

Fabric of Memory

A Multimedia Synthesis of the History of Cockatoo Island

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Statement of originality

This is to certify that, to the best of my knowledge, the content of this thesis is my own work. This thesis has not been submitted for any degree or other purposes.

I certify that the intellectual content of this thesis is the product of my own work and that all the assistance received in preparing this thesis and sources have been acknowledged.

Name: Alison Cole

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Table of Contents

Statement of originality	1
Acknowledgements.....	2
Abstract	6
Introduction	7
Chapter One.....	15
Chapter Two.....	49
Chapter Three	56
01 “Rupture”	64
02 “Call”	68
03 “Undercurrent”	60
04 “Ghosts”	75
Chapter Four.....	84
01 “Stone”	92
02 “Hardly Hear”	98
03 “Reflective”	110
Chapter Five.....	135

01 “Romance of Steel”	138
02 “Volte Face”	149
Chapter Six	164
01 “Playground”.....	168
02 “Memory’s Fabric”	184
Conclusion	195
Bibliography	199

Abstract

Fabric of Memory is a creative exploration of the history of Cockatoo Island. This practice-based research project comprises a written dissertation and an artistic multimedia work. I explore how my research into cultural and historical perspectives of the island has informed my creative response to the site. In documenting the creation of this composition, I hope to offer new insights into sonic exploration, multimodal artistic expression, and strategies to engage with place.

Fabric of Memory comprises a long-form multimedia composition exploring four Cockatoo Island eras. These are pre-European use, convict use, industrial use, and my experience of living surrounded by a working shipyard as an island resident for sixteen years. Each composition shares a consistent conceptual approach of reconnection to place by including site sound as a work component. The multimodal composition aims to create an audience experience that opens new possibilities around understanding history, culture, and our place in the material landscape. An outcome of this project is a strategy for creatively engaging with other historical sites. Through composition, sound design, and multimedia, I propose an “empathic bridge” model to enhance audience engagement with the site.

Introduction

“Fabric of Memory” explores the creation of artistic work as an “empathic bridge” between audiences and the site of Cockatoo Island. I am positioning my creative practice as a form of sonic archaeology and sonic ecology to open new possibilities for an audience to engage with the history of a site as a component of the artistic experience. I draw on my unique experience growing up on Cockatoo Island, living among Indigenous sites, convict jails, and a working dockyard imbued with historical and cultural significance. My family moved there because my father was an engineer and part of the island’s management team during the 1970s and 1980s. Through this work, I look to a shared experience of how we, as a community, engage with place and history and experience the physical landscape. The thesis analyses the use of location as a poetic metaphor to explore the site’s identity.

This project creatively responds to four historical uses of Cockatoo Island: pre-European, convict use, industrial use, and my own experience of the site. Although colonial, primarily convict, material culture exists on the island, archaeologists interpret the abundant evidence of occupancy of the island’s immediate mainland shoreline to confirm pre-contact habitation of the island.¹ Cockatoo Island

¹ Val Attenbrow, *Sydney’s Aboriginal Past: Investigating the archaeological and historical records* (Sydney: University of New South Wales Press, 2010), 70; Sue Castrique, *Under the Colony’s Eye: Gentlemen and*

(Wareamah) is an essential landmark for the Eora Nation. It has ongoing significance for First Nations groups who recognise that Eora women used the island in cultural ceremonies or for birthing.² Following the colonisation of the Sydney Basin, from 1839 until 1869, the site was used as a penal settlement with the convict-built Fitzroy drydock facilitating ongoing ship repair. Separated by a fence, the top of the island site functioned as a reformatory school for young girls until 1880 and a female-only prison until 1909. From then onwards, Cockatoo Island operated as a shipbuilding, repairs, and engineering facility until its closure in 1991. From this historical perspective, my project engages in a subjective interpretation of the three main uses of Cockatoo Island, with the fourth use being my own experience. The compositions contextualise the sound environment of each use as an interpretive expression of the location and those who inhabited it.

Convicts on Cockatoo Island 1839-1869 (Sydney, NSW: Anchor Books, 2014), 2; Paul Irish and Tamika Goward, "Where's the Evidence? The Archaeology of Sydney's Aboriginal History," *Archaeology and Physical Anthropology in Oceania* 47, no. 2 (2012): 60–68.

² Two Point Co., Cockatoo Island (Wareamah) *First Nations Community Consultation*, accessed November 12, 2022. <https://www.harbourtrust.gov.au/media/4324/ciw-draft-concept-vision-first-nations-consultation-report-oct-2021.pdf>: 7.

Figure 01 Cockatoo Island - Sydney Basin (Source: GML Cockatoo Island Management Plan Draft Amendments 2016)



I define an empathic bridge as the sonic and visual engagement that connects an audience to a place. I developed a sound vocabulary by engaging with known and imagined sounds in the environment. By composing with this palette and various audio processing and compositional treatments, I aim to immerse an audience in the sense of place and the island's history. Empathic connection is a common thread throughout this project, with my connection to the site providing a narrative template in my compositional process. The tool of multimedia composition represents my reconnection to the site.

The first chapter draws on the writings and artistic practices that have informed my

empathic concept. Nicholas Cook's book *Analysing Musical Multimedia* establishes a framework for the role of music and sound in the multimedia experience.³ The observation that music actively contributes to creating meaning in visual-based media is central to Cook's Models of Multimedia.⁴ Music is often experienced in relation to other media, and its meaning emerges from interrelationships, inseparable from our multimodal experience.⁵ I will explore how identifying these audience engagement modes has provided the scaffold and opportunity to explore how multimedia can represent sites such as Cockatoo Island.

The second chapter will critically examine some of the connections made by Australian composers who have sought to establish an Australian identity by referencing landscape.⁶ After rejecting the approach of many of my predecessors in the Australian art music tradition, I propose following more conscientious means of evoking place. The multimodal composition is a response in answer to this identity problem and how we can evolve the concept of association.

The following four chapters explore my creative response to the site. I will explore how I have approached composition as a medium for engaging an audience with

³ Nicholas Cook, *Analysing Musical Multimedia* (Oxford: Oxford University Press, 1998), 59.

⁴ *Ibid.*, 270.

⁵ *Ibid.*, 121-2.

⁶ David Symons, "The Jindyworobak Connection in Australian Music, c.1940–1960," *Context: Journal of music research* 23 (2002): 34.

historical, cultural, and personal perspectives. I start with the pre-European use and work chronologically: pre-contact use, convict use, industrial use, and personal use.

Subsequent chapters detail my compositional practice: First, I source relevant environmental sounds to establish sound ecology and historic sound archaeology. I then describe how these sounds are re-contextualised through audio processing. I conclude by outlining my strategy for engaging with historical and cultural sites more broadly.

Fabric of Memory comprises the following pieces:

Pre-Contact Use

“Rupture” – 09:29

“Call” – 04:48

“Undercurrent” – 08:54

“Ghosts” – 06:13

Convict Use

“Stone” – 10:35

“Hardly Hear” – 05:17

“Reflective” – 05:10

Industrial Use

“Romance of Steel” – 06:54

“Volte Face” – 10:41

Personal

“Playground” – 09:20

“Memory’s Fabric” – 07:05

In realising this project, I have drawn upon my extensive experience as a professional composer and sound designer in the film and TV industry. In my professional practice, I am compositionally familiar with translating the concepts of my collaborators into the emotional language of music and sound. Developing my compositional skillset has piqued my interest in a more sophisticated approach to sonic shaping to express emotion, time, landscape, and narrative. Composing soundtracks for films, TV series, dance (The Australian Ballet: *Kids These Days*, 2022), interactive film (Crossing Paths), multimedia installations (Vivid, Burning Man Main Arena), and experiential, interactive theme park rides (Shanghai and Australia) has inspired a desire for a much deeper creative relationship with composition and sound in a multimedia format. My professional experience composing TV channel ID campaigns, television commercials, sonic branding, industrial sound design, and

international brand campaigns has afforded me a technical skill set to build my artistic aspirations. Performing in ARIA award-winning/nominated electronic dance bands Severed Heads and Boxcar provides a knowledge base for creatively producing *Fabric of Memory*. While the form of *Fabric of Memory* is fixed multimedia (sound and image), I envisage the work may also be realised as a live performance work or installation. Utilising my experience in electronic dance music performance and electronically generated multimedia exhibitions and experiential content is expanding my growth as a composer and artist.

My compositional trajectory is to work with the broader community to utilise my “empathic bridge” model in various locations to explore cultural and historical perspectives. Adapting a framework of multimedia at other sites to create content and improve audience engagement has significant potential. My strategy could provide a blueprint for future site-specific creative collaborations looking to understand historical and culturally pertinent sites. There is also the possibility of cross-discipline collaboration utilising this model. Currently, acoustic interactivity in the exhibition of archaeological sites has exponential possibilities for facilitating an audience’s understanding of a site and those who inhabited it. Image mapping, sound design, acoustic environmental treatments, and multimedia broaden the experiential scope. My work across art forms aims to cultivate new models of

understanding musical meaning by introducing new environments in which sound interacts with the material conditions of reception. My goal as a composer is to create work that explores new meanings, intentions, and sonic hierarchies in the audience experience.

Chapter One

How do we express a sense of place in composition? One way for a composer to respond to this question is with multimedia work where both musical and non-musical media directly represent a place. My composition portfolio offers a multimodal response to this question. In this chapter, I will articulate and theorise how I have worked on this in my portfolio, *Fabric of Memory*. To substantiate my reasoning, I observe theories from cinema, art music installation, academic work on multimedia and perceptual psychology. I apply these theories to develop an aesthetic position and analysis of my work. I describe my proposed practice and objective as building an empathic bridge between the multimedia work and the audience.

This project focuses on my childhood home of Cockatoo Island in the heart of Sydney Harbour. I have developed this model in relation to Cockatoo Island's sonic archaeology and sound ecology, with a view to its application to other historic sites. My empathic bridge model aids me in how I contemplate and approach my creativity and compositional process to understand my multimedia composition. From this premise and observation of the aesthetic lineage of sound art composers who have impacted my work, I develop concepts that examine audience connection to place through sound and associated media.

The following thesis observes apparent features of my multimedia composition and theorises how my empathic bridge model may affect an audience's experience of the site. I detail how I integrate technology, site acoustics, and site material environment to create a multimedia synthesis that expresses site identity and connection to a site. Within this expression, its foundation is an empathic bridge comprising music, sound, narrative, and visuals. Detailed methods of my creative practice outline temporal transference, onsite acoustic environments, sound processing practices, and the replication of site acoustics. These sonic features in my works can transform how an audience can understand Cockatoo Island's historical and cultural value and contemplate its material culture. My hypothesis and creative portfolio support the proposal that my empathic bridge model could theoretically be applied to other site-specific contexts.

Fabric of Memory is a series of multimedia works that artistically interpret various historical uses of Cockatoo Island and imagine narratives focused on those who occupied the onsite environments. Media elements include sound (music, sound design, and voice), motion video elements (computer animation, video, and film), and fixed images (textual data, notated score, computer graphics and scanned historic images) in combination. *Fabric of Memory* is a form of artistic media that sits between music, film, and installation.

This thesis and artistic work address four uses of Cockatoo Island: pre-contact, convict, industrial, and personal. I respectfully acknowledge the traditional owners of this land.

Cockatoo Island connects to the waterways and homelands of the Wareamah, Wallumedegal, Wangal, Cammeraygal, and Gadigal clans. I establish four delineations of use rather than period to ensure that problematic pre-settler notions attached to colonialist notions are not connected to this project. My position is acknowledging the deep relationship that First Nations people have with the site.

Therefore, this needs to be conceptualised as use rather than period. I aim to recognise and affirm the site's past, present and future relationship with its traditional owners. I confirm and recognise the continuing connection to country as I have been and continue to be working and creating from a "sovereignty not ceded" position of this site.

The term "sonic archaeology" has had a small range of uses and has been applied in disparate academic contexts. Sound-related variants such as media archaeology and sonic history discuss various historical and cultural contexts of sound in media and ethnomusicology.¹ *Auditory Archaeology*, by Steve Mills, studies the prospective contribution of everyday unintentional sounds in the past and how these may have

¹ Tucker Adkins, "Moravian Soundscapes: A Sonic History of the Moravian Missions in Early Pennsylvania by Sarah Justina Eyerly (Review)," *Eighteenth-Century Studies* 54, no. 2 (2021): 498-499; Jussi Parikka, *What Is Media Archaeology?* (Oxford: Polity Press, 2012).

been significant to people.² Given this discrepancy, I am using the term to define site sounds belonging to the human environment's material culture. I propose using the concept of sonic archaeology to identify sounds grounded in a site-specific historical context. For instance, I am incorporating the sounds of machinery or sandblasting of ships from the industrial stage of Cockatoo Island into my composition. Relatedly, sonic ecology combines the ambient natural environment soundscapes of flora, fauna, and terrain. My artistic research includes investigating the pre-contact, convict, industrial and personal sonic archaeology, and sonic ecology. Each chapter will consist of a detailed account of my research process with discussions of how I have incorporated interpretations of both types of sound sources as the foundation of my artistic multimedia work.

Sonic archaeology and sonic ecology provide historical references from which narrative can materialise. For example, from 1871–1887 Biloela Reformatory School for Females was established on the island to accommodate orphaned and homeless girls in an industrial school. I have researched the site and the site sounds in its historical context, imagined the sense of isolation, and realised this narrative in a multimedia form. Through my process, I have developed an interpretive method to

² Steve Mills, *Auditory Archaeology: Understanding Sound and Hearing in the Past*. (Walnut Creek: Taylor & Francis Group, 2014).

envision, expound, and conserve the past. This method involves an understanding that a site has an ongoing history. Part of this method is imagining and evoking narratives about the anonymous people who have inhabited or used the site. A location such as Cockatoo Island has moved between Indigenous use, colonial, industrial, and public asset. My project aims to open a connection between the past and present, the unseen and seen, via associated narratives to encourage audience reflection, connection, and association.

As noted above, my site-specific works involve a range of formats such as digital audio, still images, text, and motion video elements of media. In this dissertation about my work, multimedia and multimodal terms are appropriate. Multimedia refers to multiple uses of integrated media. Multimedia focuses on the technology and tools used.³

Multimodal means communicating a concept using more than one form of media and the meaning transmitted via these different methods.⁴

A related term is hybridity, which is derived from the sciences. It refers to the amalgamation of independent unmatched elements into a new integrated form.⁵

From an art perspective, blending different forms of art, in virtual and real worlds, is a

³ Cat Hope and John Ryan, *Digital Arts: An introduction to new media* (New York: Bloomsbury Publishing, 2014): 27.

⁴ Claire Lauer, "Contending with Terms: 'Multimodal' and 'Multimedia' in the Academic and Public Spheres," *Computers and Composition* 26, no. 4 (December 2009): 225-239.

