suspension* (2018). Much like the concept of Ma, where space and time are correlative and filled with the potential

for action and energy, the spatial elements of an environment, whether innate or constructed are a contributing factor in suspended experience.

### 3.1.3 Flow

Although I consider affectual response to be the primary neurological driver for suspended experience, it would be negligent not to acknowledge the role of *flow* as posited by psychologist Mihaly Csikszentmihalyi (1990; 1999). Flow is defined simply as “a state of optimal experience that people report when they are intensely involved in doing something that is fun to do” (1999, p. 381). Csikszentmihalyi identified and observed this state among “artists, athletes, mountain climbers, and chess players, who all gave remarkably similar phenomenological descriptions of how it felt when their favourite activity was going well” (1999, p. 381).

Csikszentmihalyi (1990) characterises this type of activity as *autotelic*, i.e. self-rewarding. Although goal directed, the flow state would last only as long as the subject was engaged in the activity “not with the expectation of some future benefit, but simply because the doing itself is the reward” (p. 67). Csikszentmihalyi defined characteristics of the flow state as:

- (a) a clear sense of what has to be done moment by moment; (b) immediate feedback as to how well one is doing; (c) an intense concentration of attention; (d) a balance between opportunities for action (challenges) and capacity to act (skills); (e) exclusion of irrelevant content from consciousness; (f) a sense of control over the activity; (g) a distortion of sense of time—usually hours pass by in minutes; and (h) a feeling that the activity is intrinsically rewarding, or worth doing for its own sake. (Csikszentmihalyi, 1999, p. 381)

There are parallels to suspended experience, particularly in regard to lack of self-consciousness, immersion and temporal distortion. Csikszentmihalyi (1990) asserts that music “reduces psychic entropy, or the disorder we experience when random information interferes with goals...when seriously attended to, it can induce flow experiences” (p. 109). But does this take into consideration music that is not seriously attended to, like Eno’s ambient music, or even Erik Satie’s “furniture music” which was designed to be “part of the noises of the environment”? (Satie, in Cage, 1961, p. 76). Csikszentmihalyi (1990) asserts “it is not the hearing that

improves life, it is the *listening*”, positioning the enjoyment of music as an active, engaged experience (p. 109, original emphasis). Although I do not deny that attentive listening benefits the receiver, I suggest the experience of music in everyday life is often backgrounded and unconscious given its ubiquity, and much of it resides at a somatic level before we bring conscious attention to it. Given the audible capacity of lower frequencies to travel over long distances, it is often these we hear, or rather sense on a *physical* level long before proximity to the sounding object brings higher frequencies into focus — it is these low frequencies that are emphasised and engaged with in modern dance music to get the body moving. I would suggest that the ambient music of Eno, in its “ignorability” has greater capacity to engage imagination, perhaps because it demands less from the listener in terms of attentiveness. The distinct lack of pulse and often deliberate slowness, with frequencies that dwell in the mid-range rather than bodily-felt bass (or for that matter, very high frequencies), the continually evolving through composed form, the usually static harmony, repeated and often layered melodic motifs all contribute to a music that is more contemplative than actively engaging. Prime examples are Eno’s first foray into ambient music *Discreet Music* (1975a) or the similarly introspective *Thursday Afternoon* (1985) with slowly evolving arrhythmic motifs, sustained drones and muted timbral colours. Many of these auditory and musical characteristics of suspension are outlined with what I consider their visual equivalents in the table on page 60.

I believe flow experience to be a focused, optimal experience, driven by challenge to the capabilities of the participant. As Csikszentmihalyi observes:

It is this dynamic feature that explains why flow activities lead to growth and discovery. One cannot enjoy doing the same thing at the same level for long. We either grow bored or frustrated; and then the desire to enjoy ourselves again pushes us to stretch our skills, or to discover new opportunities for using them.

(Csikszentmihalyi, 1990, p. 75)

While I certainly would have engaged in flow experience during audio and visual exploration further into the thesis, much of the later stage of listening back to mixes and viewing completed sequences I would regard as suspended, in the sense that this was essentially passive, contemplative, receptive but also ignorable because

the music didn't require my complete attention. Csikszentmihalyi (1990) identifies three levels in music listening: *sensory experience*, where "one responds to the qualities of sound that induce the pleasant physical reactions that are genetically wired into our nervous system"; *analogic listening*, where "one develops the skill to evoke feelings and images based on the patterns of sound" and *analytic listening*, in which "attention shifts to the structural elements of music, instead of the sensory or narrative ones" (pp. 110–111). If we employ this model, I suggest the suspended state resides principally within the first two areas identified, as it commences at a purely sensory level, which then leads to the conception of "analogs" at the second level. However, the typically ambiguous sound shapes occurring in examples of ambient music encountered at the analogic listening level may require re-evaluation, and therefore attention may remain at this level, especially given the opportunities afforded by repetition and space. The fascination inherent in this and other forms of music I consider suspended has little requirement for detailed analysis during its reception, given the lack of anything much to latch on to in terms of harmonic movement or rhythm, instead focusing attention on textural variation, timbre and the use of space. Music appearing suspended is experienced in an ongoing spatial and temporal drift, rather than the more intensive, yet no less immersive qualities of flow experience.

The primary difference between flow and the suspended state lies in activity. Csikszentmihalyi considers flow a condition borne of an intense concentration in the task at hand, where challenge is balanced by reward in directed effort, a self-rewarding cyclic endeavour resulting a form of absorption and spatio-temporal dislocation. Suspended experience is also characterised by spatial and temporal distortion yet tends to relay an inner narrative and capacity for imaginative thought and interiority, more akin to that of fiction writing, however in this instance through the reception of abstracted music and vision. Suspension is not necessarily generated through activity and as previously observed by Gallese in the conception of "fictional worlds" by means embodied simulation, can be essentially receptive and passive, characterised by its "immobility" (2017, p. 47). This idea is similar to that of the "autonomous position" in engaging with aesthetic objects as proposed by Eric Clarke (2005, p. 128) which I outline in the following section.

### 3.1.4 Ecological perception

Up to this point, perception has been contextualised largely within the frame of individual experience and interrelations with others. However, every organism also lives and interacts within an environment, and it is through these interactions that humans derive meaning from the world around them. Psychologist James J. Gibson (1966, 1979) examined how humans derive meaning from the environment through the agency of sensory perception. Although visual perception was the primary focus of Gibson's research, the premise of ecological perception is that all perception of stimulus information is based on an organism's interdependence with the environment. This symbiotic relationship between organism and environment comprises an ecology. As the organism actively moves through and engages with the environment, it is provided with opportunity to interact in order to gain information and provide meaning. These opportunities and interactions are in Gibson's own terminology, "affordances":

The verb to *afford* is found in the dictionary, but the noun *affordance* is not....I mean by it something that refers to both the environment and the animal in a way that no existing term does. It implies the complementarity of the animal and the environment. (Gibson, 1979, p. 127, original emphasis)

For example, a tree for a human may afford climbing it to enable a better view, or shade—it could also be a building material, serve as fuel or fashioned as a useful object. This affordance is unique to each organism—to a termite, the same tree may afford eating, or a home. But to humans as upwardly standing, bipedal and importantly, very *mobile* organisms, perceptions are principally based on what the consequences of our actions will afford us:

The determining cause of approach or withdrawal is the information in the odor, the contact, the sound, or the sight—the information that specifies the value of the source. Some sources are beneficial, some noxious. If the specification is real and if the information is detected and discriminated, the individual will be able to detect the values of things at a distance and move toward or away from them in accordance with what they afford. (Gibson, 1966, p. 73)

Gibson (1979) observed that the primary function of any physical interaction within an environment is trying to understand and adapt to what is happening within it, to

find out “what’s going on”. Perception is not merely receptive, but an active, dynamic and ongoing exchange—we actively *seek* information from our surroundings. In this respect, Gibson also speculated that our sensing systems are interrelated—in the act of seeing for example, the eyes themselves are the focal organs, but the entire body is involved in the process of gaining visual information as we scan and navigate our surroundings:

We are told that vision depends on the eye, which is connected to the brain. I shall suggest that natural vision depends on the eyes in the head on a body supported by the ground, the brain being only the central organ of a complete visual system.

When no constraints are put on the visual system, we look around, walk up to something interesting and move around it so as to see it from all sides, and go from one vista to another. That is natural vision. (Gibson, 1979, p. 1)

This entire-body perspective to perception is applicable to all the sensory modes, and in this respect bears similarity to Gallese’s (2017) embodied cognition model. Gibson (1966) was keen to emphasise that perception “is not based on sensation...it is surely based on detecting information” and that sensation occurs as the result of that detection (p. 2). It is not too far a stretch to infer a similarity to Massumi’s (1987) conception of affect in relation to feeling, the difference perhaps being specification where affect as a “prepersonal intensity” is a more general expectancy to action (p. xvi). However, these concepts are related in that they both reject the notion of cognition occurring *before* the detection of external phenomena.

The ecological perceptive approach can be applied in other contexts, including that of music, as posited by musicologist Eric Clarke (2005). Clarke considers that the ecological perception of musical meaning is “the awareness of meaning in music *while* listening to it” as opposed to that derived from thinking or reflecting on music as it “takes as its central principle the relationship between a perceiver and its environment” (pp. 4–5, my emphasis). He observes that music affords dancing, worship, co-ordinated work activity, emotional catharsis, marching and toe-tapping amongst other physical activities, suggesting that music “fits into this scheme unproblematically” (p. 38). Noting that all these activities are inherently social, Clarke observes however in certain music traditions, in particular Western concert music, that “listening to music has become somewhat divorced from overt action—has



become apparently autonomous”, exemplified in the more passive attention normally reserved for music’s presentation in the concert hall or opera house, although still in a social context (p. 38). The capacity of music to create an autonomous “world outside the work” (p. 130) is examined in the following section as an extension of Gibson’s (1979) “principle of invariance”, as it pertains directly to suspended experience.

### The principal of invariance

Ecological perception recognises persistent factors in the environment that don’t appear to change or change so slowly as to be imperceptible. Terrestrial features, gravity, a sense of up and down, the ground below and the sky above, for example are deemed to be invariant. Gibson (1979) posits that in perception we are most attuned to variant factors in relation to these persistent elements, and that this variance occurring across time and space informs our ongoing perception of the world:

There are variants and invariants in any transformation, constants and variables. Some properties are conserved and others not conserved. The same words are not used by all writers...but there is a common core of meaning in all such pairs of terms. The point to be noted is that for persistence and change, for invariant and variant, each term of the pair is reciprocal to the other. (Gibson, 1979, p. 13)

This is Gibson’s principle of invariance which according to Clarke is “the idea that within the continuous changes to which a perceiver is exposed there are also invariant properties...relationships between stimulus properties that remain unchanged despite transformations of the stimulus array as a whole” (Clarke, 2005, p. 34). Placing this idea into an auditory context, Clarke uses the example of the sound of a passing motorbike. Although there are constant acoustic properties identifying the sound of the bike, there are also properties that vary, such as pitch variation due to the Doppler effect and amplitude change due to distance over time. Despite this ongoing transformation, the source is readily identifiable. Clarke suggests this idea can also be applied to music:

A theme or motif in music can be regarded as an invariant (a pattern of temporal proportions and pitch intervals) that is left intact, and hence retains its identity,

under transformations such as pitch transposition or changes in global tempo.  
(Clarke, 2005, p. 35)

However, when perceptual information is “ambiguous or degraded” and the relationship between the stimulus and perceiver “is problematic, the stimulus structure itself can become more evident” (Clarke, 2005, p. 32). To demonstrate this idea, Clarke employs a visual example of what appears at first glance to be unrelated black patches on a light background. Upon closer inspection this turns out to be a high contrast image of a Dalmatian dog on a sunlit day, its highly abstracted, spotted form merging with the shadowed background. Clarke suggests that:

Similarly, a piece of music which presents sampled everyday sounds in a transformed, or radically de-contextualised, fashion may encourage a listener to detect the structure of the stimulus information (what might be called ‘purely sonorous’ structures) by virtue of a disruption of the normal relationship of source specification. (Clarke, 2005, p. 33)

Hence there is not only a requirement to re-evaluate the source material, but a shift in focus from identification of the source to the extra-auditory information generated. Clarke points out that, as with an image, once we have identified and understood a sound in relation to its source “it becomes more difficult to detect the sound’s distinctive features” (2005, p. 34). This abstraction of a sound from its source, where there are degrees of ambiguity and perceptual reassessment in relation to its origin, I suggest is a key characteristic of suspended experience. However, this shift of attention to a kind of “structural listening” is also suggestive of an autonomous viewpoint, that according to Clarke “can be understood as the perception of musical event structures specified by sound” and may provide a different understanding of how the ecological approach may be applied to music (p. 133).

### Autonomy in music

The idea of autonomy as applied to music would normally indicate “the idea of a system that operates according to self-sufficient internal principles” which as Clarke (2005) points out, runs almost counter to ecological principles (p. 128):

Ecology is the study of *the relationships between* organisms and their environment, and autonomy is the state of independent self-sufficiency—as a

system subject only to its own laws or principles. Within the framework of ecology, autonomy is therefore an impossible state: organisms and environments are *always* in a condition of mutual dependence; to isolate either is to destroy the whole and with it any hope of understanding it as a whole. (Clarke, 2005, p. 132, original emphasis)

However, a shift in listening attitude from “*everyday* listening” that would typically involve “detecting the objects and events in the world that are specified by sounds”, to a “*musical* listening with an attitude of autonomy—attending to the qualities and properties of sounds in themselves, and their purely sonorous relations with one another” posits that a different perspective can be attained (Clarke, 2005, p. 133, my emphasis). Clarke suggests the first characteristic defining an autonomous position is that “musical listening is *structural* listening, and structural listening can be understood as the perception of musical event structures specified by sound” (Clarke, 2005, p. 133, my emphasis). He observes a number of authors who in adopting the ecological approach, analyse music “as environments in which sounds specify musical events at a variety of levels of structure” and that “an ecological approach within the framework of autonomy has the advantage of paying careful attention to the specific attributes of musical sound” (p. 134). Clarke notes however that from an ecological perspective, “structural listening is peculiar in encouraging the listener to turn away from the wider environment in searching for meaning” (p. 134). I suggest that this kind of engagement with music, peculiar or not, is typical of listening practices acting as a form of escape from everyday experience and has become increasingly so with the ubiquity of portable headphones and music listening devices, and recent technological advances in virtual reality and gaming environments. The practice of structural listening has been discussed in much detail over the past century. Opinions range from the dismissive attitude displayed toward phonographs “that were nothing more than...acoustic photographs” played in domestic environments as a “two-dimensional model of a reality that can be multiplied without limit” by theorist Theodor Adorno in the essay “The Form of the Phonograph Record” in 1934 (1990, p. 57) to the highly gendered and escapist listening environments created with the advent of high-fidelity sound in the 1950s, where “the deployment of high-fidelity equipment can be seen as a strategy for reconfiguring domestic space as masculine” as observed by scholar Keir Keightley

(1996, p. 174). Academic Axel Volmar (2018) notes that structural listening practices in the earlier part of the century were associated with class and perceived expertise of the listener, often overtly positioned from a male perspective. However, by the end of the 20<sup>th</sup> century “musicologists increasingly questioned the supposed objectivity and ethical value of disciplined structural listening” and with this decline “other forms of music listening and alternative conceptions of structural unity came to be viewed as legitimate ways of engaging with music”, in line with improvements in reproduction technologies and affordability (p. 412). I would argue that as audio technology has markedly improved in terms of fidelity and dynamic range along with portability, there is less emphasis on structural listening in purely musical terms, rather an increased focus of the texture and timbre of sound and perception of the sound environment itself as part of an immersive experience.

The second characteristic of autonomous listening is “the relationship between perception and action” that in ecological perception are inextricably linked. Clarke suggests however that in traditional concert culture this cycle “is partially disengaged” (2005, p. 136). He notes that in a typical concert, etiquette prohibits more than a turning of the head or craning of the neck to discover the nature of a sound, and that in recorded music the physical absence of instruments or performers “makes it futile to explore the *apparent* sound source” and that any actions in this regard “are ecologically ineffectual” (p. 137, original emphasis). I would also suggest that in concert situations, such as outdoor music festivals or dance raves, the perception/action relationship is often represented internally as a passive, yet bodily-felt affective response. Clarke also identifies that humans as self-conscious beings have developed facility “to move towards ‘autonomy of consciousness’—the capacity to be (or imagine themselves to be) cut off from the world”, and as similarly observed by Dufrenne (1973), this is often manifested in aesthetic objects:

Aesthetic objects often disrupt the normal relationship between perception and action, an enforced disengagement that is characteristic of many art forms: paintings may show scenes and objects, but without the third spatial dimension that would afford active exploration; sculptures are made with materials and techniques that invite physical contact, but which you are not allowed to touch;

photographs show objects, events and people into whose timeframe and space you cannot enter; plays and films exclude you from action with which you nevertheless engage at a distance. Everyday, engaged, practical perception is replaced by disengaged, contemplative perception. (Clarke, 2005, p. 137)

I suggest it is exactly this autonomy of consciousness that is at work and actually *emphasised* in suspended music and visuals. Clarke acknowledges in conventional concert circumstances as described above, either boredom will set in, or alternatively a listener will be “drawn into a different kind of awareness in which enforced passivity engenders aesthetic contemplation” where a “kind of sublimated and internalised exploration can go on” (2005, p. 138). Where there is a focus on process, and if the music is approaching the nature of art, in the manner of an aesthetic object, I suggest that there is an inclination to internalise in aesthetic contemplation. This to my mind is representative of a listening situation typical of suspended experience.

This kind of listening is detected by Clarke (2005) in Steve Reich’s 1965 tape phase piece *It’s Gonna Rain* (1968), which displays elements that are representative of an autonomous listening position in music:

I first hear someone saying something (I hear words in the English language and their semantic content, as well as the voice in which they are being delivered), but as the tape loop is repeated and layered, my attention gets drawn to the particular character of the sounds themselves—their texture, timbre, rhythm, and pitch. Contemplation leads towards a sense of ‘things in themselves’—and hence autonomy. (Clarke, 2005, p. 138)

This observation echoes those noted earlier in this section, where “transformed, or radically de-contextualised” sounds “may encourage a listener to detect the structure of the stimulus information” (Clarke, 2005, p. 33). It is interesting that the reference to “things in themselves” presumes the application of the idea from Husserl, implying a return to the observation of phenomena as presented. However, perhaps more interesting is a similar observation by Brian Eno (in Tannenbaum, 1985) regarding the same piece of music, not dissimilar to his previous thoughts on La Monte Young’s *‘X’ for Henry Flynt* (1960):

a very interesting thing happens to your brain, which is that any information which is common, after several repetitions, you cease to hear....You'll see any aspect of it that's changing, but the static elements you won't see. And what fascinated me with that piece was that it generated a kind of audible difference and patterns. The amount of material there is extremely limited, but the amount of activity it triggers in you is very rich and complex. (Eno, in Tannenbaum, 1985, p. 68)

Both Eno's and Clarke's observations also recall Pierre Schaeffer's (2017) sonorous object as outlined in *Treatise on Musical Objects*, published in 1966:

the repetition of the physical symbol [sic] made possible by recording helps us in two ways: by exhausting this curiosity, it gradually imposes the sound object as a concept worth studying in its own right; furthermore, with the help of more attentive and accurate acts of listening, it reveals to us little by little all the richness of this mode of perception. (Schaeffer, 2017, p. 66)<sup>4</sup>

All of these observations point to a mode of perception where a processual constancy or repetition of material results in observable phenomena arising out of the confluence between constant elements and their variation, leading to an internalised experience of fascination and engagement as the mind attempts to make sense of this information. Importantly, this experience is not dependent on a particular sensory mode, as it appears to precede cognition and may appear across several modalities. It is also self-contained, revealing a richness of experience through active engagement of the receiver, and in this respect is like an autonomous, self-reliant world, with its own complement of organic processes in play. This perceptual state I contend is representative of suspended experience, and I would suggest is reflected in the kind of autonomous, self-contained ecologies of music, sound and light described earlier in the chapter in the works of Brian Eno, James Turrell and Radiohead, who I will examine in more detail here.

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<sup>4</sup> North and Dack's 2017 translation of *Traité des Objets Musicaux* (1966) contains the word 'symbol' instead of 'signal', which is almost certainly a mistake: 'physical signal' is mentioned in the first sentence of this chapter and in several paragraphs following. For this quotation, 'symbol' is taken to mean 'signal'.

## Salience and Radiohead

Academic and multi-instrumental musician Brad Osborn (2017) employs a methodology combining ecological perception and semiotics in a detailed analysis of the music of Radiohead. He considers that the band's recordings occupy a unique perceptual zone sitting between expected norms of rock music and deviation from it, which operates as "a sonic ecosystem in which listeners participate, react and adapt in order to search for meaning" (Osborn, 2017, p. viii). Important to this process is where "a certain expectation—formal, rhythmic, timbral or harmonic—is strongly cued through recognisable musical stimuli only to be violated by an unexpected realisation" (p. viii). These violations of "subjective expectation-realization chains prompt the listener to search more deeply for meaning" (p. viii). Interestingly, Osborn observes that by employing an ecological approach, the same strategies can be used to analyse music videos, demonstrating this idea through an analysis of the music video for Radiohead's "Pyramid Song" (2001b) detailed earlier in this chapter.

He notes that following the band's first two albums, *Pablo Honey* (1992) and *The Bends* (1994), Radiohead took an increasingly experimental approach to form, rhythm, timbre and harmony, beginning with the album *OK Computer* (1997) and notably throughout the albums *Kid A* (2000) and *Amnesiac* (2001), though the band never entirely abandoned their alt-rock roots. Osborn positions this from an ecological and semiotic point of view as the quality of "salience", which is where:

cognitive arousal is maximized by music that meets us somewhere between the expected and the unexpected. Put differently, the brain goes into overdrive when music presents a stimulus that at once draws upon our prior experiences and yet provides some novel twist (Osborn, 2017, p. ix)

This balancing act "maximises a hyperactive cognitive space" that positions the band as able to maintain an effective aesthetic "sweet spot" that many of their contemporaries have found difficult to maintain (p. ix). From my own perspective, the music of the band has an attractive strangeness, resulting from a subversion of expected norms not only in terms of form, harmony and rhythm but also overt timbral manipulation that often appears to break down or decay into digital chaos. Osborn employs Dennis Smalley's (1997) concept of source-bonding to analyse

aspects of Radiohead's music that produces surprising timbres, in particular the ideas of "source deformation" and "synthesis" (Osborn, 2017, p. x). He notes that electric guitar and voice are frequently "deformed through digital and analog effects" and that source-bonding "becomes a question of a listener's ability to perceive the invariant properties of the original that remain after digital effects" (p. x). An example of this is the "bizarre timbres" residing in the song "Like Spinning Plates" (2001a). Like a number of songs from this period, when Radiohead began to experiment heavily with electronic and synthetic timbres, the track is notable for possessing an otherworldly quality that takes recognisable elements, distorts and represents them in a manner that "despite significant source-deformation, influences the intertextual connections available to [the] listener in the search for meaning" (Osborne, 2017, p. xi). "Like Spinning Plates" originated in the reversing of an early demo recording of the song "I Will", which was re-recorded with a new vocal phonetically mimicking the backwards original, then reversing this vocal *again* to "create a simulacrum of sung English" (p. xi). The unusual quality of the track is complemented by an unidentified whirring sound with frequencies sliding up and down the harmonic series. Osborn determines what this sound potentially affords in ecological terms, ultimately deducing it to be a "corrugaphone – a plastic tube that, when spun in the air at a low speed produces a fundamental frequency relative to its length and diameter and, when spun faster, produces higher overtones of the fundamental", resulting in this largely unfamiliar yet arresting sound (p. 8). Recognising the role of embodiment in this perception, where "the listener could visualise the gyroscopic effect of spinning... and without too much imagination, begin to sympathize physiologically with the performer" Osborn notes that, similar to Gallese's idea of intercorporeality, that "the [invariant >>> specification >>> source >>> affordance] chain in "Like Spinning Plates" could thus lead to diverse intersubjective meanings" contingent on the experience of the listener (2017, p. 8). In line with Smalley's analytical method, Osborn posits that Radiohead's music from this period "should be regarded as electro-acoustic music" as it specifies "sources of indeterminate materiality but nevertheless afford mimetic and gestural meanings grounded in a listener's expectations inherited from rock music" (p. 123).



Osborn's take on ecological perception draws significantly on Clarke's auditory version of Gibson's original theory, but it is interesting to observe that it also recognises embodied simulation and the role of mirror neurons, as well as Smalley's spectromorphology and the ideas of source-bonding, source-deformation and synthesis, in itself drawing on Schaeffer's approach to the sound object. This through-line in Osborn's research on Radiohead bears similarity to my own investigation, and when I first encountered this book late in the research it was startling to realise how closely it aligned with my inquiries. Although focused upon the creative output of a single band, this highlights for me the importance of an investigative research methodology that is based not only upon perception in auditory and visual modalities, but one that incorporates a corporeal, entire-body response to music, sound and imagery. Osborne's approach to analysing the music of Radiohead is a valuable contribution to popular music analysis and serves to illustrate the relevance of research methodologies that move beyond the sociological and biographical into the domain of felt and lived experience.

The following section details observations I have made about similarities between perception of suspended phenomena in the auditory and visual realms, and although still embryonic, begins to shed light on what I believe to be occurrences of suspension due to similarity of affectual responses across sensory modalities.

### **Equivalence between auditory/musical and visual phenomena**

Based on my own experience and research, I have identified a number of audio-musical features and visual characteristics that I consider conducive to suspended experience. Although not a comprehensive or indeed conclusive list, I suggest there are many occurrences of auditory phenomena which have an affectual equivalence in visual terms and vice versa, several of which I have outlined below in Table 3.1:

Table 3.1 Auditory/musical and visual equivalences in suspended music and imagery

Element	Auditory/musical characteristics	Visual characteristics
Constancy	Drone, harmonics/overtones <i>Sensation of stasis, time suspended</i>	Colour field, Ganzfeld effect <i>Sensation of stasis, time suspended</i>
Repetition	Repeated pulse or motif, ostinato <i>Sensation of stasis, time suspended</i>	Repeated elements, patterning <i>Sensation of stasis, time suspended</i>
Doubling/ Layering	'Beating', chorus and phasing effects <i>Results in between auditory qualities and implied movement</i>	<i>Moiré</i> effects and visual patterns <i>Results in optical effects/illusions and implied movement</i>
Diffusion/ Abstraction	"Blurred" by reverberation, equalisation, distortion and other forms of diffusion <i>Draws attention to timbre/texture</i>	Out of focus, blurred effects, e.g. <i>bokeh</i> <sup>5</sup> , degraded imagery and pixelation <i>Draws attention to texture/granularity</i>
Speed	Change in speed of musical figures <i>Altered sense of time/space</i>	Change in speed of visual elements <i>Altered sense of time/space</i>
Reversal	Alters perception of time/reality, <i>Heightens sense of unreality/uncertainty</i>	Alters perception of time/reality, <i>Heightens sense of unreality/uncertainty</i>

These characteristics can be examined within the framework of ecological perception and the principle of invariance. For example, with the use of drone as a constant ground or invariant factor, melodic and harmonic features that move against but still incorporate the ground can be considered variant, and at the micro-level, the minute yet observable timbral changes that occur in the fluctuation of harmonics arising from the principal tone. A visual equivalent occurs in the employment of a constant colour field, resulting in optical illusions such as the Ganzfeld effect, which James Turrell has exploited in works such as *Virtuality squared* (2014) for the National Gallery of Australia's retrospective exhibition. Once properties of the stimulus information are established as invariant, these tend to be become backgrounded as attention is drawn to variant features.

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<sup>5</sup> *Bokeh* – a lens effect in photography and film employing a limited depth of field to produce an aesthetically pleasing blurring of background imagery.

Constancy and repetition are closely related, and as noted by musicologist Susan McClary (2004) in a Norman and Jane Geske lecture at the University of Nebraska-Lincoln in 1998, music of the late 20<sup>th</sup> century music is defined by “cyclic repetition. Not just the rap and dance genres of popular culture, but also minimalism—perhaps the single most viable extant strand of the Western art-music tradition” (p. 289). This tendency toward repetition has also been observed by musicologist Robert Fink (2005) in process or minimalist music, positioning it as “maximally repetitive” which he considers “inseparable from the colourful, repetitive excess of postindustrial, mass-mediated consumer society” (p. x). For Fink, “repetitive music implicates creators, performers, and auditors in repetitive commercial culture like advertising and television”, viewing minimalism as reflective of modern consumerist society as the “most protean, popular, and culturally significant music to arise within the last half century” (p. xi). However, as noted by guitarist and academic John McGrath (2018), the idea of exact replication is problematic as it “ignores the *reception* of the repeated fragment” (p. 33, original emphasis). Noting Gilles Deleuze’s conception of a “repetition of difference” which is “never the same but both the same and other” (p. 34), McGrath positions repetition as both transformational and *transmedial*, noting the creative output of Gertrude Stein, William Burroughs and the beat poets:

all stem from the Symbolist and Modernist focus on transformation through repetition. Repetition’s ubiquity in many artforms makes it a transmedial device, one that is shared amongst them, rather than belonging to one in particular (2018, p. 2)

It is this conception of repetition as transformative that aligns closest with my own, reflected in the work of La Monte Young, Steve Reich and Terry Riley through to ecological repetitions of Brian Eno and the songs of Radiohead. A threshold aspect of transformation is present in the philosophical traditions of phenomenology, liminality, Ma and heterotopia and can be observed as through-line that runs throughout much of this investigation.

Using repetition as a method, constant rhythmic elements in music will recede over time as those that deviate slightly from the core pulse become more apparent and draw attention, like accents or concurrent polyrhythms. This attention can shift from one to the other, depending on the stimulus and what is detected as the constant or invariant feature. By employing the rhythmic figure of a *hemiola* or *sesquialtera*,

where a figure of three is played against two, attention to pulse can switch from one to the other as there is a constancy to both and attention can “flip” between them. This is similar, in an auditory sense, to the Gestalt phenomenon of figure/ground perception, where there is visual conflict between what is considered foreground and background—the mind is forced to make a decision between the two and having some difficulty, directs attention to extra-visible phenomena, generating a distinctive and observable kineticism. This phenomenon is evident in visual illusions such as the Necker cube, which I examine in more detail in Chapter 4.3.2. It can also be seen in instances of “op art” such as Bridget Riley’s *Descending* (1965-66) and in certain Australian Aboriginal artworks, such as *Untitled* by Doreen Reid Nakamarra (2006) (see Figure 3.1). As noted by Jane Hampson (2008), Nakamarra’s works have a “synaesthetic quality” in the “shimmering undulations built up patiently in layers of dots and lines [that] are at once evocative of sandhills, their sensuous rise and fall, and of heat, silence and distance”. Hampson keenly observes that Nakamarra’s artwork is “felt rather than viewed” (p. 150).

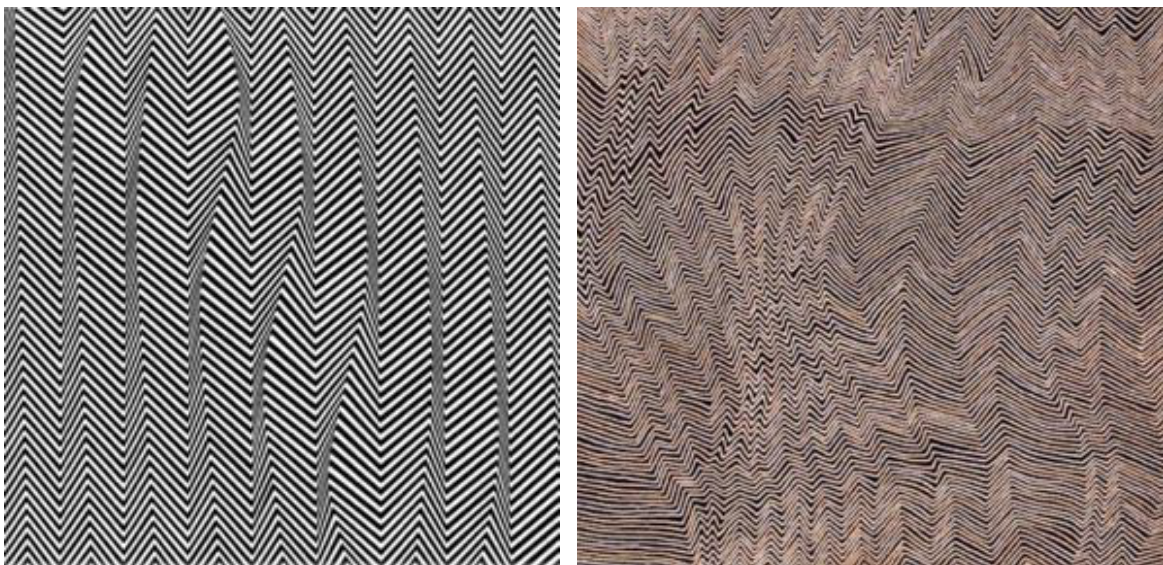


Figure 3.1 *Descending* (1966) Bridget Riley (left) and *Untitled* (detail) (2006) Doreen Reid Nakamarra (right).  
Wikiart.org / Artcollector.net.au

A related but somewhat different phenomenon is generated in the doubling or layering of near identical sounds, resulting in “beating” effects derived from the slight mistuning of a tone—at the other extreme are phasing and comb filtering auditory effects. These I find are sonically equivalent to the visual effect of *moiré*, where the displacement of layered grids results in vivid interference patterns. This

effect been observed by Mark Lewisohn in the recording technique of artificial double tracking (ADT) devised by sound engineer Ken Townshend for The Beatles, a precursor to the audio effect of phasing:

in photography, the placement of a negative directly over another does not alter the image...but move one slightly and the image widens. ADT does this with tape. One voice laid perfectly on top of another produces one image. But move the second voice by just a few milli-seconds and two separate images emerge. (Lewisohn, 1988, p. 70).

Composers such as James Tenney have utilised beating in works such as *Beast* (1971) and *Cellogram* (1971). Much of Tenney's output is characterised by phenomena arising out of natural processes, including a fascination with the harmonic series and just intonation, which, according to music theorist and composer Robert Hasegawa (2008) Tenney came to see as "the only cognitive 'givens' in our perception of musical pitch" (p. 2). Hasegawa notes that Tenney observed "the same kind of global order with local randomness in a variety of natural phenomena" drawing on the apparent random patterns in "real world" textures such as patterns of stars or leaves on a tree (p. 4). For Tenney, this was "sound for the sake of perceptual insight—some kind of perceptual revelation" (Tenney in Young, 1978, p. 16). I perceive similar parallels in natural phenomena such as the drone of cicadas in summer. Although there appears to be a common invariant tone throughout, there is also a textural roughness due to diffusion and inconsistencies of pitch which audibly wavers, contributing to a captivating, suspended quality. Achtermann has also observed this in Brian Eno's work, using "tape loops of differing lengths played simultaneously so that their interaction randomly produced 'sound events in periodic clusters', in much the same way that the sounds of frogs, insects and birds in a natural environment occasionally seem to express chords and melodies" (2016, pp. 89–90)

Likewise, where there are degrees of abstraction from a source in sound or vision, attention is often drawn to variant properties. The employment of abstraction in the visual arts has been widely established for well over a century and a brief overview of the movement toward abstraction is offered in Chapter 4.3.2. However, in sound production abstraction can manifest in a number of different ways. It could mean

distortion of a sound source to exaggerate harmonic content, the selective use of equalisation to emphasise or occlude spectral content, or to “blur” a sound with overt use of reverberation and/or echo. These techniques serve to reinforce and foreground timbral or textural qualities of sound that although recognisable, are nonetheless significantly removed from their source. Further to this, sound can also be sped up or slowed down, resulting in change to both pitch and timbre and perception of time, and reversal, resulting in significant modification of the sound’s ADSR (attack, sustain, release, decay) envelope. Although these techniques and others are now commonplace in a sound engineer’s arsenal of audio effects, they are still highly effective in displacing a listener’s sense of reality.