⁵ Hope and Ryan, *Digital Arts: An introduction to new media*, 26.

characteristic of hybridity. In my work, the sourced materials of sound, motion video, and fixed images have been merged into a new form and exist as a form of hybridity.

The musical meaning of my work appears from the interrelationships between sound, visuals, and the method of its reception.

My professional background is grounded in electro-acoustic composition and sound design aesthetics. I work in music and sound composition across film, TV, multimedia installations, industrial sound design, and dance. In my multimedia compositional work, I usually respond to pictures. A critical part of the creative process is considering the film director's creative purpose and how the editor has translated this through the choice of frames in the film edit. The collaborative process in *Fabric of Memory* reverses this process with Max Brading creating the visuals to my sound score. Throughout this creative process, I have become increasingly aware of how meaning can be composed into my sound score to create narrative, empathy, and dynamics. I will elaborate on this process in the following chapters. It is important to note that my professional practice has informed my creative approach to creating the work in this portfolio. I can also say that my creative process in this work continues to improve my ongoing professional compositional work.

I situate my empathic bridge model at the intersection of audience engagement and transformative sonic perception through the interaction of sonic archaeology, sonic

ecology, music composition, and visual elements in the multimedia work. Immersion in this context refers to an audience engaging with multimedia that looks to a multimodal transmission of ideas to encourage empathic relationships. Scholars such as Guido Makransky have acknowledged immersive environments as promoting the processes of selecting, organising, and integrating information in audience reception.⁶ I encourage the audience to experience new integrations through my creative interpretations of site, history, culture, and narrative within my work's multimedia interrelationships.

My research into audience engagement has been relevant to how I understand my work. Exploration of both perceptual psychology and how artistic multimedia practice has developed has informed my compositional technique and the conceptual foundation of my empathic bridge method. The first area in this dialogue is scholarship on audience reception stemming from cinema contexts. I examine the combination of these modes of reception in artistic works. The second area involves the theoretical propositions that have emerged from interdisciplinary research in the psychology of perception and musical multimedia. The third is how I position my work between the aesthetic lineage of sound art and music from the perspectives of

⁶ Guido Makransky, "The Immersion Principle in Multimedia Learning," in *The Cambridge Handbook of Multimedia Learning*, 3rd ed., eds. R. Mayer and L. Fiorella (Cambridge: Cambridge University Press, 2021), 296-303.

composition, technology, immersion, and installation art.

Figure 01 Empathic Bridge Model

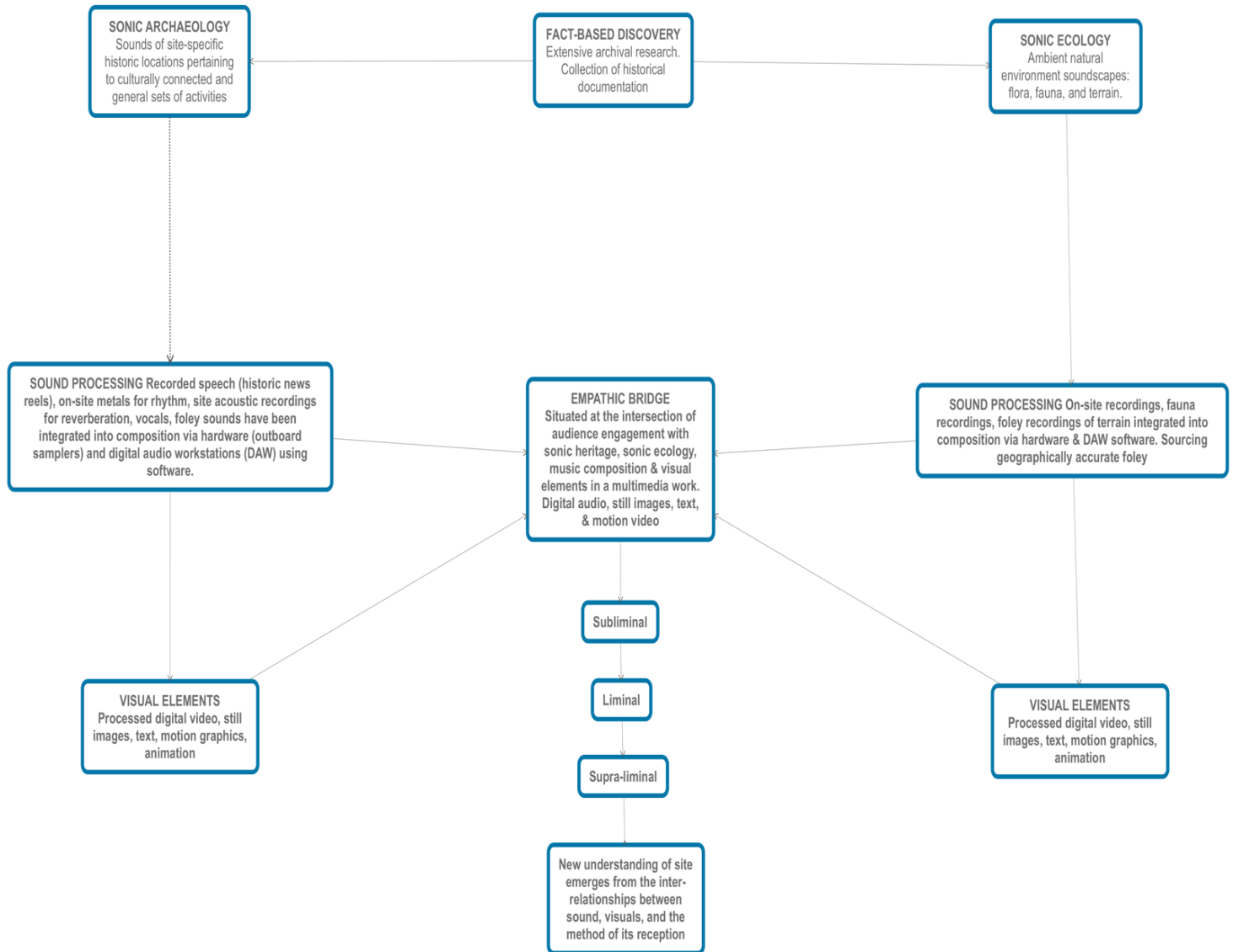


Figure 01 is an outline of my empathic bridge model. Starting with research, the research and discovery of the site's sonic archaeology and sonic ecology provide a sound and visual framework based on materiality and history. I source visual and sound elements into sound and graphic libraries using digital audio workstations

(DAW) software processes audio components via audio plugins, audio editing, sound design, and sound production. The creative portfolio's compositions are all created in a DAW environment. I provide visual elements, a creative outline, and composition mixes to the visual artist, Max Brading, and he responds to complete the multimedia work. A transformative process emphasising multiple possibilities of perception is central to my empathic bridge. Throughout the composition process of my creative portfolio, a distinguishing feature of my work has evolved around the awareness of sound characteristics. In my compositions, I process site sounds that transform from recognisable to non-recognisable and vice versa. I use this method as an engagement tool to elicit active listening in the audience experience. I integrate these sounds into my pieces; at times they are apparent and at other times they are imperceptible. I transition my sonic archaeology and sound ecology into the domain of music, which occupies an interim zone when processed.

I developed a new empathy for the site through research and discovery. The pre-contact and Biloele reformatory school uses have resonated very deeply with me. Through my creative process, I encourage audiences to engage with the multimedia in a way that they feel the empathy that I have generated creatively. The momentary audience experience of non-recognition of sound interrupts the subconscious to engage the audience to search within their existing sound lexica. Immersive

audience engagement in multimedia consists of ambiguous or unambiguous portrayals of Cockatoo Island from a historical, personal, sonic, and visual perspective. The following examination of cinematic, multimedia, and artistic installation theory and practice determines the theoretical principles relevant to my rationale.

Early twentieth-century theoretical film frameworks examined how an audience experienced the interrelation of sound and visual elements in a film setting.⁷ Sergei Eisenstein established vertical montage as a process by which the music score, images, and movement reach optimal alignment of visual and auditory content.⁸ Eisenstein's theory significantly shaped the concept of interrelation in audio-visual *Gesamtkunstwerk* (total artwork). This model intended to simultaneously demonstrate these film elements in synchronicity, discussing only similarities and shared qualities. Other theorists, such as Wassily Wassilyevich Kandinsky, shared similar perceptions.⁹ The role of the composer was to produce music that fitted the vision. In 1952 the term "parallelism" was coined by Béla Balázs to describe this approach to the hierarchy of interacting media in film composition.¹⁰

⁷ Kevin McDonald, *Film Theory: The Basics* (2nd ed.) (New York: Routledge, 2022), 11–52.

⁸ Cook, *Analysing Musical Multimedia*, 59.

⁹ Cook, *Analysing Musical Multimedia*, 49–65.

¹⁰ Cook, *Analysing Musical Multimedia*, 114.

A significant mid-twentieth century examination of creative practice for the screen was Hanns Eisler's and Theodor Adorno co-authored text, *Composing for the Films*.¹¹ Discussion of Hollywood's early film composition practice of music being composed without knowing a film's content looked to this compositional practice as producing film scores as an appendage to the film rather than being integrated into the whole. Compositional techniques looked to create a holistic cinema experience that served the theoretical proposition of cognitive film theory.¹² Academic discourse has been instrumental in the evolution of cinematic compositional perspectives in the twentieth century. Music's capacity to communicate associated meaning in audience perception has resulted in music's independence, thereby constructing a richer relationship than the abovementioned parallelism. The development of composition tools available to the composer throughout the twentieth century has advanced audience reception of film scores to include enhanced emotional elicitation, audience comprehension, and composers' understanding of audience aesthetic preference.¹³

The metaphor broadens the cross-modal dialogue when the discussion is in a cinematic context and away from the music score.¹⁴ In the "Driving up to the Bates

¹¹ Theodor Adorno and Hanns Eisler, *Composing for the Films* (New York: Oxford University Press, 1947).

¹² Richard Allen, "Cognitive Film Theory," in *Wittgenstein, Theory and The Arts*, eds. Richard Allen and Malcolm Turvey (New York: Routledge, 2001), 180.

¹³ David Bordwell, "A Case for Cognitivism," *Iris* 9 (Spring 1989): 11-40.

¹⁴ Cook, *Analysing Musical Multimedia*, 66.

Motel” scene from Hitchcock’s *Psycho* (1960), the soundtrack functions to jump the diegetic gap between on- and offscreen sound. In the words of *Psycho*’s composer, Bernard Hermann, cited by Tony Thomas:

I feel that music on the screen can seek out and intensify the inner thoughts of the characters. It can invest a scene with terror, grandeur, gaiety, or misery. It can propel narrative swiftly forward or slow it down. It often lifts little dialogue into the realm of poetry. Finally, it is the communicating link between the screen and the audience, reaching out and enveloping all into one single experience.¹⁵

Thomas suggests that Hermann imagines the score as outside the film experience itself, and the audience enters a character’s perspective within the narrative.¹⁶ The composer creates a connection of empathy through the composition, reflecting the building anxiety of the onscreen character. Here, the audience is interfacing with the music score, and the interaction between the multimedia defines the purpose of the music score. Nicholas Cook proposes context emerging from the interaction of various media rather than the single element of music or media with which it is aligned.¹⁷ I suggest that using site sound, and site visuals in location-specific

¹⁵ Tony Thomas, *Film Score: The View from The Podium* (South Brunswick, NJ: Gazelle Books Ltd, 1980), 143.

¹⁶ Thomas, *Film Score: The View from The Podium*, 43.

¹⁷ Cook, *Analysing Musical Multimedia*, 270.

multimedia composition extends sense modality to generate empathy in audience reception.

Dialogue within the field of perceptual psychology has influenced how I conceive my multimedia output's relationship to my empathic bridge logic. The interaction between the aural and visual sensory modalities is well documented.¹⁸ For example, in 1942, Susanne Langer's model looked to multimodal context as facilitating similarity from the resulting assignment of characteristics of interacting media. The properties of the interacting media in a multimedia setting negotiate emergent meanings.¹⁹ Later, Cook's Model of Multimedia advanced this concept to consist of two steps: a similarity test and a differentiation test. The principle of the model is to establish whether component media communicate the same basic meaning via different distinctive modalities or whether these constituent media elements comprise contrasting communication. When there is contrasting communication, the process results in a more complex interpretive process on the part of the listener-viewer. In the context of my work, I believe a more complex interpretive model can be applied. In my creative work, I occupy an alternating position between these two disparate modes of similarity and difference. Using familiar sound and then departing from this

¹⁸ Susanne K. Langer, *Philosophy in a new key: A study in the symbolism of reason, rite, and art*, (Cambridge, MA: Harvard University Press, 1942).

¹⁹ Cook, *Analysing Musical Multimedia*, 70.

context through audio processing situates my work in a relationship that touches on consistency and ambiguity. Moving between these modes of ambiguity and consistency aims to encourage moving through subliminal (unconscious), liminal, and supraliminal (conscious) to facilitate empathic connections. (See Figure 01.)

Scholars such as Annabel Cohen have focused on music perception and cognition to incorporate cinema and a broader range of media perspectives in their multimedia discussions. Cohen cites Claudia Gorbman,²⁰ Michel Chion,²¹ Cohen,²² and Cook²³ as contributing to her framework that recognises the relationships between music, sound, and vision in cognition.²⁴ Cohen's framework includes the following perspectives on the intellectual representation of the audio and visual images in film: meaning/associationism, structure/organisation, memory/awareness, and experimental aesthetics.²⁵ This emphasis on meaning emerging from the interaction between the various components of multimedia work is a topic of ongoing discussion. In my multimedia, introducing the element of shifting perception acts as the conduit for

²⁰ Claudia Gorbman, *Unheard melodies: Narrative film music* (Bloomington, IN: Indiana University Press, 1987).

²¹ Michel Chion, *Audio-vision: Sound on screen*, trans. C. Gorbman (New York, NY: Columbia University Press, 1994).

²² Annabel J. Cohen, ed. "Special volume on the psychology of film music," *Psychomusicology* 13 (1994).

²³ Cook, *Analysing Musical Multimedia*, 98-129.

²⁴ Tan, Siu-Lan, Annabel J. Cohen, Scott D. Lipscomb, and Roger A. Kendall, eds. *The Psychology of Music in Multimedia* (Oxford: Oxford University Press, 2013), 1.

²⁵ Annabel J. Cohen, "Understanding Musical Soundtracks," *Empirical Studies of the Arts* 8, no. 2 (1990): 111–124. <https://doi.org/10.2190/8Y6G-KTM8-VDX4-UHRW>

immersive audience interactivity that moves beyond the narrative.

My creative portfolio seeks a more complex relationship between sound and image compared to my usual professional practice. Typically, the mechanism of music composition supports the narrative, depicts action, and elicits audience engagement with elements ranging from location to the internal character monologue or collective character narrative. Usually, music and sound composition are a response to visuals.

One important aspect to note is that the visual briefing process in my creative portfolio reverses the role of the visual artist receiving the brief. This creative brief methodology does share features of my usual professional practice of identifying narrative elements within the music score. Looking to ways in which the visual artist can represent space, place, and time in the narrative is integral in multimedia works.

Recruiting the appropriate collaborator involved reaching out to various institutions, such as the University of Technology Sydney and the Australian Film Television and Radio School, via their Facebook pages and various faculty members. I sent the same brief to all potential collaborators (Figure 02). I unsuccessfully trialled one film director I have collaborated with in the past. His creative response unsuccessfully expressed the subtleties of an interim zone of my music constructed from audio processing and then integrated into the compositions. From this experience, I understood the visual process required a similar methodology of processing the

provided visual elements to communicate narratives expressed through unfamiliar and familiar soundscapes in electro-acoustic compositions. This specific skill set was difficult to procure. Through my involvement in the electronic dance music community, I recruited Max Brading, an Adelaide-based visual artist, based on a positive recommendation and his creative portfolio. The following is the initial sound brief I emailed to Max. (See Figure 03.) The email contained Dropbox links to a mix of the composition from my creative portfolio, "Reflective," and the unsuccessful video version with music for reference. The initial discussion related to identifying my pieces' emotional content, which aims to empathise with my audience. Max's response was immediate, and we commenced our collaboration. Max's digital techniques reflect my technical methodology of applying various digital sound processes in music and sound composition. The resulting multimedia can generate multiple modes of shifting perception.

Figure 02 Initial Visual Brief

Fabric of Memory – Alison Cole 2022

This project is part of my DMA research (The Sydney Conservatorium of Music). It's a multimedia work about the history of my childhood home, Cockatoo Island, Sydney Harbour.

Cockatoo Island has a complex history. A sacred site of the Wareamah-Wangal people, a colonial convict jail, a place for young girls' and boys' factories, a wartime and post-war shipbuilding and repair facility, and currently a cultural recreation spot.

I'm using multimedia as a tool to utilise my 'Empathic Bridge' methodology. I'm using the site's sonic archaeology and sound ecology to create stories that an audience can relate to. Site sound that has been researched and either recorded or sourced from existing video materials.

ARTISTIC – EMOTIONALLY CONNECTIVE NARRATIVES

Reflection's story is about Biloela Girl's Reformatory 1871 – 1890. Girls as young as 6 years of age were brought onto the island to work. In some cases, the girls' only crime was that they were orphans. The cartoon depicts the water police trying to keep the men and boys (also very young) from the off-island ship Vernon, which served as a boy's reformatory, away from the girls. The girls were seen as the problem.

This is dark, as it was very brutal and the sense of isolation for these kids must have been overwhelming. I've created a basic video and the shuttering reflects the audio processing. There are other photos that can be included, and the effects could be more sophisticated. Use any of the abstract materials or anything that can create more story.

COCKATOO ISLAND HISTORIC / ABANDONED FACTORY NIGHT
ABANDONED FACTORY / DARK WATER
CREEPY NARRATIVE / GHOST GIRL

+ anything that you want to create the story – go for it, be as arty as you like!
Out there is good and out there arty is AWESOME! I've sourced lots of abstract video resources to play with and use to link up or transition ideas.

After our initial email, I sent Max a one-terabyte hard drive that contains a mirrored version of my hard drive of the same video elements for him to use throughout his creative process. I use this system so that my creative briefs direct him to the relevant folders I stipulate for use in each work's visual representation. The visual

resources are a mix of existing onsite historic visuals and photographs, onsite video recordings I have made, abstract artistic videos, images, and videos. Additional materials have been in linked Dropbox folders with the document. The creativity and narrative support realised through Max's manipulation of the provided elements have resulted in minimal feedback.

Playing with sonic familiarity concepts in my multimedia composition are essential modalities that move above and below the liminal threshold via perception, recognition, and non-recognition of processed site sounds. I look to film theory, perceptual psychology, and multimedia concepts to provide insights on articulating and translating my composed empathic bridge meaning during the visual artist's creative brief process. Considering the lineage of sound art and *musique concrète* has provided the conceptual foundations for how different aesthetic methodologies in multimedia works interact with audience reception of multimedia works. I have modelled my rationale on academic dialogue about multimodal applications and an understanding of how sound art emerged from the cinema, concert hall, and gallery. The three areas of concert, art, and media are the foundations of my empathic bridge model. They converge as sound art, and the following lineage overview

provides further insights into my creative process and multimodal rationale.

As a multimedia work, *Fabric of Memory* works in a live performance setting, as a cinematic experience, and as a listening experience. I look to a lineage of sound artists, composers, and performers who have removed the boundaries between different art forms and have established cross-discipline partnerships. My collaboration with visual artist Max Brading involves the visuals being both design tools and part of the performance. His use of real-time vision mixing, as well as computer graphics and visual effects across art performance technology, fuse with my use of real-world soundscapes, ambient atmospheres, and integration of concrete music elements. To understand my sonic and visual aesthetic, I look to performance practices that merge cinema and art to conceptualise my work in its presentation and to composition ideologies that have influenced my compositional approach.

My exploration of technology, site acoustics, and site material environment has led to an awareness of various multimedia compositional ideologies.²⁶ I am indebted to those who have integrated acoustic and electronic, concrete and instrumental before me, such as Pierre Schaeffer, Steve Reich, Terry Riley, Daphne Oram, Delia

²⁶ Jean-Claude Risset, "The Liberation of Sound, Art-Science and the Digital Domain: Contacts With Edgard Varèse1," *Contemporary Music Review* 23, no. 2 (2004): 27-54.

Derbyshire, Laurie Spiegel, Éliane Radigue, and Else Marie Pade.²⁷ In *Fabric of Memory*, I have recorded onsite sound and environmental ambiences, vocals, and foley sounds that I integrate into composition via hardware (outboard recording devices) and DAW using software. The techniques I employ in my creative portfolio look to audio manipulation and processing, which has a lineage emerging from both conceptual sound art and studio-based technical innovations.

Composer Pauline Oliveros established “deep listening” as a way of expressing listening that is connected to an immediate environment and beyond. Oliveros developed this listening mode into a practice intended to intensify and develop the human consciousness of sound to construct dynamic levels of attention.²⁸ Her work responds to environmental sound and the acoustic qualities of her space. This lineage of listening modes has brought keen mindfulness of different audience reception perspectives in my use of convolution reverb in my composition works. Throughout my creative portfolio, I generate virtual acoustic characteristics of the onsite spaces using convolution reverb. The relevant sonic archaeology or ecology is processed using this reverb to encourage an audience reception experience like that of the people whose stories I am imagining. By utilising forms of acoustic space

²⁷ Brian Kane, *Sound Unseen: Acousmatic sound in theory and practice* (Oxford: Oxford University, 2014), 15.

²⁸ Pauline Oliveros, *Deep Listening: A Composer's Sound Practice* (Lincoln, NE: Deep Listening Publications, 2005).

reproduction, I intend to construct dynamic levels of attention in my audience.

The interrelationship between media is central to a multimodal communicative method. Incorporating site sound into the audio media, which shapes form, sound, and structure, strengthens the audience's ability to elicit meaning. Meaning emerges from the interrelationships between structured sound and how an audience experiences it. Developments in film and other media art forms have shaped the development of multimedia as an art form. Embracing the model of hybridity has increased audience participation to offer a much more immersive experience. The relocation of an audience outside the concert hall to engage with new transmission methods, performance, and reception have resulted in innovative models of understanding musical meaning. Introducing new environments in which sound interacts with the material conditions of reception has advanced audience interaction. The expansion of listening environments engages with new meanings, intentions, and sonic hierarchies in the audience experience.²⁹

In my work, incorporating current and historic site sound as an element of multimedia composition augments the experience and the audience's receptive connectivity to narratives associated with the site and historical understandings. Employing multimedia composition techniques that elevate cognition, immersion, and empathic

²⁹ Kane, *Sound Unseen*, 18-21.

modalities can reshape audience engagement. Museums worldwide are currently utilising interactive installations with successful results in audience engagement.³⁰

Advancing a dialogue of how we understand and experience history, culture, and our place in cultural and material landscapes inspires critical thought and new considerations. These connective sonic elements resonate, and by engaging with site narrative and site sound, an audience connects with sound being re-experienced and re-contextualised via audio processing in my composition. This sonic lexicon will be a communication link to envelop the audience in an immersive experience.³¹

These processed sounds will feel new but, in some way, familiar and will generate new sonic conduits for audience immersion. This artistic medium is a standalone composition project and an onsite multimedia installation/performance work.

I envisage site-specific immersive works as ideal media to engage with historical, cultural, creative, and anthropological concepts from this aesthetic position. This expansive medium, just discussed, has the potential to facilitate more profound and more personal connections to land while engaging with broader cultural applications. Incorporating site sound as an element of multimedia composition augments the

³⁰ Pedro Campos, Miguel Campos, João Pestana, and Joaquim Jorge, "Studying the Role of Interactivity in Museums: Designing and Comparing Multimedia Installations," in *Human-Computer Interaction. Towards Mobile and Intelligent Interaction Environments, HCI 2011, Lecture Notes in Computer Science, vol 6763*, ed. Julie A Jacko (Berlin: Springer, 2011).

³¹ Thomas. *Film Score: The View from The Podium*, 143.

experience and the audience's receptive connectivity to artistic works. Employing new techniques to open new possibilities in listening can reshape interrelationships between the audience, culture, and history.

Identifying these audience engagement modes provides the scaffold for the following chapter, which explores some of the dialectic connections Australian composers have looked to as a means of establishing an Australian identity by referencing landscape. Multimodal composition is a valuable and appropriate form of media to answer the question of identity and how we can evolve the concept of association and expression of landscape

Chapter Two

This chapter examines how previous compositional realisations of landscape have been preoccupied with creating an Australian identity. This lineage of composers has influenced my artistic perspective. As a reaction to Cockatoo Island's complex history, any aspects of First Nations' complex cultural systems have necessitated clarity throughout this project's research and compositional process to emphasise place, not people. Over the past three and a half years, I have composed thirteen works that embody Cockatoo Islands' historical uses in this portfolio. My practice looks beyond the concept of "an Australian sound" to site-specific storytelling. The following academic survey of different ideologies in composition and literature identifies practices that have steered me to question what shapes my concept of identity and connection to the site in composition.

My unique relationship and experience with Cockatoo Island distinguish this work as an artistic expression of a site-specific composition based on a contemporary urban location. This work aims to remedy the romanticised idea of traditional Indigenous life. Through an empathic association with the site, I am attempting to create a sympathetic connection that reconciles previous cultural ideologies that have disconnected people from place. In the following chapter, I will look at past compositional practices to understand how we can and have progressed in our creative approach to expressing landscape.

Colonial culture has marginalised and devalued Indigenous Australian culture. Even when trying to engage with Indigenous Australia, colonial perspectives have historically marginalised and devalued First Nations culture. Indigenous referencing, and what Christopher Sainsbury has called "Indigenous posturing," has created a

separate and distinct sense of “Other” in Australian art music.¹ Appropriation of Indigenous music, as much as anything else, illustrates how, in the past, colonial society has determined who has authority to present traditional materials and how they are presented. This confronting record of misrepresentation and appropriation in composition practices clearly reflects Otherness. The “Othering” of Indigenous culture through appropriation and misrepresentation reflects lack of protocols and input from First Nations knowledge-holders. Cultural movements such as the Jindyworobak movement and prominent Australian composers who made their name with reference to Indigenous music, including John Antill, James Penberthy and Peter Sculthorpe, illustrate the culturally embedded continuation of colonialist attitudes. Surveying the academic commentary of these previous practices, what materialises is a preoccupation with Australian cultural nationalism through Indigenous misappropriation. What transpired before the restoration of Indigenous creative agency underpins the social and legal changes imperative to address a rebalance of power. Considering the complexities of cultural transmission, identity and Indigenous agency have instilled my recognition of the site as being First Nations’ land always, in the past and the future.

Christopher Sainsbury, a Dharug composer and academic, examines the search for an Australian sound in his 2019 essay, *Ngarra-Burria*.² He identifies practices of referencing Indigenous Australian people and history in compositional works. Methodologies include references to Indigenous history and culture, collaborations with Indigenous people, music quotations, borrowed Indigenous words for work titles, exploring contemporary Indigenous issues, and partnerships with non-Indigenous poets who exploit Indigenous themes. Sainsbury establishes two categories of use.

¹ Christopher Sainsbury, *Ngarra-Burria: New Music and the search for an Australian sound* (Strawberry Hills, NSW: Currency House, 2019), 20.

² Sainsbury, *Ngarra-Burria*, 23.

The first is the association with, or incorporation of, Indigenous culture, narrative, music, or themes as “Indigenous referencing.” The second is employing “Indigenous posturing” to the practices in a body of work that reinforces a distant culture and the “Other.”³ It is essential to note a distinct disparity between previous generations of Australian composers, who, as Jonathan Paget points out, adopted the practice of quotation and notation of Indigenous melodies and the twentieth-century method of cultural synthesis through referencing and acquisition.⁴ Incorporating “folk” idioms by British, American, and European composers in early twentieth-century works was a practice followed by Australian composers who assimilated Indigenous “folk” idioms into the compositional psyche. Sainsbury cites twentieth-century Australian composer Alfred Hill as recognising Indigenous music as a precious resource for Australian music composition.⁵ Adding to an extensive debate about this quote, Sainsbury questions Peter Sculthorpe and James Penberthy’s familiarity with the April 18, 1950, *Sydney Morning Herald* article, in which Hill states:

There is enough material in these recordings to start an entirely Australian school of music, as different in the idiom as Vaughan Williams and the English School from anything else. It is a gold mine [...] All these young fellows who are composing now will have the chance of a lifetime with this material.⁶

The continued performance of works by Australian composers that have misrepresented and appropriated Indigenous Australian culture suggests an endorsement of these attitudes within the culture of Australian art music listeners, radio stations, music societies, performers, and concert programmers. Sainsbury examines various examples of Sculthorpe’s methods that draw on Indigenous

³ Sainsbury, *Ngarra-Burria*, 20.

⁴ Jonathan Paget, “Has Sculthorpe Misappropriated Indigenous Melodies?” *Musicology Australia* 35, no.1 (2013): 87, <https://dx.doi.org/10.1080/08145857.2013.761101>.

⁵ Sainsbury, *Ngarra-Burria*, 23.

⁶ Sainsbury, *Ngarra-Burria*, 20.

materials, questioning his use of the term “song line”.⁷ Sainsbury identifies similar problems regarding the actual cultural purposes and lack of consideration of how these works were initially intended to be performed and the context of their reception. A similar issue pertains to the Djilile melody and its origins. Not indicating the heritage or acknowledging the melody’s owners indicates an unequal power dynamic.⁸ Liza Lim summarises the context in which previous composers derived idiomatic materials.