Forms of this sonic treatment can be heard in the sound production of “shoegaze” bands from the 1990s such as My Bloody Valentine, with “impenetrable, textured layering of multiple noise-laden guitar sounds [that] is so dense as to render the instruments indistinguishable from each other” as noted by sound recordist and academic Samantha Bennett (2016, p. 13). Bennett posits that the use of time-based signal processing effects such as reverberation and echo ultimately provide “more than a fabrication of space, embellishment, or indeed, simply a standard recording process; it is an instrument in its own right, a tool for musical – particularly textural – construction and shaping” (2016, p. 15). The capacity of reverberation and echo to shape perception of space and time in recordings has been documented by Peter Doyle (2004) in regard to early popular music recordings as a form of “pictorial spatialising” (p. 32). Doyle notes that “Reverberation does much to define what we perceive as timbre, volume and sound colouration, and largely determines our perceptions of directionality and nearness” (p. 32). In particular, he observes the capacity of reverberation to conjure visual representations, specifically in the “twilight settings” suggested in sound recordings of 1930s and ‘40s, where it was often employed “to accompany occlusions of the visual” (p. 36). Doyle suggests that popular music recordings gradually began to represent *inner* spaces or “landscapes of the psyche” moving into the 1950s, as the use of reverberation and echo became increasingly aestheticized (p. 37). Serge Lacasse (2000) in his study of vocal staging in rock and popular music, has observed a similar occurrence in Patti Page’s recording of “Confess” (1948) where a reverberant answering vocal to Page’s main



vocal line may not only suggest a “‘religious’ connotation to some listeners, enhancing the metaphorical figure already exploited by the lyrics” but it is also possible “that some listeners hear the reverberated voice as an inner thought expressed by the singer” (p. 121). Lacasse suggests that, dependent on context “reverberation might mean ‘inner thoughts’, or ‘past event’, or ‘dream’, etc., all of which could be considered as more ‘abstract’ than a ‘concert hall’” (p. 243). The level of abstraction afforded by auditory effects such as reverberation and echo appears dependent on context and application, but nonetheless is highly effective in enabling auditory environments that occasion internal contemplation and imagination.

Electroacoustic music composer John Young (1996) observes in the “continuum between Reality and abstraction” in electroacoustic music, how “environmental or cultural sources” in combination with “transformed or synthetic sounds” can contribute to a “metaphorical representation of the inner world of the imagination, where free and fantastic associations between objects and experiences can take place” (p. 73). Employing Pierre Schaeffer’s *quatre écoutes* or four modes of listening, ranging from *écouter* (to listen), *ouïr* (to perceive aurally), *entendre* (to hear) and *comprendre* (to understand), Young observes that in these differing levels of attention to a sound’s source “our attention may shift to details of the way the sound spectrum evolves in time” and suggests that we are constantly “shifting attention between each of these modes” (1996, p. 74). Much like Gibson’s ecological approach to perception (1979), he notes that humans “are highly motivated toward correlating a sound with a source object or sound, since it forms a part of the way we deduce and interpret the physical nature of our surroundings” (Young, 1996, p. 75). By employing Smalley’s concept of surrogacy (1992), where the perceived movement of a sound-object in electroacoustic music is progressively removed from its source, Young posits that:

studio transformations progressively alter or undermine our ability to deduce the nature of causal energy, the identity of the sounding object and the context in which it is created. (1996, p. 76)

Young (1996) recognises that in real-world experience “physical permanence is frequently confirmed through vision and touch” and that “recognition of sound

sources is apt to encourage the formation of imagined parallels with other senses” that may include mental imagery in the form of “sound-image” or tactile associations (p. 77). However, in electroacoustic music “ambiguity arises when a sound suggests more than one plausible physical origin” and due to the acousmatic nature of the medium “can tend to amplify ambiguities...since the physical nature of the sound is not seen, physical permanence is not visually verified” (p. 79). Young postulates that “a completely ‘abstract’ sound is one without material associations, for which we can surmise no source-cause context or background”, but:

conditioning by the sources and causes familiar in environment and culture means that we are seldom without some mental schema to which the origins of a sound may be potentially related, however vestigial or remote this may seem. (Young, 1996, p. 79)

This suggests that despite significant transformation or even complete abstraction of a sound from its source, the mind will still attempt to establish meaning from remnants of structural information contained in the sound source. This “information-seeking” aspect of the human brain, which constructs significance from even the most sensorially impoverished situation, goes some way to explaining how mental imagery can be formed through textural and motional information in sound, and how abstracted visual imagery can be suggestive of sound and potentially cross into other sensory modes. All of these examples place emphasis on phenomena generated by the interplay of variant and invariant characteristics that I believe leads to a sense of fascination with between properties in sound and vision and a predisposition toward suspended experience.



### 3.1.5 Conclusion

It is apparent through this overview of literature and exemplars that evidence of between states and spaces have occurred in a variety of guises perceptually and philosophically throughout history. Observations of separate spatio-temporal zones appear in eastern and western writings dating back hundreds if not thousands of years. The philosophy of Ma can be traced through to at least the 6<sup>th</sup> century BC and as noted, the threshold liminal stage, although observed and documented by Van Gennep in the early 20<sup>th</sup> century is evident in ritual and rites of passage in human societies going back millennia. As observed by Van Gennep (1909/1960) “man’s life resembles nature, from which neither the individual nor the society stands independent” (p. 3). This interdependency of human life with the natural environment, reflected not only in Gibson’s views on ecological perception but also Husserl’s view of the world “from the natural standpoint” (1931/2013, p. 101) appears to inform our ability as a species to conceive of alternate spaces and realities alongside those we encounter in a more quotidian fashion. Foucault’s heterotopic environments are perhaps more purposely created but are nonetheless examples of how we fulfil requirement to create spaces for escape and imagination.

The exemplars presented at the beginning of the literature review and throughout the thesis for me illustrate key aspects of suspended experience, and one can detect through-lines emerging from interests in music and visual art also displaying these characteristics. The self-generating processes evident in the sound worlds of Eno are reminiscent of naturally occurring phenomena and are influenced not only by the cyclic endeavours of minimalist composers Steve Reich and La Monte Young, but also the theories of John Cage and Erik Satie that view music as part of the environment. Turrell’s interest in the perception of light to form alternate spaces, although informed by a Quaker upbringing and his aeronautical engineer father, also owes a debt to British landscape artists such as Constable and Turner, the Spanish masters of light Caravaggio, Velázquez and Goya and the French Impressionists, as revealed in an interview with Michael Govan (2011, para 16). Radiohead’s eclectic range of influences span from jazz pioneer Miles Davis to classicists Olivier Messiaen and Arvo Pärt, indie-guitar bands such as R.E.M. and The Pixies, the propulsive trance-like meditations of kraut-rock bands Can and Neu! as well as the highly

synthetic environments of electronic music artist Aphex Twin. Observable through these key artists and their creative inspiration is a dedication to creating unique experiences in music, sound and light that transcend everyday experience.

The embodied role of affect and in particular the multimodal character of suspension pervades much of the discussion throughout this chapter. This felt sensation of expectancy, even when the body is at rest, goes some way to elucidating the experience of suspension and its inherent abstraction. Stern's recognition of vitality affects in infancy and observation of correspondences across modalities, particularly in the arts, informs later investigations by Doğantan-Dack and Priest on the abstraction and shaping of affect, which has been formalised and articulated to a large extent by Smalley's spectromorphological analytical approach. In particular, Doğantan-Dack's suggestion of affect moving beyond the physical into the conceptual and abstract, aligns with those advocating for the experiencing and understanding of artwork through embodied simulation, such as Gallese, Johnson and Ward. These authors in particular observe the perception of artwork as an entire body experience, as a form of empathic, corporeal association through the artwork, which has echoes in Dufrenne's conception of the aesthetic object. When transferred to a more wholistic form of media incorporating both sound and moving imagery, namely cinema, the capacity to impart visceral, embodied experiences that move beyond the purely auditory and visual as documented by Chion, Rogers and Donnelly, becomes clearer. The sense of immersion in these environments is partly dependent on the effectiveness of technology to impart the experience but also appears to rely on the foregrounding of spatial aspects, where musical features becoming more 'sound-like' and sounds becoming more 'musical' allowing technology to recede, as noted by Mera. The abstraction of sound and light sources and prominence of spatial characteristics in an audiovisual artwork appears to generate capacity for the creation of environments in the imagination. When considered within the context of ecological perception and in particular, what these environments may afford the experiencer, it appears these spaces in many ways are a more fantastic elaboration of what we already encounter in the known world. Motion and sound in abstracted form are, in a sense a step removed from reality, giving imagination permission to leap-off, or cross a threshold into a new space.

In conclusion, I would argue that when visual or auditory characteristics are abstracted significantly from their source by way of diffusion, distortion, speed change, reversal and other factors, there is an increased focus upon the rich phenomena generated and a fascination or captivation may occur, leading to realms of imaginative thought and the potential to create imaginary worlds. Dynamic characteristics inherent in music and moving imagery in sound recordings and video readily afford abstraction, and our affectual response to perceptually challenging phenomena is to construct alternate forms of mental imagery, in order to give meaning and make sense of the perceptual information. This is Achtermann's (2016) "secondary world, constructed in the mind" and "constructing sounds that give the impression of an environment which might exist" in the ambient work of Brian Eno (p. 92). Likewise, Young's (1996) recognition of "virtual and surreal sound worlds" created in electroacoustic music, through the "combination of recognisable sound events which may not normally coexist in physical Reality" has the potential to:

evoke metaphorical meanings, by representing the simultaneous presence of the immediate physical world and [a] more imaginatively defined 'interior' one. (Young, 1996, p. 73)

These inner worlds and allusions to place, as posited by Achtermann (2016), Pattie and Albiez (2016), Gallese (2017), Dillon (2013), Clarke (2005), Young (1996), Smalley (1997) et al, I contend are representative of suspended experience as an environment or sonic ecology of the mind. Sounds and imagery conducive to suspended experience suggest dynamic elemental qualities already occurring in the natural world, which may lead them to be experienced as an inner landscape of imagination.

The following chapter details practice-led investigations into my conception of suspended phenomena through creative audiovisual exploration, leading to the creation of the *Suspended Studies* (2020) suite, reception tests on participants to gauge reaction to suspended music and imagery, and finally the planning for the creation of the major work *States of Suspension* (2018).

## Chapter 4 Methodology

### 4.1 Overview

The chapter outlines my conception of practice-led research and an overview of the creative research framework employed for the project, based on the iterative cyclic model proposed by Smith and Dean (2009). I demonstrate how a phenomenological approach to creative research employing Schaeffer's (1966) reduced listening method by way of Husserl's idea of bracketing (1931) allows for detailed re-examination of suspended auditory and visual material. Methods employed in creative research are outlined, including the use of journaling, audiovisual exploration and reception tests. These consider the role of abstraction in audio and video techniques and are explored through embodied response during creative practice. The results of the audiovisual exploration, a suite of audiovisual studies in suspension, are employed in reception tests to gauge the responses of participants to suspended music and imagery. Finally, findings and insight derived from the exploration and reception tests are brought together in reconceptualising the suite of audiovisual studies as the independent immobile artwork *Suspension Studies* (2020) and planning a creative exploration of suspended experience as an improvised performative work, *States of Suspension* (2018).

### 4.2 Creative practice as research: inside the practice-led process

I bring my background as a mid-career professional composer and performer of music, graphic artist and photographer to this research project. This situates the research in creative practice. However, nomenclature around creative practice as research is contested as definitions vary between authors. Dancer Sarah Rubidge (2005) notes practice as research "has not yet developed a stable terminology with respect to describing the different modes of research practice currently extant in our community" (p. 2) and in the fifteen years since, the terms are still not agreed upon. For Rubidge, the broad term of "practice as research" encompasses that "which uses artistic practice as a means of interrogating a pre-determined theoretical or technical issue" (2005, p. 5). However, she differentiates between research that is "hypothesis-led" (practice-based research which interrogates a pre-formulated

question) and “discovery-led” (practice-led, or research into practice, the focus of discussion *emerging* from the artistic practice itself) (Rubidge, 2005, p. 8). This is useful, because I posit that while there is an overall practice-based focus on questioning the nature of suspended experience throughout the project, the creative methodology is discovery-led through an exploration of my own creative practice. Rubidge notes that the term practice-based is “frequently used as an umbrella term for academic research which incorporates artistic practice as a research methodology” (p. 2). Linda Candy (2006), for example, argues for practice-based research as “demonstrated through creative outcomes” (p. 1) and would identify my project’s exploration and final creative outcome as practice-based, given the focus upon the creation of a suspended work for performance.

Further models of creative practice-as-research abound. Creative writer R. Lyle Skains (2018) acknowledges that “the term ‘practice-led research’ is typically the one used most consistently in the literature, perhaps because it puts the creative practice ahead of the research, a horse before a cart, as it were” (p. 85). Skains notes that Candy’s distinction between practice-led and practice-based research can be “a rather blurry line in actuality” and seeks to clarify practice-led research as that which focuses on “the nature of creative practice, leading to new knowledge of operational significance for that practice, in order to advance knowledge about or within practice” (p. 86), whereas in practice-based research:

the creative artefact is the *basis* of the contribution to knowledge...the creative act is an experiment (whether or not the work itself is deemed ‘experimental’) designed to answer a directed research question about art and the practice of it, which could not otherwise be explored by other methods. (Skains, 2018, p. 86, original emphasis)

For Skains, emerging from the practice-based model is “knowledge that has remained implicitly within the artist, made explicit and seated within the context of the scholarly field” (2018, p. 86). In respect to a suite of audiovisual studies and an improvised performative work forming an exploration of suspension, supported by a text that explicates the nature of suspension *through* an examination of practice, this thesis can be seen to straddle both sides of the creative research paradigm.

Visual artist Barbara Bolt (2006) values and examines insights obtained via engagement with tools and materials, or *praxical engagement*. By utilising a phenomenological approach proposed by Heidegger, Bolt observes that “tacit knowing and the generative potential of process have the potential to reveal new insights; both those insights that inform and find a form in artworks and those that can be articulated in words” (p. 7). As a mid-career artist, this is particularly relevant to me because insight into suspended experience is often revealed through the use of tools, the musical instruments and audiovisual equipment available to me and sometimes their misuse, or inversion of norms associated with normal handling. This can be seen as a form of extended technique and practice, which I will elaborate upon further into the chapter.

Brad Haseman (2006) declares “performative research” as an emerging paradigm, emphasising practice as a method of research and the “rich, presentational forms” contained within an artwork as contributing to a wider body of knowledge (p. 5):

Performative research represents a move which holds that practice is the principal research activity – rather than *only* the practice of performance – and sees the material outcomes of practice as all-important representations of research findings in their own right. (Haseman, 2006, p. 7)

But how is such an enquiry assessed academically? Haseman acknowledges that those “who wish to evaluate the research outcomes also need to experience them in direct (co-presence) or indirect (asynchronous, recorded) form” and that this “challenges traditional ways of representing knowledge claims” (2006, p. 4). Given that this is the form in which the outcomes of this investigation will be presented, I suggest that the performative research model fills a conspicuous absence, though to appraise without the aid of an accompanying text for creative outcomes may be problematic, especially where an artwork’s meaning is coded or hidden. However, I believe Haseman has a valid point in regard to the emergent nature of this form of research, and in the case of creative enquiries, not only in outcomes of practice but by investigating the nature of creativity itself. The performative paradigm has an advantage in that it is experiential and cannot be reliably measured quantitatively or qualitatively by a text alone.

As a multi-skilled creative I contend that the most valuable insight is gained through the act of creation itself, as composition-in-action or improvisation as the epitome of practice-led research. This investigation therefore seeks to synthesise a complement of practice-led and practice-based approaches to uncover the nature of suspended experience, through creative exploration of sonic/visual materials and audiovisual tools, and the act of improvisation in performance.

#### 4.2.1 Creative research framework

Within the creative research framework, a combination of methods is employed at specific points in the research cycle to shape the research design. Utilising a phenomenological framework of enquiry, the following model provides the overarching methodology for this investigation:

- A research-led critical examination of **audiovisual exemplars** contained in the literature review (Chapters 2 and 3) and methodology (Chapter 4) mobilises the investigation, providing both a historical overview as well as informing my practice;
- Self-observation and reflection on the creative process through **journaling** of audiovisual exploration and the improvised performative work imparts both observational data and insight gained through the writing process;
- My own continuing and evolving praxical, practice-led engagement with audiovisual tools and materials, in the form of creative **audiovisual exploration** (the outcomes of which are discussed in Chapter 5), provides phenomenological and embodied insight into practice;
- A practice-based **suite of suspension studies** explores techniques designed to facilitate the experience of suspension for both artist and audience;
- Empirical data gathering and analysis from **reception tests** determining participant responses to suspended experience will gauge if others experience similar sensations of suspended phenomena, and finally;
- The practice-based realisation of an **improvised performative work**, with a re-consideration of the **suite of suspension studies** as an immobile audiovisual suspended artwork serves as an artistic exploration-in-action of discoveries made through the research process.

The thesis employs an iterative cycle, fashioned upon the approach proposed by Hazel Smith and Roger Dean (2009). As noted by Jane Messer (2012), this cyclic model is reflective of “the multifarious kinds of interdisciplinary research that practice-led researchers actually do” (p. 6). Smith and Dean’s “iterative cyclic web” (2009, p. 19–25) is an analog of Deleuze and Guattari’s (1987) concept of the *rhizome*, illustrating a cyclic journey of creative and research processes with “multiple entryways and exits” between each research method and sub-cycles leading to research outputs (p. 21). As observed by Smith and Dean (2009), the processes involved in creative research are often “overlapping and interlinked” with boundaries delineating these areas permeable and fluid (p. 5). The authors emphasise the iterative nature of this model, as investigations are repeated, compared against, rejected or developed further. I have outlined in the diagram below my own processes in approaching this project, which can be seen as a subset of Smith and Dean’s model (Figure 4.1).



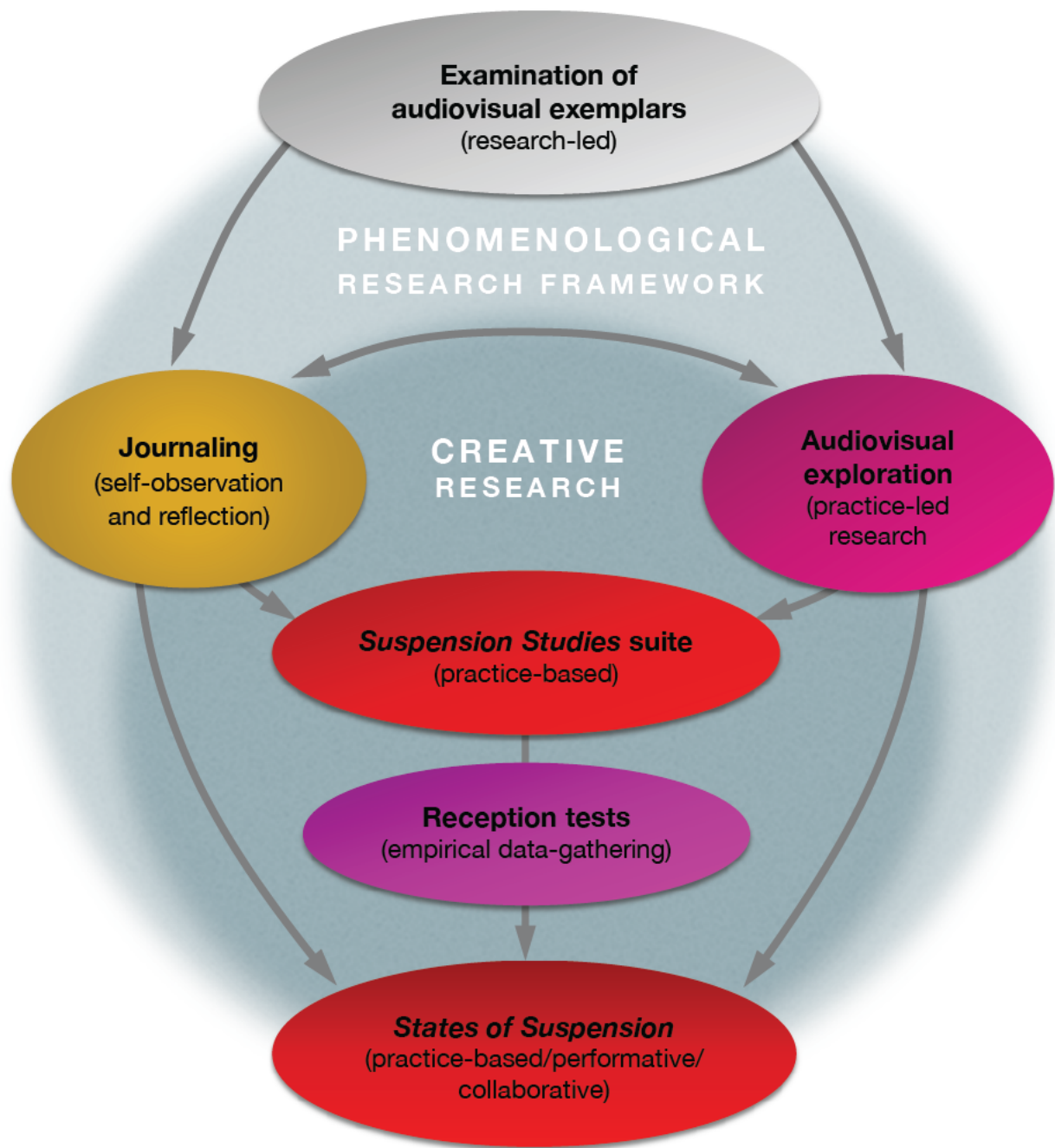


Figure 4.1 Creative research framework outlining methodologies employed and the flow of data within a phenomenological framework of enquiry

As indicated above, findings and insight from each area of the investigation cycle through and inform each another. Although in this model the iterative process occurs principally within the realm of creative research, the practice-based insight derived from audiovisual exploration, combined with self-observation and the empirical results of the reception tests within a phenomenological framework, all in turn inform the conception of the final artworks.

Smith and Dean (2009) also observe the collaborative nature of creative research, in that “one or a group of collaborators may be active in both creative work and research, but more often several people with differentiated roles interact effectively with each other” (p. 8). For *States of Suspension* (2018) a collaborative approach was key to the final realisation of the work. Although the musical and visual design of the work was realised through my own research investigations and practice, initial musical ideas were formulated through improvisation in rehearsal with other musicians, and the final work was improvised in performance, albeit in prescribed, structured sections. As a practicing music composer and performer, this was for me an entirely logical creative methodology to employ. This structured approach provided a creative framework that allowed for spontaneity in performance, but also gave a sense of creative ownership of the musical material to the musicians, allowing them to explore their instruments and creativity to full potential.

Messer (2012) observes that Smith and Dean’s approach “also encourages alliances between research methods, disciplines and interdisciplines, through individual or collaborative projects” (p. 6) and Smith and Dean (2009) acknowledge their model “allows for the possibility that collaboration might not only be between scientists and artists or humanities researchers and artists, but equally between musicians, writers and visual artists” (p. 24). It is evident from my own experience that a collaborative approach was effective in extending the creative capabilities of each musician, and that the final work succeeded as a performance for having a combined input. This is echoed in Smith and Dean’s observation that “engagement in the project takes an enhanced interest in more emergent and less preconceived outcomes” with the authors adding that “the creative industries...in which such collaborations are particularly relevant, require such stimulus and synergy to thrive” (pp. 23–24).

#### 4.2.2 Phenomenological framework

As previously acknowledged, phenomenology is the mobilising research framework for this enquiry, not only as a philosophical approach but as a practical method. Defined by musicologist Erik Christensen (2012) as “a means of discovering unnoticed aspects of the world [that] uncovers the wealth and complexity of human experience and provokes the sense of wonder”, phenomenology has relevance to the investigation given that suspension, an observable yet difficult to define phenomenon, is nonetheless perceived in tangible, real-world experience (p. 2). For this investigation, I have employed the phenomenological notion of *epoché* from Edmund Husserl (1913/2013), literally bracketing an observable phenomenon, effectively suspending or “refraining from judgment” on what it may comprise or mean (p. 109). Phenomenology as a method of enquiry and the bracketing process itself provides a blank slate to investigate objectively, unencumbered by assumption, meaning or semiotic analysis. As a method that relies on description of phenomena as directly experienced and its apprehension in consciousness, phenomenology has considerable theoretical and practical relevance for this investigation and has been adopted as the overarching framework.

The initial investigation into the auditory aspects of suspension has been inspired by the phenomenological approach to sound of *music concrète* pioneer Pierre Schaeffer. In his *Traité des objets musicaux* (1966), Schaeffer employs the Pythagorean idea of *acousmatics*, or the perception of sound when isolated from its source, associating this with Husserl’s *epoché*. For Pythagoras, this was reportedly achieved by speaking to his disciples while hidden from view behind a curtain. Schaeffer however extended this idea to electro-acoustic sound sources, and notes that in a “reversal of the usual procedure” of analysing sound by virtue of its frequency, duration and amplitude:

Its interrogation is symmetrical: it is no longer a question of knowing how a subjective listening interprets or deforms ‘reality,’ of studying reactions to stimuli. It is the listening itself that becomes the origin of the phenomenon to be studied.  
(Schaeffer, 2004, p. 77)

For Schaeffer, like Husserl and Merleau-Ponty, phenomenological bracketing or in Schaeffer’s terminology, “reduced listening” provides both a method and an attitude

toward perceiving auditory phenomena from an experiential viewpoint as an active, embodied experience (2004, p. 77). Electro-acoustic sound sources such as radio and tape recording provided an opportunity for Schaeffer to examine sounds afresh:

In listening to sonorous objects [*objets sonores*] whose instrumental causes are hidden, we are led to forget the latter and to take an interest in these objects for themselves. The dissociation of seeing and hearing here encourages another way of listening: we listen to the sonorous forms, without any aim other than that of hearing them better, in order to be able to describe them through an analysis of the content of our perceptions. (Schaeffer, 2004, p. 78, original emphasis).

Schaeffer's approach however is not without its detractors. Suk-Jun Kim (2010) considers the reduced listening approach, although incorporating phenomenological reduction, to be incomplete as it "misunderstood the workings of phenomenological reduction and employed only part of it." He argues that the concept of reduced listening fails to return to "the natural attitude towards the world"; "it is in this natural attitude that our experience to things in the world is situated, and also because only by returning to it can we examine things in the world" (p. 8). Brian Kane (2014) considers that Schaeffer's interpretation of acousmatic neglects to include a range of historical instances where sound is occluded from its source, such as the disembodied voice evident in Judeo-Christian religious practices such as the confessional and the sequestering of singing nuns behind grilles, arguing that his "thinking about music, sound and technology is ahistorical and mythic" (pp. 6–10). Kane further asserts that Schaeffer's theory fails to "give adequate consideration to the cause, the source, or even the production of sound" only offering a "phantasmagoric" perceiving of musical material, "one that occludes its manner of production" (p. 10). Yet it is precisely this disquieting, strange quality of a sound separated and abstracted from identification that provides the creative impetus for much of this investigation. Kane acknowledges that a common feature of acousmatic listening is "that under-determination of the sonic source encourages imaginative supplementation" and this is "often deployed in order to grant auditory access to transcendental spheres, different in kind from the purely sonic effect—a way of listening to essence, truth, profundity, ineffability, or interiority" (p. 9). Although I concur with Kane (2014) that it is difficult to detect how and in what form

transcendence manifests through sound without reference to a source or cultural context, phenomenologically it is derived from real-world experience, no matter how unsettling or ambiguous it may first appear. Schaeffer's method of reduced listening, although perhaps misinterpreting in some respects the fundamental principle of acousmatic procedure and Husserl's epoché, still provides a useful model of listening and creative process that has application for this project.

In differentiating between causal, semantic and reduced listening modes, Chion (1994) acknowledges Schaeffer's system "is certainly neither complete nor immune to criticism, but it has the great merit of existing" (p. 30). He concedes that "present everyday language as well as specialized musical terminology are totally inadequate to describe the sonic traits that are revealed when we practice reduced listening on recorded sounds" but considers this approach "has the enormous advantage of opening up our ears and sharpening our power of listening" (p. 31). Chion suggests:

The emotional, physical and aesthetic value of a sound is linked not only to the causal explanation we attribute to it but also to *its own qualities of timbre and texture*, to its own personal vibration. So just as directors and cinematographers—even those who will never make abstract films—have everything to gain by refining their knowledge of visual materials and textures, we can similarly benefit from disciplined attention to *the inherent qualities of sounds*. (1994, p. 31, my emphasis)

Chion's background in the use of sound in cinema relates directly to its interrelation with moving imagery and how the sensory modes combine to create altered perceptions of time and space, including his own cinematic conception of "suspension" (1994, p. 131) and observations on what he terms "transsensorial perception" where "there is no sensory given that is demarcated and isolated from the outset" (pp. 136–137). Although my research is not focused on cinema *per se*, Chion's approach to reduced listening and acousmatic sound, as an adaption of Schaeffer's ideas, informs this research in regard to cross-modal perception, which I explore and return to in greater detail in audiovisual exploration further into this chapter.

## 4.3 Creative research methods

### 4.3.1 Journaling: self-observation in audiovisual exploration and reflection on the major performative project

During my honours-year research I kept an electronic journal that provided an effective method for tracking thought processes as I progressed through my research, the writing process itself helping to clarify these thoughts. For my doctoral research however, I elected to employ both a paper notebook and an electronic journal, as I felt that the physical process of writing may yield a different perspective for a practice-led enquiry. This change of approach indeed had an effect: whereas entries in the electronic journal were primarily text-driven and information-based, the tactile experience of putting pen to paper seemed far more suited to a creative investigation with the pages of the physical journal soon filling with ideas, diagrams, drawings and observations. Creative writer Eugen Bacon (2014) posits that in practice-led research, “it is crucial for the practitioner to adopt journaling to capture evidence of a self that evolves with practice and the research”, arguing that:

Journaling informs the mapping of self and research. It does so through an intuitive, albeit reflexive, experience, where intuitive refers to discerning, not just something based on feelings rather than facts or evidence, and reflexive means inward reflection, something that is focussed on improving ‘self’ and ‘process’. Reflexivity thus becomes the bridge, the element that invites the practitioner’s crossing between the creative artefact and the exegesis. The writer of the journal may document something to use or reference as a creative agent, something to help decode and recode the process of learning. As a manageable capture of the contextual experience, journaling helps the creative researcher validate creative praxis and product. (Bacon, 2014, pp. 1–2)

Bacon advocates for keeping not one, but *three* journals: a “cathartic” journal “to find voice, cast insight to my anxiety and discover a ‘self in process’”, an academic journal serving as a “worthy record of fertile links” and finally a literary journal to house “excerpts of literary writing from relevant writers” (p. 2). My own experience of journaling has provided a similar mix of documentation mediums, albeit less defined: the notebook journal provided the catharsis or reflexive model, traversing various types of expression, verbal and non-verbal (as noted above). In the electronic

academic journal I documented my thinking pertaining more directly to suspended experience, and I used several electronic literary journals to detail academic references, quotes and music and imagery exemplars for this enquiry. Although separate, there are frequent crossovers between each, and this mixed style of journaling has provided a fruitful, if at times divergent approach to documenting and working through ideas. Although Bacon acknowledges journal entries are sometimes “ad hoc, spontaneous, eccentric” the activity of journaling “allows the practitioner to have a flexible ensemble of working practice, critical reflection and research data, a documentable ensemble that consequently substantiates research” (2014, pp. 5–6).

In a similar vein, anthropologist Michael Taussig (2011) recognises the value of journaling “in the first phase of enquiry—that of the imaginative logic of discovery” (p. xi). Noting that “creative types, such as architects, painters, and filmmakers” often use notebooks “that mix raw material of observation with reverie” he observes that a notebook “offers you this invitation so long as you are prepared to kindle the mystique pertaining to documents that blend inner and outer worlds” (p. xi). In this sense, the notebook or journal is not a mere recording of notions or events, rather an ongoing engagement with a concept or observation, blending with imagination in a continual reworking and redefining of ideas. Taussig highlights that the notebook plays an active and important role in the conserving of knowledge:

This way of thinking about the notebook seems to me all the more fitting and fruitful because of the peculiarities of *the knowing* that anthropological fieldwork produces. The notebook provides an apt vehicle for conserving this knowledge, not so much as an inert record, but as something quite different, something alive, which is why I have used the ongoing, present inflection of that word—*knowing*—as in a *type of knowing*. (Taussig, 2011, p. xii, original emphasis)

This “alive” sense of knowledge promotes the idea of journaling as an active process, with further insight often derived *following* the initial record or observation. Taussig’s drawings provide a more layered method of interrogation again, “like lifting off the layers of an onion, one after the other” and the act of drawing itself is seen as “a depicting, a hauling, an unraveling, and being impelled toward something or somebody” (Taussig, 2011, p. xii). For Taussig, the notebook or journal is a living

document, imbued with tactile sensations recorded at the time of the event. From surveying my own journal in retrospect, I can detect my own feelings and sensations at the time, not only from the content of the writing but through the pressure of the pen on the page, the hurried or considered handwriting, the scribbled corrections or lack thereof, as a distinctly human imprint. The physical journal has a sense of activity and movement, a life force which an electronic journal can only convey through the cool detachment of words and letters.

Musician Cathy Aggett (2010) relates her use of audio journaling in preparation for a challenging performance of contemporary art song by employing both reflection-in-action and reflexivity. Her perspective is that of a singer addressing technical aspects of performance and interpretation of a score, whereas my own journal entries as a composer and graphic artist tend towards ideation and conception of works in creation and improvisation. However, there are areas of overlap: Aggett observes the importance of “reflective use of recordings of rehearsals and performances...with the process leading to a more successful, informed performance” (p. 1). The use of sound recordings as a journaling method to record ideas generated during rehearsals for *States of Suspension* (2018) was pivotal to the conception of the final performance. Drawing on the research of Donald Schön (1991) into reflective practice, Aggett suggests that:

Reflection-*in-action* occurred during rehearsals when strategies were suggested by either performer and *enacted*. The review of entries in the journal and of performances can be seen as reflection-*on-action*....Reflective journaling is used by practitioners...as an educative tool to investigate the way in which they practice their craft. (2010, pp. 1–2, my emphasis)

I consider that the “reflection-in-action” that occurred during the rehearsal process, as ideas were generated, reviewed and either kept and discarded, to be *active* practice, whereas reflective journaling in the form of rehearsal sound recordings to review and build upon these ideas, is *reflective* practice. As a musician and composer, the recording of an idea in sound is more natural and immediate than attempting to capture it on paper. Although many of musical sketches and ideas used for the *States of Suspension* (2018) performance would eventually be rendered on manuscript for reference, these were always made following their recording and



conception, serving as a guide rather than a score and were discarded entirely for the final performance. The improvised nature of *States of Suspension* (2018) could never be dictated by a score and given the background and skill of the musicians involved, memory and creative practice provided the necessary requirements for performance.

#### 4.3.2 Creative audiovisual exploration: practice-led research

From April 2016 a period of creative audiovisual exploration was conducted over approximately six months in which I examined my interpretation of suspension in music and imagery. Informed and inspired by musical and visual exemplars outlined in Chapters 2 and 3, and following here in Chapter 4, I explored ideas and techniques directly relating to suspended experience, including the use of abstraction, constancy, repetition and layering to achieve suspension, both in the work and through creative practice. In line with a phenomenological research methodology, the investigation employed a reductive approach in the manner of Pierre Schaeffer's reduced listening method to re-examine auditory and visual phenomena, combined with a Heideggerian praxical engagement of tools and materials as outlined earlier in this chapter. This creative exploration also attempted to realise through practice perceived correspondences between sound and imagery, as outlined in Chapter 3.