The pattern set by the earliest examples of cross-cultural interactions showed composers’ academic reliance on anthropological books and recordings. Aspects of Aboriginal cultures were simply lifted as artefacts representing some generalised concept of Aboriginality — often in well-meaning ways — while continuing to perpetuate colonising attitudes.⁹

Lim’s 2005 keynote address at the Inaugural Huge New Music Festival discusses creative motivations and questions what we, as Australian composers, look to as indicators of legitimacy and how we construct an Australian identity in music composition. As Sainsbury points out, composers have drawn on and emulated materials they have sourced in texts and recordings without actual interaction or long-term engagement with the owners or Indigenous communities where these materials originate.¹⁰

There are radical changes as compositional culture has evolved from the outside and the inside. In 2007, the Australia Council produced a document, “Protocols for Producing Indigenous Australian Music,” which provides an extensive outline for

⁷ Sainsbury, *Ngarra-Burria*, 29.

⁸ Sainsbury, *Ngarra-Burria*, 29.

⁹ Liza Lim, *Sound Scripts: Keynote Address. Proceedings of the Inaugural Totally Huge New Music Festival Conference 2005*, eds. Cat Hope and Jonathan Marshall, 9–19. *Sounds Australian* 67 (2006).

¹⁰ Sainsbury, *Ngarra-Burria*, 28.

those seeking to work with Indigenous artists in the arts, acknowledging the requirement to be legally accountable for creating copyright materials. The concept of Australian identity continues to develop. Irrespective of what xenophobic political agendas exist, the diverse nature of our communities has ensured that the singular “authentic” notion of what is Australian is no longer warranted. Indigenous Australia now embraces programs such as Ngarra-Burria, which affirms contemporary Indigenous cultural agency. First Peoples first symbolises engagement with Indigenous music and musicians who assume cultural agency and take the lead in composition and performance.¹¹

The Eora Centre’s Contemporary Aboriginal Performers developed the Ngarra-Burria program, mentoring emerging Indigenous composers. Chris Sainsbury, Noel Tovey, Kevin Hunt, and John Davis have helped to establish connections with existing musical entities, including Short Black Opera company, Ensemble Offspring, Baiame’s Ngunnhu Festival, and evolving programs at the ANU and Sydney Conservatorium of Music. Sainsbury carefully considers the way forward and lists numerous recommendations or guidelines for future cross-cultural compositions in the new music sector.¹² He looks to a promising future, citing the respectful engagement by composers such as Mark Pollard (*Gunnai Dreaming*, 2009) and Kevin Hunt and the growth in commissioning and employment of Ngarra-Burria composers such as Brenda Gifford, Nardi Simpson, Troy J Russell, Will Kepa, Marlene Cummins, Mark Ross, and Aaron Wyatt.

Throughout my research of pre-contact Sydney Harbour and the creation of this portfolio of work, I have aimed to develop a compositional approach from a site-

¹¹ Sainsbury, *Ngarra Burria*, 33-37.

¹² Sainsbury, *Ngarra Burria*, 29; Australia Council for the Arts, *Protocols for Producing Indigenous Australian Music*, 2nd ed. (Sydney: Commonwealth of Australia, 2007), standard guide in composition.

sound perspective. Observing the practices and issues I have outlined above has fostered a personal aim to develop a sensitivity to the voice and cultural agency of First Nations peoples. I have no intention to appropriate aspects of Indigenous music, themes, narratives, or culture. I aim to recognise the past, present, and future cultural agency that sits with First Nations peoples.

Researching the identity perspective in Australian composition has led me to ponder how I creatively engaged and responded to the sounds of the site and the resulting imagined narratives. As a composer, how do I create a pre-European sound world?

Acknowledging Indigenous people and the world that existed before Europeans arrived is a priority. Faced with a problematic history of Indigenous representation in Western art music, I have consciously chosen sonic archaeology methodology.

Sonic archaeology comprising a known environmental sound vocabulary and recognisable sound ecology will create an empathic bridge that connects an audience to the site. By using environmental soundscapes, I seek to redefine how multimedia composition interprets historical and cultural contexts.

The aim is to open new possibilities in the interrelationships between an audience, history, and place as components of the work. Encouraging a dialogue around how we realise and experience history, culture, and our place in the material landscape inspires critical thought and additional considerations. My compositional portfolio aims to avoid the superficial gestures of embellishing my compositions with elements of other cultures or “paraphernalia” as Richard Mills described such enhancements in 1991.¹³ In this reference, Mills referred to Indigenous Australian and Asian music materials in this discussion on “distinctive Australian music.”¹⁴

¹³ Sainsbury, *Ngarra-Burria*, 11.

¹⁴ Graeme Skinner, ed., *The Composer Speaks: Composers and Their Colleagues Discuss Australian Music*. (Sydney: Sounds Australian, 1991).

Chapter Three

When I was growing up on Cockatoo Island, evidence of a First Nations' presence was not as apparent as the colonial structures surrounding me. My early childhood, surrounded by colonial structures, instilled in me a belief that the habitation of Cockatoo Island began with European settlement. I relished playing in the

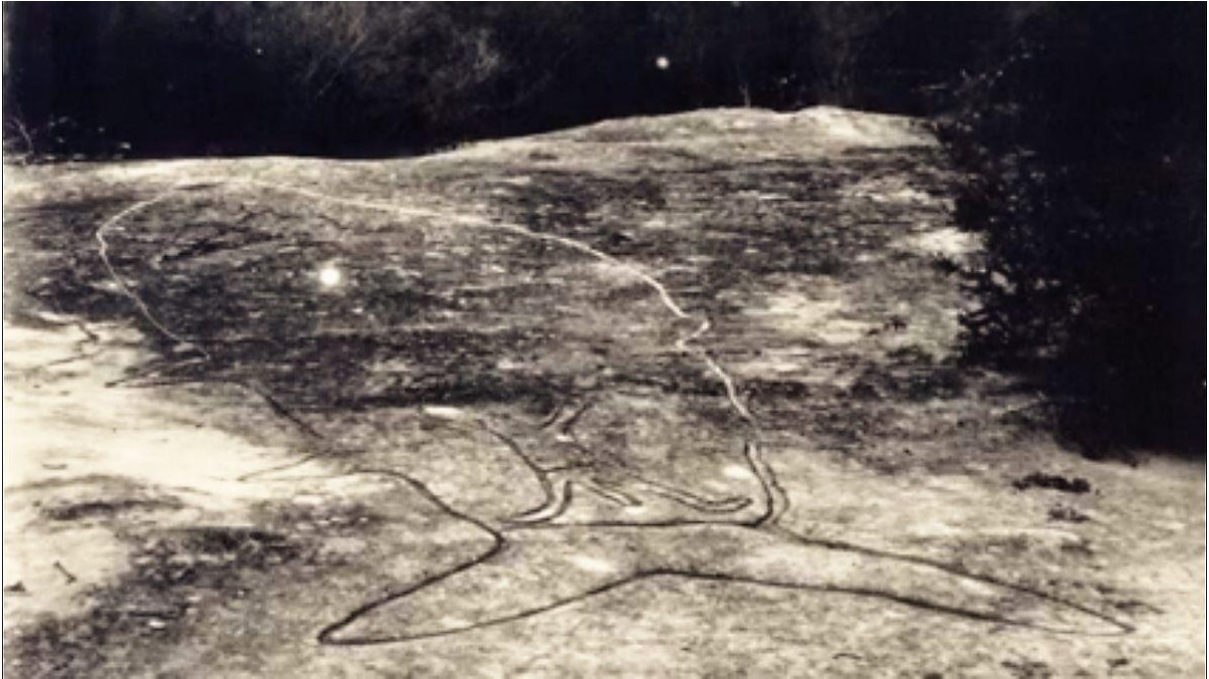
workshops, tunnels, and dockyard machinery that offered fascinating hiding spaces and acoustics. I imagined frightening convict stories. Awareness of pre-contact habitation in Sydney Harbour began later, after seeing some late nineteenth-century photographs of Cockatoo Island and the Balmain foreshore. When these were taken, the harbour still had gentle slopes leading to the shoreline. What struck me were the radical topographical changes that had occurred.

Just outside the western gate of the Convict Square area on Cockatoo Island is a birdbath with the word “Biloela,” meaning “black cockatoo,” engraved into it (Figure 01). Without understanding its historical context, this word piqued a childhood curiosity in Indigenous language and music. Later, as a teenager, seeing the Indigenous rock carvings at Balls Head at Berry Bay was my first site experience that conveyed something of a pre-contact world (Figures 02 and 03).

Figure 01 Birdbath Biloela (Source: Alison Cole)

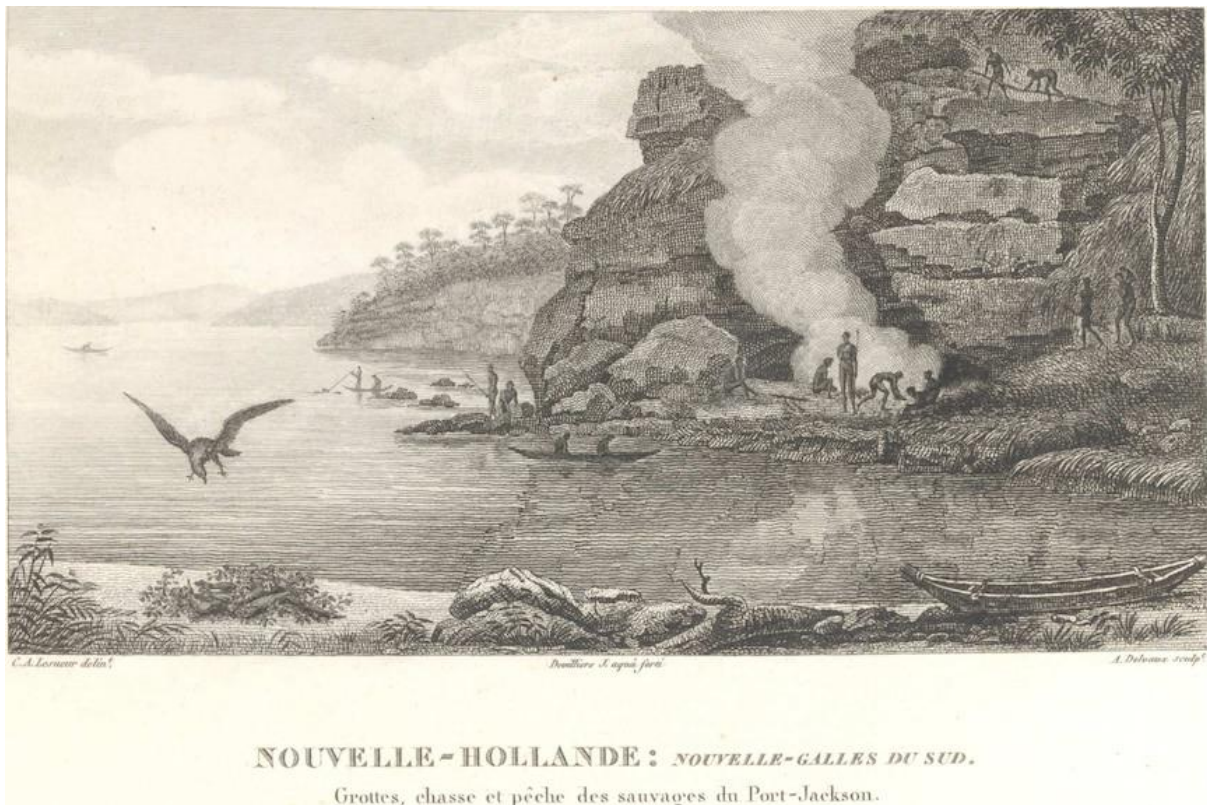


Figure 02 Indigenous engraving at Balls Head. Circa 1900 (Source: Stanbury, Clegg, Watt and Campbell)¹



¹ Peter Stanbury, John Clegg, David Watt and Ian Campbell. *A Field Guide to Aboriginal Rock Engravings: with Special Reference to Those Around Sydney* (Melbourne, Vic.: Sydney University Press in association with Oxford University Press, 1990).

Figure 03 1820s French engraving of a headland that closely resembles Balls Head showing caves with people hunting and fishing (Source: National Library of Australia)



In 2000, a First Nations rights group established a camp on Cockatoo Island. The group was a branch of the Aboriginal Tent Embassy, which has occupied land outside Old Parliament House in Canberra since 1972. In 2000, the island group's leader, Isabel Coe, described Cockatoo Island's significance as a meeting place for the Eora people before the European settlement:

[Cockatoo Island] would have been a very sacred site. It is where the rivers join and is in the middle of where the sun rises and sets over the harbour. It is part of the milky way Dreamtime stories.²

Isabel Coe's words resonated deeply with me and highlighted the lack of inclusion

² Cockatoo Island. "The Story of Cockatoo Island, First Nations," accessed 06 December 2022, <https://www.cockatooisland.gov.au/en/our-story/first-nations/>

and disregard of the First Nations' story in decisions about Cockatoo Island. There was no mention of the First Nations' stories of habitation or significance when I was a child. An awareness of Eora informed my storytelling strategy so that Eora's presence should be felt throughout my work, even in its absence. The Eora people's relationship with Cockatoo Island (Wareamah) has always been constant, developing, and ongoing. Establishing clarity around this issue is essential in telling the site's story, as any physical signs of the Eora connection to Wareamah have disappeared since its colonisation.

However, my experience of being aware only of colonial, primarily convict, material culture on the island was typical. Archaeologists such as Val Attenbrow, Paul Irish and Tamika Goward, and the historical author Sue Castrique interpret the abundant evidence of occupancy of the island's immediate mainland shorelines of Hunters Hill, Rozelle, Balmain, and Greenwich as confirmation of pre-contact habitation of the site itself.³

Several Indigenous groups are affiliated with Cockatoo Island and the land around it. The island is situated in the Sydney Basin, encompassing Botany Bay, the Georges River, Pittwater, the Hawkesbury, and the Parramatta River. The Eora Nation comprises different clans, which have occupied various coastal regions of the Sydney Basin. Towards the south of Cockatoo Island, Gadigal and Cammeraygal groups occupied the harbour's shore, with Wangal clans occupying the eastern area from the shoreline. The Wallumedegal kin occupied the western lands off Cockatoo Island. Each of these clans shared the Dharug dialect. In Dharug, the word for

³ Val Attenbrow, *Sydney's Aboriginal Past: Investigating the Archaeological and Historical Records* (Sydney: University of New South Wales Press, 2010), 70; Paul Irish and Tamika Goward, "Where's the Evidence? The Archaeology of Sydney's Aboriginal History," *Archaeology and Physical Anthropology in Oceania* 47, no. 2 (2012): 60–68; Sue Castrique, *Under the Colony's Eye: Gentlemen and Convicts on Cockatoo Island 1839-1869* (Sydney, NSW: Anchor Books, 2014), 2.

Cockatoo Island is Wareamah.⁴

Archaeological evidence relating to the immediate mainland shores has confirmed Wareamah's pre-contact use. An extensive process by the Harbour Trust established the continuing connection to the site. The 2021 *Cockatoo Island (Wareamah) First Nations Community Consultation* report has provided additional insights into the significance of the site for First Nations peoples and various pre-contact uses.⁵ This report discusses the extensive consultation with the First Nations community around the implications of the word Wareamah, meaning "Women's Place." This document proposes that First Nations women used the island in cultural ceremonies or birthing. Cockatoo Island's location (Figure 04) at the mouth of the Parramatta and Lane Cove Rivers meant numerous clan groups surrounded it. Wareamah is an essential landmark due to its involvement in first contact with the French and English settlers during the Frontier Wars.⁶ Even though there is not any physical evidence of Indigenous habitation on Cockatoo Island, it is outmoded and discriminatory not to acknowledge the island's significance for First Nations people.

⁴ Castrique. *Under the Colony's Eye*, 2; Attenbrow, *Sydney's Aboriginal Past*, 10.

⁵ Two Point Co., *Cockatoo Island (Wareamah) First Nations Community Consultation*, accessed November 12, 2022. <https://www.harbourtrust.gov.au/media/4324/ciw-draft-concept-vision-first-nations-consultation-report-oct-2021.pdf>: 7.

⁶ Attenbrow, *Sydney's Aboriginal Past*, 159.

Figure 04 Cockatoo Island location (Source: Cockatoo Marine)



The previous chapter reflected on the ethical considerations of cultural appropriation through an exegesis of some instances of cultural appropriation by Australian composers. As a reaction to previous composers' expressions of place, I have created my empathic bridge model, which incorporates site sound to represent use rather than expressing or appropriating any aspects of a cultural system. The following chapter aims to explain my artistic interpretation of archaeological research that tells a story of the site. I am engaging in a subjective interpretation of Cockatoo Island's pre-contact story.

After researching the pre-contact sonic vocabulary of the island and its vicinity, I integrate the sonic ecology of the natural wildlife into my compositions. In my composition practice, I use technological tools to fragment, granulate, stretch, shorten, reverse, repeat, and feature the site's sonic ecology and sonic archaeology.

Another problematic area has been colonial historical sources. Exhibiting cultural prejudice was quite common in early depictions of the Port Jackson colony. Scholars such as Russell McGregor, Raymond Kerkhove and Val Attenbrow suggest that the colonists' lack of interest and intolerance of First Nations peoples' customs indicated the establishment of colonial attitudes.⁷

Composing a section on pre-contact First Nations Wareamah has presented some challenges. I am aware that I am evoking a more imagined story the further I go back in history. Nevertheless, researching the pre-contact landscape has been essential to base my imagination on a factual source. Imagining how the Eora people may have inhabited the landscape broadens the narrative possibilities and depth of engagement with the site. Several online resources, such as the Dictionary of Sydney website,⁸ the National Museum of Australia, and the development of A History of Aboriginal Sydney, a history of Aboriginal Sydney project placed in the Department of History at the University of Sydney, have been beneficial resources.⁹ Theresa Willsted, Kevin Smith, Anne Clarke, Sarah Colley, and Martin Gibbs provide a valuable overview of recent "prehistory" archaeology in the Sydney areas.¹⁰ Grace Karsken's discussion of the geographical formation of the landscape and environment of the greater Sydney area, which First Nations people inhabited, has been an invaluable resource for "Rupture," one of the pieces in this section of

⁷ Russell McGregor, "Warrior: A Legendary Leader's Dramatic Life and Violent Death on the Colonial Frontier," *Australian Historical Studies* 47, no. 1 (2016): 166–68; Raymond Kerkhove, "A Different Mode of War? Aboriginal 'Guerilla Tactics' in Defining the 'Black War' of Southern Queensland 1843-1855" (2014). Available at SSRN: <https://ssrn.com/abstract=2502197> or <http://dx.doi.org/10.2139/ssrn.2502197>; Attenbrow, *Sydney's Aboriginal Past*, 2.

⁸ Dictionary of Sydney (Archived 2021), accessed 08 November 2022, <https://dictionaryofsydney.org/>

⁹ The University of Sydney Library Collections, accessed 08 November 2022, <https://digital.library.sydney.edu.au/nodes/browse?filter=eyJudGlkcyI6WylyMyJdLCJmYWVNIldCl6eyI0NjAiOltcfX0=&bid=6929>

The National Museum of Australia, accessed 08 November 2022, <https://www.nma.gov.au/defining-moments/resources/evidence-of-first-peoples>

¹⁰ Theresa Willsted, Keith Smith, and Anthony Bourke, curators, *Eora: Mapping Aboriginal Sydney, 1770-1850*. (Sydney, NSW: State Library of New South Wales, 2006); Anne Clarke, Sarah Colley, and Martin Gibbs, "Aboriginal prehistory, historical and contemporary archaeology in the Sydney Basin," *Archaeology in Oceania* 47, no. 2 (2012): 57.

the work.¹¹ Val Attenbrow's *Sydney's Aboriginal Past: Investigating the Archaeological and Historical Records* is a collation of archaeological and historical records that offers a well-documented interpretation of the pre-contact natural environment. These texts inform me what animals occupied the immediate shoreline of Wareamah. From this, I understand what environmental sounds I should record or source from professional sound libraries. Researching the fauna of the pre-contact use has been essential to ensure that my construction of the ecological sound environment is factually based. The pre-contact Sydney region fauna was typical of the whole east coast of New South Wales. Attenbrow discusses that in both the Sydney and bush regions dingoes, kangaroos, wallabies, koalas, bandicoots, possums, wombats, fruit bats ("flying foxes"), echidnas, and native rats and mice, were available to First Nations peoples as food sources. Exploring the pre-contact environment contextualises the natural fauna and flora in telling the story of Cockatoo Island and its immediate mainland shoreline. In my creative work, my pre-contact account attempts to represent accretion and subsequent formation of the landforms that make up the waterways around Cockatoo Island, life on the shoreline, the island, and the loss of these lands.

This chapter explores the connection between the site's story, my artistic decisions, and my motivations in my creative portfolio. In telling the pre-contact Wareamah story, I aim to create a sense of site formation and explore its story of pre-contact uses. Guided by my research into the island's history, I create my compositions from site sound to ensure that my process has a continual organic connection to the site. Site sound is what I described in Chapter One as sonic ecology and sonic archaeology. This electro-acoustic aspect of my composition work has been

¹¹ Grace Karskens, *The Colony: A History of Early Sydney* (Crows Nest, NSW: Allen & Unwin, 2010), 9-31.

common in my oeuvre and is a common compositional feature throughout this creative portfolio. In September 2022, The Australian Ballet performed my electro-acoustic composition, *Kids These Days*. The work was dynamic and conveyed an inventive choreographic approach through synthesising orchestral and electronic instruments and environmental soundscapes in a cinematic aesthetic. To see it realised in dance has inspired me to broaden this compositional method in *Fabric of Memory*. I have been developing this compositional style in my professional art music commissions since my first forays into electronic music as a Severed Heads and Boxcar member. Throughout my commissioned commercial work for my business, Groove Q, I employ electronic dance music, cinematic score, drone, ambient, and electro-acoustic music techniques. The synthesis of both these compositional styles is evident throughout my creative portfolio.

01 “Rupture”

The concept of the work “Rupture” is the formation of Cockatoo Island and the surrounding waterways of the Sydney Basin. Grace Karskens’ opening chapter in *The Colony: A History of Early Sydney* summarises Sydney’s geological formation and has been a beneficial resource for this piece. In “Rupture,” I characterise the earth’s formation by sonically realising the macro to the micro. I am trying to capture the enormity of scale with the sound of gravity’s process of pulling gas and dust, the constant collisions with asteroids and other minor planets resulting in the formation of life on a microcosmic scale. A significant artistic decision in “Rupture” was to process the pitch of the dingo call to capture life’s evolution from an unrecognisable sound to our assumed sonic vocabulary of the dingo. The dingo call symbolises the formation of a cellular existence and changes in heritable traits as it sonically develops from a drone-like subsonic pitch to a natural pitch throughout the piece.

In November 2019, I made a series of onsite dingo recordings at The Dingo Den in Glenmore Park, Sydney (Figure 05).¹² The recordings included calls, eating noises, grunts, and other vocalisations. These recordings form this piece's tonal, rhythmic, and conceptual basis. My intention for the listener is the liminal experience of the dingo call moving from non-recognisable to recognisable, creating a connection to the evolution of the natural environment of the shoreline. Emphasising a central pitch from field recordings is a common method I employ to form a tonal framework throughout the compositional process of *Fabric of Memory*. A relationship to the site, established using site sound, creates the concept of "fabric," a central thread throughout the work.

Figure 05 Dingo Den Recording - Glenmore Park NSW



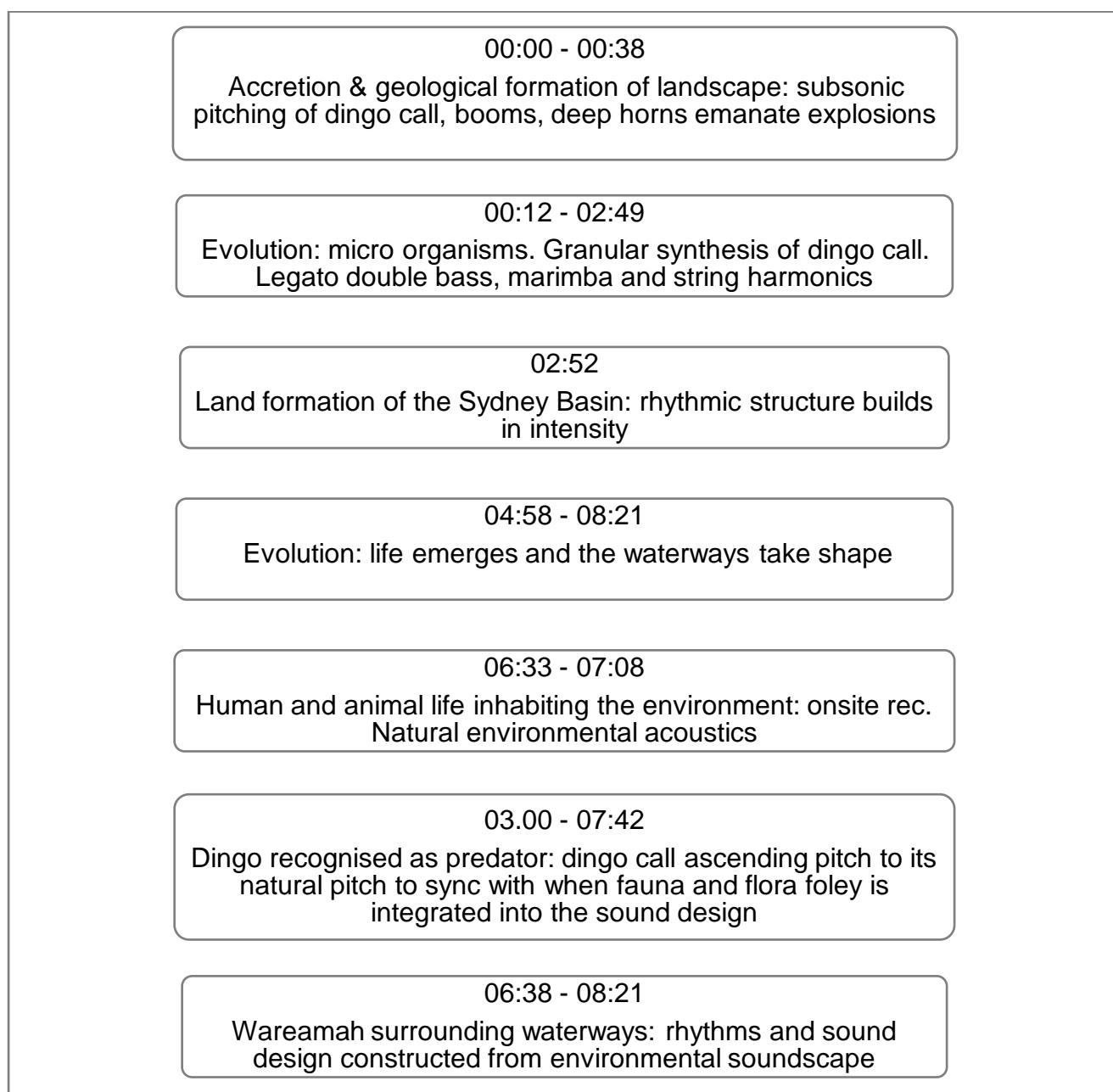
The audio processing outline below (Figure 06) summarises the instrumentation, foley and processing events. I utilise various audio processing methods to capture these abstract ideas throughout the work. "Rupture" opens to deep resonating frequencies to capture a sense of the wonder from a macro perspective of colliding planets, gases, and asteroids. I am attempting to articulate the accretion of the pre-contact environment with deep booms, deep brass, and subsonic pitching of the

¹² *Dingo Den*, accessed 08 November 2022, <https://www.dingoden.net/>

recorded dingo call. At the 12-second mark, granular synthesis starts the piece's tonal centre by taking a small grain or cell of the dingo call to elongate the audio sample's length. I have used this re-contextualising device in my compositional practice to create new timbres that are unique to each piece. I have combined these processed timbres with string harmonics to create a feeling of being suspended in time. Fragmented dingo vocal recordings replicate the concepts of time being compressed, reshaped, and stretched throughout this piece.

I symbolically establish a lifeform connection to the site beginning with what I term cellular transformation that occurs from 02:40 until 4:48. To capture the microcosm of life, I have taken an island shoreline recording I made on Cockatoo Island in September 2022 and have applied spectral filtering to these recordings. In this process, I select the audio segments' higher frequency range or pitch and then reverse them to represent the random movement and size of evolving micro-organisms. I have moved from the macro in the lower frequency range to the interior cellular life of a higher frequency range. The pitch of the dingo call moves from the unrecognisable deep frequency range to the recognisable call at 07:42. This process symbolises the sonic backbone of all evolutionary life. From 06:30 to 8:21, the environmental sound design gradually shifts to less processed and more natural pre-contact sound, which we recognise as a present-day sonic vocabulary as time progresses.

Figure 06 "Rupture" Audio Processing Outline



At 04:40, this melody (Figure 07) returns on the synthesiser Una Corda instrument. It has been fragmented via audio editing, taking parts of the tune, and reversing and rearranging it. This device portrays the fragments of evolution that come together at bar 153, coinciding with the recognisable dingo call and a harmonic modulation to G major. The shift between the G major and E minor from bar 157 acts as another harmonic suspension over which the vocal melody depicts the cohabitation of fauna,

flora, and human life.

The overall function of this section aims to set a geological and evolutionary perspective of the site within the whole work. I hope to express the site's formation for my audience to connect with its pre-contact existence.