Musical characteristics identified as relating to suspended experience such as drone, ostinatos and repeated motifs, quartal/quintal harmonic approaches and the use of polyrhythm are explored creatively here, in conjunction with audio techniques such as looping, creative use of reverberation and echo, speed change, signal reversal and layering in sound. Likewise, visual characteristics identified as relating to suspended experience such as repetition, shimmer, moiré and refraction are explored through techniques such as flickering, speed change, bokeh and layering in video imagery. This chapter section is concerned primarily with the creative approaches employed and insight derived through creative practice, leading to the suspension studies employed for reception tests and their reconsideration as the immobile audiovisual suspended artwork, the *Suspension Studies* suite (2020)

## Audio exploration

### Reduced listening and abstraction

As previously indicated, initial audio exploration drew inspiration from the creative approach of Pierre Schaeffer (1996, 2004, 2017) and the reduced listening method, derived in part from Husserl's (2013) reductive method of phenomenological bracketing, or epoché. Schaeffer's methods and acousmatic approach to the objets sonores or sound object, although perhaps misinterpreting Husserl's original ideals, have nonetheless been influential, informing the thinking of other theorists including electroacoustic composer Denis Smalley (1997) and film theorist and composer Michel Chion (1994). Although my own creative approach is not that of music concrète, the method of repeated listening has been invaluable during the composition process as a way of isolating a sound from a source and re-appraising it according to its unique sonic profile. The focused attention on the timbre and quality of a sound through repetition has had considerable bearing on this project, and in combination with the process-based methods of Brian Eno (2004, 2007, 2013), has proved highly effective in my creative methodology.

The reduced listening approach can also be seen as a method of abstraction of sound material from its source. In auditory terms, this is analogous to techniques and approaches employed in visual arts where there is a level of diffusion, blurring or distortion of imagery, not unlike like Eno's "painterly" approach to sound composition. From the viewpoint of ecological perception, the abstraction of timbral or otherwise identifying information requires an ongoing re-evaluation of sensory information based on previous experience of similar sources. As in the visual arts, abstraction lies along a continuum, between highly detailed, realistic depictions of an original source and complete unrecognisability. In the creation of the kind of suspended sound worlds previously suggested, my aim was not to eliminate the source altogether but retain enough auditory information that the listener could still perceive a sense of the origin of the sound informed by its timbral qualities, presented in a new or unusual fashion. This approach can be seen as application of Smalley's idea of source bonding or the push/pull relationship occurring between intrinsic and extrinsic connections of a sound to its source (1997, p. 110). The

perceptual sweet spot that occurs signals that although the appearance of sound may be uncommon or apparently unworldly, it still has origins in real-world experience, and in combination with other abstracted or perceptually challenged sounds, contributes to an auditory environment where a listener partakes in a virtual sonic ecology. Clarke (2005) notes that in the autonomous position of “music-as-art that inclines strongly towards abstraction”, when the balance between subject and object places emphasis on the strangeness of that object in relation to the perceiver “it has transforming potential” (pp. 147–148). This capacity of music to provide “a safe domain within which to learn tolerance of multiple and ambiguous meanings” allows for a virtual environment in which to interpret unusual or abstracted sound sources experientially (p. 149). Likewise, Osborn’s (2017) idea of salience in the music of Radiohead, where occupying “a middle space between predictability and surprise” provides a mid-point in perception of auditory phenomena for “an active state of listener engagement, the one at which the highest levels of meaning-creation will occur”, is indicative of the imaginative potential of abstracted sound sources (p. 3).

In this manner, I approached available sound material with an open outlook, concentrating particularly on the timbral characteristics of instruments and found sounds in a search for strangeness and ambiguous meaning. As Schaeffer (2004) has observed in the repetition of recorded sound, this process “progressively reveals to us the richness of this perception” (p. 78). In the continual looping of, for instance a guitar or piano, the materiality of the instrument may be foregrounded, where a “woodiness” or ringing quality emerged through repetition. Textural qualities, such as a roughness or smoothness to sound would also be highlighted by this method. Specifically, I was seeking what a sound may suggest in abstract terms, whether it appealed aesthetically or possessed the quality of “arresting strangeness” perceived by Achtermann in the work of Eno (2016, p. 92). Once I had arrived upon a raw sound that I could work with, audio effects such as reverberation and echo were employed to further modify the source. Apart from locating a sound object within a spatial field, I find the temporal characteristics of echo and reverberation interesting as they have capacity to draw out the past and reiterate what has just happened, stretching out and modifying an experience of time. In a visual sense I equate this to the effects of motion blurring and time-lapse

photography, or the effect of tracers or after-images in video. This “smeared” approach has been employed both audibly and visually by the band My Bloody Valentine on their 1991 release *Loveless* (1991a), characterised not only by guitars immersed in massive washes of reverberation and echo, resulting in a deliberately diffuse sound, but also represented in the blurred, abstracted footage of the music videos *Soon* (My Bloody Valentine, 1991c) (<https://youtu.be/ft56il9bGMk>) and *Only Shallow* (My Bloody Valentine, 1991b) (<https://youtu.be/FyYMzEplnfU>) directed by Angus Cameron. This creative use of reverberation deliberately obscures the onset transient typical of a guitar’s sound envelope and exaggerates tonal content, resulting in a blurry yet captivating wash of ringing harmonics. This treatment was employed in an exploration on electric guitar using a roughened brass slide rubbed across the strings to generate a high pitched, sustained series of notes. When sent through extensive reverberation and reversed, this resulted in an ethereal, otherworldly sound. From this basis, treated and modified sounds were layered gradually, constructing sonic worlds seemingly inhabited by creatures or organisms, each with their own unique auditory imprint. This approach is reminiscent of the central section of Pink Floyd’s “Echoes” from *Meddle* (1971), where an unidentified howling creature emerges from an apparently windswept alien landscape at 11:25 by sending a guitar through a reversed wah-wah pedal with extensive echo. The sound worlds Pink Floyd constructed in their early experimental period have provided inspiration, not only through creative use of recording equipment but also extended instrumental techniques employed by guitarist David Gilmour and the unusual guitar stylings of songwriter and singer Syd Barrett.

Extended techniques were useful in deconstructing preconceived notions of what an instrument “should” sound like, often revealing unusual auditory properties situated halfway between usual conceptions and something altogether new. This can be seen as a demonstration of Smalley’s source deformation (1997) in the context described by Osborn, where “quasi-familiar sounds...prompt us to think about the source of that sound and the meanings surrounding its deformation” (2017, p. 101). With the guitar, I employed devices and techniques such as a violin bow, a metal slide tapped and rubbed across the surface of the strings, playing above the nut and below the bridge of the guitar, striking and inserting chopsticks and metal objects into the strings, striking the strings and body of the guitar with mallets to generate resonances, as well as a range of techniques more typically idiomatic to electric

guitar such as volume swells, vibrato, slide, feedback and open tunings; in short, anything that would bring about an unusual sound characteristic. However, the familiar metallic and wooden timbre that identified the overriding sound characteristic of an electric guitar remained. Many of these ideas were derived from experimental guitarist Fred Frith, whose inspiring album *Guitar Solos* (1974) contains improvisations using a diverse range of techniques, including many of those observed above, performed on Cage-inspired prepared guitars. On the piece “No Birds” from this album, Frith played two prepared guitars simultaneously, laid end-to-end with the necks in parallel and all strings tuned to one note. As Frith related:

I was dealing with six separate sound sources coming from each guitar, with volume pedals on maybe three of them, so that by filtering in and out on the volume pedals, I could alter the sound a little without actually doing anything on the instrument at all. So I started from that parameter and gradually de-tuned the strings as the piece was in progress. (Frith, in Milkowski, 1983, p. 24)

Frith’s approach to studio recording has parallels with that of Eno, in that he was “interested in using the studio for things that you couldn’t possibly do in a performance” and like Eno, exploits the malfunctioning of equipment as a method for generating new sounds:

A lot of the sounds that I get in the studio have been specifically the result of overloading or causing to malfunction various pieces of technology, like harmonizers and digital delays. Interesting things start to happen when things begin to break down (Frith, in Milkowski, 1983, p. 61).

This open, intuitive approach to instrumental and studio techniques has influenced much of my thinking towards the audio studies and performance, in particular how far an instrument’s sound can be abstracted from its usual apprehension and to what degree this kind of manipulation can be enacted practically in performance.

Likewise, the densely textured, minimalist guitar-based compositions of Rhys Chatham such as *A Crimson Grail (For 400 Electric Guitars)* (2006) have influenced my use of layering in composition and the employment of space in regard to site specificity in music performance. I had opportunity to experience a version of this piece for 100 electric guitars during the Sydney Festival in early 2018, which was

notable for its shimmering acoustic properties and sheer scale. The audience, seated in the centre of the performance area, was surrounded by banks of guitarists along each wall. In each corner a sub-conductor directed a section, in contact with Chatham via headphones, who conducted the entire ensemble. The magnitude of this performance was breathtaking, resulting in “ascending and descending waves of sound of a depth and density to rival [Jackson Pollock’s painting] *Blue Poles*, or to create a shimmering effect like a sonic heat-haze” as noted by reviewer John Shand (2018, January 24, para. 3). *Pitchfork.com* reviewer Marc Masters (2007) observed in the 2006 recording of the work an “abstracted essence of electric guitar...a vibrant, shimmering sound cloud”, with “huge frozen wave[s], full of dense overtones and hymn-like hums” making for a particularly physical and transcendent experience of music (para. 3–4). Although my own exploration could not replicate the enormity of this performance, it nonetheless influenced the project in regard to the immersive potential of sound and the effective use of acoustic space in performance. The inherent diffusion in the piece, not only the result of the number of performers but also the acoustic properties of the Carriageworks venue, especially influenced the middle section of *States of Suspension* (2018) where a shimmering, heat-infused quality was required.

In line with the systems-based generative techniques of Brian Eno, each of the looped audio studies were improvised in a single session, for the most part unsynchronised. As well as not being locked to a pulse, this approach allowed each piece to effectively “hover” in time indefinitely, also allowing for myriad permutations as tracks overlapped others independently, further contributing to the idea of a growing, evolving ecology of sound for each recording. Although the use of digital looping software differs to the magnetic tape-based approach that Eno employed for *Discreet Music* (1975a) in respect to degradation of the initial signal, the principle is essentially the same. Initial exploration utilised the iOS looping application Loopy (Tyson, 2014, Version 1.4.1) recorded on an Apple iPad mini interfaced with a Focusrite iTrack dock to enable audio input, augmented by audio effects such as an AD480 reverb (Version 1.32, 2014) and an EchoPad delay (Version 1.8.4, 2014). This simple yet effective setup allowed me to attend to the production and quality of sound as I was recording it, without having to halt the process each time a new

element was introduced. As a form of “creation in action” this proved to be crucial to the flow of the creative process as I was able to improvise whilst recording as if in performance, building up layers of sound incrementally.

Another advantage of the iPad setup was that it allowed for a haptic “hands-on” engagement with tools due to the nature of the touch-sensitive interface. Loopy employs a layout of up to twelve circular “loops” of audio on-screen, with a highlighted portion of each loop indicating the current position. Recording is activated by simply tapping the inside of the loop and again to stop. The loops can be moved to different positions or layered by physically dragging and dropping, and by holding down a finger a sub-menu is revealed where options to change volume, pan and reverse signal are presented, all without interruption to the recording process. Likewise, with the EchoPad delay, by moving circular abstract shapes on-screen I was able to manipulate parameters such as delay time and feedback while hearing the results of this manipulation in real time. This highly tactile and intuitive approach to working with sound provided for an increased focus on process and the qualities of sound itself, without the distraction of information-filled parameters more typical of professional digital audio workstations such as Pro Tools (Version 11.0.3, 2013). Although these types of linear audio editing tools are capable of recording and generating an amazing variety of sounds, I contend that in the performative act of creation, a simplified tactile interface for recording is more conducive to creativity. As an application of Heidegger’s “handlability” or a “praxical” arts practice that evolves “from the bottom up, rather than from the top down” (Bolt, 2004, para. 2) this direct interaction with available tools during the creative process informs a more continual flow from aesthetic conception through to enaction in the moment of inspiration.

### Harmonic approaches

A number of musical ideas used for the audio studies were derived from harmonic approaches developed during my honours years research that resulted in the *Sounds of In-Between* album (Long, 2015). The adoption of quartal or quintal harmony (given that the inversion of the interval of a fourth is a fifth, the terms are largely interchangeable) as an alternative to tertian western functional harmony had

featured prominently. This imparted a sense of suspension due to the perceived lack of tonal centre and rejection of the orientation toward cadential resolution. As noted by musicologist Philip Tagg (2014) “unlike tertial common triads, a quartal triad stack and its inversions share no unequivocal single root note” (p. 349). Quartal harmony also contributed to the overall form of *Sounds of In-Between* (2015) due to the unique way quartal pitch sets are able to move “sideways”, with each piece on the album moving seamlessly into the next because of the close proximity of neighbouring “key centres”. Each transition to a new “key” differed by only one note, maintaining a sense of harmonic suspension indefinitely, for example:

CGDA→	GDAE→	DAEB→	AEBF <sup>#</sup> →	EBF <sup>#</sup> C <sup>#</sup> →	etc.
↓	↓	↓	↓	↓	

In another sense, the use of quartal harmony relates to the principle of invariance in ecological perception, as a quartal chord within the context of western functional harmony appears to be in a state of transition, hovering in a no-man’s land *between* potential key centres, with a foot in each but belonging to neither. It has been noted in previous papers that quartal harmony has a brilliant, uplifting quality, or according to Tagg (2014), a “positive, sparkling brightness and bustle” (p. 319) and it is this quality of activity and aliveness that I find both attractive and representative of suspended experience. My own exposure to this form of harmony has been mainly through popular music, though usually within the context of functional harmony. The declamatory, ringing chord opening The Beatles’ “A Hard Day’s Night” (1964) although largely quartal in construction, had a quasi-dominant function, and the similarly brilliant G<sup>11</sup> chord preceding the verse of “Sun King” (Lennon & McCartney) from *Abbey Road* (1969) at 0:53 has a dominant to tonic functionality. The dazzling sustained vocal chord of F<sup>11</sup> concluding the bridge of the Beach Boys’ “Good Vibrations” (1966) at 2:53 resolves to B<sup>b</sup> major upon resumption of the chorus, while The Monkees’ “Porpoise Song”, written by Gerry Goffin and Carole King (1966) contains a ringing suspended B<sup>7sus4</sup> chord following the final chorus at that appears to hang in mid-air on the word “goodbye...” at 2:44 which upon inspection reveals quartal properties. Most of these appearances however are fleeting, lasting a matter of seconds, with extended passages of quartal harmony in popular music relatively rare. An exception is Randy Newman’s “I Think It’s Gonna Rain Today” as recorded



by Dusty Springfield (1968), containing an extended quartal bridge from 1:05 to 1:17 reprised at 1:57 coinciding with the lyric “lonely...” lending an ambiguous, lingering quality.

Tagg (2014) observes a more overt use of quartal harmony emerging in popular music from the 1980s: the opening guitar phrase of The Police’s “Message In A Bottle” (Sting, 1979) is in arpeggiated 5<sup>th</sup>s, the Divinyls’ “Heart Telegraph” (1985) contains an extended section of quartal harmony on the line “long distance sending out...” at 1:39 and from 3:24 until fadeout, and Oasis’ “Wonderwall” (1995) carries a sustained fourth (E and A) throughout the prominent acoustic guitar figure of the song (Tagg, 2014, pp. 333–334). In tertial music, quartal harmony can be intimated where drone is an underlying feature with an emphasis on 4<sup>th</sup> and flattened 7<sup>th</sup> scale degrees, or harmonically in modes where these degrees are likely to be featured, such as mixolydian and dorian modes. Examples of this are often evident in popular songs with extended fadeouts: the Monkees’ “Pleasant Valley Sunday” (1967) also written by Carole King and Gerry Goffin, is built around a prominent guitar riff emphasising mixolydian scale degrees, supported by alternating I and <sup>b</sup>VII chords in mixolydian mode underpinned by a drone A for the introduction and verses. The harmony shifts to a tertial sphere for the refrain and bridge, returning to the riff and oscillating between A and G/A, or A<sup>11</sup> for the extended coda, before dissolving into echo and reverberation.

Tagg (2014) observes drone to be a common element in quartal harmony, and that with use of “drones and open tuning the music can move between a relatively tertial and a relatively quartal sphere without compromising the tonal integrity of the music” (p. 351). When making of *Sounds of In-Between* (2015) I had found the use of drones and ostinatos on open-tuned guitars in fourths or fifths facilitated composition, with the disorientation from employing unfamiliar tunings contributing to a more explorative creative process. For the new studies however, I was keen to explore the idea of using quartal harmony as a foundation for excursions into functional harmony. In keeping with the ecological perceptive approach and Osborn’s notion of salience, the studies and the final performance work attempted to bridge a midpoint between tertian functional harmony and the quartal sphere, by maintaining a “middle space between predictability and surprise” that could switch

perceptually between each domain (Osborn, 2017, p. 3). I was also aware for the performance I would be working with musicians who despite years of experience, operated almost exclusively within a functional harmony domain and their conception of harmony would be challenged. The creative potential arising from a collision between accepted practice and the unfamiliar became a key driver in defining a point of salience where suspended experience was most likely to occur, and I exploited this where possible.

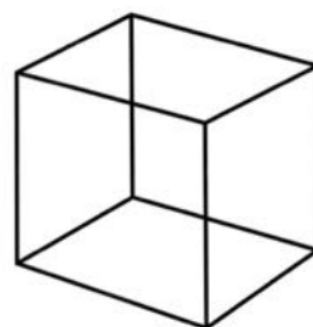
### Rhythmic approaches

For these early studies, I was keen to explore rhythmic interactions where a between-zone was experienced, some of which had been touched upon during the creation of *Sounds of In-Between* (2015). This was approached in two ways. The first was as a free-form, unsynchronised approach, in the nature of the generative systems-based method I had adapted from Brian Eno where autonomous rhythmic cells would overlap and interact before moving apart, engendering the sense of an evolving ecology of sound. With each cell being self-contained and rhythmically independent, this approach gave the impression of a drifting dance of rhythmic “organisms”, interacting briefly before pulling away. This approach is typical of earlier exploration with a greater focus on timbral qualities, contributing to a continuous, evolving sense of time in an ecology of sound.

However, I was also interested in exploiting the potential of polyrhythms, where a perceptual push/pull relationship exists between established pulses. This compelling sense of rhythmic wrong-footing leads to mixed perceptual messages about pulse, contributing to an absorbing, trance-like quality, particularly in its performance. The perceptual tug-of-war between which beat is perceived as constant or variant also brings into play notions of ecological perception. The fundamental polyrhythmic ratio of 3:2, known either as either a *hemiola* or *sesquialtera* in European classical music as noted previously in the literature review, had been explored throughout *Sounds of In-Between* (2015) and drives much of my exploration into polyrhythm and the captivation of a between state in music. According to David Hiley et al. in *Grove Music Online* (2001), hemiola refers to “the momentary intrusion of a group of three duple notes in the time of two triple notes” with the term sesquialtera referring

to the 3:2 ratio itself that could apply to either metre or pitch, interestingly in the case of the latter, the interval of a perfect fifth. However, in north African, Latin American and Celtic music, this interplay between pulses may form the rhythmic basis of entire sections of music.

Music educator and academic Dylan Van der Schyff (2016) observes the benefits to students and educators of using polyrhythms in practice from a phenomenological perspective. Interestingly, he contrasts the experience of sustaining polyrhythms with the idea of “multi-stable images”, for example the visual anomaly of the Necker cube, as a method of demonstrating phenomenological principles (see Figure 4.2). Similar to the Gestalt principle of figure/ground perception noted previously, a perceptual “flip” occurs when contemplating which is the forward-facing surface of a two-dimensional image, owing to a tendency to try to make sense of the drawing as a three-dimensional object. Van der Schyff suggests



*Figure 4.2 The Necker cube*

this is indicative of Husserl’s “natural attitude” or how as humans our everyday perception is shaped by visual analogs, in the form of chairs, tables or boxes. However, by suspending or bracketing the visual information (Husserl’s epoché) there is capacity for new perspectives, where “the viewer may explore, experiment with and describe the object of experience from a variety of new focal points; by moving habitual perspective into the background other relationships and interpretations may begin to come forward” (p. 7).

Employing rhythmic examples from the Ashanti people of Ghana, West Africa, Van der Schyff (2016) suggests this idea is “roughly analogous” to “multi-stable musical phenomena such as repeating polyrhythms” as they are “comprised of patterns whose relations may be experienced in multiple ways” (p. 14). Noting that people in western cultures “often tend towards a hierarchical perception of polyrhythm, where one pulse is often understood as central”, Van der Schyff asked students to direct their attention between pulses to maintain a neutral position, gradually bringing focus to each rhythm one at a time and “move between states of absorption, reflexivity and analysis” in order to “embrace the inherent ambiguity and multiplicity in how these patterns may be experienced (pp. 15–16). This approach reflects the

phenomenological position I have adopted to polyrhythm and indeed to sound and imagery overall throughout the project. The ability to attend to individual rhythms nested within a polyrhythmic pattern, although not unnatural for an experienced performing musician, is a skill that needs to be developed through practice and is principally understood through an embodied, praxical engagement with music. Van der Schyff (2016) notes that although this kind of learning may be “accompanied by a certain amount of discomfort and frustration” that “what makes this initial process of exploration so uncomfortable is precisely what makes it so informative” (p. 16). The reward for students is a realisation that much of what musicians take for granted as “naturalised” is the result of a “historical process of embodied and conceptual sedimentation” and that through practice “new possibilities may emerge with sustained phenomenological work—new musical worlds in which they may come to feel increasingly ‘at home’” (p. 16).

My own engagement with polyrhythm is that of a mental and bodily fascination that derives pleasure both from the physical discipline involved and the creative improvising of interlocking pulses. Although cognition is engaged, much of this “tacit knowledge” is arrived at through embodied experience, or in Heidegger’s term praxis; the “possibility of opening up the field of an ‘art of practice’ from the bottom up, rather than the top down” according to Bolt (2004, para. 2–3). The possibility that emerges through this “praxical dimension” drives creativity and provides the impetus for creative exploration with others. For musicians, interactivity is crucial to improvisation in performance, and I was determined when designing the event to provide a fertile foundation for rhythmic interaction between players. From my own experience, this ducking and weaving with other musicians is the actual ‘play’ in the playing of music, with rhythmic interaction providing much of the enjoyment of performance. By providing a rhythmic basis that deliberately challenged ideas of where a dominant pulse lay, I predicted this interaction would be maximised, which proved correct: use of polyrhythm, enhanced by timed delays and repeated motifs and arpeggios, formed the basis of *States of Suspension* (2018) in four out of the five sections, providing musical challenges and enjoyment for players and audience members alike.

A prime exemplar for me of polyrhythm employed in popular music is Talking Heads. “I Zimbra” on *Fear of Music* (1979) was influenced by the Afrobeat rhythms of Fela Kuti, introduced to the band by writer/producer Brian Eno, with songwriter David Byrne adapting nonsense lyrics from a poem by Dadaist writer Hugo Ball. Using this song as a template, Talking Heads in conjunction with Eno explored polyrhythm in more depth on their following album *Remain in Light* (1980a). Songs such as “Born Under Punches (The Heat Goes On)” (1980b) and “The Great Curve” (1980c) employ significant degrees of polyrhythm, with the album’s main single “Once in a Lifetime” (1980d) exemplifying qualities of suspension I perceive in music both rhythmically and harmonically. The disjointed, jerky drum and bass pattern with an emphasised tom beat on the four-and-a-half beat of each 4/4 bar, combined with a rippling synthesiser arpeggio outlining a quartal tetrad that hangs in mid-air, maintains a hypnotic air of uncertainty until the refrain commences at 0:41. Eno, who produced and co-wrote the music, has said of the rhythmic basis of the track:

I always think that the ‘one’ of the bar is in a different place to where the rest of the band thought the ‘one’ was....It means the song has a funny balance, with two centres of gravity – their funk groove, and my dubby, reggae-ish understanding of it; a bit like the way Fela Kuti songs will have multiple rhythms going on at the same time, warping in and out of each other. (Eno, in Lewis, 2007)

Eno and Talking Heads approached the production of the album differently than the previous release by improvising grooves live in the studio and looping the results, borrowing from sampling techniques of hip-hop, which had only emerged in the previous year. Chris Frantz, the group’s drummer, has said of this process:

What we were going for was a ‘rhythm bed’, something to be expanded upon later on. We tried to do something that had a transcendent feeling, something that people could dance to, that would transport people. It was quite spiritual. (Frantz, in Lewis 2007)

The existential lyric of “Once in a Lifetime” (1980d), written by singer David Byrne and delivered in the repetitive vocal style of a fundamentalist preacher, refers to unconscious thought. As related by Byrne, “We’re largely unconscious. You know, we operate half-awake or on autopilot and end up...with a house and family and job

and everything else, and we haven't really stopped to ask ourselves, 'How did I get here?'" (Byrne, in Karr, 2000). The song questions everyday existence in a recurring exploration that seems to fold in upon itself, the unrelenting rhythm track propelling the song ever forward. The repeated themes of "letting the days go by", "water flowing underground" and "same as it ever was" emphasises a cyclic continuity, not unlike the perpetual motion and exchange of energies in the Taoist cycle of yin/yang. The music video for the song, choreographed and created by Toni Basil in conjunction with Byrne (<https://youtu.be/5lsSpAOD6K8>), has the singer enacting compulsive, jerking movements of ritual and trance from a variety of cultural practices. Basil has said that Byrne wanted the video:

...to be themed around the arcane rituals of religious behaviour. We booked an appointment at the film and video archive at UCLA and ordered a ton of footage: they had a huge library of preachers, evangelists, people in trances, African tribes, Japanese religious sects....We watched the footage together, examined the movements and discussed how to incorporate it into his performance. (Basil, in Lewis, 2007)

The undulating blue and green background that begins and ends the video, as well as conveying "water flowing underground" also suggests a sense of life in abstract form, much like organisms synchronised in continual movement. This notion of life forces, or vitality affects expressed in abstracted visual form, is expanded upon in the following section.

## Visual exploration

### Abstract approaches to visuals and light

I began collecting examples of between video footage and imagery following the purchase of a digital single-lens reflex camera (SLR) in 2014. This camera allowed me to not only capture high-quality photographs but to record high-definition video, with additional benefits gained from SLR cameras such as the ability to pull focus while shooting, manual aperture and shutter speed control, interchangeability of lenses, image stabilisation and a range of filters and in-camera effects. The use of these technical features, in combination with a phenomenological approach, contributed to an emerging suspended visual aesthetic. Footage was captured

intuitively, with little supposition of what it may represent apart from conveying a sense of suspension echoed in the music I was creating. Aligned with the Husserl's notion of bracketing or "a certain refraining from judgement" on what an observed phenomenon may comprise or mean (1931/2013, p. 109), my only thought was that the phenomenon captured the suspended state aesthetically. Arising from this approach, a number of visual tropes began to emerge consistently:

- The effects of refracted or reflected light through transparent mediums such as glass or water, where there were degrees of distortion or diffusion
- Diffuse or blurred imagery, either through reduced depth of field or from movement, producing bokeh affects and revealing grain
- Lens flare effects, where shooting into a bright light such as the sun produces lens artefacts and spectral effects, as well as haze and reduced contrast
- Degraded imagery revealing granularity or video artefacts, as might be found in "pushed" film stock or redundant technologies
- "Flickered" imagery, where images are partially occluded by other objects in rapid succession, resulting in stroboscopic effects
- Distortion of imagery through heat, resulting in a rippling or "shimmer" effect
- Transitions of light and colour, most evident at dawn or dusk but also enhanced by climatic conditions
- Layered imagery, either by shooting through reflective surfaces to gain multiple images, or via multiple exposures in the editing stage
- Temporal effects such as slow-motion and time-lapse, allowing for closer examination of individual events

Most of these instances involved degrees of processual movement and a high level of abstraction, either through technique or in the imagery itself. The most aesthetically interesting imagery was non-descriptive, concentrating on effects of light through distortion, refraction or blurring. Movement also played a role in this apprehension, in part due to inherent motion of the phenomenon being captured but also granular artefacts of camera movement contributing to the overall appearance. More pointedly, these observances of suspended imagery all depicted effects of light and a sensation of fascination and wonder. Whether it was the refraction of the

eastern sun through the windows of our sunroom in winter, flickered light through the trees during a train journey or the effects derived from reflections on water, all were observant of the quality of light and a sense of life.

Much like the young Brian Eno, my interest in light is not only derived from my own solitary wanderings in the Adelaide Hills as a youth but is also informed by visual artists. Apart from the light work of James Turrell which has been covered in some detail, there are painters of the past, from Claude Monet's fascination with the changing light of Rouen Cathedral, to Vincent Van Gogh's appreciation of the skies of Arles in southern France where "under a stronger sun, I have found...the gravity of great sunlight effects" (Van Gogh, in Chipp, 1968, p. 42). Equally, a proclivity toward abstraction, including Wassily Kandinsky's progression from the wild colours of Fauvism through to complete abstraction, the "musical" abstraction of Paul Klee and the glowing spiritual hues of Mark Rothko have all informed my aesthetic approach. The blurred, between imagery of German painter Gerhard Richter I have also found fascinating, straddling a border area between photographic realism and almost complete abstraction of the image, mimicking the limitations of technology (Figure 4.3). As interpreted by Dietmar Elger (2009):

the blurring indexes the inexact relation between and object and its perfection – or, as some critics explain it, a technical mistake that transpires if a camera (or its subject) moves at the instant the shutter is released. Because paint on canvas can never be out of focus, the creative blurring actually strengthens the tension and ambivalence between painting and photography. (p. 85)



Figure 4.3 Gerhard Richter Brigid Polk (1971). Creative Commons.

Richter has remarked in regard to using a squeegee to achieve unexpected results, that it is "a good technique for switching off thinking...consciously, I can't calculate the result. But subconsciously, I can sense it. This is a nice 'between' state" (Richter in Elger, p. 251). This is suggestive of the degree to which an abstracted approach to creative process may elicit between states and is indicative of my own approach to the capturing of light for these visual studies.



## Visual suspension

Electroacoustic composer Joseph Hyde (2012) in attempting to define a visual equivalent for Schaeffer's reduced listening, employs Husserl's notion of epoché to propose the term *visual suspension* "as an ocular counterpart to reduced listening" (p. 173). In an examination of "visual music" ranging from abstract expressionist painters Kandinsky and Klee through to the cinematic experimentation of Oskar Fischinger, Stan Brakhage, John and James Whitney, Len Lye and Norman McLaren, Hyde observes a tradition of attempting to find equivalence "between the frequency domain in sound and light (colour)" (p. 170). However, he also perceives an emerging practice of applying *music concrète* principles to visual materials, in particular video, that suggest the idea of visual suspension. Noting Gestalt principles in the "propensity of abstract and random patterns to suggest familiar forms", Hyde suggests that visual suspension is "generally facilitated through abstraction" as the "the vast majority of visual music works are broadly abstract in terms of their visual language", a viewpoint aligning with my own (2012, pp. 173–174). Similar to Ihde's observation of "the invisible as the horizon of sight" (2007, p. 51) Hyde suggests the visual equivalent to silence is the absence of light or darkness, as a form of "ground" in visual art terms, and at the other extreme, the apparently random brightness and colour of "video snow" as the equivalent to the auditory phenomenon of white noise, or totality of frequencies (2012, p. 175). According to Hyde, this "high degree of spatial difference" can be seen in the "noisy" work of abstract expressionist painter Jackson Pollock, and appositely to this investigation, the films of experimental filmmaker Stan Brakhage, whose work I feel in many respects visually exemplifies suspended experience (pp. 175–176). Hyde considers Brakhage an artist "whose phenomenological ideas seem to include something close to visual suspension" (p. 176). Hyde's conception of visual suspension relates closely to my own, in particular the mesmeric effects of rapidly moving grainy or "noisy" abstracted imagery, but also the notion of a "ground" from which light and movement emerges. However, I also feel that total abstraction without reference to an original form lacks a sense of being located in the real world – it is the gradual pulling away from the recognisable that appears to create a space for imaginative thought.

I have long felt the ephemeral, dream-like imagery of Stan Brakhage to represent prime aspects of suspended experience. Works such as *Mothlight* (1963), *Stellar* (1993) and *Water for Maya* (2000) explore an inner world of imagination drawn from the artist's interpretation of "seeing yourself thinking" (Brakhage, in Starr & Movshovitz, 1985). Brakhage's methodology often consisted of working directly with film stock by painting onto the medium, scratching into it and employing collage among other tactile methods. The resultant flickered imagery conveys a highly abstracted, hypnagogic dimension, similar to the grainy, flecked imagery experienced in the threshold stage before the onset of sleep. For Brakhage, this was suggestive of inner states, the abstract forms symbolic of thought itself. In the documentary *Reflecting Thought* (Starr & Movshovitz, 1985) the artist observed that:

All children rub their eyes to create an intensification of fireworks or explosions...that's the first, what I call the first level, of seeing yourself thinking. And then you see, what people would call abstract...But what we are aware of is that amidst those abstractions, we can commission some memories, or are prompted by things that happened...what interests me more, and seems very much neglected, is the abstractions in themselves which carry the true mood that a person is having. (Brakhage, in Starr & Movshovitz, 1985)

Brakhage considered this to be a form of "visual thinking", and his artwork to be a self-contained "edited, very carefully considered little world" of this way of seeing:

the work should be like, have an ecology so that nothing comes into it that doesn't have a life in it. So, I feel that an art, is really something that creates a whole world. As briefly, as discretely and as clearly as possible. So, I'm doing those two things, one, showing you my thinking...and then I'm showing you those feelings that are shaped into a world. (Brakhage, in Starr & Movshovitz, 1985)

These living ecologies or worlds of vision correlate with my own conception of self-contained environments of sound and light, which I have endeavoured to achieve creatively in my own work. Although with digital video there is no possibility of physical intervention with the medium, the modes of abstraction I have employed in the visual studies result in a form of non-representational visual poetry in light and colour. Flickered imagery for example, contributes to brief, flashing glimpses of scenes, like memories or ephemeral snapshots. This rapid juxtaposition of temporal

events I feel contributes to a heightened sense of suspended experience in imagery. Musicologist Richard H. Brown (2019) considers that both Brakhage and composer John Cage were seeking “a moment of clarity, of unmediated perception, within the artistic experience, yet both artists were working with recording tools that essentially mediate experience” (p. 152). Brakhage’s fascination with hypnagogic states and “closed-eye vision”, or the patterns formed when the eyes are closed “allowed for a conception of the filmic eye that presented a totality of perception akin to the phenomenal experience of existence” (p. 152). This desire to reduce perception to its most immediate and direct, ideally without mediation or semiotic interpretation allowed Brakhage to utilise the body “as an epistemological instrument that circumvents the cultural coding of received visual language”, rendering the artist effectively acting as the camera itself. Brakhage’s visual approach, much like Husserl’s conception of phenomenology as a “knowledge of essences” (1931/2013, p. 44), informs my visual methodology throughout this project.

A current artist who has also contributed to my conception of a suspended visual aesthetic in video is Australian artist, musician and academic Tim Bruniges. His creative research into site-specific use of live sound for installations also examines the aesthetic experience of time, in particular challenging perceptions of linear time through sound and imagery. Bruniges’ audiovisual installation *Continuum* (2012) aimed to create a “an environment that maintains a perpetual state of transition” by employing a circular projection of blue light appearing to float in darkened space, accompanied by a descending Shepard tone, the auditory phenomenon of a pitch appearing to continuously rise or fall, an auditory device also used by James Tenney (Bruniges, 2014, p. 10). This work, inspired by Turrell’s *Red Shift* (1995) questioned whether the viewer would detect change in the projected image which was subtly altered by applying “temporal oscillations of the image’s hue and luminosity” with both sound and the projections required to “independently refer back to the original premise of maintaining liminal states” (Bruniges, 2014, pp. 12–13).



Figure 4.4 Video still from Tim Bruniges' *Horses* (2015). Used with permission.