Figure 07 "Rupture" String Melody No. 2

Rupture - String Melody No. 2

Alison Cole 2022

The musical score is written for a string instrument in treble clef, with a key signature of two sharps (F# and C#) and a 4/4 time signature. The tempo is marked as quarter note = 96. The score consists of four staves of music. The first staff begins with a treble clef, a key signature of two sharps, and a 4/4 time signature. The tempo marking '♩ = 96' is placed above the first measure. The melody is composed of eighth and sixteenth notes, often beamed together, with various slurs and ties. The second staff starts at measure 9, the third at measure 17, and the fourth at measure 24. The fourth staff ends with a double bar line and a fermata over the final note.

02 "Call"

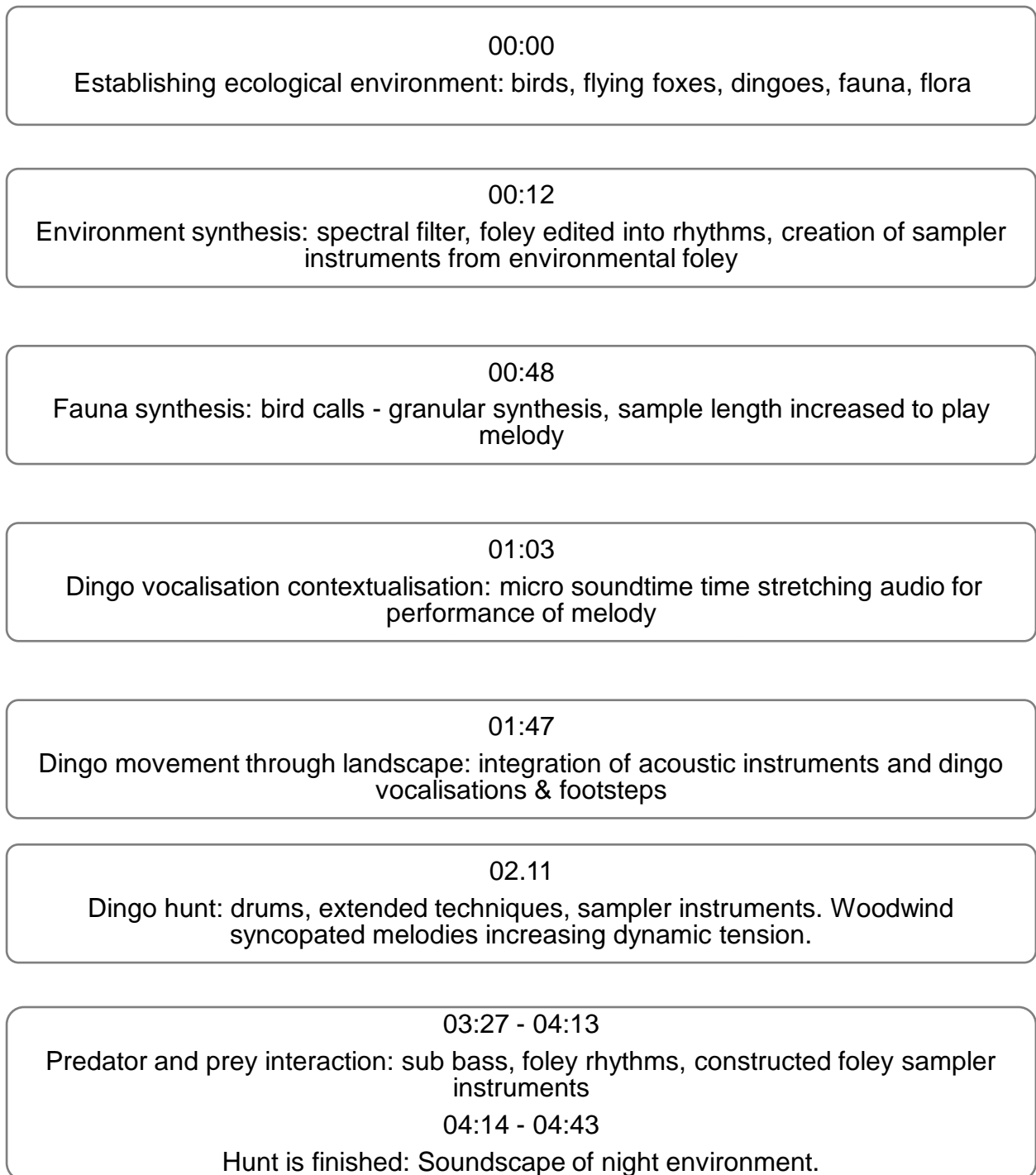
"Call" attempts to represent the dingo's habitation of the shoreline. My compositional approach in "Call" and "Undercurrent" is cinematic in terms of how I have visualised the pre-contact environment. In "Call," I continue using the dingo to suggest an ongoing timeline in my narrative. My recording session at the Dingo Den changed my appreciation and connection to the *Canis lupus dingo*. In the recording session, I lay down surrounded by the pack and understood the stillness and beauty of the canine collective. In "Call," I attempt to articulate the energy of the dingo's hunt,

surrounded by the music and rhythms of the environment. I have used recordings from Lane Cove National Park that I made in March 2022 and have also sourced Sydney bird foley from existing professional sound design libraries. The energy of the dingoes and the bush itself is interpreted in the rhythms I have created from the edited recordings. Playing through environmental soundscape recordings and finding parts of the audio that suggest rhythmic or melodic materials that I can integrate into my compositions draws on my experience in electro-acoustic dance music composition.

“Call” strives to capture the fluctuations in energy of the dingo pack hunting. I have constructed several inbuilt DAW “sampler” instruments from bush foley recordings in the piece. From 00:45, I synthesised a recorded birdsong in a “native” or DAW sampler track and composed melodic parts from the elongated samples. I have made rhythmic sequences from within the bush foley recordings to play as a forward loop and reverse loop. These musical phrases punctuate rhythmic syncopation to create moments of building momentum throughout the piece. The first of these builds appears at 02:12, where the gradual breakdown in the length of the audio cuts from eighth divisions to quarter divisions and halves work in tandem.

Combining cello with edited dingo grunts captures the insistence of the predatory motion of the dingo pack through the environment. Utilising unfamiliar timbral combinations aims to engage the listener to question the source of the sounds. Combining the extended techniques of the celli, the percussion, and the grunts builds momentum that culminates at 01:47 with the addition of woodwind and cello. From 02:12, I have combined acoustic and processed recordings of the dingo calls

Figure 08 "Call" Audio Processing Outline



to create a series of crescendos up to 03:27 (Figure 08). These longer granular synthesis passages of dingo calls endeavour to articulate the “Ghosts” of the animals that once inhabited the foreshores of the Sydney Basin.

From 03:27 until 04:04, the increase in intensity signifies the final push of the pack,

guided by their instincts. I have attempted to create a menacing atmosphere that embodies anticipation during this section. By using larger reverb spaces, the pitch is modulated to occupy a more comprehensive frequency range, by which I aim to evoke the pack's reclamation of their ancestor's call to aid their hunt's success. Slipping back into the quiet of the night environment at 04:14 illuminates the intensity of the dingo's hunt, through the juxtaposing drops in rhythmic intensity and resulting structural change.

03 “Undercurrent”

The pre-contact environment I attempt to capture in “Undercurrent” has a playful beauty. I am endeavouring to submerge the listener in the beauty of this pre-contact world using binaural reverb and incrementally transposing the pitch of magpie calls down alludes to the listener being transported underwater to the Wareamah world. I am attempting to capture a sense of beauty by intertwining marimba, dulcitone and vibraphone melodies and sympathetic instrumental timbres. The audience walks into the water and paddles with the Eora fisherwoman in her nawi (canoe) to Wareamah.¹³ I process the acoustics of the currawong cry with a large forest convolution reverb and loop the printed audio's tail to establish the piece's tonality. This audio processing method creates unique timbres with an ambience that connects to the fabric of the natural soundscape. The foley sound of the water lapping on shore develops out of the foley as a rhythmic device utilised throughout this piece (Figure 09).

¹³ Sydney Living Museums, accessed 15 November 2022, <https://mhns.wa.gov.au/stories/first-nations/a-fisher-woman-of-warrane/>

Undercurrent - Water Lapping Rhythm

Alison Cole 2022

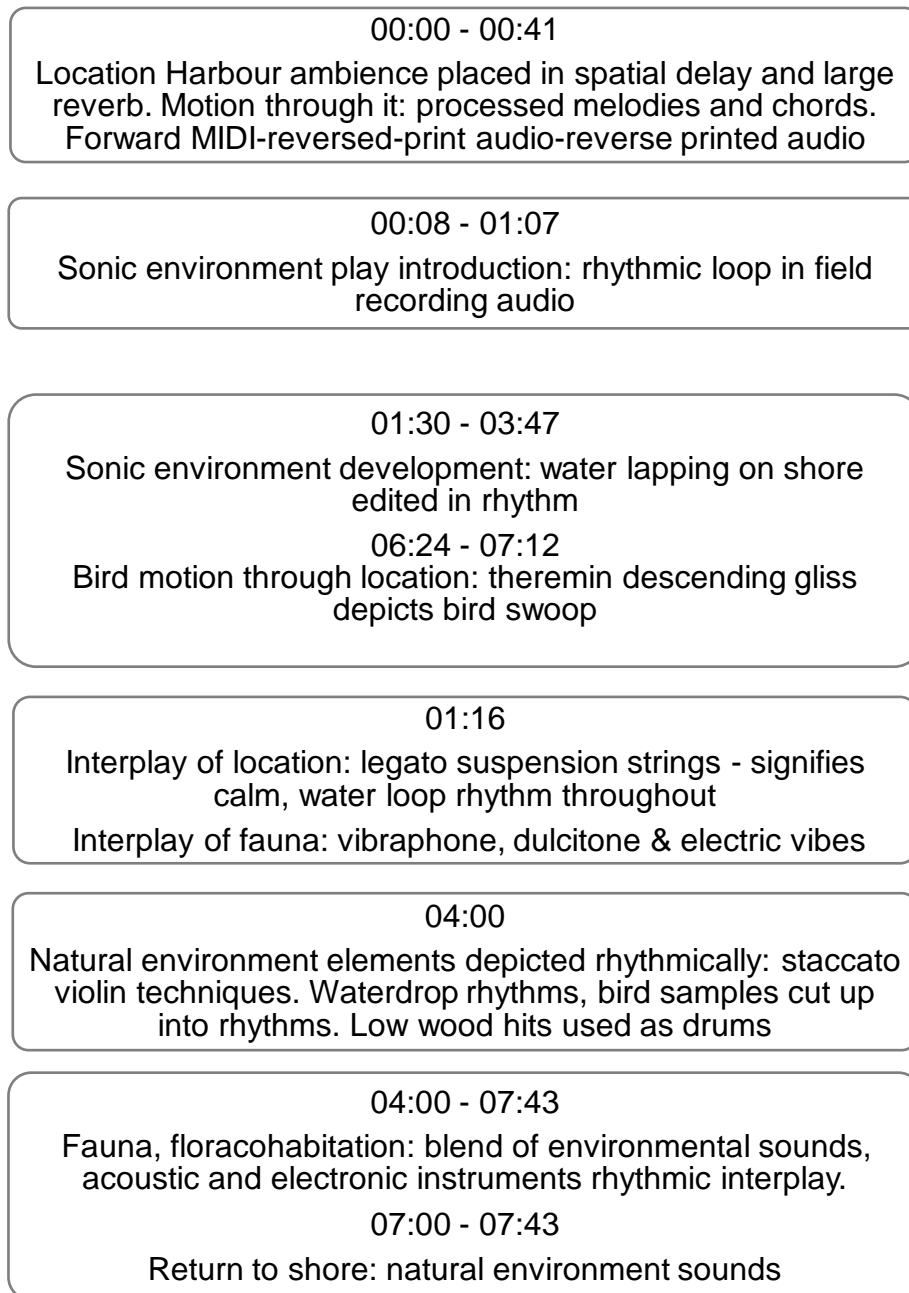


I use a pizzicato violin articulation to elicit a more improvised feel that complements the spontaneity of the natural environment. This instrument performance technique feels less deliberated upon to me than the more sustained notes that a legato articulation may present. After printing the violin pizzicato MIDI parts as audio, I edited the violin audio. Sampling a segment of audio, I triggered it from a Cubase sampler instrument I created from my recordings. The recorded audio is cut up phrase by phrase, and placed chromatically in a virtual instrument. Performing via the MIDI keyboard triggers the audio samples to reorder the audio phrases into a new musical context. These electronic dance music techniques throughout this piece create an improvised feel.

The Phrygian mode of the violin melody at 04:00 deliberately feels unconnected to any concrete harmonic modulation until 07:43 when the tonal shift to Db major and F major endeavours to reproduce the sensation of that moment when we catch sight of something that brings joy. The violin's pizzicato articulation has a sense of imperfection and playfulness. At 05:00 minutes, edited magpie calls interact rhythmically with the syncopated pizzicato violin to suggest the spontaneity of

birdsong and avian activity. At this point in the piece, I am attempting to capture the sense of joy that I imagine being physically immersed in this setting would bring. Combining the syncopating percussion, bird calls, and the theremin's descending glissando signifies the movement of birds swooping in the portrayal of this scene. The currawong's song comprises a complex array of melodic and rhythmic signatures, which I attempt to replicate through the interacting musical gestures.

Figure 10 "Undercurrent" Audio Processing Outline



From the outset of this project, listening, recording, and editing the variations in currawong songs have forged a personal connection to the beauty and musicality of Australian bird songs. Recontextualizing the environmental rhythms of the landscape attempts to connect the audience with the sound of the Wareamah (Figure 10). The fusion of organic sounds, electronic synthesisers, and recognisable fauna soundscapes aims to evoke audience connectivity to the site.

Figure 11 T. Prattent, *A View in Port Jackson*, 1789, Engraving (reproduction), NSW State Library, <https://www2.sl.nsw.gov.au/archive/events/exhibitions/2006/eora/images/s4.html>



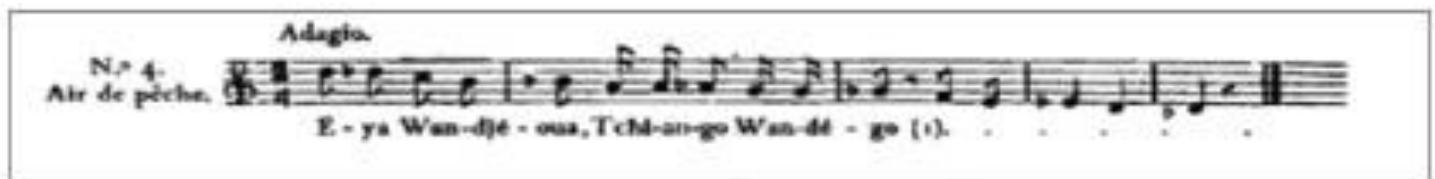
04 “Ghosts”

The concept of “*Ghosts*” is my imagining of the loss of a way of life for the Eora women of Sydney Harbour. Composed in a lyrical and disjointed style, it tries to capture a deprivation of past, present, and future ways of life. “Ghosts” is my subjective response to what I imagine the Eora fisherwomen, as resilient leaders within their respective clans, could have felt at some point. In this piece, I have imagined a scene in which an Eora woman “holds the light” and “holds the night” to keep her connection to land alive in her memories. I also attempt to capture the colonists’ disregard for Eora’s territories, way of life, and heritage in this piece.