A more recent work, *Horses* (2015) (Figure 4.4) uses video footage shot during a residency in Iceland that shows a group of pure-bred horses, captured in a remote snow-bound landscape. In this work, Bruniges attempted to “deal in a time-sense with the footage, and

subsequently the sound that [would] re-enact the experience of being there as much as possible” to find an “in-between or liminal space between stillness and movement. It’s a long way from the truth of the situation, but...closer to the truth of the experience” (Bruniges, 2015). The highly evocative, slowly moving imagery of the horses as “smeared, colour-field objects that go through this metamorphosis from being horses, back into being horses again” is rendered frame-by-frame by computer in real time using generative processes, not unlike that of Eno in sound. Bruniges opted to use original in-camera sound, in preference to a more “pristine” sound “which you would immediately become more precious about”:

I like the idea of having a very predetermined sound that steers you in certain directions: there’s scope in that limitation. I find it more difficult to work with very pristine sources, because there’s an obligation to have to preserve the pristine nature of it, which to me is quite narrowing in the creative process. (Bruniges, 2015)

Similarly, he advocates for the use of older phone cameras that technologically may be “very compromised in terms of its image” but have the advantage of shooting footage “that just didn’t look pixelated, it looked quite filmic” (2015). Bruniges refers to an earlier work, *World Sham Pain* (2007) (Figure 4.5) shot entirely on a hand-held Nokia phone, resulting in a “perfect material that in its limitation had massive scope for creative processes” (2015). The grainy, wavering imagery was shot whilst driving along

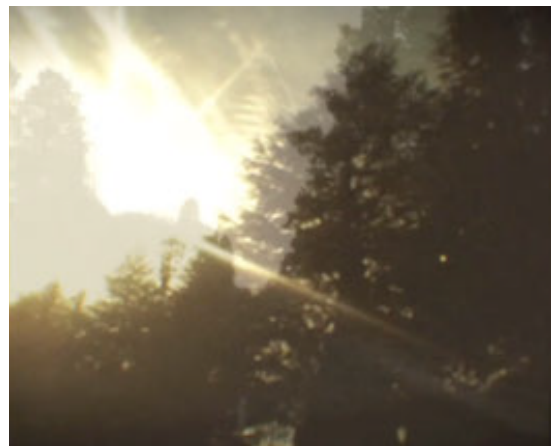


Figure 4.5 Video still from Tim Bruniges' *World Sham Pain* (2007). Used with permission.

country roads with the camera usually pointed directly into the sun, recording lens flare and flickered light as trees cut across the picture frame, with distortion apparent from the limitations of the phone camera technology. The footage is highly expressive, with a poeticism reflected in the similarly granular music soundtrack: the effect is like uncovering a relic of a different time, fractured and distorted but with its essence still intact. There is a sense of nostalgia, of a long-forgotten road trip with footage shot spontaneously in the moment of inspiration. The accompanying music, composed by Bruniges, at first fluctuates unsteadily but gradually stabilises, building in dynamic upon a repeated theme to peak in a surging wash of electronic sound, situated somewhere the ambient work of Brian Eno and the reverberated distortion of *My Bloody Valentine*. Both this work and *Horses* (2015) for me evoke a sense of time stretched out, capturing a series of momentary fragments drawn out in a visceral evocation of suspended experience, and both pieces have informed aspects of the suspended visual aesthetic.

It would be remiss of me not to also acknowledge the light art of Brian Eno here. Although his influence on this project is primarily auditory and musical, Eno's generative light work, in much the same vein as his music, is concerned with the systematic initiation of processes to generate variety and the creation of self-contained worlds or ecologies, which aligns with the aims of this research. Eno's early experiments with video such as *2 Fifth Avenue* (1979) and *Mistaken Memories of Mediaeval Manhattan* (1980–81) employed video as an abstract light medium rather than a viewing device by exploiting video's ability to transform colour, as observed by Christopher Scoates (2013, pp. 117–120). Eno began to think more in terms of creating environments with *Natural Selections* (1990) in which he experimented with projectors, drawing, painting and scratching directly onto glass slides in a method not dissimilar to Brakhage, where "miniscule scratched drawings...became monumental when projected at hundreds of times the original size (pp. 131–132). By layering these images, Eno had found he could create:

a constantly mutating image. And I liked that, I thought, this is good, I've never seen this before, and I'd invented a process of randomising the slides, so that you design the structure, the system, but then you let the system take over and make it for you. And of course, it will make it infinitely. (Eno, in Saltzman and Thrift, 2013)

Like his approach to music creation, Eno had devised a method of continuous, slowly changing imagery that evolved over time and could work on a large scale in a self-contained space. This was first explored in *Quiet Clubs* (1986–2001), intimate settings in which Scoates observes the use of “tree trunks, fishbowls, ladders, rocks, and even specially constructed tables and chairs with false perspective to create quasi-domestic environments” (2013, p. 136). The slowly evolving colours and designs of these spaces, almost the temporal antithesis of Brakhage’s flickered, ephemeral imagery, provided an invitation to contemplation, and as Eno noted “you start to experience a sort of slower texture of time” (Saltzman and Thrift, 2013). The series would eventually be distilled into an artwork incorporating video, abstraction and generative elements on a larger scale. Eno’s *77 Million Paintings* (2006–) (Figure 4.6) arranged multiple video monitors of different sizes into geometric arrangements, set into a wall space within a darkened, contemplative, almost church-like environment, arranged with comfortable seating to view the work. A bank of computers fed the monitors a continuous stream of multi-layered imagery, which according to Scoates, consisted of:

Abstract gestures, amoeboid forms, geometric shapes, and representational images [that] all collide and float slowly across the screens, imperceptibly dissolving from one to the other—combined yet entirely separate. These multiple representational languages—evoking surrealism, minimalism, abstract

expressionism, and experimental film—fuse and overlap to structure a kaleidoscopic effect of light, colour, and sound. (Scoates, 2013, pp. 336–7)



Figure 4.6 Brian Eno, *77 Million Paintings* (2007). Photograph Scott Beale / *Laughing Squid* [laughingsquid.com](http://laughingsquid.com)

In respect to my own work, Eno’s use of abstracted imagery and music in pursuit of an evolving “world of propositions” has parallels to my conception of suspended experience, in the sense of a contemplative, self-contained environment. However, I relate more closely to the flickered, unstable imagery of Brakhage and Bruniges as an invitation to imaginative thought and a raw, more personal “lo-fi” aesthetic.

All of these exemplars, both visual and auditory, have contributed in some form to my conception of a suspended or between audiovisual aesthetic and the practice-led exploration conducted throughout this chapter. The outcome of these creative investigations resulted in a series of audiovisual studies exploring the visual and auditory aspects of suspended experience outlined in this chapter, with my embodied responses recorded during the creative process detailed in Chapter 5: Creative and empirical outcomes. However, a selection of these studies, later reconsidered as a self-contained work, the *Suspension Studies* suite (2020), were employed initially for a series of reception tests to gain an understanding of suspended experience for others and are outlined in the following section.

#### 4.3.3 *Suspension Studies*: suspension in practice

The singular and combinative roles of visual and auditory senses are key to this research, as it seeks to determine whether overlap occurs between sensory modes and if the combined effect of music and visuals leads to a fuller or more immersive experience of suspension. It also investigates to what degree each mode may elicit response in the other, i.e. whether music alone is sufficient to generate imagery, and vice versa. Hence in assembling a series of studies or “suspensions” for the reception tests to follow, I was mindful that visual and auditory sensory modes would need to be tested separately to gauge perceptual differences, and then in combination to determine if suspended experience was more effective as an integrated experience. For this reason, I determined there would be six studies in all; two solely audio, two solely visual and two incorporating both sensory modes.

The final studies were chosen primarily for their effectiveness at conveying a sense of auditory or visual suspension but also in line with a creative endeavour, as to whether or not they were aesthetically successful for the artist. These were selected from a field of eighteen improvised music and audio studies and over 300 individual sections of video footage deemed to invoke suspension. The processes and outcomes employed in this creative exploration are detailed in chapter 5.2.1.

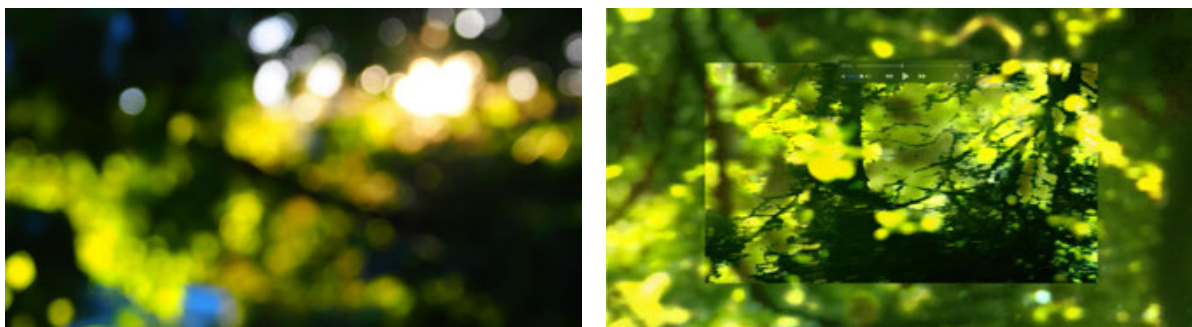
Links to the individual studies have been supplied with the duration indicated.



### **Suspension 1 (<https://vimeo.com/341460407>, 4 minutes 50 seconds)**

This audio-only study utilised a range of guitar-based performance techniques and audio effects, including reversal and alteration of sound envelope, obfuscation of sound enhanced by reverberation and echo, extended performance techniques such as use of violin bow, rubbing guitar strings with a slide, plucking strings above the nut to produce bell-like tones, and techniques idiomatic to electric guitar such as volume swells and use of vibrato. Harmonically the piece is based on a quintal cluster and although containing looped repeating motifs, is rhythmically ambiguous with little discernible pulse until a rhythmic motif appears in the final two minutes.

This piece was deemed to be effective in terms of conveying a interior sense of moving through a landscape of slowly moving organisms, in this case a feeling of travelling underwater with strange creatures and light emerging in the darkness. The slowly moving, amorphous sound shapes gradually appearing across the stereo image impart a sense of emerging movement within a self-contained sonic ecology.



*Figure 4.7 Bokeh effects (left) and blurring in a fast-tracking shot (right) from Suspension 2*

### **Suspension 2 (<https://vimeo.com/341462020>, 6 minutes)**

This visual study aimed to evoke suspension by drawing on effects of dappled, refracted and flickered light across a range of temporal and spatial tropes. Camera effects included bokeh, lens flare and exaggerated depth of field (see Figure 4.7). Camera movement ranges from the slowly contemplative to exhilarating tracking shots through trees and fence palings. Temporal effects comprise slow motion, extended cross-fades and dissolves. Double exposures and layering juxtapose these different spaces and temporalities, and although some forms are identifiable, the imagery is highly abstracted and constantly moving.



This study holds a fascination for the author in the combinations of imagery and effects of light presented, imbuing a languorous quality associated with warm weather. The earlier sequences for me intimate the sound of insects, such as cicadas and the low drone of bees, whereas the later flickered sequence reveal a repetitive quality I associate with travel and the steady white-noise of vehicles or trains upon tracks.

### **Suspension 3 (<https://vimeo.com/341462552>, 9 minutes 50 seconds)**

This audio-only study is similar to *Suspension 1* in terms of performance techniques, beginning with high-pitched sustained motifs employing a bowed technique, reversed slide sweeps, low volume swells and repeated motifs towards the end of the piece. The sounds employed are highly abstracted due to extended performance techniques and alteration of sound envelope through reversal. Like *Suspension 1*, dynamic changes are minimal and evolve gradually over time.

For the author, this study was highly effective in conveying a sense of travelling through a shadowy alien landscape inhabited by unidentified creatures. Perhaps due to the high-pitched sustained sounds employed throughout, the physical sensation is elevated, as if suspended or flying through air. Some sounds I associate with buzzing insects, or creatures that appear to swoop in and out of the stereo mix.

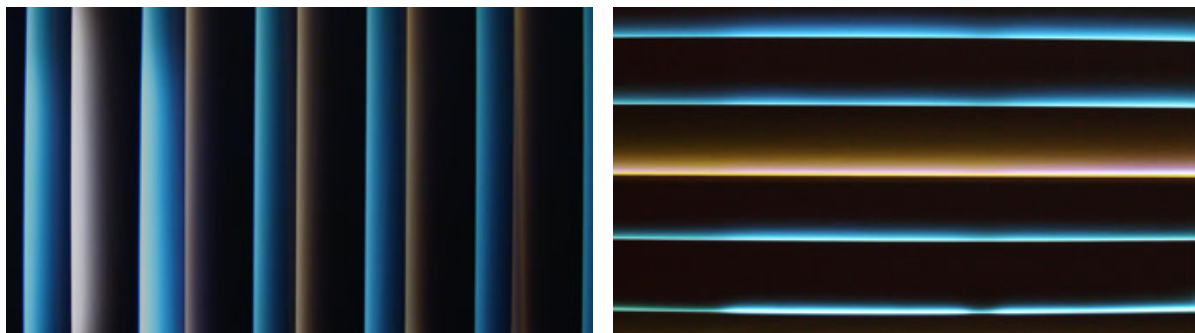


Figure 4.8 Vertical (left) and horizontal bars (right) from *Suspension 4*

### **Suspension 4 (<https://vimeo.com/341464163>, 6 minutes)**

This visual study explored repetition by juxtaposing patterns of abstract horizontal and vertical bars of light moving constantly past the camera, created by slowly panning across partially occluded window shutters (see Figure 4.8). The study sought to determine if repetitive visual elements with high levels of abstraction are

conducive to suspended experience. The bars are varied by change in direction, the use of zoom, overlapping, multiple exposure and colour filters. The effect of suspension for the author is one of captivation as the bars seem to audibly convey a thrumming sense of pulsed bass motifs that possess a synthetic, electronic quality.



*Figure 4.9 Juxtaposing of multiple spaces (left) and altering picture plane (right) from Suspension 5*

#### **Suspension 5 (<https://vimeo.com/341465624>, 4 minutes 50 seconds)**

This study was the first to combine musical and visual elements. Visually it employs clouds as a naturally occurring phenomenon conducive to suspended experience. Although identifiable, the abstracted forms have been treated spatially by juxtaposing multiple spaces, mirroring, distortion of picture plane and modification of temporal events including repetition, reversal, slow motion and time lapse (see Figure 4.9). The music employs a rolling arpeggiated motif with frequency modulation, overlaid with high sustained pitches and rapid onset reversed sounds. These are combined with morse-code like “beeps” produced by tapping lightly on strings above the guitar’s pickups, underpinned by low drones produced by gently beating the body of an electric guitar with soft mallets.

The sensation of this study for the author is dreamlike and surreal, as if occurring in the midst of multiple realities and temporalities. Although video and auditory elements were created independently, sequences of the video were mapped and effected to correspond loosely with the soundtrack.

Suspension 6 (<https://vimeo.com/341466746>, 6 minutes)

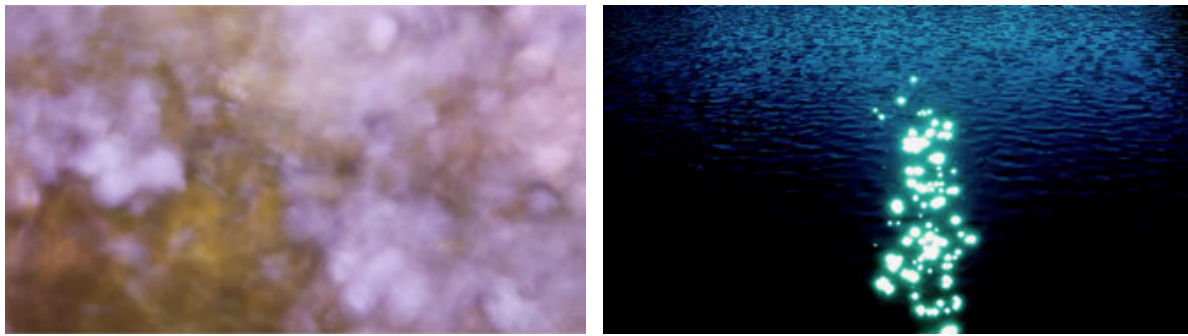


Figure 4.10 Shot through coloured glass (left) and abstract water reflections from *Suspension 6*

This final combined audiovisual study employs refracted use of light, derived from shooting through coloured glass and utilising patterns inherent in water reflections, although these are highly abstracted through exaggerated depth of field and the use of blurring, colour filters, high contrast and mirroring (Figure 4.10). The musical soundtrack employs recurring motifs throughout, though still incorporates a range of extended instrumental techniques and effects to obfuscate the sound source as outlined in previous studies, including the striking of strings above the nut of the guitar to produce bell-like tones, leading to a distinctive chime that emerges midway through the study and remains until the end. Like *Suspension 1*, the overall sensation for the author is one of tranquillity, as if descending into an underwater world, being held captive to the rippling light. As was the case in *Suspension 5*, the soundtrack was created first with video mapped to the audio, although it should be pointed out that the sequence of abstracted coloured glass that opens the video was shot while listening to the playback of the audio on the day it was created<sup>6</sup>.

The studies presented as a complete work, the *Suspension Studies* suite (2020), can be seen and heard at (<https://vimeo.com/424632176>). Their reconsideration as an integrated work, alongside the performance work *States of Suspension* (2018) is discussed in the Conclusion at the end of this chapter.

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<sup>6</sup> The music for *Suspension 6*, retitled as *Submarine Bells* was used in a combined audio and written submission for a special issue for the International Association for the Study of Popular Music (IASPM) Journal focusing on practice-based research in 2017: [http://www.iaspmjournal.net/index.php/IASPM\\_Journal/article/view/821](http://www.iaspmjournal.net/index.php/IASPM_Journal/article/view/821).

#### 4.3.4 Reception tests: suspended experience for others

##### Empirical data gathering

Although recognising that practice-led observations arising from the audiovisual exploration provided an effective means of examining suspension from a creative experiential perspective, a method to gather empirical data from the experience of others would provide balance for the investigation. The *Suspension Studies* suite (2020) was initially employed for a series of audiovisual reception tests to examine the responses of individuals to selections of suspended music and imagery. The tests presented a way of measuring qualitative response by asking respondents questions that would determine their perception of time, space, physical and/or emotional responses and the elicitation of sound or mental imagery, in comparison to my own experience. Questions were posed before, during and following the tests and sought responses to several key areas:

- Did age, gender, cultural background or having a background in arts practice have any bearing on the experience? (pre-test)
- Did exposure to suspended music or moving imagery result in any physical or felt sensations for respondents? (during test)
- Did respondents feel any emotional response to the tests? (during test)
- Did exposure to suspended music or moving imagery result in an altered perception of time, or of time suspended? (post-test)
- Did exposure to the studies of music and sound elicit any mental imagery? (post-test)
- Did exposure to the studies of imagery elicit any imagined sound or music? (post-test)

For phenomenological researchers, psychologist and academic Magnus Englander (2012) considers that the primary area of interest is “the subjectivity of other persons and thus it seems logical that we would want to get a description of such subjectivity” (p. 15). Englander observes that phenomenology can be problematic in qualitative research when inadvertently mixed with other methods “due to the incompatibility of the respective methods’ underlying philosophical premises” (p. 14). He stresses the importance of “examining not only how a phenomenon appears

to an individual subject but how it presents to an intersubjective community” (p. 15). Englander emphasises that in phenomenological research:

if one is following Husserlian descriptive phenomenological philosophy as a basis for a phenomenological theory of science, both the data collection and the data analysis need to follow descriptive phenomenology in order to achieve rigor...one needs to consider the consistency of method following the same logic that is part of the same theory of science” (Englander, 2012, pp. 15–16).

In this respect when designing the reception tests, I have attempted to carry a phenomenological attitude through into the questionnaire design itself, allowing participants to describe their experiences as fully and as imaginatively as possible by providing a range of question styles and possible ways of responding, including drawing their experiences of each study by hand. Although initial demographic questions were specific, those that followed were open-ended, allowing for detailed description with attendees invited to write as much or as little as they wished.

For the questionnaire design, I have considered two models. Firstly, John Sloboda (1991) employs an empirical approach to examine subjects’ physiological responses to specific passages of music in order to gauge emotional response to musical structure. Interestingly, much of his test design, although examining emotional response, is based on that of *physical sensation*, and thereby indicates an enquiry more related to *affectual response*, which has application for my own investigation. Sloboda acknowledges that although “these physical manifestations are only part of a complex experience, they have the benefit of being stereotypical, memorable, clearly differentiated from one another, and easily identifiable” and therefore able to be measured (p. 110). He notes that physiological responses such as “thrills” (a tingling sensation running down the spine) are likely to be “controlled by the same set of mechanisms that initiate or sustain emotion” in that they “directly reflect felt emotion” (p. 111). Although affect is not mentioned, the focus on physiological responses throughout the study indicates that emotion is understood here as *felt* experience. Sloboda suggests that “the study of emotional response to music best proceeds from measures which relate as closely as possible to *felt emotion*” and in this respect, would indicate affect as preceding emotional response (p. 111, my emphasis). Participants were asked to consider a range of physiological reactions

including thrills, laughter, a lump in the throat, goose pimples, racing heart and trembling. They were then asked to nominate music in which these responses occurred, including where in the piece the sensation happened, its consistency over repeated listening and to rate their frequency on a scale from 1 to 5. In respect to my own enquiry, this study provides a useful model for gauging physical response to specific passages of music and the frequency and intensity of these responses. Although my investigation focuses upon spatio-temporal characteristics of music and imagery as part of an immersive, ongoing experience over time (Sloboda's study concentrates upon "peak" emotional reactions to music-structural features in classical music) it has relevance in that physiological, i.e. affect-based responses to music are foregrounded, with emotion seen as a *result* of these occurrences. Sloboda notes in concluding that "The physical responses described are part of the innate autonomic response system of all human beings. They do not have to be learnt" and in this respect, the study is clearly grounded in physiological experience (Sloboda, 1991, p. 119).

As a second model, cultural researchers Alan Brown and Jennifer Novak (2007) measured audience reactions to music, theatre and dance performances. By combining the results of two questionnaires, one answered prior to the performance and another following, the study captured data on mental and emotional preparedness, as well as measuring "captivation, intellectual stimulation, emotional resonance, spiritual value, aesthetic growth and social bonding" (p. 2). Although several of these areas fall outside the remit of my research, this study proved valuable as a framework for measuring qualitative data in discrete stages, as well as question design that related to my own areas of investigation. Brown and Novak's model employs a short "readiness-to receive" questionnaire, followed by a more detailed "intrinsic impact" questionnaire, consisting of Likert scale responses to statements concerning captivation, reflectivity, emotional resonance, spiritual response, aesthetic and general satisfaction of the performance. The authors consider "captivation" to be "the lynchpin of impact", the degree to which "the respondent was absorbed in the performance...inhabited the world of the performers, lost track of time and forgot about everything else" which parallels my own investigation into perception of time and sense of immersion (p. 11). Brown and

Novak consider these characteristics indicative of flow experience as posited by Csikszentmihalyi (1990), suggesting that the “achievement of ‘Flow’ or high levels [of] captivation are closely linked to higher levels of satisfaction” (Brown & Novak, 2007, p. 11). As noted previously, suspended experience of music may bear some relation to flow experience, and questions were posed as to whether there was a sense of immersion or losing a sense of time and space. Likewise, in relation to “emotional resonance”, participants were asked to characterise their emotional response to performance. In contrast to the relatively simple Likert scale responses required by Brown and Novak, my own questionnaire asked for descriptive responses to a range of suggested emotional states such as happiness, amusement, boredom or anxiety, in line with a phenomenological enquiry. Despite the difference in research focus, many questions in Brown and Novak’s study sought similar responses to my own in regard to arts training or experience, emotional response, sense of absorption, altered sense of time and transcendent experience, and I have modelled some of my questions on these. However, in respect of cross-modal correspondences between music and imagery, a different model was required.

Mats Küssner (2013) investigates the idea of “shape” in music by utilising a simple yet effective method of measuring cross-modal correspondence. Küssner observes that musicians often think of music in visual terms and communicate this “subconsciously or deliberately accompanied by arm, hand or whole-body movements...as an embodied and gestural phenomenon” (p. 473). He suggests musicians are conveying “what music communicates...its expressiveness” rather than physical properties of sound. However, it is properties such as frequency, amplitude or waveform that are drawn upon and therefore need to be examined. Küssner notes the limitations of previous studies that relied on matching visual and auditory phenomena, whether by methods of congruency between stimuli or “forced-choice matching”, i.e. being presented with a sequence of tones and choosing from a pre-determined set of visual stimuli. Observing these were inadequate in terms of expressing shape or contour. Küssner suggests a more desirable method of measuring cross-modal correspondence in regard to shape in music is a “free response paradigm” to gain a broad range of data, and in the case

of music, “drawings, sketches or paintings [are] a valuable method to give participants the necessary freedom of expression” (p. 473).

I have chosen to emulate Küssner’s research approach as I feel the simplest and often most direct visual representations of music and sound that can be made are through the act of drawing. Participants for the reception tests were encouraged to attempt drawing as a method of expressing what they visualised when hearing the studies of suspended music, which several participants took up with enthusiasm, although a significant number declined. Drawings ranged from free-form expression employing abstract lines and forms, through to detailed pictorial depictions of terrestrial features such as forests, mountains and lakes, celestial representations of the sun, moon and stars, and elemental properties such as lightning, fire, water, snow and rain. Human figures and birds also featured prominently in one respondent’s drawings, including the sensation of flying and figures riding on a bird. It can be observed that the majority of drawings captured dynamic events, in either abstract or figurative form, and a significant number were represented by natural occurrences, i.e. ripples on a lake, snow or rain falling, stars “blinking” etc. A more detailed interpretation of these drawings is contained in Chapter 5; it should be noted many of these naturally occurring phenomena inform conception of the final project, including the video loops that accompanied the performance.

Interestingly, Küssner’s current research at the time of writing (M. B. Küssner, Eerola, & Fujioka, 2019) investigates visual imagery generated during music listening and whether these images “contribute to the overall emotional experience of the listener” (p. 59). The authors note that “visual imagery during music listening is a common phenomenon” and despite a diverse degree of imagery is “often related to autobiographical events” (p. 59). Images reported by participants include “landscapes, people dancing, or making music, as well as abstract shapes, objects, and colours” which bear some relation to the test results noted above (pp. 59–60). Although still at an early stage, Küssner, along with other researchers investigating the links between music and visual imagery, is making significant inroads into this area of research and I watch this space with interest, in the hope that my own investigation may contribute further to this field.



## Designing the reception tests

The call for participants did not specify that individuals have a background or proficiency in visual arts or music, however it was requested that they have an interest in the research area. Participants were procured through social media, poster advertising (see Appendix A) and word of mouth during the months of April and May 2017 with two one-hour test sessions booked for June 2 and 9. The sessions were conducted in a darkened lecture room at the Kingswood campus of Western Sydney University (Figure 4.11) with the studies projected onto a standard large format screen and played through the available sound system. The tests received ethics approval from the Human Research Ethics Committee at Western Sydney University (WSU) in November 2016. Each participant received a retail gift card for their time.

The participants were provided with a written questionnaire divided into three pages to gauge responses before, during and following the test (Table 4.1). The first page recorded quantitative data relating to age, gender, cultural and musical



*Figure 4.11 Lecture room at WSU Kingswood campus used to conduct the reception tests. Photograph by the author.*

background, and qualitative data regarding musical tastes and practice, as well as Likert scale questions (indicated as L) as to whether participants agreed or disagreed with statements about perception of music and imagery (Q1–10). During the tests, participants recorded qualitative data about physical and emotional responses to each piece and were provided with blank sheets of paper and pens to draw visual responses if they were comfortable to do so (Q11–12). Following the test participants were asked to record their perception of time, sense of immersion, elicited sound or imagery and enjoyment of each study. (Q13–17).

Table 4.1 Questions asked in the reception test questionnaire

QUESTIONS PRE-RECEPTION TEST
1. Your age.
2. Gender.
3. Cultural background.
4. Are you a musician or an arts practitioner? In what area/s?
5. What music do you listen to when thinking or contemplating? Please name artists, genres etc.
6. (L) I enjoy music or art that I can lose myself or feel immersed in.
7. (L) I like music and art that is predictable and not too challenging.
8. (L) I enjoy music that takes me into another state of mind.
9. (L) I sometimes hear music when looking at art or imagery.
10. (L) I sometimes see imagery when listening to music.
QUESTIONS DURING RECEPTION TEST
11. Describe any physical sensations you observe while watching or listening to these examples, e.g. tingling, shivers, tiredness, dizziness etc.
12. How do these examples make you feel? Please list your emotional responses to each example, e.g. happy, bored, amused, anxious, curious, transcendent etc.
QUESTIONS POST-RECEPTION TEST
13. How long (in duration) did you feel each example was? Please estimate.
14. Did you feel immersion or lose a sense of time and space in any examples? Please describe.
15. Did the music only examples elicit any imagery for you? Describe what you saw.
16. Did the visual only examples elicit any music/sound for you? Describe what you heard.
17. Did you enjoy any of these examples?

Analysis of the results from the reception tests, including demographic, physiological and emotional responses are discussed in Chapter 5: Empirical and Creative Outcomes. The questionnaire responses to the reception tests are contained within a table in Appendix B, with drawings made by participants included in Appendix C. The direct findings of the reception tests are detailed in Appendix D, with discussion and conclusions of the tests examined in Chapter 5.

#### 4.3.5 *States of Suspension: an exploration of suspension in performance*

##### Background

The premise of *States of Suspension* (2018) was to establish a spatio-temporal aesthetic zone for audience and performers alike to experience the suspended state as a live, performative event; a self-contained ecology of sound and light to work in conjunction with existing environmental elements in a site-specific performance. As an exemplification of Brad Haseman's "performative research" paradigm (2006), this required musical and visual elements to integrate directly with a venue exhibiting acoustic, visual and spatial properties conducive to suspended experience. Ideally an outdoor setting, this location needed to be suitable for staging a public event and for an audience to observe and experience naturally occurring phenomena, in particular the transition of natural light as a temporal and spatial exemplification of threshold experience *in situ*. The balancing of inside and outside elements in the work, drawing on the Japanese concept of Ma, positioned the location of the event as a dynamic site of potential and possibility, a place where "intervals of space and time...become meaningful only when filled with motion" (Chenette, 1985, p. 3).

*Within without* (2010), the site-specific artwork by James Turrell, influenced the choice of venue, especially Turrell's architectural consideration of light and how it was designed to integrate with the environment. The artwork's open aspect to the sky, so the viewer could experience light set in isolation against the interior also informed my thoughts in regard to audience reception. I noted that several of Turrell's *Skyspaces* were augmented by coloured lighting from the interior to emphasise or complement the sky. The minimal aesthetic of *Within without* made an impression not only visually and spatially, but acoustically—the reverberant nature of the domed interior lent the space an unusual auditory quality, an idea I was keen to explore creatively. Both Doyle (2005) and Lacasse (2000) have observed the significance of reverberant spaces in early cultures contributing to a sense of ritual and performance, and it was important that the proposed location possess spatial, visual and auditory properties that would contribute to the sense of a unique event. It was also important that an area with comfortable seating be made available, addressing both Gallese's idea of "immobility" in the reception of fictional worlds

“intensifying the activation of bodily-formatted representations (2017, p. 47) and Clarke’s notion of “autonomy” in music listening where “passivity engenders aesthetic contemplation” (2005, p. 138). Both of these ideas were formative in the desire to create a performative suspension zone for both audience and performers.

### Site of the performance

As a long-term resident of the Blue Mountains and having drawn artistic inspiration from the natural surrounds, it was important to me that the site for the performance would be situated in the area. A number of potential venues in the region were initially contemplated, including a cave and a natural amphitheatre. However, a space I had previously considered for a potential performance event came to the fore: the courtyard of the Blue Mountains Cultural Centre. Based in Katoomba and centrally located within the World Heritage-listed Blue Mountains National Park, the Cultural Centre courtyard possesses intriguing sound properties due to a paved sandstone floor, parallel walls and an arched window and parapet. It is also visually striking, with long, straight pavilions along each side of the central courtyard directing attention southwards towards a viewing platform with sweeping views of south Katoomba and the Jamison Valley (see Figures 4.12 and 4.13).



*Figure 4.12 Blue Mountains Cultural Centre courtyard, northern aspect at dusk. Photograph by the author*



*Figure 4.13 Blue Mountains Cultural Centre courtyard, southern aspect at dusk. Photograph by the author*

These photographs were taken in late summer during an evening exhibition opening, and the opportunities afforded by the courtyard became apparent from observing children enjoying the open qualities of the space. Apart from its acoustic and visual properties, the courtyard is readily conducive to public performance and given the community-oriented nature of the cultural centre and its proximity to a gallery, licensed cafe and library, was considered appropriate for a performative arts event. Enquiries to acquire the space for a public performance were initiated in March 2016, with permission to use the space finally granted in November 2017.

The visual impression of the Cultural Centre courtyard is of a broad, open space, with the vista of the sky dominating the design. The elevated aspect of the centre, located towards the top of Parke Street in Katoomba, means the horizon line and distant mountain peaks are only just visible upon standing—in a seated position within the café they disappear altogether (see Figure 4.14). There is a sense of floating in mid-air, as if separated from the terrestrial world beneath. This quality gives the centre a sense of other-worldliness, adrift from the rest of humanity, not unlike Foucault's idea of heterotopia as “a floating piece of space, a place without a place” (1986, p. 27).





Figure 4.14 Blue Mountains Cultural Centre, southern aspect. Photograph by the author

The acoustic qualities of the courtyard give a clear and immediate sense of the surrounding space. Beneath the large window arch, a prominent slap back echo, variable in length, providing an unusual between acoustic space, not dissimilar to the reverberant quality of *Within Without* (2010) although less contained. The time of the echo ranges from 180 milliseconds directly below the centre of the arch to 150 milliseconds nearer the side walls, with the dominant echo equating in musical terms to a pulse of 16<sup>th</sup> notes at approximately 107 beats-per-minute (bpm). The musical potential of this space was apparent at an early stage and it was decided to incorporate this tempo as integral to rhythmic aspects of the artwork, serving as the fundamental pulse residing behind the music and subsequent subdivisions of beat. The blank canvas of the underside of the archway also held potential as a projection area, with the centre position located beneath the arch an optimal area for a between zone of experience acoustically and visually, with the open vista to the south incorporating the changing light conditions as part of the artwork.

Proportionally, the constant areas of the courtyard, the paved floor, corridors and large enclosed window, are balanced with the open or outside aspects of the venue, the sky above, open viewing platform and mountains beyond. The possibilities afforded by the courtyard as “a realm of pure possibility whence novel configurations of ideas and relations may arise” (Turner, 1967, p. 97) were apparent.

## Designing the work

*States of Suspension* (2018) was conceived to integrate with and respond directly to the acoustics and location of the Cultural Centre environment, and in this respect is site-specific. Drawing on findings from my own creative exploration and reception tests conducted with participants in June 2017, the combination of music and visuals aimed to create a threshold between environment for an audience that in conjunction with visual and auditory elements from the natural world, would provide an experience of suspension for the duration of its performance. *States of Suspension* aimed to achieve a fusion between naturally occurring phenomena in the Blue Mountains environment, combined with an artistic vision of how this was experienced musically and visually. In many respects, the work is a personal evocation of my experience of living in the mountains interpreted through music, light and imagery. However, *States of Suspension* also considers larger themes of the world and humanity as a whole, how we engage and participate artistically within our individual environments and how our own stories are told and retold as part of a living ecology of light, sound and movement.

## Music and sound

The creation of music for the event was approached in a similar manner to that of the *Suspension Studies* (2020), employing looped beds of sound that represented to my mind the constant or invariant properties in the soundscape. Improvisation however would be integral to the performance, as the variant component: spontaneous music was intended to emerge and react in direct response to the surrounding acoustic environment and changing light conditions. Although I had initially contemplated a solo improvisation, the interactions afforded by the chemistry of performing within a group are far more appealing, especially in regard to spontaneous improvisation. This was apparent while working with the music group PaperSun for the previous year, as the potential of these musicians for creativity in performance was clear to me. All members are highly experienced: bass player Mark Bradridge was familiar with the extended techniques of Fred Frith, guitarist Steve Waters was well versed in experimental rock, drummer Steve Gunning had experience in orchestral music, jazz-rock improvisation and prog rock,

while I brought my own flavour of psychedelic soundscape textures on guitar and keyboards. All players were more than happy to explore alternate tone colours, effects and extended techniques. The potential for polyrhythm in the echoed surrounds of the Cultural Centre courtyard was also readily apparent: once the timing of the echo in the space was established, work began in earnest on the conceptualisation of the work.

I had originally envisaged *States of Suspension* (2018) to be completely improvised, in an approach similar to that of The Necks, the Australian improvisation trio of Chris Abrahams, Lloyd Swanton and Tony Buck, that demonstrates for me how improvisation can be performed minimally and effectively. On the album *Open* (2013), The Necks create a mesmeric, evolving structure from initial small musical fragments or cells, carefully cultivated like an emergent organism for well over an hour. I sensed for *States of Suspension* however that a completely improvised approach may be difficult to maintain and resolved early to structure the music as a series of related sections that would flow seamlessly into each other, not dissimilar to the structure employed for Pink Floyd's 23-minute "Echoes" (1971) and other progressive rock from the 1960s and 70s.

I decided to utilise the audio software Ableton Live (Version 10, 2018) in part for its looping ability and flexibility in performance, but also for its considerable capabilities in the manipulation of audio, including the use of reverberation, echo, equalisation and controls to effect changes in



Figure 4.15 The arrangement view of the *States of Suspension* session in Ableton Live

timbre and density. Although the Loopy app had proved useful in a studio environment, its limitations became apparent in rehearsal when attempting to switch between apps on the iPad screen. Ableton Live is optimized for use as a live performance tool and is geared toward those creating music "on the fly", hence its appeal to improvisers and electronic music producers. Live provides the means for recording sound as a loop that can be time-stretched to fit the session and the user



can alter audio parameters while in performance. It also proved to be highly effective in planning the structure of the *States of Suspension* (2018) event by utilising the software's timeline-based arrangement view (see Figure 4.15) similar to linear time-based audio software such as Pro Tools, and for its ability to create MIDI events that in turn could trigger external equipment such as lighting and projections.

Initial sketches for the sections were mapped out in November 2017, utilising musical and auditory ideas explored through improvisation with the musicians and captured as demo recordings, the results of which I would refine in my home studio to create musical “beds” in Ableton Live over which the band could improvise. This process usually began with a simple repeating motif, based on a looped quartal or quintal “cell” of notes, for example, a rolling arpeggio on the tones G, D, A and E. Once in motion, the cell would be modified through timbral variation, changes to sound envelope and manipulation of auditory space. Working with the 107bpm tempo derived from the courtyard echo, a number of cells would be overlaid and varied in note length and number so as to obfuscate a sense of where the dominant pulse lay. All of these were in time yet appeared to be occupying rhythmically different spaces concurrently. Similarly, the harmony for each piece, typically based on four notes, maintained an ambivalence of key due to the absence of functional harmonic progression (at this stage), contributing to a sense of tonal “hovering”. With the addition of timbral and spatial manipulation, these cells appeared in an auditory sense to hang and shimmer in mid-air. Ableton Live facilitated the manipulation of sound and space effectively, enhanced by the use of timed delay and reverberation designed to work with the existing acoustic properties of the courtyard. In one instance, equalization and reverberation were employed to suggest the sound of something approaching from deep underground, at first muffled and indistinct with high frequencies attenuated, but gradually becoming clearer and appearing to move into the foreground with the original frequencies restored and reverberation gradually removed. In another section, reverberation was used as a textural quality, by building on a sound derived through an extended guitar technique to maintain a diffuse, shimmering texture. The compositional approach was to build up sonically in textural strata-like layers, similar to the vertical approach to timbre in the works of Eno, as observed by Tamm (1995, p. 4).

Environmental sounds were also incorporated into the work. Field recordings made on location in the Blue Mountains environs that captured cicadas, crickets, bird calls, flowing water and wind are present in the work as invariant elements drawn in from the surrounding landscape. From my experience of walking through bushland, I am cognisant of the constant presence of particular sounds in the landscape. In an open environment where there is almost no acoustic reflection, there is an audible sense of moving through spaces gradually, rarely with the rapid onset of sound encountered in walled environments. Once away from urban centres, there is a consciousness of continuity of space, of one ecology merging seamlessly into the next. In this sense, I employed environmental sound in *States of Suspension* (2018) as a conduit between outside and inside, bridging natural and imaginary worlds. The cicadas, bird song and other ecological constants or invariant elements that I perceived as suspended in the natural environment were introduced at the beginning and between each section, gradually morphing and linking each new sonic environment from apparent reality into something more abstracted and dream-like. This form of source deformation, where “timbral signifiers...are deformed through digital and analog effects” serve as a gateway into imagination and new worlds of sound, with natural elements providing a transition between one auditory world and the next (Osborn, 2017, p. x).

The sketches devised in rehearsal were refined over the proceeding weeks and although still improvisatory in nature, began to take on structural elements. Bass guitar would typically underpin any perceived harmonic movement and gave a sense of progression through each section. However, suspension was always in evidence through the employment of repetition, drone, layering and diffusion, both rhythmically and harmonically. With the avoidance of tonal resolution, there was scope to take an improvisation in a number of directions harmonically, and with further freedom afforded through extended techniques, this allowed for each world to gradually develop its own theme or sense of place. Perhaps not surprisingly, these were based mostly on elemental qualities I associated with suspended experience, although some were more imaginative and descriptive of spaces not normally encountered. All were suggestive of patterns of light and movement:

- **Section One (*Lux*)** related to qualities of *light*, especially refracted light associated with dawn or twilight, when the sun is low on the horizon. Accordingly, tone colour was rich in harmonics with frequency sweeps and pitch modulation in abundance, awash with cymbal colour and bells. Drums were muted with the use of mallets, with guitars employing sustained tones, volume swells and swoops evocative of evening bird calls
- **Section Two (*Aqua/Terra*)** related to seen/unseen and felt movements of *earth* and *water* in a subterranean sense. This section had a driving pulse, utilising a prominent hemiola rhythmic figure with the sound quality denser and more pronounced in lower “earthy” frequencies in the piano, though retaining a “glistening” quality with high frequency modulation. Water flowing underground is a constant element in the mountains landscape and can be seen seeping through rocks and crevices long after a rain event
- **Section Three (*Caelitum*)** was reflective of the qualities of *heat* and *shimmer*. This section was largely un-pulsed, employing drone and time-stretched voice to sustain a sense of elongated, indefinite time. Heavy manipulation of timbre and use of extended instrumental techniques and effects were employed to produce shimmering qualities, including beating an open-tuned guitar with mallets to produce resonances. The constant presence of cicadas throughout this piece is a reminder of summer heat and haze
- **Section Four (*Vida*)** was representative of *life*, movement and progress, of humanity’s engagement with technology and modern life. This movement in contrast to the previous was heavily pulsed and syncopated, with an urgent tempo and more conventionally structured in a rock format, in some respects imitative of the breakneck pace at which we sometimes live
- **Section Five (*Astra*)** related to the movement of astral bodies through *space*, employing conspicuous use of echo and reverberation in conjunction with frequency sweeps and modulation to gain a sense of the vast distances of the cosmos. Guitars made use of “space-like” effects such as an ebow (an electronic sustaining device), a mellotron emulator and wah-wah pedal, with techniques such as volume swells and echo sweeps utilised throughout.

The event was planned to coincide with a lunar eclipse occurring on Thursday February 1, 2018 to maximise a transformational, between zone of experience for the event, but due to availability of the venue had to be moved to the following night of Friday February 2, 2018. The timing of the first and last sections also related to the transitioning conditions. Section One (*Lux*) would commence at 8.00pm at the commencement of twilight (sunset on February 2, 2018 was at 8.03pm AEST) while Section Five (*Astra*) concluded in darkness with stars emerging at about 8.55pm.

### Visuals and light design

As well as musical elements, the *States of Suspension* event needed to address visual aspects of suspension as I perceived it. The open vista of the cultural centre courtyard and the changing light conditions during the evening would provide the overarching environmental



Figure 4.16 Underside of the Cultural Centre archway.  
Photo by the author

background to the experience, complemented by projections that addressed the musical and auditory content and lighting conducive to an immersive experience.

The initial plan was to exploit the white underside of the overhanging archway as a projection area for visuals (Figure 4.16). Given this area was determined acoustically maximal for suspended experience, it made sense to utilise this blank canvas for the projections as well. Comfortable seating, provided by the Cultural Centre, would be arranged beneath the archway, where audience members could take in a more contemplative experience. This echoes not only the approach of Turrell's *Skyspaces* but addresses Gallese's idea of immobility contributing to immersion in fictional worlds (2017, p. 48). Additional LED strip lighting would be placed along the long corridors to the north and south, providing ambient yet well-lit walkways alongside the performance area. These were organised with a mountains-based lighting and projection company with which I had previously dealt with for a different event. Despite a very compressed time period in which to organise the event (approval for use of the venue was only granted in November 2017) projectors and lighting were booked for the event, with designs for projections commencing in January 2018.

Video projections were formulated to complement the emerging musical themes, based on suspended phenomena observed in natural and man-made environments; the fourth section in particular employed human activity and movement. Although video content would be triggered by MIDI events on a timeline in Ableton Live, it was unsynchronized, with each video gradually dissolving into the next, suggestive of the temporally fluid nature of suspended experience rather than relating directly to any specific musical events. Although developed thematically according to each section, each 10–30 second video was looped upon itself, maintaining a sense of temporal and spatial suspension, and could be played for as long as required. The content for each video was abstracted from its source—although some phenomena could be identified, much was deliberately ambiguous and evocative (see Figure 4.17).

- **Section One** exploited qualities of light, including bokeh and out of focus effects, diffusion, and shooting directly into the sun to encourage refracted light (1a). Many of these employed different layers via inset frames (1l) that sought to juxtapose different temporalities and spaces
- **Section Two** employed abstracted sequences emulating the repetitive flow of water, combining gradient bands of light with earth textures moving constantly past the viewers point of view (2c). Accordingly, colours used in this sequence tended toward the cooler end of the visible spectrum (2i)
- **Section Three** used effects of heat shimmer, with colour employed typically in the warm range of the spectrum in reds and oranges. The diffuse, shimmering visuals were derived from refracted and filtered light captured through glass and/or from radiant heat (3a and 3g)
- **Section Four** focused on activity and patterns evident in living organisms. Juxtapositions between human activity (street traffic, people moving through a shopping mall) and animal life (the movements of an ant colony) were highly abstracted and sped up or slowed down accordingly (4e and 4h)
- **Section Five** tracked the movement of astral bodies, including the moon, planets and stars. Although imagery in this section was derived largely from stock footage, movement was often exaggerated or sped up, with tracer effects applied or slowly spiralling or zoomed camera motion to imply movement through space (5b and 5e)

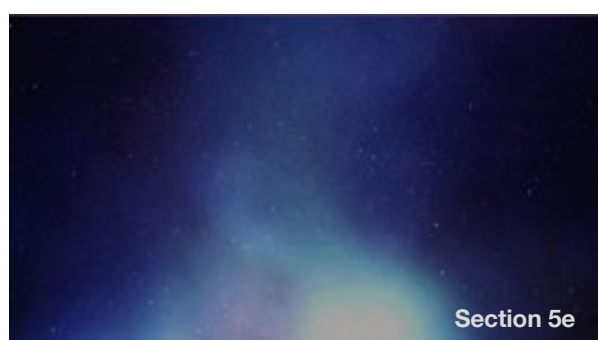
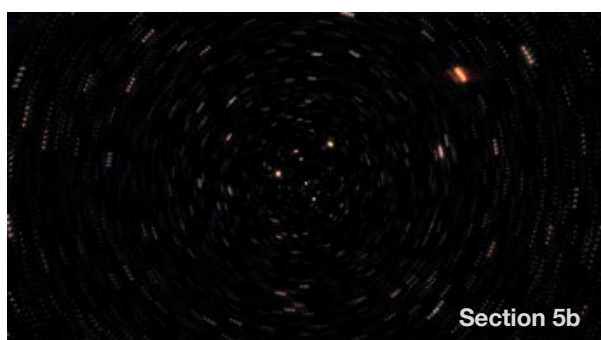
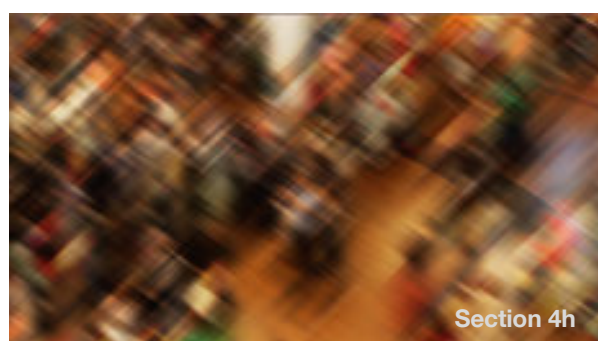
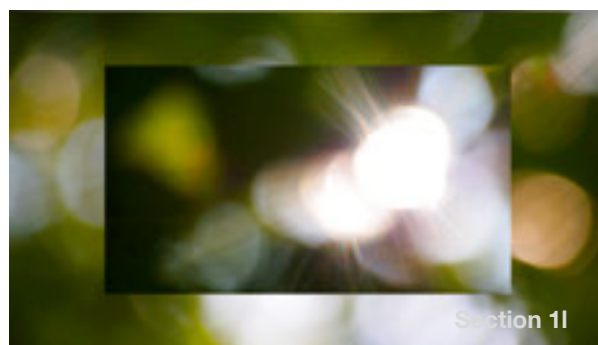


Figure 4.17 Video stills from the five sections of the States of Suspension projections

#### 4.3.6 Conclusion

In light of the design of *States of Suspension* (2018) serving as an active performative representation of suspension *in creation*, a reconsideration of the earlier studies in suspension was made. In their initial role as a series of practice-led audiovisual explorations, the studies served to examine the experience of suspension in creative practice and were subsequently employed to gauge the response of others in an empirical gathering of data to provide balance for the investigation. However, these studies also provided a third role: that of creative exemplification of suspension as an embodied work, in Gallese's sense of "immobility", that is, an embodied response to an aesthetic work received in contemplation where "inhibition...allows us to allocate more neural resources, intensifying the activation of bodily-formatted representations, and in so doing, making us adhere more intensely to what we are simulating" (2017, p. 48). In this sense, the studies were reconsidered as an embodied, self-contained work, the *Suspension Studies* (2020) suite, alongside the *States of Suspension* (2018) event as an active, performative work.

The following chapter will detail creative outcomes from the investigation into suspended experience. This includes insight and discoveries made from initial audiovisual exploration leading to the *Suspension Studies* (2020) suite, comparing these with results from participant responses to the reception tests, and concluding with a comprehensive examination of the *States of Suspension* (2018) event, including last-minute changes made due to unforeseen technical issues and the performers' experience of the event in retrospect.



## Chapter 5      Creative and empirical outcomes

### 5.1 Overview

This chapter discusses the creative and empirical outcomes arising from audiovisual exploration into suspended experience. These are the audiovisual studies employed for reception tests and their reconsideration as the immobile artwork *Suspension Studies* (2020), the empirical results derived from participant responses to the 2017 reception tests, and the improvised performance work *States of Suspension* (2018). Practice-based insights, including the embodied experience of suspension derived from initial audiovisual exploration and from the performer's experience are discussed here, with comparison made between my own reactions and those derived empirically from participants to the reception tests.

The audiovisual studies drew on theories and philosophy outlined in Chapter 2 and were informed and inspired by the creative exemplars detailed throughout Chapters 2, 3 and 4. The application of phenomenological principles, including the concept of bracketing and Schaeffer's (1966/2017) reduced listening approach are expanded upon. Affectual response and its role as an embodied aesthetic experience according to Stern (2010) and Gallese (2017) are considered, and observation of cross-modal correspondence between sensory modes during creative exploration and reception tests is noted. Finally, the idea of an emergent ecology of sound and imagery is considered in light of the final work, with a summary of the final event presented. Conclusions and research questions are answered in Chapter 6.

### 5.2 Results of audiovisual studies and reception tests

In all, a total of eighteen improvised music and audio studies were recorded from April to October 2016, including a live improvised performance captured as part of the presentation "Inner Landscapes" at the *Energising Silence* conference at Western Sydney University on September 1 (Long, 2016). Exploration in imagery was derived from approximately 300 sections of "suspended" footage, resulted in four video studies that in conjunction with four audio studies selected for use in the reception tests in June 2017 were subsequently reconsidered as the standalone *Suspension Studies* suite (2020).



A decision was made early to split some studies into either audio-only or visual-only, not only to determine the degree of suspension experienced in each modality, but also to gauge if suspension was perceived as a multimodal for participants. From my experience in creating the auditory studies, I found visual elements would enter my thoughts frequently throughout the process of creation and particularly on reception, often appearing in my mind as open vistas and environments. For the visual studies however, this was not as apparent in the creative process, I suspect largely due the lack of spontaneity as outlined in the results of the visual exploration below, however a degree of auditory response was noted in reception. I was conscious throughout of not paying attention to whether this would occur in each mode, although it is difficult to maintain an absorbed yet analytical mindset. The reception tests themselves reflect an attempt to understand whether others have a similar experience of suspension, and the questions were designed in regard to aspects of suspension that I had observed in myself, particularly in regard to a sense of immersion, temporality, physical sensation and multimodality.

### **5.2.1 Designing the *Suspension Studies*: an embodied approach**

The methodology employed for the *Suspension Studies* (2020) contributed to a series of observable results and insights into suspended experience via creative practice. These were derived through praxical engagement with technologies and embodied response to the audiovisual material produced during the creative process. Creative outcomes for me are inextricably linked to process, and in the manner of Smith and Dean's iterative research cycle with its "many points of entry and transition" (2009, p. 19), this is informed as much by affectual response during the creative process as it is by the artistic outcome. This section therefore outlines the creative processes and outcomes leading to the suite of *Suspension Studies* from an embodied experiential perspective, detailing aesthetic decisions carried out during the exploration, and finally considers embodied response to the completed suite of *Suspension Studies* as an immobile body of work. My responses are then compared to those of individuals in the results of the reception tests to follow.

## Results of auditory exploration

To facilitate the recording of improvised content, and mindful of the eventual performance component of this research, an environment that emulated the experience of live performance was desirable. The recording equipment, monitored through a small p.a. system with inputs for guitar and effects, physical devices for sound manipulation and a microphone, with a Bluetooth MIDI foot controller for hands-free operation, was purposely designed to record my efforts as they emerged (see Figure 5.1). It was also consciously “guitar-centric” (although keyboards would be added in performance) and concentrated

on exploiting as many characteristics of the instrument as possible. This “live” setup created an environment in which to record the act of improvisation *as it occurred*, instead of the more considered approach I had employed throughout my Honours year. I was interested to observe whether an experience of suspension or sense of between would be perceived during the creative act throughout improvised proceedings, in the nature of a “realm of pure possibility” as suggested by Turner (1967, p. 97).

Typically, an audio loop was recorded as a bed track, drone or repeated motif to initiate the tone or mood for the recording. Even at this early stage, I made judgements as to the character of the sound and its timbral qualities as this would affect the overall perception of the recording and its capacity for mental imagery. The sense of motion captured in the recorded sound was important as this informed my bodily response for the remainder of the composition, for example whether motion was perceived as agitated, or relaxed and calming. As noted by Smalley, “intuitive knowledge of the human physical gesture involved is inextricably bound up with our knowledge of music as an *activity*” (1997, p. 109, original emphasis). The inherently corporeal response to sound in the phenomenological approach locates the body as an entire sensing unit, as suggested by Smith (1979) and Dufrenne (1973). As noted by Smith, the bodily response cannot be “understood only in a



Figure 5.1 The recording setup for audiovisual exploration in Aug 2016

sense of a physical or physiological response” but must be felt as an entirety, of which audition is only one part of a “living, experiencing unit” (1979, p. 207).

Felt bodily activity was particularly observable in regard to frequency range and I journaled the results. Low bass frequencies and rumbles were typically sensed throughout my entire body, mid-range tended to be felt in the chest and head, whereas high frequencies were perceived almost exclusively by the head. The directionality of sound dependent on frequency affects this perception, given that the wavelength of lower frequencies is broader and more widely dispersed than the narrowly focused direction of higher frequencies, so it was of interest to observe how the physicality of a sound object and its perceived movement through space was sensed. Lower frequencies associated with a large mobile object, as previously noted are usually felt in the body before visual verification is made. In an ecological sense this may denote danger, of which I was mindful when using bass frequencies.

I was also conscious of how selective equalisation could direct auditory attention, mimicking the effects of occlusion. When walking through an outdoor environment where sound events are more clearly articulated due to the lack of reflective surfaces, I have observed that obstructions and objects with a large mass will noticeably attenuate and even refract high frequencies as they pass, resulting in phasing and other acoustic anomalies. This relatively simple audio illusion can be achieved with equalisation such as a low-pass filter yet is surprisingly effective in a constructed auditory environment to imply movement through a space. This effect has also been noted by Clarke (2005) from the perspective of ecological perception, noting that the Fatboy Slim track “Build it Up, Tear it Down” (1998), “gives rise to a powerful sense of approach to (or approach by) a sound source” (p. 81–82). This technique of directing auditory attention in space informs some of the studies and is a feature of the beginning of Section 2 of *States of Suspension* (2018).

Distortion of my perception of time was apparent during this process. My absorption in creative activity appeared to elongate temporality, on many occasions leading to hours flying past while creating. This may exemplify Csikszentmihalyi’s flow experience in the autotelic nature of creative activity. One of the defining features of flow is “an intense concentration of attention” (1999, p. 381) and I have no doubt I experienced this in the creative activity involved in the conception of new sounds.

However, I observed a tendency to “dip in and out” of the flow state with music displaying suspended properties, dependent on the activity and level of concentration. A form of non-attentive listening could occur, where attention was focused in another zone, while I was still able to function and interact with outside activity. This is not unlike the experience of being absorbed in music or reflection when driving, to the extent where the body continues the journey, effectively on autopilot with acquired motor activity taking over. This mode of thought may also demonstrate a shift between modes of listening, in the manner of Schaeffer’s *quatre écoutes* or four modes of listening as noted by Young (1996, p. 74).

The repetition inherent in the looping of audio tracks clearly contributed to this continuity of thought. As noted previously by Schaeffer (1966), Eno (in Tannenbaum, 1985) and Clarke (2005), the replaying of auditory events over time will gradually bring more attention to the “particular character of the sounds themselves—their texture, timbre, rhythm, and pitch” as observed by Clarke about the work of Steve Reich (2005, p. 138). From my own exploration I found that employing reduced listening would focus attention on these innate sound qualities as the method of repetition gradually became backgrounded, the variant phenomena ensuing from unchanging invariant features. However, I also observed that in the exact repetition of a signal in digital loop-based systems, unlike the tape-based systems of Reich, Schaeffer or Eno where a degree of auditory degradation occurs, there is no opportunity for variance unless it is purposely *built into* the system, or there is direct intervention on the part of the performer during recording or performance.

Illustrating a key aspect of Gibson’s theory of invariance (1979), I found myself developing ways to gradually introduce variant qualities as the constancy of the digital process became apparent. Organic processes can grow and evolve without interference, but a digital process cannot. Hence, I decided that intervention would be required for the eventual performance work, in the form of direct manipulation of parameters during live performance or building variance into the audio.

One method of achieving this was through timbral variation. The exploration of timbre, either by extended technique or through manipulation of the auditory signal, revealed characteristics of sound that were unexpected, almost as if peering through an auditory microscope, and would contribute to a sense of suspension. By

drawing out an audio signal further by delay or reverberation as a textural effect, the underlying character of a sound was further exposed, revealing captivating detail. Although the Loopy app (Tyson, 2014, Version 1.4.1) had no capacity for time stretching, I was able to achieve timbral and textural variety through relatively simple means. Using an analog delay to first sample a sound and then change its speed and duration, evocative sweeps and dives were transported across the stereo field. In a similar manner, the use of pitch shifting via a guitar pedal effect revealed strange, unsettling timbres, either seemingly helium-inflated, or low, resonant and foreboding. A violin bow used on the low strings of a guitar in conjunction with pitch shifting, led to a rich, textural growl with remnants of digital artefacts remaining, which can be heard in *Suspension 1* (<https://vimeo.com/341460407>) at roughly 2:03. These sounds, although initially disconcerting, have a distinct presence and physicality to them when heard on suitable speakers.

Similarly, the modification of sound envelope, through reversal or the employment of a “slow gate” effect where the attack of a signal is attenuated, resulted in noticeably unsettling corruptions of sound, stretching the limits of Smalley’s source bonding (1997, p. 110). Although I have used this effect extensively, the result has never failed to surprise, especially when used in conjunction with extended techniques such as slide or a violin bow, resulting in bizarre timbres as previously noted by Osborn (Osborn, 2017, p. xi) in Radiohead’s “Like Spinning Plates” (2001a). On one study, which eventually became *Suspension 3* (<https://vimeo.com/341462552>), both reversal and the slow gate effect are used extensively before three minutes into the track, resulting in an unearthly skyscape, which appears to be occupied by menacing swooping creatures flying across the stereo field. The apparent motion inherent in the sound plays a dominant role in creating the impression of a convincing, yet ultimately unreal, imaginary soundscape.

### Results of visual exploration

The process of video exploration for the *Suspension Studies* suite (2020) was not as spontaneous than that of the improvised music and sound studies. Although the capture of imagery was instantaneous, the editing procedure for the studies was time consuming, as the period taken to render a crossfade or effect usually took

longer than its actual duration. In this sense, it should be emphasised that the exploration of suspended experience while using video usually occurred in the act of *capturing* the experience, rather than in the painstaking editing. However, I was mindful throughout the editing process of maintaining a suspended aesthetic that would carry through into the final videos, and to this end each of the four videos completed contains degrees of visual manipulation via video effects that I would consider to be reflective of those used in audio manipulation to suggest suspension.

As a graphic designer and photographer, my approach to video is instinctive, my skill set based upon that of a still photographer with graphic tendencies rather than a professional videographer. Hence when shooting video, I was conscious of capturing not so much an image but the experience of wonder in the quality of light displayed as a spatio-temporal event. This aesthetic attraction of capturing light phenomena as presented is suggestive of the phenomenological approach. As suggested by Bowman (1998), the “suspension of everyday assumptions and associations” enables the phenomenological observer to appreciate the particular qualities of a given occurrence before attempting to identify its origin, and this was the essential attitude I brought when capturing video (Bowman, 1998, p. 257). The majority of footage was taken with little to no setup, as I wished to seize a naturally occurring phenomenon purely for qualities of captivation. Often these were discovered by accident. The phenomenon of flickered imagery was encountered while walking through a back lane in Leura late one bright winter afternoon, with fleeting, composite images appearing through gaps in fence palings, contributing to a captivating sense of movement, not unlike viewing footage from an old-fashioned film camera or early form of animation like a *zoetrope*. This form of degraded abstract imagery, where there is a sensory requirement to “seek” visual information, generates momentary images that are highly redolent, not unlike the films of Stan Brakhage. Footage shot of this episode formed part of a flickered sequence in *Suspension 2* from about 3:17 (<https://vimeo.com/341462020#t=197s>) and when layered, resulted in flashes of imagery that “stick” in the eye before moving onward. The shimmering, liquid effect captured at 2:15 in *Suspension 2* (<https://vimeo.com/341462020#t=140s>) resulted from shooting at a high frame rate from a fast-moving vehicle while travelling through a forest in the UK and was

initially striking for its intense colour and flickered quality of light. However, the camera failed to focus on the rapidly moving imagery, resulting in a blurred wash of colour moving past the picture frame. When layered in the editing suite, this resulted a rippling quality like a transparent green, underwater world, an effect I found highly immersive.

Sometimes these would be arrived at through experimentation, using extreme close-up and shooting through coloured frosted glass, varying the focal length to produce abstracted, glowing orbs of light, an engaging effect I used in the opening sequence for *Suspension 6* (<https://vimeo.com/341466746>). The previously mentioned technique of panning past closed window shutters to produce overlapping bars of light I found to be hypnotic, and by employing a slow zoom this appeared to make the bars of colour compress and expand. This was the basis of *Suspension 4*, which was used to gauge response to repetition (<https://vimeo.com/341464163#t=183s>). Occasionally abstraction was employed in the editing stage, resulting in immersive, dream-like imagery. The writhing, amoeba-like form that eventually morphs into water reflections in *Suspension 6* at 3:23 (<https://vimeo.com/341466746#t=203s>) or the distortion of clouds in *Suspension 5* (<https://vimeo.com/341465624#t=135s>) are conscious attempts at creating a surreal effect. The multiple juxtaposition of frames at 3:15 from the same study (<https://vimeo.com/341465624#t=195s>) sought to display a sense of multiple spaces and temporalities. However, most footage was used as captured, reacting to the phenomenon as I saw it in the moment. What I have endeavored to capture is pure qualities of light at their most abstract, and in this respect my approach perhaps reflects the aims of James Turrell, albeit in a cinematic format. Light for me has always had a palpable presence, a quality in and of itself that has cannot be ignored and does not serve merely to illuminate a scene. When considered as a medium and a material, light has capacity not only to shape the way we perceive our world visually, but as a source of energy and life itself. We are fortunate to possess the acuity to attend to the rich spectrum of content it provides in our lives, which as a species we unfortunately tend to take for granted.

## Discussion

The *Suspension Studies* suite in its final 2020 form for me captures key aspects of suspended experience both audibly and visually. My physiological reaction to the studies in retrospect is noticeable, with a heady sensation of absorption, wonder and intense fascination, all characteristic of what I perceive to be suspended experience. Although familiarity through repeated listening and viewing has reduced my initial reaction, I am still surprised at the effectiveness of the sounds and visuals produced, despite prior knowledge of how they were created. The quality of “arresting strangeness” that Achtermann observes in the work of Eno (2016, p. 93) I have found to be present throughout most of these works, often conveyed by relatively simple methods. The captivation inherent in the act of improvising these ecologies was usually evident from the moment of conception, with each work evolving and growing from an initial germ of an idea in a process that was organic and unpremeditated. Cross-modal correspondence was apparent, with imagery suggested through the physicality and movement of sound through space and my own corporeal response informed by frequency and timbre. Auditory response generated by imagery was also apparent, though perhaps to a lesser degree. However, in combination with sound, the sense of immersion is visceral. The role of the body in suspended experience is evident, as the sensing of movement in sound, not only through audition but by embodied perception, clearly informs a sense of space and therefore the capacity for imagination based on corporeal response.

Decisions as to how imagery was placed against audio soundtracks for the two audiovisual studies were largely intuitive and based upon the qualities evoked in sound. In the case of *Suspension 5*, high-pitched sustained tones in combination with low foreboding notes evident throughout this piece intimated a sense of height and depth, which lent easily to footage I had captured of fast-moving clouds on a windy day scudding across the upper mountains. The slightly surreal quality of this soundtrack also suggested a sense of stretched and layered temporalities, which is reflected in the alternation of time-lapse and slow-motion sequences and the use of multiple frames within frames. With *Suspension 6*, emerging echoing sounds opening the soundtrack readily suggested water and submersion, with gently emerging murmuring sounds and frequency sweeps suggesting depth and distance.



As previously noted, video of abstracted coloured glass was shot on the same day as the creation of the piece and can be heard in the background of the footage, indicating that I was actively listening to the soundtrack while shooting what would eventually be included in the final video. Although the exception rather than the rule, this indicates both the circularity of this process and also the degree to which I had adopted a Husserlian attitude toward my subject, being guided phenomenologically by what I was seeing and hearing at the time.

Emotionally, I would hesitate to ascribe any particular feelings or emotion to the work, however a sense of wonder is noted. As previously noted by Shouse, “Feelings are *personal* and *biographical*, emotions are *social*, and affects are *prepersonal*” (2005, para. 2, original emphasis). My affectual response has always been at the forefront throughout, with little consideration as to whether I may have felt happy, sad or otherwise at the time. A vague sense of anxiety or foreboding may be experienced with some studies upon listening or viewing, though this was not observed in the moment of creation. However, it must be said that the sense of enjoyment from experiencing the suite in retrospect is tangible and often surprising. Apart from the occasional twinge of recognition of an awkwardly rendered transition or mistuned note, I am mindful each auditory study was improvised in a single session, and each video study evolved from a simple observation. Despite minor flaws, each of the studies are documents of the time of their creation, capturing realms of imaginative thought and creativity-in-process.

As an audiovisual exploration of suspended experience, I feel that the suite of *Suspension Studies* (2020) succeeds as a body of work. As a reflection of and response to exemplars in popular music and music video, the suite summarises many of the auditory and visual characteristics I have identified through analysis and represents these in a way that underlines and emphasises key aspects of the experience. However, the work is temporally and spatially fixed, requiring an audience to be captive to a screen and speakers for its duration. In this respect, the work fulfils the criteria of Gallese’s immobility in the embodied simulative approach (2017, p. 4) where muscle inhibition allows for the allocation of more neural resources to aid immersion in the artwork. This approach, which also resembles Clarke’s position of autonomy in music listening (2005, p. 132) requires a degree of

passivity to allow for total immersion in worlds of sound. Although this approach addresses the idea of suspension represented virtually in an audiovisual work, it does not address suspension as a temporal and spatial lived experience, as a unique, yet transitory event. The spatial and temporal dimensions of suspension explored in a designed three-dimensional environment would provide a more immersive experience of this state, and to this end *States of Suspension* (2018) was conceived to address this aspect of the experience. The following section discusses first the outcomes of reception tests to the suite of *Suspension Studies* (2020), followed by the outcomes of the *States of Suspension* event.

### 5.2.2 Results of reception tests

The reception tests sought to examine the responses of participants to a series of six musical and visual representations of suspension and to compare their experiences with my own. A table of the questionnaire results can be found in Appendix C, with drawings made by participants located in Appendix D. Detailed examination of these findings can be found in Appendix E. A total of ten participants were engaged for the tests. Although a relatively small sample, responses were wide and varied and some general trends were observed.

#### Demographic responses (pre-test)

Responses in regard to age or gender (Questions 1 and 2) did not reveal any particular bias, with gender fairly evenly split. Half of the respondents fell into a young adult range (18–30), with nearly three-quarters of participants identifying as Anglo-Australians (Question 3). Over three-quarters indicated some engagement in music or arts practice (Question 4) and all participants listened to music in some form, so music as an activity appears to be important to them. The type of music “listened to when thinking or contemplating” (Question 5) varied considerably, though a significant proportion was derived from the European classical music canon and what could be loosely described as experimental rock music (Radiohead, Sigur Rós, Pink Floyd, Massive Attack) and perhaps surprisingly, mainstream pop and rock music.

The responses to the Likert scale questions revealed initial findings that would be reflected in the latter part of the test. All participants responded favourably to the statement “I enjoy music or art that I can lose myself or feel immersed in” (Question 6) and “I enjoy music that takes me into another state of mind” (Question 8) which indicates a necessity for music to be a transporting and immersive experience. However, the response to the statement “I like music and art that is predictable and not too challenging” (Question 7) was mixed, with answers dwelling in the mid-range—only one respondent answered unequivocally in the affirmative. Question 9 (“I sometimes hear music when looking at art or imagery”) begins to reveal a general trend toward the perception of imagery generated from music which participants mostly agreed with, but not to the same degree with music elicited through viewing imagery in Question 10 (“I sometimes see imagery when listening to music”). This observation is also reflected in findings later into the test.

### Physical responses (during test)

Question 11 asked participants to describe physical sensations they sensed while watching or listening to the studies. Keywords indicated in the question were often repeated in answers—tingling, tiredness, shivers and dizziness featured prominently, which suggests caution should be exercised in the use of keywords as these may affect responses. However, other bodily sensations reported included changes in breathing, observation of heartbeat and blood flow, tightness in head and chest, headache, nausea, heaviness, weightlessness and even a sensation of blindness. Tiredness or drowsiness featured prominently in responses overall, as did tingling, vibration or shivering and relaxation, indicating that despite the passivity of the tests there were distinct physical responses. However, it should be noted these were rarely uniform and varied considerably between individuals. It should also be noted that several participants appeared to have mental or physical states throughout the test that influenced their responses, i.e. participant 1 displayed anxiety and irritation throughout, while participant 9 reported dizziness and nausea, regardless of the study played. This indicates that regardless of the study conducted, participants will bring their own emotional and physical states to a test, and that all results must be balanced against an existing predisposition.

### Emotional responses (during test)

Question 12 sought information on how the audiovisual studies made participants feel emotionally. As with the previous question, keywords informed a number of the answers, although many were more forthcoming in their replies than previously. The majority found the studies calming, with keywords such as “serene”, “calm”, “soothed”, “relaxed” and “peaceful” featuring in over half of responses. Curiosity or interest also featured, especially in *Suspension 2* and *4* which featured imagery only. However, these two studies also accounted for the highest degree of boredom, an indication that for some, imagery alone is not enough to engage interest.