My initial inspiration for this piece came from listening to a University of Technology

Sydney podcast, *History Lab*, which discussed Eora women.¹⁴ This podcast offered insights into their strength and significance on the pre-contact harbour. An 1819 Gadigal (Eora) fisherwoman's song was performed during the podcast. The original score was a notation of an Eora fisherwoman's song by the French explorer Louis de Freycinet. Maddison Lyn Collier, a Gundungurra and Dharug woman from Campbelltown, performed it. I found a documented version of this song in Graeme Skinner's *Austral Harmony*¹⁵ (Figure 12). In the *History Lab* podcast, Grace Karskens sets the scene of the Eora women and children in their nawi, with small clay fires on which they are cooking fish to share with their children (Figure 11).

Figure 12 Louis de Freycinet 1819 notation of Eora fisherwoman's song (*Austral Harmony*. The University of Sydney)



I envisioned what would have been a beautiful night scene of nawi scattered around Wareamah with the dim light of their onboard fires flickering. In "Ghosts," I imagine this pre-contact scene as a response to hearing these stories. What is important to note is that this piece is not an appropriation of the above fisherwomen's song.

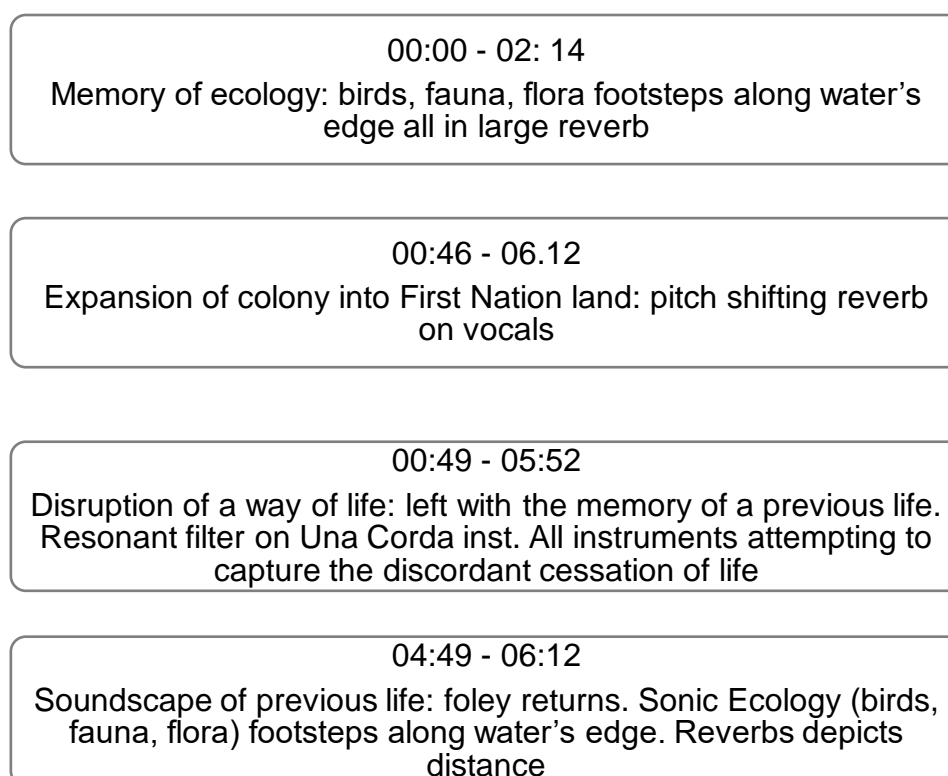
Writing my lyrics was my starting point for this piece. The opening lyric, "ghosts play

¹⁴ Anna Clark, Nathan Sentance, Tim Ella, and Maddison Lyn Collier, "Fishing for Answers," *History Lab* (podcast) S1Ep5: Sydney, 25 July, 2018, accessed 21 March 2021, <https://historylab.net/s1ep5-fishing-for-answers/>

¹⁵ Graeme Skinner, "A bibliography of Australian colonial music part 1 - to 1900: Section 5.2 Fishing song", *Australharmony*, accessed 15 August 2020, <https://www.sydney.edu.au/paradisec/australharmony/checklist-indigenous-music-1.php#005>

with memories,” refers to the settlers’ removal of Indigenous clans from their existing territories. The well-armed colonists increasing occupation of the Sydney area meant that a pre-contact life was but a memory. “Dim lights feel so far away” characterises colonists putting out the light of the nawi clay pot fires. The lyrics: “They want to keep inside, the darkest shores” signify the cessation of the First Nations’ use of Wareamah.

Figure 13 “Ghosts” Audio Processing Outline



In “Ghosts,” I use various processed metal sounds as a counterpoint to the singular vocal line as a symbolic gesture to capture these unprecedented environmental sound changes. I am attempting to capture a sense of disruption to a way of life and the sudden introduction of an unfamiliar sound vocabulary. This sense of dislocation is central to my creative perspective in this piece. The colonists brought dramatic changes in environmental sound. The sound of foreign languages, weapons, chains, metal hits, metal scrapes, tool sounds, and creaks of these large vessels would have

interrupted the existing environment sounds for First Nations people.

Throughout this piece, pitch-shifting reverbs endeavour to develop a sense of otherworldliness, daydreams, and fading memories. For the listener, the non-recognisability of sound is attempting to convey physical displacement. Mixing flora and fauna in increasing reverbs while the footsteps walk to and away from the water's edge without reverb attempts to establish an intimate first-person perspective (Figure 13). Placing the reverb at the end of vocal phrases characterises the disappearance of this way of life. Simple instrumentation and the space between the vocal phrases allow the listener to reflect on the words and their meaning. I am attempting to capture an atmosphere of temporal dissonance by mixing the beginning of some vocal phrases without reverb, and the end of these phrases has long atmospheric reverbs.

Finding a singer with a pure, light voice without vibrato was essential for processing and adding audio effects. Vibrato changes pitch by the singer creating slight variations above and below the note to create a rich tone and, when processed, can change vowel pitches or frequencies. This vocal performance and timbre style has been preferable for the audio processing I have employed throughout this creative portfolio. The performance indications of minimal vibrato in the initial score align with a softer onset and breathy delivery. I have been fortunate to work with Olivia Parker throughout this project. Olivia's voice embodies the characteristics of all the emotions I am trying to convey. Her intuitive interpretation of the three pieces she performs has been inspirational.

My intention was for an a cappella performance with the initial score. To record this piece, it became apparent, after some consultation with Olivia, that I needed to provide harmony and meter (Figure 14). Creating a harmonic structure for Olivia was

necessary for tuning and achieving a natural vocal flow throughout the recording. Transposing the piece from E minor to C minor suited her range so that she could comfortably perform with a breathy vocal technique. This vocal timbre elicits empathy from the listener with its lamenting phrasing that evokes a sense of dislocation. Arranging and composing the music around an unmetred vocal delivery has been a conscious, creative decision in “Ghosts,” as the vocalist performs the piece at their own pace. After the initial melodic and harmonic blocking, composing a soundscape around the placed vocals in my DAW further contributed to the feeling of dislocation. To create a sense of suspended time, I stepped away from strict adherence to bar lines to sympathise with the performance itself. Allowing reverb tails to finish before placing the following vocal audio edit in my DAW arrangement emphasises a sense of stasis. I wanted to avoid the audience locking into a meter and to establish a natural anticipation and an expectation to move forward.

Figure 14 "Ghosts" Harmonic Structure Vocal Score

Ghosts

Haunting - minimal vibrato - softer onset - breathy

Alison Cole (lyrics) 2021

The musical score is written in 4/4 time with a key signature of two flats (B-flat and E-flat). The tempo is marked as quarter note = 65. The score is divided into four systems, each with a vocal line and a piano accompaniment line. The vocal line includes lyrics and dynamic markings. The piano accompaniment consists of chords and triplets. A box labeled 'A' is placed above the first measure of the vocal line. The lyrics are: "Ghosts play with memories", "They want to keep inside The darkest shore Dim light feels", "so far away Is it something I can't say They make it real", and "Hold the light I breathe the night It falls beneath to fade".

A

$\text{♩} = 65$ *p* *mf*

Gho— sts play with mem or ies
indicates harder onset

5 They want to keep in - side The dar kest shore Dim light feels

9 *mf* so far a - way Is it some - thing I can't say They make it real

13 *f* rit. poco a poco Hold the light I breath the night It falls be - neath to fade

16

from the shore Steel my self Look in side The dar - kest shore

19

far a - way Dar - kest dreams stay to hold the night Gh o - osts they

22

need to stay They re - al - lise be - hind my eyes I'm a - wake but

25

Reedy - almost a whisper - no vibrato

far a way Gho sts play with mem or ies

34

They want to keep in - side The dar kest shore

37

Reedy - almost a whisper - no vibrato

Gho sts play with mem or ies

Composing musical moments inside and outside the bar throughout *Fabric of Memory* has positively affected my growth as a composer. Unlike “Call” and “Undercurrent,” which both use pulse to suggest movement through the environment, in “Ghosts,” the shift away from a strict meter creates a distinct impression of time for the audience. Removing the anticipation of time by composing without meter evokes a feeling of time being extended and replaced with fragmented memories. I am attempting to induce the emotional state of immutability, which I imagine the Eora women and men, who lost their territorial heritage, would have felt at some point.

My research into the pre-contact uses of Wareamah has been a personal discovery of a history threaded by a fabric of darkness and beauty. Throughout this pre-contact section, I acknowledge that this is the most speculative and imaginary segment of my creative portfolio due to the lack of tangible and audible references. I am trying to imagine a past and present sense of beauty and connection to the site of the First Nations’ Eora women and men. The following chapter examines Cockatoo Island’s

use as a convict-built penal settlement.

The Convict component of my creative portfolio contemplates Cockatoo Island's penal and reformatory uses. Over seventy years, there were three successive jails on Cockatoo Island. I have researched the first two. The initial penal settlement was built in 1839 and operated until 1869. The subsequent Biloela Girls' Reformatory and Industrial School and the *Vernon* nautical school-ship for boys functioned from 1871 to 1880. My work does not engage with the third, Biloela Gaol, which was a prominent women's prison in New South Wales from 1888 to 1909. My choice to not include the women's prison is influenced by the reformatory girls being of a similar age to me during their experience of the location. The differences between our circumstances are immeasurable. The three pieces "Stone," "Hardly Hear," and "Reflective," contemplate the experiences of those incarcerated on the island.

Unlike the pre-contact compositions that rely on archaeological and geographical evidence, I have accessed documented government records, including prisoner testimonies, in my research. Newspaper articles from the *Bega Gazette and Eden District*, and the *Southern Coast Advertiser* and the *Sydney Gazette* provide information about girls' reformatory and nautical school conditions.¹ Sue Castrique's historical tome, *Under the Colony's Eye: Gentlemen and Convicts on Cockatoo Island 1839-1869*, presents an overview of the prisoner experience and the culture of those who governed the settlement.² Having these documented sources at hand informs how I portray the penal settlement's regime sonically to recreate the confined spaces that the prisoners inhabited. My empathic bridge model thus incorporates site sound to represent convict use, as represented in Gother Mann's *Cockatoo Island*

¹ "Domestic Intelligence," *Sydney Gazette and New South Wales Advertiser (NSW: 1803–1842)*, 23 February 1839, accessed 10 December 2022, <http://nla.gov.au/nla.news-article2550565>; *Sydney Gazette*, 23 February 1839, 2, accessed 19 December 2022, <https://trove.nla.gov.au/newspaper/article/2550561?searchTerm=Sydney%20Gazette%2C%2023%20February%201839.#>

² Castrique, Sue. *Under the Colony's Eye: Gentlemen and Convicts on Cockatoo Island 1839-1869* (Sydney, NSW: Anchor Books, 2014).

Plan from the 1861 Report from the Select Committee on the Public Prisons in Sydney and Cumberland: together with the Proceedings of the Committee, Minutes of Evidence (Figure 08).³

Spending considerable time throughout my childhood in the Convict Precinct provides me with a familiarity with the physical and acoustic aspects of the onsite Convict Precinct. Subsequent onsite research and recording sessions have reacquainted me with the precinct as I knew it and with the recent archaeological refurbishments. The 2009 excavation and restoration of the solitary confinement cells beneath the convict cookhouse provide invaluable cultural and acoustic insights into the prisoners' experience of the site. Libby Bennett, from the Harbour Trust, describes the cells as being partially carved out of solid sandstone resulting in them being cold, damp, dark and poorly ventilated.⁴ The restored cells are physical evidence that assists in understanding what incarceration was like and of those who imprisoned the convicts.

³ Select Committee on the Public Prisons in Sydney and Cumberland, Legislative Assembly, NSW, *Report from the Select Committee on the Public Prisons in Sydney and Cumberland: Together with the Proceedings of the Committee, Minutes of Evidence* (comprising statements of prisoners) and appendix (Sydney, 1861), 266. Accessed December 19, 2022. <http://nla.gov.au/nla.obj-266689037>.