*Suspension 1* and *3*, both music studies, elicited the most favourable emotional responses, with responses ranging from “extremely pleasant, heady, spacey” and “relaxed, hopeful” in *Suspension 1* to “journeying, transcendent” and “serene, curious, a feeling of awe” for *Suspension 3*. Except for a negative response from participant 1, *Suspension 6*, combining both music and imagery, appeared to be the most engaging, with most participants reporting calmness and relaxation, as well as curiosity and wonder. One participant remarked that they were “feeling like I am left wanting more”, corresponding with my own feelings about this piece which I felt was the most effective at conveying suspended experience.

### Perception of time (post-test)

Reports of the time perceived for each study varied wildly, from an estimation of 5 minutes for a piece lasting 10 minutes, to an estimated 20 minutes for the same piece of music (*Suspension 3*). Given that these judgments were formed *after* the playing of all studies and not immediately following, it is perhaps understandable that there may have been inaccuracies in remembering the time taken for each one. However, it can be observed generally that perception of time for the studies was highly subjective, with only 30% accurately estimating the correct length. Of all those provided, *Suspension 6* proved the most elusive, with only one respondent correctly estimating the correct time at 6 minutes.

### Sense of immersion (post-test)

Given the result above, it is perhaps not surprising the degree of immersion reported by participants. An average of 70% of responses observed immersion or losing “a sense of time and space” with several reporting immersion in all of the studies provided. Of those that reported no immersion, these were mostly in response to the visual-only tests (*Suspensions 2 and 4*). Again, music and sound appear to play a significant role in the degree of engagement with imagery, but not necessarily in reverse. Over the entirety of results for this question (60 responses from 10 participants) only three responses indicated no sense of immersion to music or music and imagery studies. In this respect, it can be generally assumed there was a high degree of immersion throughout those containing music.

### Elicitation of imagery from music/sound (post-test)

As indicated previously, music appears likely to generate imagery. Similar to the above question, all participants except one indicated mental imagery, some of this quite specific and augmented by drawings made during the tests (see Appendix D). For the first music study (*Suspension 1*) imagery ranged from “birds flying in flocks” to “desert, plains, fire crackling, corroboree”, “dreams”, “water—the ocean, light shimmering on the water”, “particles, shifting light, patterns and colour”, “damp forest...just after rainstorm” and “flocks of birds & ocean waves at cliff face”. The second music study (*Suspension 3*) elicited remarks such as “wind blowing in a meadow on a sunny day”, “movie of street scene, young girl alone at night”, “trees, prescription medication, snakes, fog, smoke”, “clouds—was flying in outer space”, “outer space, stars, darkness, silence”, “people going between trees with lightning on top of the head”, “radiating lines, circles coming from a point, like a ripple”, “whales in ocean” and “WW2 bombers”. This highly evocative imagery has some common themes: *Suspension 1* elicits flocks of birds in 20% of the responses, and oceans are mentioned in 30%. Desert plains and forests also feature, all suggestive of place and landscape. *Suspension 3* elicited specific imagery, with whales mentioned in 20% of responses, but again, landscape and place feature, with 20% mentioning outer space, and well as clouds, meadows, nightscapes and mountains. Participant 7 provided detailed drawings for all studies over two pages. These

findings suggest the likelihood of imagery generated from suspended music, which appears to be highly conducive to imaginative thought.

### Elicitation of music/sound from imagery (post-test)

Suspended imagery appears to produce auditory response, but not to the same degree as above. Forty percent of participants indicated an emphatic “no” as to whether the visual-only studies elicited music or sound. Of the remainder, 30% indicated they heard music (“nostalgic music from the 90s”, “violin—high pitched sound and bells, harp”, “piano tinkering, then jagged synth sounds”) and another 30% what could be interpreted as foley or soundtrack sounds (“rustling”, “bird whistling/doors opening and closing”, “car noise, wind sounds, animal noises (bugs/birds)”). Interestingly, *Suspension 4*, which featured repetition by panning across half-closed window shutters, was preceded by a section approaching the shutters in darkness, slowly opened to reveal daylight. Several participants read this as a prelude to a horror scenario, followed by a repeating sequence in which two respondents felt “trapped”. Among the comments were “I could almost hear myself struggling to escape”, “horror movie tension soundtrack”, “bring trapped in the dark” and “breathing (heavy), creaking noises”. This was not the intention and in hindsight this beginning section could have been left out. On the other hand, this association displays what Chion refers to as “phantom sound” or “noise-of-the-image” although in actuality, it is more likely a potential *soundtrack* that is being generated based on previous experience of darkened interiors in cinema, rather than an auditory representation (1994, p. 132).

### Enjoyment of studies (post-test)

A simple yes/no response was required for this question, which kept responses unequivocal. From all provided, the most enjoyed were *Suspension 1* and 6 at 90%, closely followed by *Suspension 2*, 3 and 5 on 80%. *Suspension 4*, the repeated “shutters” sequence, was the least popular and enjoyed by only 60% of participants.

## Discussion: comparison of audiovisual studies and reception tests

Some initial assumptions can be drawn from these results in comparison to my own experience, though this must be weighed against the relatively small sample group size and should not be considered indicative of an overall trend.

Neither age nor gender appear to be factors in an interest in suspended experience, although engagement in the arts may have some bearing. Advertising material for the tests explicitly asked, “Have you ever *lost yourself* in music, or *heard* images or *seen* music?” (see Appendix A, emphasis in original), clearly outlining the research area of interest in cross-modal correspondence and providing a broad indication of questions that would be asked. Those participants who indicated an interest or practice in the arts most often provided inventive and imaginative answers, however this was not across the board; a painter was unable to engage with the tests, disliking the experience, while an individual with no arts background provided vivid imagery and drawings. Interestingly, two participants from non-Anglo-Australian backgrounds provided the most copious and imaginative answers, including highly detailed drawings.

The type of music that people associate with thinking/contemplating, or interiority, varied widely, but this may have been misinterpreted. “What music do you listen to when thinking or contemplating?” may have implied active cognition, whereas the question was meant to indicate non-thought, or music for meditative purposes. The range of responses was varied, ranging from commercial pop to contemporary art music, classical piano, heavy rock, metal and roots to dub and electronica. I read many of these responses as participant’s favourite music choices rather than a comprehensive list of contemplative music, and given the enthusiastic listings of some participants, gained the impression that some were attempting to impart their favourite artists as an indicator of personal style or identity. However, several aligned with my own thoughts of what would constitute “contemplative” music, including experimental rock artists, “spectralist” composers such as Gerard Grisey, James Tenney, choral and contemporary classical, as well as movie soundtrack composer Hans Zimmer. No mention was made of Brian Eno or ambient music, nor of “process” or minimalist composers such as Steve Reich, Phillip Glass and Terry Riley, artists I would readily identify with contemplative or “thinking” music. In

response to this question, one participant replied, “I don’t, I like quiet”, an entirely valid response, however noted that in their car they listened to Red Hot Chilli Peppers, AC/DC, Van Halen and the John Butler Trio, acts associated with loud, high-energy rock music. Clearly, participant’s music choices for thinking and contemplation are highly subjective and based on personal taste.

Responses to the Likert scale questions for the most part aligned with my own thoughts. Participants appeared to enjoy immersion in music or art, and many enjoyed music that took them into another state of mind judging by almost unanimous agreement with these two statements. The question on enjoyment of music and art that was “predictable and not too challenging” was a strategy to gauge if people took an active role in music listening and art appreciation. The ambivalent responses perhaps indicated that for some, music or art may play a more background role which they might not have liked to acknowledge. However, in the case of suspended music and imagery, this is often the case. Eno’s edict of ambient music to be “as ignorable as it is interesting” rings true here, as a form of music that informs a general mood or ambience of the immediate environment, but not one that necessarily draws or requires attention (Eno, *Music For Airports*, 1978). It appears that this kind of music and imagery also has a physical effect, correlating with my own experience. Drowsiness, relaxation and “slowing down” feature prominently as physical responses. An exception was *Suspension 4*, which brought a range of responses ranging from “impatience” to “hypnotic state” to “fidgeting” and even “dizziness and blindness”. This sequence was patently uncomfortable for some, whereas I find the repeating, overlapping colour bars captivating and hypnotic. Emotional responses were also similar to my own, with “curiosity”, “transcendence”, “a sense of brightness and excitement” and “spiritually lifted” all being experiences I relate to suspension. However, these must also be weighed against those who felt anxious, bored or apprehensive. It should be noted that conducting audiovisual tests in a warm, air-conditioned, darkened university tutorial room with lecture style seating during daylight hours for some is not conducive to an enjoyable or comfortable experience. One participant remarked that she felt as if she was in an exam situation from her university days. This translated through to her responses which were generally irritated, anxious and apprehensive.



The range of temporal distortion in response to the tests was considerable, but again, was highly subjective. By asking respondents to guess times following the completion of *all* tests, instead of individually, there were bound to be inaccuracies, and this must be weighed against the final results. However, given the overall degree of variation in estimation of time, it could be assumed that the tests generally were successful in achieving a loss of sense of time. My own experience of this kind of music, including my own work, usually results in a high amount of temporal distortion, and although prior knowledge and experience will inform how long a piece may be, it is often *experienced* as being far shorter or longer.

Music with suspended characteristics also appeared to be highly evocative of imagery for participants, reflective of my own experience. The ability to form mental imagery from music appears to be common, reflected both in the Likert scale question and the test responses, including drawings made by participants. Some common themes emerged, such as the designation of “flocks of birds” in *Suspension Test 1*, which may be an example of Smalley’s source bonding (1997) where an abstract sound is attributed a source based upon its intrinsic characteristics, the “*natural* tendency to relate sounds to supposed sources and causes” (p. 110, original emphasis). However, the majority of responses were individualised, again indicating subjective experiences for each person. The capacity of abstracted music to generate a “metaphorical representation of the inner world of the imagination” appears to be confirmed through the majority of responses, with an array of vivid scenarios and types of imagery indicated (Young, 1996, p. 73).

Conversely, this was not reflected to quite the same degree with imagery (60% of participants) and is perhaps where my experience diverged from others. The imagery produced for the first visual-only study (*Suspension 2*) employed effects of light I considered deeply contemplative and suggestive of suspended experience, and this seemed to be effective. Audible responses were descriptive of the imagery employed (i.e. “rustling of leaves”, “wind sounds, animal noises”) however there were also allusions to music (“nostalgic music from the 90s—acoustic”, “violin—high pitched sound and bells, harp, silence”, “piano tinkering”). Many of these sounds I could identify with my own experience, although I had envisaged far more immersive sounds and music. However, for the second visual-only study

(*Suspension 4*) the imaginary soundtrack for participants was palpable, with associations of suspense and entrapment dominating responses. As noted, cinematic horror tropes most likely informed these perceptions. However, the visual effect I was attempting to emulate, similar to the “tesseract” sequence from the motion picture *Interstellar* (Thomas, Nolan & Obst, 2014) had an entirely different connotation. Shafts of light entering the darkened back room of our house through horizontal shutters displayed a similar effect to a scene in the movie, where light streams within a darkened space are designed to create the appearance of a four-dimensional environment enacting multiple realities in time. This effect also has echoes in Turrell’s *Mendota Stoppages* (1969–74). Having always considered light emanating from a darkened environment as captivating, my own internal soundtrack was entirely different, that of a rhythmic, thrumming pulse, so results from this test were initially perplexing. Again, I can only surmise that this experience is unique to each individual.

Some initial conclusions I can draw from these tests are:

- Suspension, although common to many, is not universally experienced. Arts practitioners may have proclivity toward suspension, but this is not assured
- Age and gender appear to have no bearing on the experience, though cultural background may influence receptivity to suspended experience
- People derive satisfaction and contemplative experience from a wide variety of music genres: this is individual and highly personalised
- People generally expect to gain a sense of immersion from music and artwork
- Music conducive to suspension appears highly likely to generate mental imagery, and in general has a relaxing, slightly drowsy physical effect
- Moving imagery conducive to suspension also has capacity generate mental audition, but only for some individuals. It also has a relaxing physical effect, but for others it can induce boredom and anxiety
- Suspended music and imagery both appear to induce degrees of temporal distortion, sometimes to a large degree
- Suspended music is an enjoyable experience for the majority of people, and suspended imagery to a lesser degree.

## 5.3 Outcomes of the major artwork *States of Suspension*

### 5.3.1 Logistics and changes to the plan

*States of Suspension* (2018) was put together within a two-and-a-half-month period, and notwithstanding the compressed nature of proceedings and some technical challenges, resulted in a performance that was positively received. People in the community appeared receptive to the idea of a performance artwork promising the experience of “time and space suspended in music, sound and imagery” advertised on posters and the event website (see Figure 5.2) (<http://statesofsuspension.com>). A performance video including visuals from the night (<https://vimeo.com/447678344>) serves as documentation of the event, though of course cannot replicate the immersive experience of being on-site (States of Suspension, 2018, February 2).

The event was compromised by a late decision to project the images onto the sandstone floor of the courtyard to gain a more immersive effect. The underside of the arch had proved to be awkward as a projection area and was chosen instead to be illuminated by the LED strip lighting. Projecting onto the floor unfortunately resulted in a much smaller projection area than anticipated, partly due to a miscalculation of the height of a projector truss, but also from a faulty projector being replaced by a lower powered substitute. Combined with ambient light emanating from the interior of the venue, the video content was diminished



Figure 5.2 Poster design for the States of Suspension event. Design by the author.

considerably. MIDI signals incorporated into the Ableton session also failed to communicate with the laptop containing the projections, which had to be operated manually by my son, who I can be seen signalling to in the video of the event. Although these aspects of the event were disappointing, the simple yet effectively lit music performance, in combination with transitioning light conditions of the southern sky and coloured lighting beneath the archway, created sufficient impact and compensated for the apparent lack of visuals. It is notable adults in attendance were largely focused on the music performance, while small children were fascinated by the floor projections and danced in the rippling light (Figure 5.3).



Figure 5.3 A small child dancing and interacting with the floor projections. Video stills by Diana Blom

### 5.3.2 The performer's experience in retrospect

From a performance perspective the event was enjoyable, if at times challenging due to unusually cold weather for February, with an overcast sky threatening to rain at any point. Despite the conditions, *States of Suspension* (2018) was well attended and many stayed for the entire duration.

It is difficult to be a phenomenological researcher at the same time as a performer, but I found the structured yet free-to-improvise nature of the performance a highly affectual and liberating experience, with the acoustic qualities of the venue contributing to this sensation. The courtyard environment lent a spacious, expansive quality to proceedings—there was a feeling of playing into the space and exploiting the inherent sound characteristics to enhance the performance. This was apparent with louder passages, the echoed quality of the surrounds contributing to a rhythmic continuation of the various motifs and cells, providing the impression of a living, breathing space receptive to the sounds and sights reverberating within it. The ability to “let go” in this environment, maintaining balance between knowledge of one’s instrument whilst being open to new experience, or “art’s capacity to create an open area of possibility” (Bolt, 2004, p. 2) was exhilarating. I relate this to Brian

Eno's idea of surrender in the creative act, using the analogy of surfing: "not forever [to] be out of control, but to push into new territories by temporarily surrendering. The surfer catches a huge wave, and then takes control" (Eno in Evans, 2013).

Although notation had been employed in early stages of composition with scored guides of tonal clusters and motifs used in rehearsal (see Figure 5.4), these were discarded by the time of the performance given the improvisatory nature of the piece. Employing a quartal approach to harmony added a certain *frisson* to performing, with the potential to "drift" harmonically into new areas despite having a core framework. The overlapping of rhythmic cells employed in the bed tracks also lent a sense of freedom and

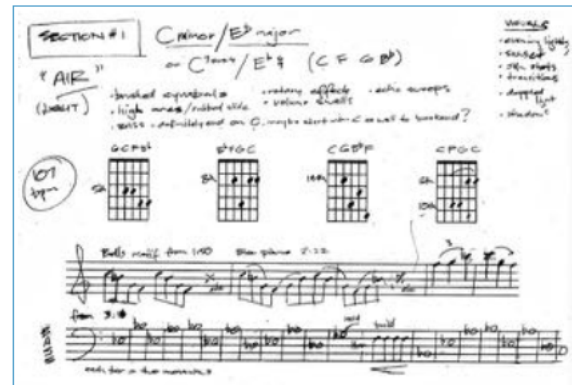


Figure 5.4 Example of a scored guide used in the planning stages of *States of Suspension*

occasional confusion as each performer sometimes had a different conception of what constituted the "downbeat". This proved challenging at times for drummer Steve Gunning in establishing rhythmic patterns, as bass player Mark Bradridge would sometimes subvert where the first beat of the bar lay—this is evident in the concert video at around 3:30, where the bass is half a beat ahead of the dominant pulse. However, none of this was particularly disconcerting or detracted from the performance itself—if anything, the uncertainty afforded a degree of creativity and spontaneity.

The employment of unorthodox extended instrumental techniques, such as beating and striking a guitar with mallets (see concert video at 20:15) and playing strings above the nut (21:17) in *Section Three* allowed not only for an exploration of timbre, but the potential to move into different zones of performative experience. As a form of Smalley's source deformation, these excursions in sound provided a "leap-off" point into uncertain sonic territory, although many of the techniques employed had been worked out in rehearsal. The lengthy duration of this section (over twelve minutes) provided opportunity to explore the idea of heat in depth, and the textural, time-stretched drones underpinning the soundscape served to elongate a perception of time, contributing to a hazy, shimmering mass.

The exploration all the while employed standard rock group instrumentation, maintaining a balance between the expected and the unusual, or what Osborn considers a “middle space between predictability and surprise” (2017, p. 3). This example of salience where “our attention is drawn to things which are not too similar to what we expect, yet not too different from what we know” (p. 2) I believe provided a point of accessibility for the audience, despite subverting performative expectations. Although unconventional, as an entirely instrumental work employing extended techniques, on-ground staging and open sky aspect held in a venue not usually designed to accommodate music, the typical configuration of performers and instrumentation employed for *States of Suspension* (2018) positioned the event as straddling performative conventions, recognisable yet different.

As performers, the central location in the courtyard worked to our advantage, enabling people to move around the performance area freely and take in different vantage points. However, the hard sandstone surface of the courtyard also had the unintended consequence of amplifying ambient sound, including background conversation and the sounds of children running through the space and hitting objects, which at times was distracting. This was apparent in quieter sections, at the beginning of the event before the majority of the audience filtered through which can be seen and heard in the concert video from about 3:38 onwards—at one point (5:30) I can be seen to lose concentration when a loud sound occurs behind me. Despite these distractions, it was quite possible to lose oneself in improvisation over the prepared bed tracks, exploring each of the thematic sound worlds that had been devised in rehearsal. As an embodied experience from a performative perspective, the event was successful, allowing for a creative exploration of suspension in sound and light as a spatial and temporal experience.

Although concentrating on music creation, the visual aspect of the event was also striking despite the reduced impact of the projections, as the inclement weather and rapidly changing light conditions provided a dramatic backdrop to proceedings. The concert video, as well as well as amateur videos and photographs from those who attended, document the change in the southern sky as night fell, transitioning from a cool arctic to deep inky cobalt blue, augmented by the stark yet effective lighting from the performance area (see Figures 5.5 and 5.6).





*Figure 5.5 States of Suspension performance, southern aspect, approximately 8.15pm. Photo Ben Luscombe*



*Figure 5.6 States of Suspension performance, southern aspect, approximately 8.30pm. Photo Ben Luscombe*

In contrast, the “suspension zone” (see Figure 5.7) was bathed in a glow of slowly transitioning colour throughout the evening, and set against the evening sky to the north, provided a compelling and constantly transforming backdrop to the event. The coloured light also served to emphasise this area as a gateway or threshold into a different zone for those who chose to experience it. Although unable to verify the efficacy of this space from my position as a performer, it was reported from those who took advantage of the area that the sound was immersive, with one person confiding at points they felt “transported” in the echoed surrounds beneath the archway. As an exemplification of a “between” or liminal zone of experience, or Turner’s “realm of pure possibility” (1967, p. 97) this environment appeared to be highly effective.



Figure 5.7 States of Suspension performance, looking north to the “suspension zone”. Photo: Ben Luscombe.

*States of Suspension* (2018) appeared to encapsulate a series of potential other-worlds for both audience and performers in an apparently timeless performance that in actuality lasted just under an hour. Ending with a rousing burst of applause from appreciative audience members, the event was positively received and remembered in the Blue Mountains community for some time to come.



### 5.3.3 Discussion

Although *States of Suspension* (2018) as a public event was successful, it was not without shortcomings. The additional tasks of promotion, organising a fundraising campaign and liaising with a film crew and Cultural Centre management took more time than intended and due to the relatively short lead up to the event, meant there was little opportunity for testing visuals or audio. The projections and lighting I had planned for the event, contained on a laptop computer operated via a network link between another laptop containing the Ableton Live session, was only tested once with the production crew beforehand and on the night failed to communicate. In retrospect, I had taken on a great deal in organising an event of this scale on my own, and although I feel that *States of Suspension* worked musically due to the skill of the performers, visually it fell short of the experience I had imagined.

However, as an active representation of suspended experience in contrast to the immobile suite of *Suspension Studies* (2020) and as a series of autonomous, self-contained worlds for its duration, *States of Suspension* (2018) fulfilled its promise to give an audience the “opportunity to experience time and space suspended in music, sound and imagery” (see Figure 5.2). Feedback received following the event and reactions in the concert footage indicate that people appreciated the event for its sense of immersion and unusual format. I heard anecdotally in the weeks following that *States of Suspension* was unique to the mountains, that people had enjoyed the atmosphere and setting and some thought the music to be transcendent and even “trippy”, an indicator that the event conveyed in some sense an altered state of perception.

Did *States of Suspension* (2018) achieve an active sense of suspension for the performers? From my perspective it did, albeit intermittently. With distractions from the audience and my son in order to cue visuals, it was difficult at times to become totally engrossed. However, a sense of captivation, what Clarke refers to as “aesthetic contemplation” from a position of autonomy in ecological perception (2005, p. 138) was definitely experienced at points throughout the performance. Clarke observes that improvisation “involves a kind of listening-while-performing that highlights the relationship between perception and action” (p. 152) and like Eno’s surfing analogy (Eno in Evans, 2013) there was an awareness of being both

part of a musical world or ecology, while at the same time contributing to its being. For the other players, I was aware of their absorption in improvisation, although I sometimes failed to observe expressions on their faces indicating that a section needed to be finalised, such was my immersion in the music. Though the projections had limited impact, the influence of lighting from the suspension zone was noticeable in conjunction with the dramatic effects in the sky immediately behind us. This was particularly evident when viewing video and photographs following the event although I had not observed this at the time, such was my concentration on playing and steering the performance.

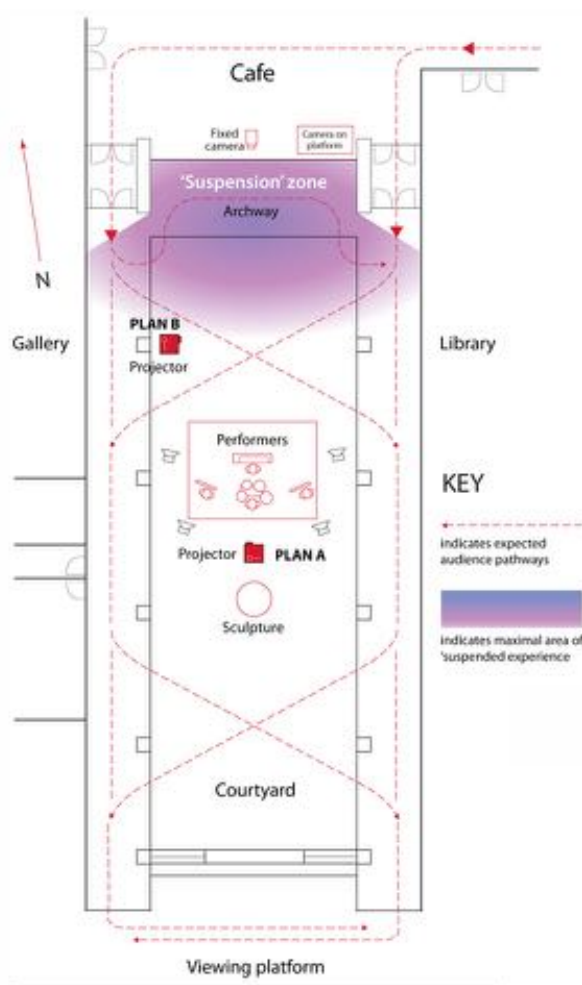


Figure 5.8 Floor plan of Blue Mountains Cultural Centre courtyard for *States of Suspension* performance

With hindsight, there were several aspects that could have been addressed to make for a more successful event. The entry point was not delineated or pointed out to audience members, which could have been signposted effectively by a specially lit area, for instance employing a black UV light in the two double-door entrances between the Cultural Centre interior and the courtyard so there was a distinct sense of crossing a threshold into a different zone (see Figure 5.8). The suspension zone itself beneath the archway, although effectively lit and furnished with comfortable seating, was only indicated to the audience over the p.a. system immediately preceding the

event and would have been missed by anyone arriving afterward. A program note, or other form of written information would have also provided context for the event, giving the audience the impression of an art experience rather than a concert

performance, although information supplied through handbills, posters and social media all suggested this.

My background as a performer of music, rather than theatre or arts performance also informed the decision to arrange the speakers facing *forward* toward the suspension zone rather than placing them around the perimeter of the performance area, which may have been more effective in immersing the audience in sound (see Figure 5.8). I had also originally envisaged the suspension zone as the maximal experiential area for the audience with performers being backgrounded, in the manner of Clarke's ecological "autonomy of consciousness" position to music perception (2005, p. 137). However, with the failure of the projections, our only option was to perform the piece as a conventional concert, a decision that had to be made quickly given the circumstances. I have no doubt the lack of lead-in time also contributed to the last-minute organisation of several important aspects of the event, and in hindsight some technical tasks could have been delegated. I was also constrained in terms of budget due to the expense of projections and employing a film crew to document proceedings, which even after crowd funding for the event, my candidature funds could not possibly meet. Ironically, the most expensive item was the hiring of the projector and operators, perhaps the least successful element of the night. The short lead-in time also meant grant applications weren't able to be obtained in time, a consideration for future staging of the event.

For future performances of *States of Suspension* (2018) I would work with an audiovisual designer to help design and manage projections and lighting as well as an audio engineer. The nature of this event requires a focus on overall experience rather than performers only, and for this reason a technical approach not dissimilar to that of a theatre performance with dedicated personnel would be desirable. Funding would need to be secured early and the event be fully costed and budgeted before staging. It should also be clearly advertised that the performance as an immersive art experience be regarded as such, though admittedly this is difficult to control from the perspective of being a public event.

The final chapter draws together the creative and philosophical framework for the research, as well as the outcomes of each stage of the project as research questions are responded to. It also looks to future performances of the work.

## Chapter 6      Conclusions

### 6.1 Overview

This final chapter responds to the four research questions and considers the wider implications for suspended experience. The questions contemplate the probable neurological and physiological basis for the experience through light and sound, the auditory and visual elements appearing to lead to suspended experience and why environmental phenomena may be a contributing factor. The cross-modal aspect of suspended experience is also examined and how creation of self-contained worlds in audiovisual artworks can provide an experience of suspension for both performers and audience members. The role of improvisation in creative practice contributing to suspended experience is also considered.

### 6.2 What is the nature of suspended experience?

As outlined in the introduction, my experience of suspension is characterised by an imaginative introspection, usually triggered in response to instances of music, often in combination with moving imagery. Although similar to the conscious drift of reverie, in its most intense form I liken the experience to hypnagogia, where the mind is in transition from a state of wakefulness to that of sleep. In this threshold state, the mind appears primed and open to form unlikely associations and unusual mental imagery. In a similar fashion, suspended experience is characterised by a capacity for imaginative thought, which appears to be triggered by music, sound and imagery possessing degrees of constancy and abstraction. But why should these particular stimuli, whether experienced in the environment or received through an audiovisual artwork, lead to this state?

From my personal experience and through audiovisual exploration and examining the responses of participants to the reception tests, there appear to be distinct affectual responses to specific auditory and visual phenomena characterised by forms of movement. These felt responses I suggest are an innate physiological recognition of processes-in-action. On an interpersonal level, this is reflected in our day to day dealings, how we relate to others via empathic response to perceived movement and our emotive responses—these are Stern's vitality affects in action,

most likely driven by mirror neurons as suggested by Gallese and Ward. However, in the context of ecological perception, responses are also observant of ongoing, constant activity associated with movement through and interactivity within an environment and how motion is sensed, predominantly through light and sound. Much of what is perceived in the natural world at first glance appears invariant, not changing fast enough to be observable. However, there are always processes in constant motion within the environment. Visual examples might include the steady procession of clouds across the sky, rippled light reflections on water, the flickering of light through trees, a murmuration of starlings in flight, a colony of ants or the flames of a fire. In an auditory sense, constancy can be heard in the sonic continuity of cicadas in summer, the gentle burbling of water in a stream, the crash of waves on a beach, the relentless white noise of wind and birdsong at dusk—all occurrences that are sensed as ongoing, process-driven and importantly, non-threatening to the perceiving being. Each of these phenomena have their own fascination and appear self-contained in the manner of a gestalt, perceived as a unified entity despite their inner complexity, yet are inherently part of and contribute to a wider ecology. Importantly, the perceptual senses of the perceiving organism work together as an entire-body response across sensory modalities in the reception of these phenomena, forming the information-seeking basis of ecological perception. Affectual response would recognise there is no immediate threat, events are proceeding as might be expected and there is time and opportunity to contemplate, observe and reflect. Phenomenologists would recognise this form of perception, borne of interest in activity itself and processes of observing things as *they occur* as the viewpoint of bracketing or epoché, the “suspension of everyday assumptions and associations” (Bowman, 1998, p. 257–258). Although these occurrences are similar and contribute to what I identify as suspended experience, there is a subtle difference between this manner of perception and suspension.

The effects of light in the instances described above pose no existential threat to the perceiver despite the degree of movement. Similarly, sounds that are suggestive of continual, ongoing processes would typically not suggest any danger. Suspension appears to occur where the expected perception of these processes-in-action are violated *slightly*—enough to be observable and generate interest, but not enough to

alarm. As previously noted by Osborn (2017) and Smalley (1997), the notion of relating a recognisable phenomenon to its source, and then subverting that expectation by methods of progressive abstraction, leads to a vivid reimagining of the source dependent on the degree of removal – this has been observed by Rogers in the abstraction of sound or “sonic elongation” in documentary film (2020, p. 88). When an expected visual phenomenon is subverted, and this corresponds with an auditory matching of “arresting strangeness”, there is a gateway or threshold opened for a vivid reimagining of the source (Tolkien, 1966, pp. 69–70). When a visual or auditory sense is absent or removed from perception, I suggest imagination is tested even further, as our imaginative resources go into “overdrive” as suggested by Osborn when presented with “a stimulus that at once draws upon our prior experiences and yet provides some novel twist (2017, p. ix). This, perhaps, is the essence and nature of suspended experience, and is perhaps why it occurs in transitionary or between states—this is perception *in flux*, in transit to another place or space, and why it can be so fleeting, as the state of suspension is inherently unstable. This bears similarity to Deleuze and Guattari’s (1987) “lines of flight” and the concept of the rhizome, as always in a state of instability, moving between points of connectedness (p. 3). Suspended experience, although appearing in some respects to be static, is inherently alive with activity, its own self-contained ecology—as a between, hypnagogic, dream-like space where suspension is evolving, morphing and changing constantly.

### 6.3 What are the elements of audiovisual artworks that elicit suspended experience for myself and others?

Although appearing initially fantastic and unusual, the imagery formed in the imagination during suspended experience must draw on real world experiences. As previously indicated, perceived movement occurring in natural phenomena such as wind, water and light can be inferred through a similar employment in audiovisual artworks with a creative use of light, sound and musical elements. Where audiovisual artwork is designed in a way that is imitative of ongoing processes, I believe that bodily affectual responses come into play, as the perceiving being recognises motional activity already encountered earlier in life experience.

In a physiological sense, visual abstraction can be facilitated by the body relaxing and the eyes being allowed to lose focus. The aural equivalent occurs when sound sources are diffuse or refracted and attention begins to drift. In audiovisual media these visual and auditory experiences can be simulated through the use of change of depth of field and focus in the case of visual media, through to the use of reverberation, echo and other forms of auditory effects in audio. Importantly, it is the character or *shape* of this movement that informs its perception and how it is received. As noted by Stern, this “affect attunement” is essentially cross-modal (p. 42) and due the nature of mirror neurons as noted by both Stern and Gallese, can be understood by the sensing body across sensory modalities. Hence the uniquely abstract nature of music as a creative medium allows for an expression of movement in rhythm, harmony and melody that can be understood in abstract terms both visually and aurally. This approach has been employed in a more literal fashion by composers in soundtrack composition and stylistically in music that is directly imitative of movement. However, when this abstraction resembles ongoing processes rather than illustrating a particular movement and importantly, is a step removed from reality, we can expect that imagination will allow for fanciful and creative extrapolations of sound or imagery.

The elements in audiovisual artworks that appear to lend to this oddness are those representing time and space in an unexpected way. Reversal invariably conveys a strange and compelling affectual quality and was employed as a technique in both auditory and visual examples for several of the *Suspension Studies* (2020) and simulated during the *States of Suspension* (2018) performance. When combined and re-presented in an otherwise unambiguous context, for example Radiohead’s “Like Spinning Plates” (2001a), the technique can be oddly captivating. A similar use of reversal was employed cinematically for the final episode of David Lynch’s *Twin Peaks* (1991), where actors were required to learn their lines phonetically backwards, which when reversed resulted in a suitably bizarre temporal juxtaposition of sound and imagery. Exaggerated temporal effects such as the slowing down/speeding up of footage, a technique known in the film industry as “ramping” can also convey a sense of spatiotemporal distortion, as can unexpected speed fluctuation in audio. Another odd spatial effect in cinema is the “dolly zoom” or vertigo technique, named

after its use in Alfred Hitchcock's *Vertigo* (1958) where a subject is kept in frame while pulling away with a zoom lens and simultaneously moving (dolly) towards the subject. This effect has an unsettling physical sensation, as the background appears to yawn and contort, drawing the viewer into the frame. The auditory effect of phasing or flanging, where a duplicated signal is temporally modified, has a similarly unearthly quality. Even with constant elements such as drones and repeated motifs, by incorporating gradual, almost imperceptible change over time, a sense of moving through into a new space or reality emerges, a sensation experienced by the author in the process-based works of Steve Reich, Philip Glass, Terry Riley, Rhys Chatham and others.

What characterises many of the elements I identify as suspended is a sensation of departure or transition from what was initially recognisable and expected into a refraction or reimagining of the original experience. A phenomenon that was once perhaps simply interesting, suddenly becomes captivating and mesmerising. This for me is the threshold aspect of suspension, where there is a physical sense of *moving into* another world, an altogether different reality. I suggest that there are many instances within audiovisual artworks of spatial and temporal manipulation that serve to bring about a sense of suspension for the experiencer, of which the above forms only a relatively small sample.

#### 6.4 What is the possible basis for the cross-modal aspect of suspended experience?

As indicated mainly by Stern but also notably by Shouse, Doğantan-Dack and Gallese, cross-modal experience across the senses is not only observable in early childhood development but appears common place. From birth, we gain knowledge of the world through our interactions with others and our immediate environment. It would be reasonable to assume that early experiences in life are essentially abstract and relatively unformed with little to draw upon in terms of previous reference. The sense of newness, surprise and wonder at the world in the first formative months of life would be highly stimulating, the senses fully engaged in new images, sounds, aromas and tactile sensations, with myriad neurological connections being formed. I believe the essential basis of suspended states is embedded in these earliest



experiences, as sensory modes are in a highly receptive yet nebulous state, with phenomenon perceived across sensory modes as part of an entire-body, corporeal experience. It is only later when these neural pathways are set down over time, refined and consolidated with others gradually discarded, that the sensory modes settle into their principle roles. However, the sensing body will still retain physical memories of these early experiences.

When a phenomenon is encountered as entirely new and unfamiliar, it will often seem fascinating and unusual, so the individual will pause to take in this experience. This is the “neotonic look” observed in infants, but also in adults when encountering the “fictional worlds” encapsulated within visual artwork, as noted by Gallese (2017, p. 48). When in later life these experiences are suggested or inferred and then slightly subverted, our minds and bodies, initially at ease in recognition of the apparent source, are again required to deduce their possible cause and imagination is engaged. If this state can be sustained, in the manner of an open acceptance of the phenomenon presented without reference to cause, symbolism or signification, i.e. Husserl’s notion of epoché, then we have enacted a state of suspension. It would appear the process of transformation or moving through into a new state is recognised by the sensing body as similar to experiences encountered earlier in life. It should be noted that during inertia and relaxation, the body is more receptive to a state of suspension and mental states are highly active. As previously suggested by Gallese, immobility appears to aid this mental activity:

Our being still simultaneously enables us to fully deploy our simulative resources at the service of the immersive relationship with the fictional world, thus generating an even greater feeling of body. (Gallese, 2017, p. 47)

Again, this immobility is perhaps not only reflective of neotonic experience but also of our bodies as we prepare for sleep, and why the imagination is particularly active during the hypnagogic stage. As Gallese suggests “our immobility enables us to fully deploy our embodied simulation resources and put them at the service of our immersive relationship with the story” (2017, p. 48). In many respects, physiological qualities present during suspended experience resemble those of hypnagogia, many of which informed the design of *States of Suspension* (2018).

## 6.5 How can suspended experience be conveyed in an audiovisual artwork for myself and others?

When a creative use of light and sound come together in a way that is imitative or recreates the condition of the processes described above, it stands to reason that this would elicit similar corporeal and affective responses. As previously mentioned, I suggest there is a perceptual sweet spot that emerges along a spectrum between a recognisable, easily identified phenomenon, and at the other end, that which is completely unrecognisable and abstract. Where a recognisable phenomenon starts to leave the dominion of “reality” and head into an unknown realm, imagination is, in a sense, given permission to follow. The *Suspension Studies* suite (2020) and in particular *States of Suspension* (2018) attempted to provide auditory and visual circumstances for this to occur. This invitation to imagination I believe is a core aspect of suspended experience, as a way for our creative selves to step briefly into a world of imaginative thought and recognising this a safe place to do so. Brian Eno has said effectively the same thing about the purpose of art:

Every art object is the manifestation of a point in cultural space....But every art object is also an invitation to anybody else to experience that point in cultural space. It's a way of saying to people 'here's a little world, here's a world of propositions, about how things could be. What do you feel like when you experience that?' I think this is what happens when you look at something or listen to something. For a little while you surrender to the terms of a different world. (Eno, 2007)

Eno's idea of “surrender” is important, as it gives us permission to try out another reality, to participate in a vicarious experience of a different world. It could be said that art in a general sense will endeavor to present a different way of seeing or experiencing life to varying degrees. By cultivating or providing the circumstances to apprehend life differently, drawing from what we know instinctually and affectively, we can access imaginative thought and creativity. The act of improvisation in music for me is the ultimate form of creativity, as a form of surrender in a spontaneous joyride of sound, in turns both terrifying and exhilarating, yet completely in the moment. Importantly, it provides the artist with a creative vehicle to inhabit a different space for a time, as an abstracted, alternate reality, in and part of our conscious world, yet existing alongside and apart from it.

As we become older, often our natural curiosity and sense of wonder of the world around us diminishes. Perhaps this is due to an increasing knowledge of events and information overload, a sense of distrust and increasing cynicism, or an over-reliance on technologies to provide new aesthetic experiences. In this sense, how do we as artists maintain a sense of creative enquiry into new experience, to maintain that sense of wonder about our craft and about the world? Is it possible to regain that feeling of finding newness in everything, as if happening upon it for the first time? This enquiry I believe taps into that sense of wonder about the world, about the creative impulse and the magic that allows us to see everyday occurrences in a fresh light. It attempts to understand in a physiological and neurological sense what factors engender this sense of wonder in the world, uncovering the underlying principles, patterns and correspondences with our experience of the natural world that provide inspiration and meaning in our lives.

There is a multiplicity of possibilities lying just below the surface of the suspended state, awaiting discovery, an engagement with the new. The cyclical phenomena in nature we often take for granted hides a potential, a fascination with processes already at hand. The abstraction already taking place in natural phenomena is reflected in particular types of music, especially music that is not conclusive, leaves an open area of possibility, of engagement in the process. Western music's formalism emphasises the neat conclusion, the telling of a story or narrative to arrive at a solution. The suspended approach leaves this open—there is no requirement to conclude, rather an invitation to engage in an ongoing process, to take part in the flow of life itself. *Suspension Studies* and *States of Suspension*, in attempting to address and present these between-zones through music and imagery, provide opportunities to re-engage with this experience.

## 6.6 Future

Following the *States of Suspension* performance in 2018, PaperSun played several more events, including winter solstice celebrations in Katoomba in June, the Lawson Folk club in July, a summer solstice performance in December 2018 and a return to the Cultural Centre courtyard for the Winter Magic Festival in June 2019. All of these performances incorporated sections from *States of Suspension* (2018), employing

extended performance techniques and improvising over looped motifs in Ableton Live. It is notable that Katoomba Civic Centre, the venue for our winter solstice performance, also possesses an open-air aspect and degree of natural echo, while the summer solstice event was held in a highly reverberant former church, with both performances remarked upon for their immersive sound quality. The importance of a performance space contributing to the reception of an event, in combination with effects of sound and light that are conducive to imaginative thought and suspended experience, cannot be overlooked. A studio recording of *States of Suspension* was attempted at the recording studios of Western Sydney University in Kingswood in May 2018 following the event, and although capturing some of the essence of the performance, was more difficult to achieve within the acoustically deadened environment of the studio.

My intention for future performances is to integrate visual material more fully by employing a dedicated video artist to direct projections and lighting. As a musician and performer, I found it difficult to engage in visual aspects of the event while performing. Although using MIDI triggers to automate video excerpts were useful, these ultimately had to be operated manually, underlining the need for human interaction, either indirectly by a computer-generated visualisation or by another individual. For the summer solstice event and Winter Magic appearance we were joined by video artist and performer James Rees, who combined the existing video footage from *States of Suspension* (2018) with visuals generated from a combination of analog modular synthesis techniques with MIDI signals from the Ableton Live session, resulting in synchronized and highly effective visuals. This degree of interactivity I believe is what was lacking in the initial event, and it would seem logical that visuals both reflect and interact directly with the music performance. The summer solstice event employed a single projection over and above the musicians supported by ambient coloured lighting which was effective. However, in the long term I anticipate using multiple projection screens for a more immersive experience of suspension.

I suggest that suspended experience and between areas of artistic exploration provide a rich, fertile ground for creativity. To be able to provide musical or visual circumstances that allow an individual to access states of mind receptive to

creativity through naturally occurring processes is immensely valuable for artistic endeavour. For this reason, research examining the links between mental imagery and music through embodied cognition are of importance. I watch developments in Mats Küssner's research on visual imagery evoked by music and links to emotion with interest. Küssner's doctoral thesis examining cross-modal mappings between music and gestural shape through embodied cognition (2014) aligns with several areas of my own investigation, and more recent investigations from a survey study by Küssner and Eerola (2019) examining the content and function of imagery generated from music, hold a particular fascination. Likewise, the ongoing work of Vittorio Gallese and his interest in embodied cognition as it applies to aesthetics in the creation of fictional worlds (2017, 2018, 2019) is of considerable interest, and I hope that my investigation into suspended experience may provide an alternate dimension into these new and exciting areas of cognitive research.

During the filming of *States of Suspension* (2018), a small boy can be seen excitedly running in and out of the floor projections, happily dancing to the music and apparently entranced by the flickering colour and light. The reaction of this child in many respects epitomises the essence of suspended experience and recalls my own youthful fascination with music and imagery. My hope is that this investigation has provided insight into this unique phenomenon, and that future audiovisual events may be able to incorporate suspended elements that will provide an experience of enchantment and wonder for young and old alike.

## 6.7 Postscript

Not long after the Cultural Centre performance, I had opportunity to hear the posthumous release from Dr. Geoffrey Gurrumul Yunupingu: *Djarimirri (Child of the Rainbow)* (2018). Several years in the making, it marked the artistic culmination of the Aboriginal artist's output prior to his 2017 death. The album is unique in that it combines traditional Yolngu language and song (*manikay*) with orchestral arrangements in a minimalist styling similar to composers Steve Reich and Phillip Glass. The repetitive interlocking cells, especially prominent in tracks such as "Djolin (musical instrument)" intentionally mimicked the rhythmic patterns of the *yidaki* (Yolngu word for didgeridoo) and were not audibly dissimilar to what had been attempted in the *Suspension Studies* (2020) and especially *States of Suspension* (2018). Steve Gunning, drummer for PaperSun, had texted me suggesting that I listen to a broadcast of the album on ABC 702 radio as it sounded similar to what we had performed in February. To my mind, many of the tracks on *Djarimirri* were representative of repetitive patterns of movement and life occurring in nature. Michael Hohnen, Gurrumul's long-time musical collaborator, has remarked that:

...traditional Yolngu as an oral culture uses repetition; that's how they learn....That goes through all strains of their life, music, dance, painting, storytelling, weaving, hunting techniques. And that became the basis for setting these tunes and organising them so they are whole pieces rather than just a minute long. (Hohnen in Mengel, 2018)

Although I would not attribute the music of *States of Suspension* (2018) or the *Suspension Studies* (2020) to Aboriginal influences, the landscape of the Blue Mountains certainly informed the conception of the works and the people who had inhabited it for many thousands of years entered my thoughts often during its creation. It was startling to hear Gurrumul's final work in April, so soon after my own event and I sensed a common theme. I am mindful the *manikay* chants and songs used throughout Gurrumul's album have been passed down through many generations but the cellular nature of composition and linking of small motifs to create a larger work, infused with the Australian landscape appear to link the two, despite quite different artistic outcomes.

My hope is that this investigation may play a small role in uncovering factors contributing to suspended experience in the innumerable variety of music throughout the world.

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## Appendices

Appendix A — Poster advertising for reception tests

Appendix B — Participant responses from reception tests

Appendix C — Drawings made by participants during reception tests

Appendix D — Findings from reception tests

## Appendix A Poster advertising for reception tests:



# Have you ever **lost yourself** in music, or **heard** images or **seen** music?

**This research project may be of interest to you**

I am currently seeking students and individuals to participate in a study researching perceptions of space and time in popular music and imagery, and in particular, whether we may experience a diminishing awareness of time and space, or feeling of 'suspension', in certain instances of music and art. It also looks at whether there may be similar experiences of suspension that exist between visuals and music in film, music videos and multimedia.

Participants will be asked to listen and view excerpts of music and video footage and asked a series of questions in relation to their perception of time and spatial awareness during exposure to this footage. Participants may also be asked to perform a creative task, e.g. drawing, during exposure to music to ascertain their perceptions of time and spatial awareness while performing a creative task. The tests will take approximately 1 hour, and all participants will receive a \$20 gift card for their time.

Although musical ability is not required, an interest in the research area would be beneficial.

**Research location**

School of Humanities and Communication Arts Building C (music department) **Room C.G.04**

**Research dates**

**Friday June 2, 10.30am or Friday June 9, 10.30am**

If you would like to take part in this research, please contact Peter at [p.long@westernsydney.edu.au](mailto:p.long@westernsydney.edu.au) or telephone **0417 376 733**

This study has been approved by the Western Sydney University Human Research Ethics Committee. The Approval number is H11933.

## Appendix B Participant responses from reception test questions

Questions	Participant 1	Participant 2	Participant 3	Participant 4	Participant 5	Participant 6	Participant 7	Participant 8	Participant 9	Participant 10
1. Your age	54	22	47	26	52	39	19	24	25	57
2. Gender	Female	Female	Female	Male	Male	F+M - transgender	Female	Male	Female	Male
3. Cultural background	not answered	Indian	Born Australia, mother African/American, father born Aust. Celtic	Australian	Euro/Australian	South African/Australian	Chinese	Australian	Australian/Caucasian	Anglo/Saxon?
4. Are you a musician or an arts practitioner? In what area/s?	Painting	I am not a musician but was briefly when I was in primary school (played the keyboard/piano). However, I do engage in art when I get time.	Singer, very amateur drummer, bassist, guitarist	No	No	Composer, performer, writer, poet, electronic music, silence	I used to play keyboard from the age 6-12 years old	Performer, composer, producer, nerd etc.	Singer – amateur musical societies	Yes. Guitar/Vocalist
5. What music do you listen to when thinking or contemplating? Please name artists, genres etc.	Eclectic - folk, traditional, pop, r n r, classical	For concentration, sometimes I listen to white noise on YouTube or meditation music. When thinking, I often like to have RnB and or pop music playing – artists include Ed Sheeran, Michael Jackson and a lot of mainstream pop musicians. I mostly listen to a lot of Korean Pop music – artists include EXO, BTS and many more	Radiohead <i>King Of Limbs</i> , <i>Massive Attack 10<sup>th</sup> Window</i> , Heligoland, Sylvan Esso – album name? Steady beats, on the slower side	Classical – Mozart, Bach, Tchaikovsky. Heavy Metal – SOAD, Metallica, The Used. Rock etc. Cultural/Folk/ Yoga	I don't, I like quiet – In car I listen to 80s & 90s rock – Red Hot Chili Peppers, AC/DC, Van Halen, John Butler Trio	Spectralists, experimental music, noise music – Prurient, Merzbow, Cat Hope, Namanax, Helmut Lachenmann, Ensemble Offspring, Laurie Spiegel, Peter Adriaanz, Scelci, Electronic Music, Kryzstot, Dan Thorpe, Penderecki, Gerard Grisey, James Tenney, Louis Andriessen, Rebecca Saunders, Claude Vivier, Elena Kats-Chernin, Matthew Hindson, Kaija Saariaho	Mozart, pop songs (Taylor Swift)	Art music – art rock, choral, contemporary, classical	Classical piano – Mozart etc., Sigur Ros, some types of musical theatre, movie soundtracks (i.e. Hans Zimmer)	Radiohead. GoGo Bordello. Early Pink Floyd

6. (L) I enjoy music or art that I can lose myself or feel immersed in (1: do not agree, 4: neutral, 7: strongly agree)	6	7	7	6	7	7	7	7	7	7	6	7	6
7. (L) I like music and art that is predictable and not too challenging (1: do not agree, 4: neutral, 7: strongly agree)	2 to 3	7	4 – very tricky question	3	5	1	4	3	2	5			
8. (L) I enjoy music that takes me into another state of mind (1: do not agree, 4: neutral, 7: strongly agree)	5	7	7	6	5	7	6	7	6	6			
9. (L) I sometimes hear music when looking at art or imagery (1: do not agree, 4: neutral, 7: strongly agree)	6	5	1	5	1	7	5	4	2	4			
10. (L) I sometimes see imagery when listening to music (1: do not agree, 4: neutral, 7: strongly agree)	5	7	7	5	4	7	4	7	5	4			



11. Describe any <b>physical sensations</b> you observe while <b>watching or listening to these examples, e.g. tingling, shivers, tiredness, dizziness etc.</b>	<p>Example 1. Conscious of breath, closed eyes, drew, heartbeating, a sensation of building towards climax - mild irritation in chest – a feeling I cannot do this much</p> <p>Example 2. <del>Celestial light</del> <del>layering-hazy</del> (answer crossed out)</p> <p>Example 3. Heart beating in chest, listening more to sound rather than looking at image, difficulty concentrating. Booming sound in head, closing eyes, not looking at image. Want to walk out of room, looking down at page – blocking visual image with hands. Time passing</p> <p>4. Anticipating what's behind the shutters, then the hand appears. Losing concentration. When is it going to finish – impatience.</p> <p>5. Shiver, turning away from image to concentrate on sound.</p> <p>6. Warmth vibration in ears. Eyes squinted with high-pitched sounds. Heaviness in body. Pressure feeling in head</p>	<p>Example 1. Tiredness, shivers (slight) dizziness, sleepiness</p> <p>Example 2. Tingling down my spine, tiredness, goosebumps</p> <p>Example 3. Dizzy, uncoordinated</p> <p>Example 4. Tiredness, slightly dizzy</p> <p>Example 5. Dizziness, tingling, warmth</p>	<p>Example 1. Tingly (note: several answers moved to emotional responses)</p> <p>Example 2. Drowsy</p> <p>Example 3. Tingly, vibratory, low level headache and earache</p> <p>Example 4. (tightness in the temporal lobes/neck, a little on edge, chest activation</p> <p>Example 5. (missing)</p> <p>Example 6. Drowsy</p> <p>Example 6. Aware of my thoughts, drowsy (side note – aware of and slightly annoyed by people's inability to sit still)</p>	<p>Example 1. Tingling in ears (ASMR?). Not slightly)</p> <p>Example 2. Sneezy</p> <p>Example 3. Somewhere else-ness, vibration (heart)</p> <p>Example 4. Hypnotic state, sleepy</p> <p>Example 5. Tingling, weightless</p> <p>Example 6. Relaxed, heavy eyelids</p>	<p>Example 1. In a trance, tired, drowsy</p> <p>Example 2. Hurts my eyes, tired, sleepy – then awakening! Then sleepy again!</p> <p>Example 3. Drifting away – off with a pod of whales. Out of this world</p> <p>Example 4. Trapped claustrophobic hypnotised</p> <p>Example 5. <del>##</del> <del>bleet</del> (crossed out)</p> <p>Cold <del>warm</del> old. <del>Dark head</del> Vibrations</p> <p>Example 6. Tired. Peaceful. Hurts my eyes</p>	<p>Example 1. My heart is beating with the movement of sound • breathing vibration I skin • slow breathing</p> <p>Example 2. Feel like my body is slowing down e.g. slow bloodflow</p> <p>Example 3. My muscles are relaxing, my body wants to lie down</p> <p>Example 4. Fidgeting with my body, increased body movement</p> <p>Example 5. Feeling drowsy</p> <p>Example 6. My body wants to lean into the sound</p>	<p>Example 1. Dizziness, stable heartbeats, a sense of warmth in the head</p> <p>Example 2. A sense of blindness. Eyes blinking, tingling, racing heart beats in between</p> <p>Example 3. Nervousness, shivering a bit. A sense of heaviness in between tiredness</p> <p>Example 4. Dizziness and blindness, racing heartbeat. Eyes rolling rapidly</p> <p>Example 5. Eyes blinking rapidly, a sense of deafness, face burning, a lump in the throat</p> <p>Example 6. Blindness, looking at the other place sometimes. Tightness. Dizziness when too many lights are blinking</p>	<p>Example 1. Relaxation, close attention to changing aspects of excerpt</p> <p>Example 2. Relaxation, focused attention, awareness of details</p> <p>Example 3. Relaxation, slowing of breath/thoughts</p> <p>Example 4. Calmness, immersion</p> <p>Example 5. Mild distraction</p> <p>Example 6. Relaxation, centredness</p>	<p>Example 1. Heaviness/slight tiredness. Mild feeling of dizziness</p> <p>Example 2. Nausea, potentially pulse increase, tense muscles, slight headache</p> <p>Example 3. Shivers, tension behind eyes</p> <p>Example 4. Nausea, dizziness, shallower breathing, slight shiver</p> <p>Example 5. Heaviness, nausea, slight dizziness</p> <p>Example 6. Shivers, slight tension behind eyes</p>	<p>Example 1. Felt heavy (crossed out - <del>change of heart beat</del>, relaxed)</p> <p>Example 2. Heavy (crossed out – <del>hair-raised</del>)</p> <p>Example 3. Heavy (crossed out – <del>excited/depressed</del> <del>4</del>)</p> <p>Example 4. Movement</p> <p>Example 5. Movement</p> <p>Example 6. Tired</p>
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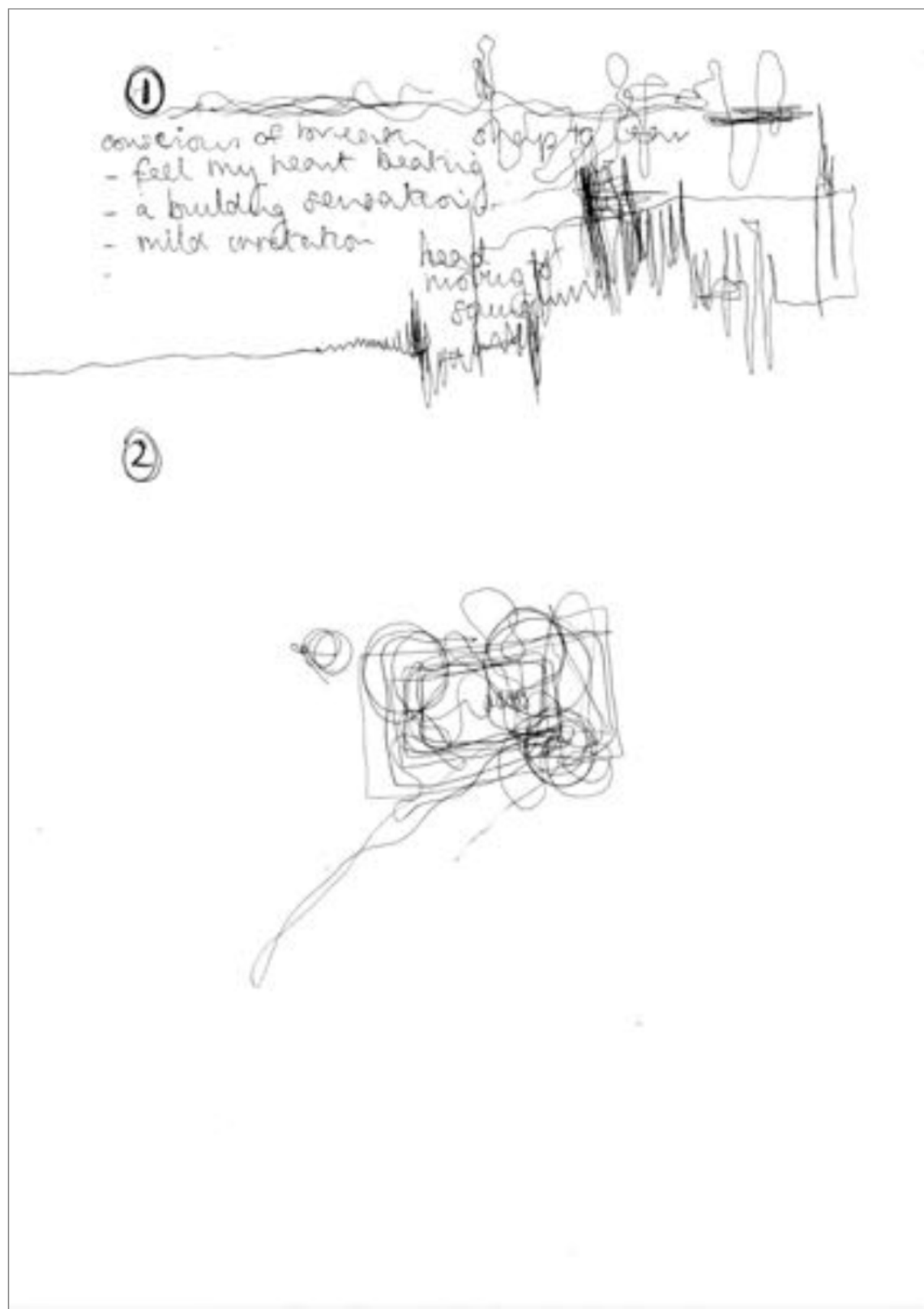
<p><b>12. How do these examples make you feel? Please list your emotional responses to each example, e.g. happy, bored, amused, anxious, curious, transcendent etc.</b></p>	<p>1. Irritation – don't know why. A feeling I cannot do this. Same time found music attractive.</p> <p>2. Calming with slow moving images. Irritation with fast moving images</p> <p>3. Confused trying to look and listen at the same time. Wanting to cry – release of many emotions – crying – settling, concentrating too much on what I want to write – difficulty finding words</p> <p>4. Boring, repetitious. Impatient. Sigh at end.</p> <p>5. Confusion – sound and images don't sync. Irritated by the technology morphing organic shapes. Sounds unpleasant.</p> <p>6. Apprehension – what's coming next? Jarring sounds. Not able to take in image and sound together – feeling of being overburdened sense wise.</p>	<p>1. Serene &amp; sleepy, almost in a complete oblivious state of mind, curiosity for what certain sounds were (a bird?)</p> <p>2. Calm, serene, happy, curious, confusion, relief, nostalgia</p> <p>3. Calm, curious, contemplating my existence, nostalgic, thinking about how big &amp; amazing the world is, somewhat hallucinating</p> <p>4. Anxious, hopeful for a solution to turn up, feels like being held captive, powerless, bored</p> <p>5. Serene, calm, happy, eager (to see more than just the sky and clouds)</p> <p>6. Curious, serenity (when I saw moving water), relaxed disposition</p>	<p>1. Extremely pleasant, heady, spacey, journeying, moving forward (as if driving), calm, soothed, steady, lost in the sound, happy, transcendent, curious, pleased</p> <p>2. Very pleasant, dreamy, curious, calm, content</p> <p>3. Soothed by cello, interested, curious, more intense/vivid imagery (like a movie), emotive – very emotive!</p> <p>Journeying, transcendent. Love it!</p> <p>Immersive, totally lost in the sound</p> <p>4. Interested, curious, soothed</p> <p>5. Interested, soothed, meditative (you may have seen me shiver, but that was only because the guy next to me kept cracking his knuckles)</p> <p>6. Interest, curious, in awe of nature, soothed</p>	<p>1. Alike to something to transcend from an Indigenous culture kind of POV e.g. Native American. Happiness.</p> <p>2. Curious, tired, withdrawn, content.</p> <p>4. Dreamy anxious trapped, hypnotised, neutral.</p> <p>5. Free state of mind</p> <p>6. Relaxed, calm</p>	<p>1. Sleepy annoyed (repetitive)</p> <p>2. Perplexed, curious, bored</p> <p>3. Heaviness, tingling hands, rotating stars, off to sleep!</p> <p>4. Boring – loss of concentration – driving on an endless road!</p> <p>5. Confused, inkblots. Dark mood</p> <p>6. Blue, sleepy, mellow</p>	<p>1. Focused, transcendent, relaxed, hopeful, spiritually lifted</p> <p>2. Sense of expectation</p> <p>3. Devoid of emotion, and at peace with my surroundings</p> <p>4. Curious</p> <p>5. Feeling tired, ready to dream</p> <p>6. Feeling like I am left wanting more</p>	<p>1. Peaceful, warmth, a sense of relief, a tiredness in between. Like feeling very comfortable and calm</p> <p>2. A sense of brightness and excitement. Seeing the trees makes me feel a sense of nature liveliness, but the blinking pictures in between makes me nervous</p> <p>3. A sense of nervousness, a little bit curious. Feeling a little bit loud, as one sound is always in the background. A little bit hyper in the end</p> <p>4. Dizziness, anxious, curious, a bit annoyed at the constant changes of the lines &amp; also confused</p> <p>5. Feeling a sense of lightness, excitement but uneasiness when the cloud turns dark and blurred</p> <p>6. A sense of tightness. Everything becomes a bit blurred then a sense of amusement, at least a sense of calmness seeing the sight of the stars?</p>	<p>1. Open, empty (in a good way), relaxed, peaceful, content, curious</p> <p>2. Tranquil, composed, curious; mildly excited and kind of over-stimulated when activity increased briefly (faster cuts, quicker movements, frequent momentary changes)</p> <p>3. Peaceful, curious, meditative, quiet</p> <p>4. Curious, open, observant</p> <p>5. Slightly unsettled until later parts due to the business of movement, grating high-frequency sounds. More relaxed, peaceful at this point. Curious throughout</p> <p>6. Dream-like suspension of reality, curiosity, peace, wonder, openness</p>	<p>1. A combination of calmness and slight apprehension</p> <p>2. Anxious, disorientated, distracted and unable to focus on visuals due to changing effects/distortions</p> <p>3. Serene, curious, a feeling of awe, slightly on edge</p> <p>4. Unsettled, entranced, disoriented, anxious but curious</p> <p>5. Curious but apprehensive, calm to an extent by the end with the resolution</p> <p>6. Curious, feeling of awe, peaceful, slight apprehension yet also content</p>	<p>1. Relaxed drifted off into visualisations</p> <p>2. Relaxed until movement was sped up</p> <p>3. Relaxed then engaged</p> <p>4. Transcendent</p> <p>5. Transcendent</p> <p>6. Interest</p>
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13. How long (in duration) did you feel each example was? Please estimate	Not able to define by numbers. Number 4 felt longest, all the rest felt about the same time	1. 2 minutes 2. 3 minutes 3. 4 minutes 4. 6 minutes 5. 3 minutes 6. 4 minutes	1. 5 minutes 2. 5 minutes 3. 5 minutes 4. 7 Minutes 5. 5 minutes 6. 5 minutes	1. 5 minutes 2. 4 minutes 3. 15 minutes 4. 10 minutes 5. 6 minutes 6. 10 minutes	1. 10 minutes 2. (marked as 3) 12 minutes 3. (marked as 2) 7 minutes 4. 5 minutes 5. 4 minutes 6. 8 minutes	1. 5 minutes 2. 3 minutes 3. 10 minutes 4. 10 minutes 5. 6 minutes 6. 10 minutes	(All boxes marked as 'yes') – Suspension of space and time experienced in all excerpts, particularly those which featured heavy use of patterns, like no. 4. In example 2, I felt this was exaggerated when movement/activity was increased and I wasn't able to focus on one thing for long before it transformed	1. No 2. Yes – physical sensations distracted from sense of time 3. Yes – immersion – felt like I was swirling within the sounds 4. Lost sense of time due to physical sensations 5. No 6. Yes – immersion – felt like I was swimming within sound & image	1. 5 minutes 2. 5 minutes 3. 7 minutes 4. 5 minutes 5. 5 minutes 6. 6 minutes	1. 5 minutes 2. 5 minutes 3. 20 minutes 4. 3 minutes 5. 3 minutes 6. 5 minutes		
14. Did you feel immersion or lose a sense of time and space in any examples? Please describe	(All boxes marked as 'no'). I found parts of each attractive and pleasant to listen to. I was conscious of time throughout, and remained very conscious of the space I was sitting in. Conscious of time – clock in front of me. Tried to look away but found I kept looking at it.	1. No 2. No 3. Yes – I listen to this sort of music sometimes when I need ABSOLUTE concentration. Helps to de-stress 4. No 5. Yes – I felt like I was seeing time go by but didn't realise how fast it was! 6. Yes – the music & moving water tends to switch off thoughts and just immerses me in a state of calm	1. Yes – total immersion, lost time and space 2. No – struggled to stay alert 3. Yes – total immersion, lost time and space, played movie in my mind 4. No 5. Struggled to stay alert, felt tired 6. Struggled to stay alert, felt tired and annoyed at participants (not the content)	1. Yes – lost sense of time 2. Yes – I almost felt I had to sneeze because I was there 3. Yes – I felt I was somewhere else 4. Yes – immersed in an anxious state 5. Yes – free of care – timelessness 6. Relaxed immersion content	1. Yes – I kept drifting into other thoughts 2. Yes – lost trail of time endless ocean with whales 3. Yes – in the ocean with whales 4. Yes – I got bored – hypnotised 5. Yes – drifting away in clouds – away in clouds – 6. Yes – drifting...	1. Yes – my mind felt suspended in space 2. Yes – Time is speeding up and slowing down 3. Yes - I am in space looking down at the earth, silence pressing in on my mind 4. No. 5. Yes – loss of time, feels like I am flying 6. Yes – Watching the sound move on the edge of time	1. Yes – feels like listening to the ocean going through (losing a sense of space) 2. Yes – looking at the videos got me lost track of time but I still got a sense of space 3. No – feels like the time is 10 minutes. One-dimensional space 4. Yes – lose a sense of space. Feels like in a dark room 5. Yes – lose a sense of space. Feels like flying in an airplane 6. No – I noticed the time and the space as in a room	1. Particles, shifting light, patterns and colour, moving ribbons 2. Radiating lines, circles coming from a point, like a ripple. Raindrops/droplet s (see doodles)	1. A damp forest, darkish (shadowy/dusky) just after rainstorm 2. Various nature scenes – whales in ocean, mountains in background	1. 3 mins 30 secs 2. 4 minutes 3. 4 mins 30 secs 4. 4 minutes 5. 4 minutes 6. 4 minutes		
15. Did the music only examples elicit any imagery for you? Describe what you saw	1. No 2. No	1. I kept visualising birds flying in flocks 2. Wind blowing in a meadow on a sunny day	1. No 2. Played movie of street scene, young girl alone at night, at times running or walking. Nightscape in the city	1. Desert, plains, fire crackling, corroboree 2. Trees, prescription medication, snakes, fog, smoke, vampires, tense people, wind	1. Dreams – kind of drifted into a dream about work 2. Clouds – was flying in outer space. Whales – I saw whales!!	1. Water – the ocean, light shimmering on the water 2. (marked as 3) Outer space, stars, darkness, silence	1. People sailing along the oceans with lighthouse ahead 2. People going between trees with lightning on the top of the head	1. Particles, shifting light, patterns and colour, moving ribbons 2. Radiating lines, circles coming from a point, like a ripple. Raindrops/droplet s (see doodles)	1. A damp forest, darkish (shadowy/dusky) just after rainstorm 2. Various nature scenes – whales in ocean, mountains in background	1. 5 minutes 2. 5 minutes 3. 7 minutes 4. 5 minutes 5. 5 minutes 6. 6 minutes	1. 5 minutes 2. 5 minutes 3. 7 minutes 4. 5 minutes 5. 5 minutes 6. 6 minutes	1. 5 minutes 2. 5 minutes 3. 20 minutes 4. 3 minutes 5. 3 minutes 6. 5 minutes

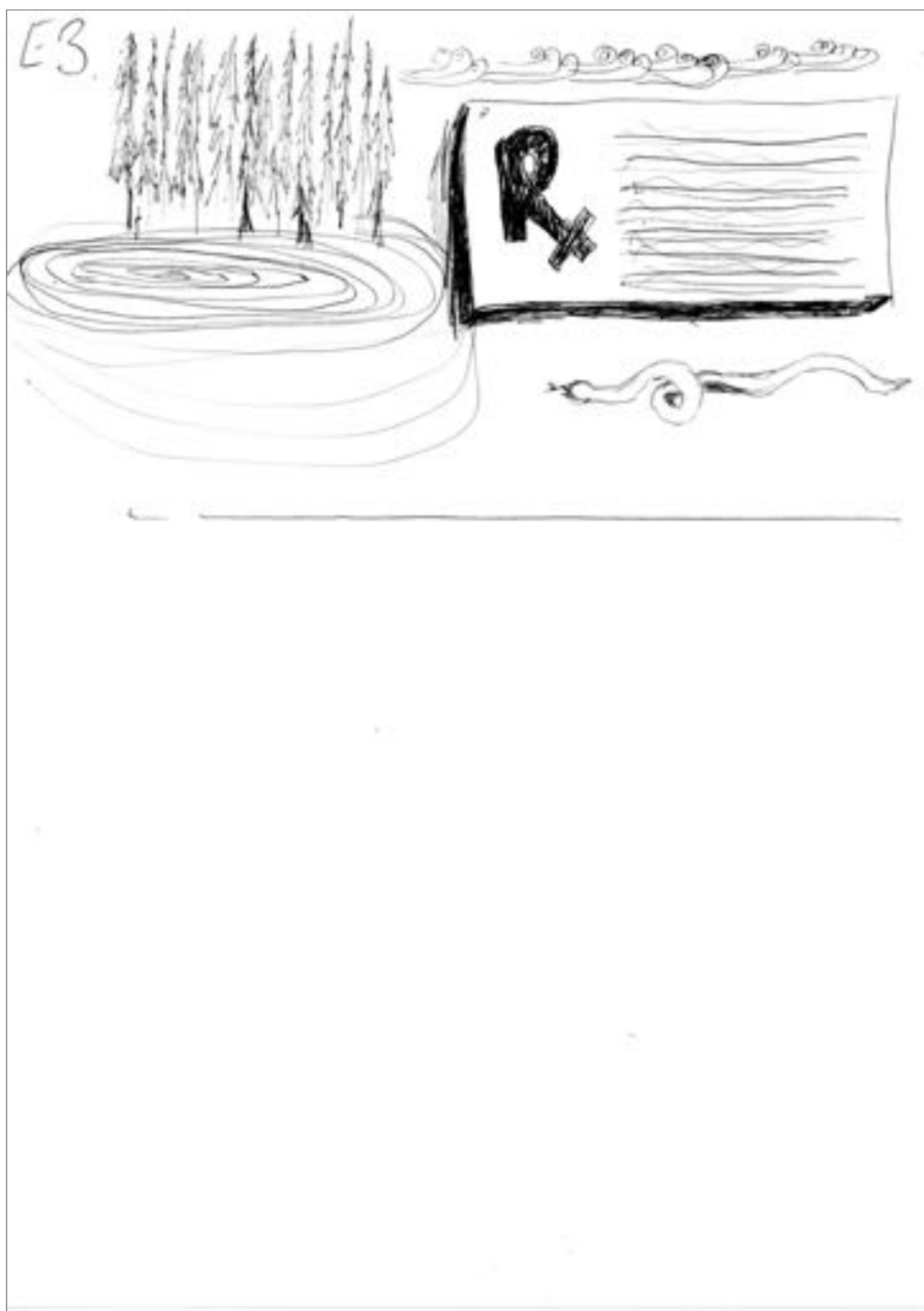
16. Did the visual only examples elicit any music/sound for you? Describe what you heard	3. No 4. No	3. I could hear nostalgic music from the 90s – acoustic. 4. Horror/terror music. I could almost hear myself struggling to escape what [it] felt like being held captive	3. No 4. No	3. Rustling 4. Horror movie tension soundtrack. Charlie and the Chocolate Factory - imagination	3. No 4. No	3. (marked as 2) Violin – high pitched sound and bells, harp, silence, drops of sounds, cello playing tremolo sounds, rustling of leaves 4. Howling wind, rattling sound on strings, silence, timpani	3. Bird whistling/doors opening and closing/stars blinking (crossed out) <del>like walking on the rough patch by only in the morning</del> 4. Silence sound, being trapped in the dark	3. No 4. No	3. Car noise, wind sounds, animal noises (bugs/birds) 4. Breathing (heavy), creaking noises, industrial sounds (beeping cars)	3. (marked as 2) – piano tinkering then jagged synth sounds 4. Was still hearing the 3 <sup>rd</sup> audio sample
17. Did you enjoy any of these examples?	1. Yes 2. Yes 3. No 4. No 5. No 6. No	1. Yes 2. Yes 3. Yes 4. No 5. Yes 6. Yes	1. Yes 2. Yes 3. Yes 4. Yes 5. Yes 6. Yes	1. Yes 2. Yes 3. Yes 4. Yes 5. Yes 6. Yes	1. No 2. No 3. Yes 4. No 5. No 6. Yes	1. Yes 2. Yes 3. Yes 4. Yes 5. Yes 6. Yes	1. Yes 2. Yes 3. Yes 4. Yes 5. Yes (not so much) 6. Yes	1. Yes 2. No 3. Yes 4. No 5. Yes 6. Yes	1. Yes 2. No 3. Yes 4. No 5. Yes 6. Yes	1. Yes 2. Yes 3. Yes 4. Yes 5. Yes 6. Yes
Drawings/notes made by participants	Detailed notes and drawings for first two examples, loose abstracted line drawings	Some drawing, geometric objects and a human figure, smiling	No drawing	Drawing for example 3 only, of what appears to be a pine forest behind a pool, waves, a snake and the 'Rx' symbol for medical prescriptions	No drawing	Drawing for example 3 only, loose free flowing line, non-figurative	Elaborate detailed drawings for each example, numbered and pictorial with detailed notes	Simple drawings for first four examples, numbered	No drawing	No drawing

## Appendix C Drawings made by participants during reception tests

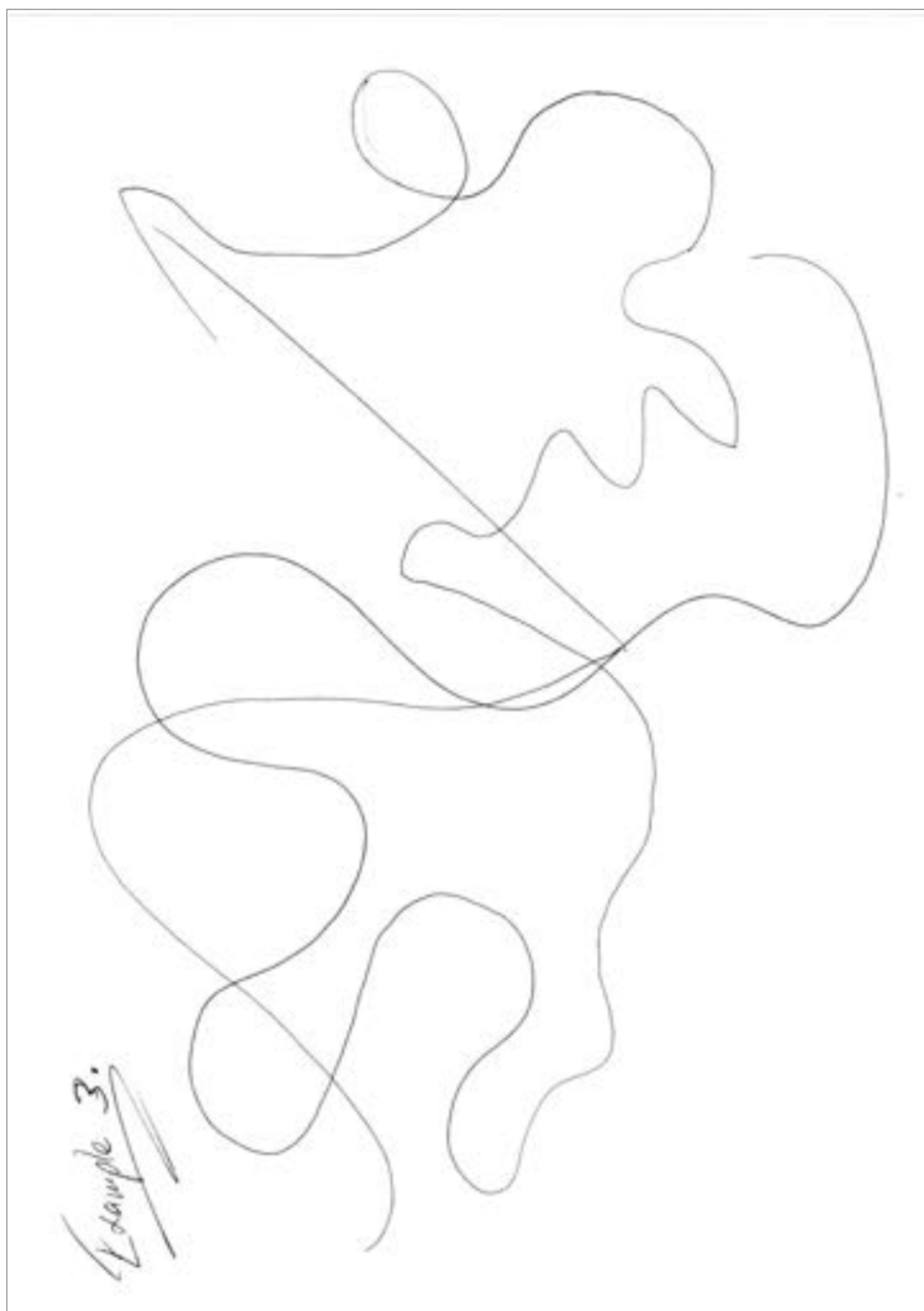
### Participant 1

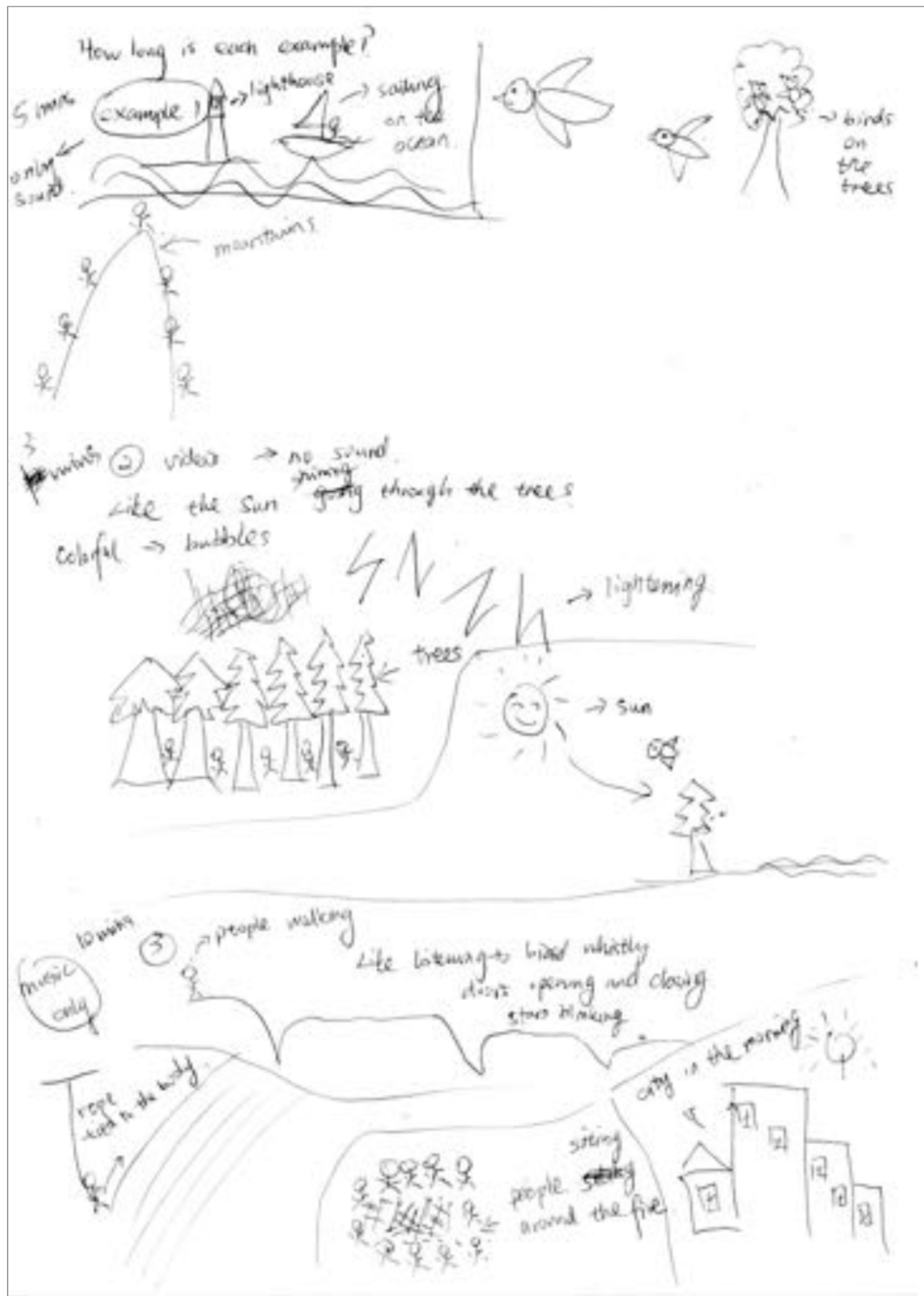


Participant 4

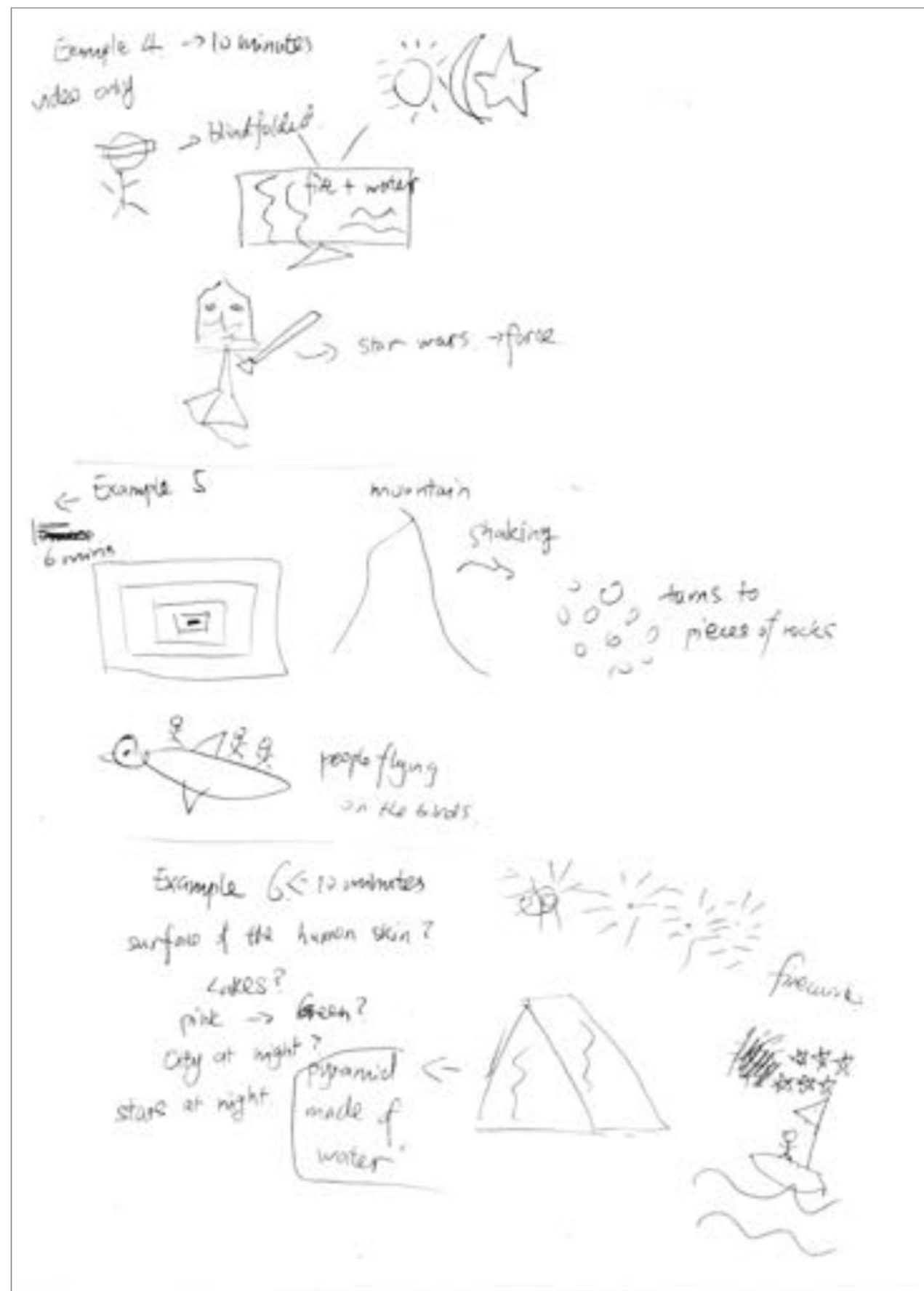


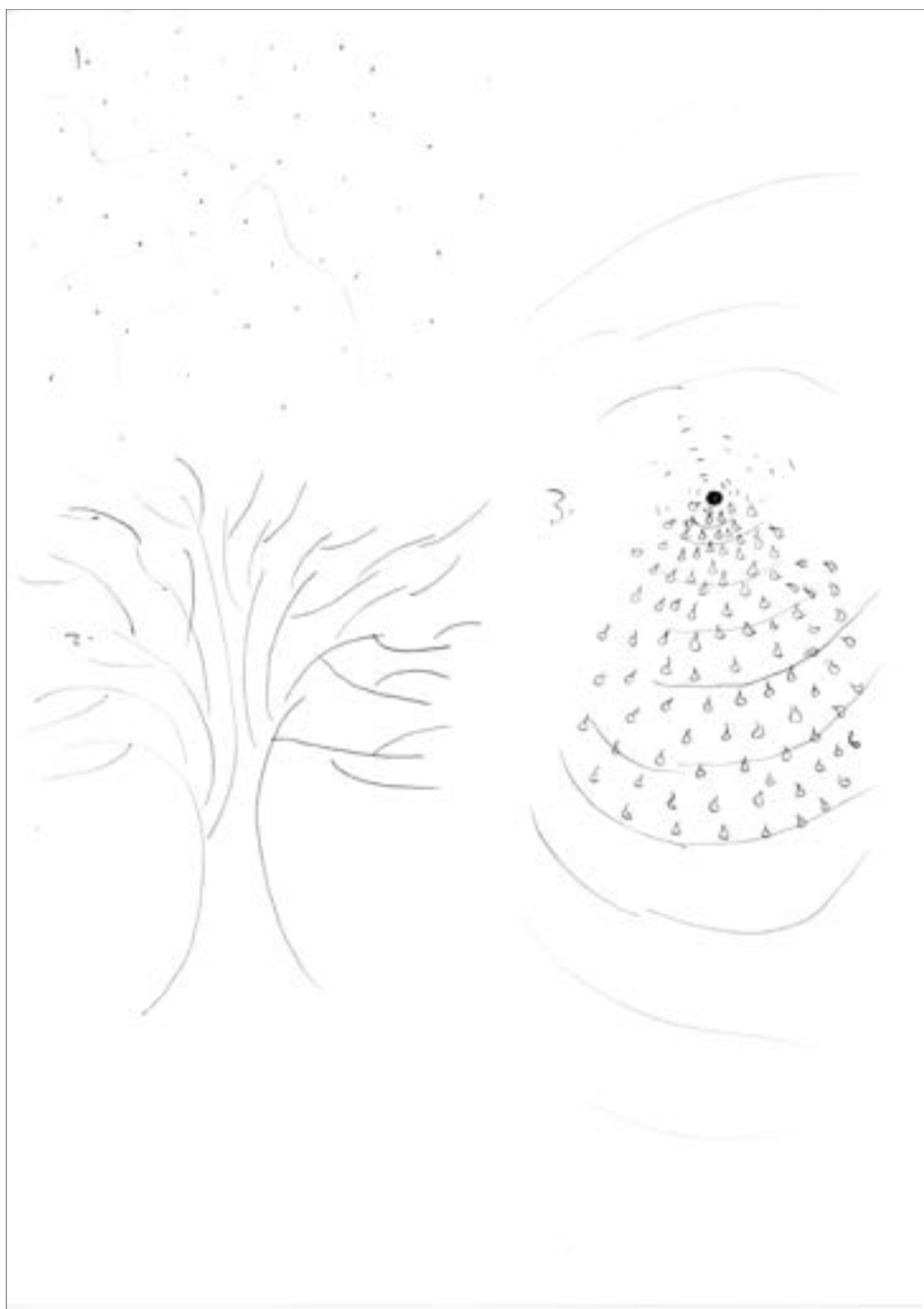
Participant 6











Participant 8b



## Appendix D Findings from reception tests

### Pre-test responses

#### Demographic and background question responses (Appendix B, Q1–5)

The age of participants was broad, ranging from 19 through to 57 years of age, though weighted towards young adults with 50% of participants falling in the 18–30 age range. Another 30% fell into the 51–60 age bracket, with the remaining 20% in either the 31–40 range (10%) or the 41–50 range (10%).

Gender was fairly evenly split, with 50% of participants female, 40% male and one participant identifying as transgender (10%).

The cultural background was mixed, though weighted toward an Anglo-centric background. Seventy percent identified as Australian and/or Caucasian (including one as “Anglo/Saxon”) and of these, 20% had mixed cultural backgrounds (South African/Australian and African American/Australian). One participant identified as Chinese, one as Indian and another declined to answer.

Eighty percent of participants indicated some engagement with music or the arts, ranging from early music lessons to professional composition and performance, with only 20% indicating no music or arts practice. Seventy percent identified music pursuits, 10% indicated visual arts practice (painting) and 10% indicated both.

Responses regarding the use of music for thinking or contemplating (artists and genres) ranged from minimal to effusive, with a broad cross section of genres indicated. Although popular song artists figured in 60% of responses, 90% indicated some form of instrumental music, and of these 60% indicated classical or art music. The band Radiohead was mentioned in 20% of responses, and music artists that produced music that the author would identify as conducive to suspended experience featured in 40%. Due the wide range of answers to this question, including a number of artists/genres that the author would not have normally considered as conducive to contemplation, answers could be construed as subjective and largely determined by personal taste. However, these responses cannot be entirely discounted and must be taken into consideration when

addressing notions of music considered to be conducive to suspended experience, as this may vary from person to person.

#### Responses to statements (Appendix B, Q6–10)

The statements were all scaled from 1 to 7 as to how much a person agreed or disagreed with a given statement, with 1 indicating non-agreement, 4 as neutral and 7 as strongly agreeing.

All respondents agreed that they enjoyed music or art that they could immerse or lose themselves in, with 70% of respondents indicating strong agreement (7) and the remaining 30% indicating a strong preference (6).

Responses to the statement about enjoying music that was predictable and not too challenging was mixed: 50% of respondents answered in the negative range (1–3) although only one responded definitely “no” (10%). Twenty percent indicated neutral (including the response “very tricky question”), 20% indicated slightly agreeing (5) and only one respondent (10%) indicating “yes” definitively (7).

All responses to the statement regarding enjoyment of music that took the participant into another state of mind were affirmative, with 40% agreeing strongly (7) and the remaining 60% of responses in the 5–6 range.

The statement asking whether music was ever heard when viewing art or imagery brought mixed responses, with 50% responding in the positive, 20% in the neutral range and the remaining 30% in the negative. Twenty percent responded firmly as “no” (1) and of those agreeing with the statement. Only 10% responded definitively “yes” (7).

However, a statement about whether imagery could be seen when listening to music provided quite a different result, with responses largely in the agreement range (4–7) with 40% strongly agreeing with the statement (7) 30% somewhat agreeing (5) and 30% neutral (4).

## Responses provided during tests

### Perceived physical sensations to studies (Appendix B, Q11)

**Suspension 1** (music only): As may be expected given the direction of the question towards physical sensation, each respondent reported an increased focus on bodily functions and observance of heartbeat and breathing, with one reporting that their heartbeat and breathing appeared to synchronise with the music. Forty percent of participants reported a feeling of tiredness or heaviness, with 20% also sensing tingling sensations and a further 20% reporting dizziness. Other sensations mentioned were relaxation and irritation in the chest area.

**Suspension 2** (imagery only): Over half of responses to this visual study reported a feeling of sleepiness or drowsiness, with 20% observing bright visual phenomena (“hurts my eyes”, “a sense of blindness”, “eyes blinking, tingling”) and one even reporting a “sneezy” sensation. One respondent observed a feeling of nausea.

**Suspension 3** (music only): Fifty percent of participants reported a tingling or vibration, and of these tension, nervousness, shivering and headache were also mentioned. Conversely 30% experienced relaxation, “somewhere else-ness”, “drifting away” and being “out of this world”. Forty percent mentioned tiredness or heaviness.

**Suspension 4** (imagery only): Thirty percent of participants reported dizziness, with a further 20% also mentioning a hypnotic state. Other sensations reported included impatience, un-coordination, feeling claustrophobic and fidgeting, however one participant also reported calmness and immersion.

**Suspension 5** (music and imagery): Thirty percent reported feeling tired or drowsy. Other physical sensations included shivering and a sensation of cold, dizziness, eyes blinking, tingling, weightlessness and deafness.

**Suspension 6** (music and imagery): Warmth, relaxation and tiredness featured in 60% of responses, with one respondent reporting their body “wants to lean into the sound”. Other responses include relaxation and “centredness”, heaviness, dizziness, shivers and “slight tension behind eyes”.

## Perceived emotional response to studies (Appendix B, Q12)

**Suspension 1** (music only): Eighty percent observed a pleasant experience in response to this piece (“serene & sleepy”, “extremely pleasant, heady”, “happiness”, “relaxed, hopeful”) with 30% reporting transcendent experience and 20% a feeling of curiosity. Only 20% reported a negative experience (“irritation”, “annoyed”) although one of these conversely also found the piece “attractive”.

**Suspension 2** (imagery only): Although 50% of participants reported calmness or relaxation in relation to this video footage (“calm, serene” “dreamy”, “tranquil, composed”) 40% also found irritation or anxiety with faster movement (“relaxed until movement was sped up”) and 20% reported “excitement”. Another 40% noted a feeling of curiosity, with one respondent reported boredom: other responses ranging from “nervousness” to being “over-stimulated” or “slightly on-edge”.

**Suspension 3** (music only): Eighty percent of participants reported a meditative quality or feeling of contemplation with the music (“contemplating my existence, nostalgic”, “journeying, transcendent”, “at peace with my surroundings”, “peaceful, curious, meditative”, “serene, curious, a feeling of awe”) with 20% reporting a negative emotional experience (“wanting to cry—release of many emotions”, “a sense of nervousness”).

**Suspension 4** (imagery only): Although 50% of respondents expressed curiosity with this example, 30% reported boredom with a further 20% feeling trapped or “held captive”. One respondent expressed feeling “hypnotised” and one other found the experience “transcendent”.

**Suspension 5** (music and imagery): Response to this combination was mixed, with 40% reporting a feeling of serenity or calmness (“free state of mind”, “ready to dream”) but another 40% reporting unease or apprehension, with a further 20% finding the experience confusing or unpleasant (“inkblots, dark mood”, “grating high-frequency sounds”). Curiosity or interest is also mentioned in 30% of responses.

**Suspension 6** (music and imagery): Sixty percent reported a sense of serenity or calmness (“relaxed disposition”, “in awe of nature, soothed”, “blue, sleepy, mellow”, “dream-like suspension of reality”, “curious, feeling of awe”) with 50% also

expressing curiosity, wonder or interest. Twenty percent however mentioned apprehension (“what’s coming next?”, “a sense of tightness”) with one participant feeling “overburdened sense wise”.

### Drawings made by participants (Appendix C)

Each participant was given blank paper with the questionnaire and invited to contribute drawings while listening to and viewing the studies to support their answers, with 60% supplying drawings at the end of the session. The majority indicated which study was listened to at the time of drawing and several (not all) of the drawings directly pertain to question responses and can be ascertained through description. These range from loose squiggles and simple line drawings of geometric shapes, to highly detailed drawings and symbols.

**Suspension 1** (music only): Participant 7 (19 y.o. female, non-musician) contributed a drawing indicating a lighthouse in the middle of waves with a sailboat and solitary passenger. Alongside there are birds flying towards the frame of the ocean scene, departing from a tree. Below this are figures ascending and descending a mountain. Participant 1 (54 y.o. female, visual artist) drew an abstract squiggle reminiscent of a polygraph with notes relating to answers for question 1 and Participant 8 (24 y.o. male musician) provided an abstract pattern of dots and waving lines.

**Suspension 2** (imagery only): Participant 7 again contributed a detailed scene, the first indicating a forest with stick figures running underneath, with the symbol of a smiling sun to the side, shining down onto a tree and a bird—above this there are lightning symbols indicated and the text “like the sun shining through the trees: colourful → bubbles”. Participant 8 provided a detailed drawing of a tree, while Participant 1 drew a highly abstracted squiggled line in both rectilinear and circular shapes.

**Suspension 3** (music only): several participants contributed drawings for this study, ranging from a loose, free-flowing abstract line drawing to detailed drawings replete with symbols. Respondent 7 provided a highly detailed scene with a figure appearing to traverse a wavering linear path, with the comment “people walking—like listening to bird whistling, doors opening and closing, stars blinking” as well as a figure tied to a rope with an arrow indicating a swinging motion, a further pictorial



representation of figures sitting around a fire, alongside a representation of buildings with the text “city in the morning”. Participant 4 (26 y.o. male, non-musician) provided their sole drawing, with what appears to be a pool of water with the background of a pine forest—alongside this is a stylised representation of waves, what appears to be a plaque containing the “Rx” symbol for prescriptions and beneath this a representation of a snake. Participant 6 (39 y.o. transgender, musician) also provided their sole drawing for this study, a free-form, non-figurative abstract line. Participant 8 provided an abstract drawing of a small hole issuing tears or drops of water, surrounded by what appear to be sound waves.

**Suspension 4** (imagery only) yielded only two drawings, from participant 7 again providing a detailed drawing of what appears to be a television screen with wavy lines and the words “fire + water”, with celestial bodies (sun, moon and star) and a blindfolded figure indicated as being linked to the screen. Beneath this is what appears to be a helmeted figure brandishing a sword, with the words “stars wars → force” alongside. Participant 8 provided a drawing of straight horizontal lines, overlaid with curved horizontal lines echoing the repetitive and constantly moving nature of this study.

**Suspension 5** (music and imagery combined). Only participant 7 provided drawings for the remaining studies. For this video of combined music and imagery, a drawing of a rectilinear box or screen with repeated boxes moving inwards in perspective appears to echo visual content of the video, however there is also a drawing of a large bird with figures appearing to ride on its back (“people flying on the birds”), a quick drawing of a mountain (“mountain shaking”) with what appears to be boulders to the right (“turns to pieces of rock”).

**Suspension 6** (music and imagery combined). For this study, participant 7 mostly used text in response to the video, writing “surface of the human skin? Lakes? Pink → Green? City at night? Stars at night”. However, they also indicated a “pyramid made of water” and provided a drawing of a triangular wedge shape with what appears to be starbursts above (“fireworks”) and a lone figure sailing a water vessel with six star shapes above.

## Post-test responses

### Perception of time (Appendix B, Q13)

**Suspension 1** (music — actual time 5 minutes). Fifty percent of participants accurately estimated this music study to be five minutes in duration. Other responses ranged from only 2 minutes (10%) and 3 minutes 30 seconds (10%) to 8 (10%) and even 10 minutes (10%). One respondent felt unable to “define in numbers” an estimated time for any of the studies provided.

**Suspension 2** (imagery — actual time 6 minutes). Thirty percent of respondents accurately estimated the time of this study, with 40% underestimating (3 to 4 minutes) and 20% overestimating the duration (7 to 8 minutes).

**Suspension 3** (music — actual time 9 minutes 50 seconds). Thirty percent of respondents correctly perceived this piece as being significantly longer, though estimates ranged wildly, from an accurate 10 minutes (10%) to 12, 15 and even 20 minutes (30%). Two respondents estimated the piece to be only 5 minutes in duration (20%) and a further two respondents reported the piece to be under 5 minutes, at 4 minutes 30 secs and 4 minutes respectively (20%).

**Suspension 4** (imagery only — actual time 6 minutes). Twenty percent correctly estimated this video study to be 6 minutes in duration, with another 20% underestimating slightly at 5 minutes, 10% at 4 minutes and one respondent estimating only 3 minutes. Several however perceived it to be longer, with 20% estimating 10 minutes and the respondent who was “unable to define in numbers” feeling this to be the longest of all studies provided.

**Suspension 5** (music and imagery — actual time 4 minutes 50 seconds). Thirty percent of respondents accurately perceived this piece to be around 5 minutes, with another 30% close to this range (between 4–6 minutes). Two respondents reported the piece to be only 3 minutes in duration (20%).

**Suspension 6** (music and imagery — actual time 6 minutes). Only one respondent correctly perceived the duration of this study with most answers underestimating, 20% perceiving only 4 minutes and 30% perceiving 5 minutes. One respondent felt

the piece to be about 8 minutes (10%) and another two felt it was actually 10 minutes long (20%).

#### [Sense of immersion and loss of time and space \(Appendix B, Q14\)](#)

***Suspension 1*** (music only). Seventy percent of participants reported a sense of immersion with this study, with comments ranging from “total immersion—lost in time and space”, “lost sense of time”, “my mind felt suspended in space”, “like listening to the ocean”. Thirty percent reported no sense of immersion or loss of time/space, with one respondent remarking that although they found the studies “attractive and pleasant” they were “conscious of time throughout and remained very conscious of the space I was sitting in” in response to all.

***Suspension 2*** (imagery only). This video study also yielded 70% of respondents reporting a sense of immersion, with two participants saying that they lost sense of time or that it was “speeding up and slowing down” and one reporting that they “almost felt I had to sneeze” (the footage displayed bright sunlight in a grassy field in outdoor settings). Thirty percent reported no sense of immersion, with one of these reporting that they “struggled to stay alert”.

***Suspension 3*** (music only). Eighty percent of respondents responded to this study with a sense of immersion, with a wide variety of responses ranging from “helps to de-stress” and “total immersion, lost in time and space” to “I felt I was somewhere else”, “in the ocean with whales”, “in space, looking down at the earth” and “swirling within the sounds”. However one respondent reported only “one-dimensional space”.

***Suspension 4*** (imagery only). Sixty percent reported a sense of loss of time and/or space, with comments ranging from “lost sense of time due to physical sensations” to “felt like I was moving forward—a horizon”. However of these 10% indicated boredom (“I got bored—hypnotised”); 10% anxiety (“immersed in an anxious state”) and 30% reported no sense of immersion at all.

***Suspension 5*** (music and imagery): Seventy percent indicated a loss of time or space, with responses such as “I felt like I was seeing time go by but didn’t realise how fast it was!”, “free of care—timelessness”, “loss of time, feels like I am flying”

and “lose a sense of space. Feels like flying in an airplane”. However, 30% indicated no sense of immersion, with one respondent reporting “Struggled to stay alert, felt tired”. Another “felt that I was in sync with the clouds”.

**Suspension 6** (music and imagery): Seventy percent reported loss of space and time, with 40% reporting immersion (“immerses me in a state of calm”, “relaxed immersion content”, “immersion—felt like I was swimming within sound & image”). Thirty percent indicated no effect, though one of these commented that they had “felt tired and annoyed at participants (not the content)”.

#### Elicited imagery from music-only studies (Appendix B, Q15)

**Suspension 1** (music only): Eighty percent indicated visual imagery, with responses as diverse as “birds flying in flocks”, “desert, plains, fire crackling, corroboree”, “water—the ocean, light shimmering on the water”, “people sailing along the oceans with lighthouse ahead”, “particles, shifting light, patterns and colour”, “a damp forest, darkish” and “flocks of birds & ocean waves at cliff face”. Twenty percent indicated no elicited imagery.

**Suspension 3** (music only): Ninety percent indicated some form of visual imagery, with highly detailed comments: “Wind blowing in a meadow on a sunny day”, “movie of street scene, young girl alone at night, at times running or walking. Nightscape in the city”, “Trees, prescription medication, snakes, fog, smoke, vampires, tense people, wind”, “Clouds—was flying in outer space. Whales—I saw whales!!”, “People going between trees with lightning on the top of the head”, “Radiating lines, circles coming from a point, like a ripple” and “WW2 bombers”. Twenty percent of responses mentioned whales, and a further 20% mentioned outer space. One respondent reported no imagery.

#### Elicited sound/music from visual-only studies (Appendix B, Q16)

**Suspension 2** (imagery only): Sixty percent of respondents mention sound or music elicited from this study, with comments ranging from “nostalgic music from the 90s—acoustic.”, “rustling”, “Violin—high pitched sand and bells, harp, silence, drops of sounds, cello playing tremolo sounds, rustling of leaves”, “Bird

whistling/doors opening and closing/stars blinking”, “piano tinkering then jagged synth sounds”. Forty percent however indicated no sound or music.

***Suspension 4*** (imagery only): The same 60% of respondents also mention sound or music for this study, with a range of remarkably similar responses: “Horror/terror music. I could almost hear myself struggling to escape”, “Horror movie tension soundtrack. Charlie and the Chocolate Factory—imagination”, “Howling wind, rattling sound on strings, silence, timpani”, “Silence sound, being trapped in the dark”, “Breathing (heavy), creaking noises, industrial sounds”. The remaining forty percent indicated no sound or music elicited.

#### Enjoyment of studies (yes/no responses) (Appendix B, Q17)

***Suspension 1*** (music only): 90% indicated yes, 10% no.

***Suspension 2*** (imagery only): 80% indicated yes, 20% no.

***Suspension 3*** (music only): 80% indicated yes, 20% no.

***Suspension 4*** (imagery only): 60% indicated yes, 40% no.

***Suspension 5*** (music and imagery): 80% indicated yes, 20% no.

***Suspension 6*** (music and imagery): 90% indicated yes, 10% no.