⁴ Sarah Collerton, "Convict era punishment cells unearthed." ABCNEWS, 24 September 2009, accessed 27 January 2023. <https://www.abc.net.au/news/2009-09-24/convict-era-punishment-cells-unearthed/1441462>

Figure 01 Restored solitary confinement cells, external (Source: Alison Cole)

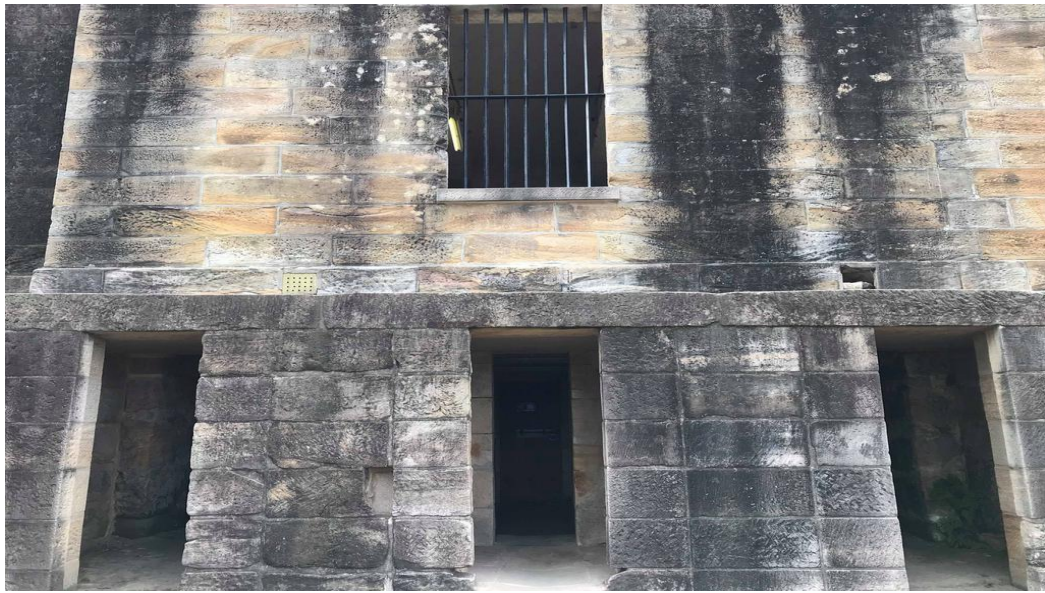


Figure 02 Restored solitary confinement cells, internal (Source: Alison Cole)



I endeavour to convey acoustic aspects of the convict experience by constructing the acoustic characteristics of Convict Ward No. 4 and the solitary cells. I create the Convict sonic ecology and archaeology with onsite recordings, professional sound libraries, and studio recordings utilising convolution reverb. This type of reverb reproduces the acoustic characteristics of a space via an audio plugin, or effect, that combines the frequency ranges of the audio with the plugin's recorded representation of a space. This spatial technology can situate the listener in a

fabricated “virtual sonic space.” Throughout the Convict works, I fragment, granulate, reverse, edit, filter, and pitch-modulate the sourced environmental, studio-recorded, and in-DAW audio.

“Stone” is an artistic response to first-hand testimonies by Cockatoo Island prisoners recorded in the 1861 *Report from the Select Committee on the Public Prisons in Sydney and Cumberland*.⁵ “Hardly Hear” is a meditation on the treatment of the girls and young women detained in the Biloela Reformatory and Industrial School for Girls. “Reflective” is an artistic response to found images that indicate a substantial difference in living conditions between the Biloela Reformatory and the boys’ nautical school on the ship *Vernon*, moored close by the island. The social injustice of this situation is evident when I view the available images and has inspired this work. The reformatory girls were treated very poorly in comparison to the *Vernon* boys. I imagine that knowledge of these discrepancies would feel like an intolerable injustice. Throughout this Convict section, I intend to promote empathy in my audience for the convict experience as I have imagined it. Researching the history and people who lived on and used the site and subsequent composition of music meditates on their experiences.

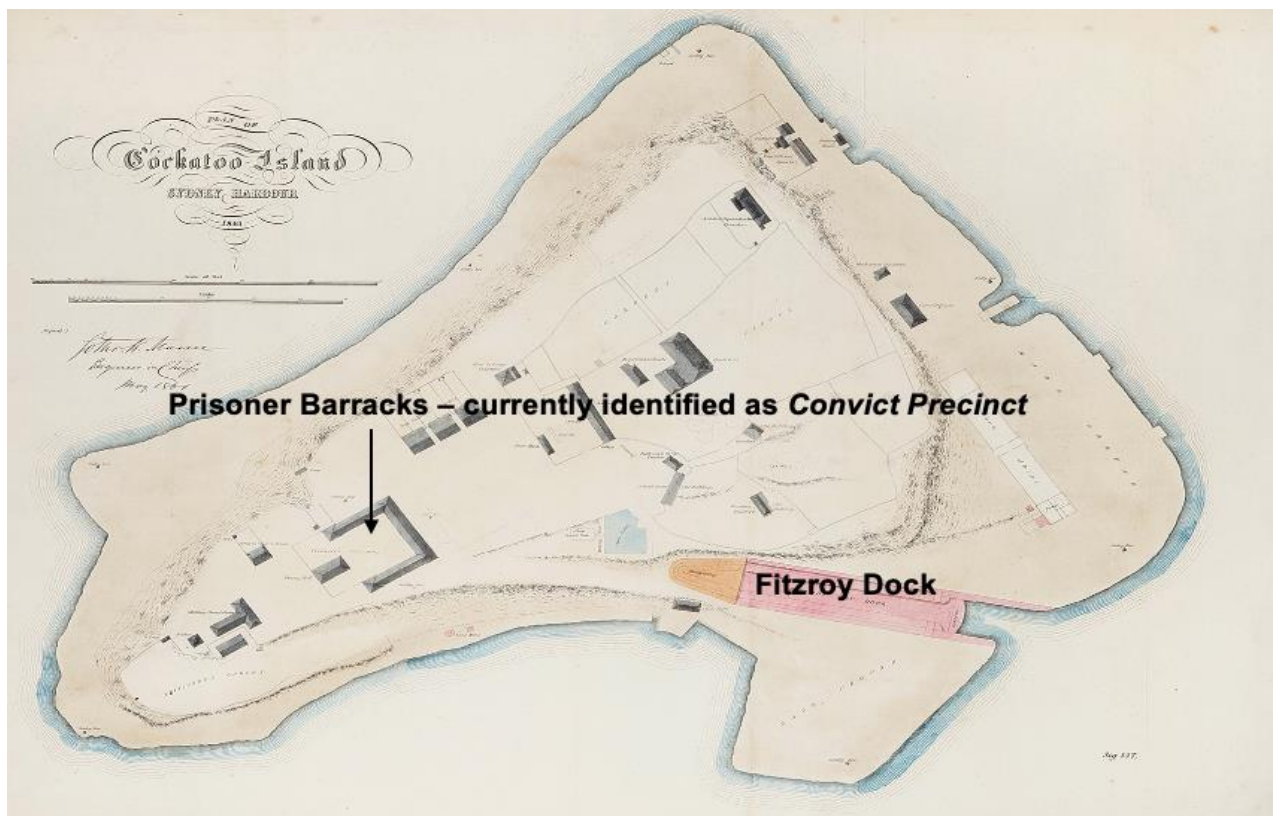
As a child, I spent a lot of time playing in the Convict Precinct, or the square, as I then knew it. The photograph in Figure 03 includes the awning that was part of the remaining convict structure before the site’s recent restoration. As a child I knew the convicts lived in or near the square. Subsequently, my research into the island’s convict use has presented a very different impression of what was once my childhood playground.

⁵ Select Committee on the Public Prisons in Sydney and Cumberland, 1861.

Figure 03 Mess Hall and kitchen, also used as a school and chapel for convicts, with awnings (Source: Department of the Environment, Water, Heritage, and the Arts)



Figure 04 Cockatoo Island 1861, by Gother Kerr Mann (Source: State Library NSW)



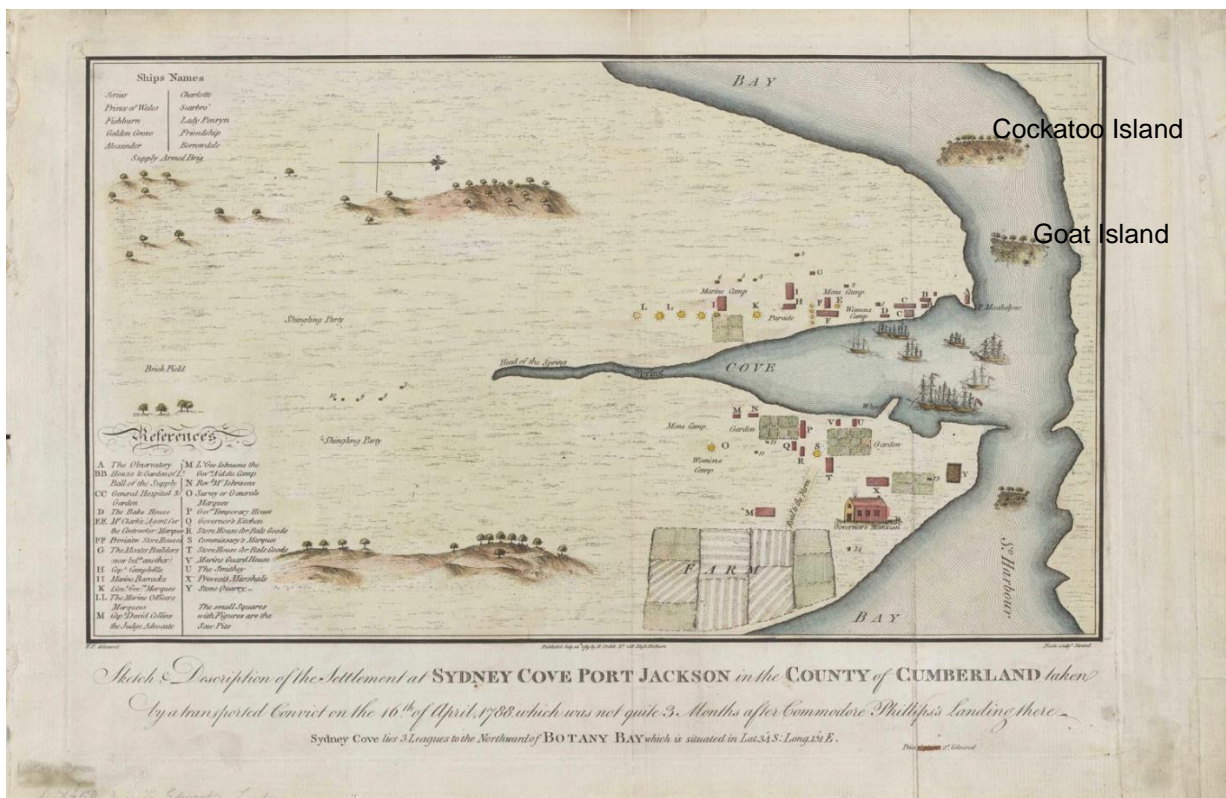
During the 1970s, 1980s, and 1990s, the Convict Precinct had an asphalt ground covering. During this period, the resident shipbuilding company, Vickers Cockatoo Docks and Engineering Pty Ltd, used Wards No. 2 and 3, the hospital areas, and the dispensary as offices. Vickers used Wards No. 1, 4, and 5 and the cookhouse for equipment storage. While utilising these locations for recreation with the other resident children of the island, I was unaware that the convicts were flogged, starved, beaten, and housed in this area. Later the female inhabitants of the Biloela Reformatory and Industrial School for Girls would occupy the same convict wards and solitary confinement cells and experience similarly cruel treatment by the superintendent and staff. I will elaborate on this further as part of the following analyses of the works. First, I will briefly outline the colony at the time and what led to using Cockatoo Island as a penal settlement.

As early as 1791, surveyors found that the greater water depths surrounding Cockatoo Island could provide a more accessible alternative route to Parramatta. Francis Fowke's illustration (Figure 05) shows Cockatoo Island as a wooded and rocky outcrop. The area west of Sydney Cove was considered not as picturesque as the North and South Heads of the main Harbour. Much of the shoreline past Goat Island consisted of rocky coves, mudflats and swamps.⁶ Cockatoo Island had the occasional use in the colony as a picnic site and had a reputation among colonists as being inhabited by a large population of snakes. Newspapers noted that Cockatoo Island was particularly noisy due to its natural habitat providing shelter for birds and bats.⁷

⁶ Castrique, Sue. *Under the Colony's Eye*, 7.

⁷ *Sydney Gazette*, 23 February 1839, 2.

Figure 05 Francis Fowkes, *Sketch & Description of the Settlement at Sydney Cove Port Jackson Jackson ... 16th of April 1788, 1789*. (Source: State Library NSW)⁸



By the 1830s, Governor Sir George Cripps knew transportation would soon end. With a diminishing supply of workers, Cockatoo Island's location was optimal for a close by but isolated penal settlement.⁹ Norfolk Island convicts sentenced to hard labour would supply Sydney with sandstone following their transportation to Cockatoo Island.¹⁰ My research into the living conditions, the uncertain conclusion of the incarcerated penal terms, and the unrelenting work and punishment regimes lay the foundations for the narratives I explore throughout the Convict creative portfolio. The following quote from the *Sydney Gazette* articulates the underlying characteristic

⁸ *Sketch & Description of the Settlement at Sydney Cove Port Jackson ... 16th of April 1788, 1789*, accessed 19 December, 2022, <https://collection.sl.nsw.gov.au/record/74VvkZ0kyzlg>

⁹ Castrique, *Under the Colony's Eye*, 11.

¹⁰ Grace Karskens, *The Colony: A History of Early Sydney* (Crows Nest, NSW: Allen & Unwin, 2010), 307.

of the penal settlement's location: ¹¹

The view from the island is one of the finest near Sydney. The worst punishment of all for the men on Cockatoo Island would be "that they are constantly in view of civilized life and tantalized with the sight of the blessings of freedom yet find themselves shut out from the one and denied the other."

Hell, for the men of Cockatoo Island, would be the sight of what they had lost.

01 "Stone"

In February 1839, sixty chained convicts and their commander from nearby Goat Island arrived on Cockatoo Island. Within three months, one hundred and sixty-seven convicts were building their dormitories, a well, a pier, barracks for the guards, a hospital, a dispensary, and a cookhouse, and were quarrying underground wheat silos (Figure 06). Subsequently, the convicts built workshops for blacksmiths and carpenters and a separate engineering workshop.¹² Cockatoo Island soon had a reputation as a poorly managed penal settlement. In 1852, a report into overcrowding at several Sydney jails included the dimensions of the sleeping berths used by the Cockatoo Island convicts. They were 6 foot 9 inches long by 24 inches wide and 44 inches high. The solitary confinement cells, built in 1841, measured 2.6 metres long by 5 feet, 24 inches and 6 feet, 2 inches high.¹³ Following this, the 1861 *Report from the Select Committee on the Public Prisons in Sydney and Cumberland* documents the unsatisfactory living conditions that the convicts experienced.

¹¹ *Sydney Gazette* 23 February 1839. P 2d P 2b-c.

¹² Castrique, *Under the Colony's Eye*, 11.

¹³ James Semple Kerr: *Cockatoo Island. Penal and institutional remains. An analysis of documentary and physical evidence and an assessment of the cultural significance of the penal and institutional remains above the escarpment* (Sydney: National Trust of Australia, 1984), 21-23.

Figure 06 Cockatoo Island convict wheat silo. Between 1839 and 1841 twenty were quarried. (Source: Wikimedia)



Figure 07 Extract from 1861 Report on Cockatoo Island Prisoner Conditions. (Source: National Library of Australia/Trove)¹⁴

6. On the occasion of your Committee's first visit to Cockatoo Island, on the 1st of February, there were 167 prisoners in that establishment, 63 of whom on the previous night had been confined in one dormitory. The men engaged in productive labour on the day in question were only 68 out of the whole number, and 10 of these were set down as overseers; they were employed on the works of the Fitz Roy Dock. The buildings assigned for the prisoners, especially for their confinement at night, are of a deplorable description. There are in all five dormitories, which have been built with very imperfect means of ventilation; on either side of each there are double tiers of transverse sleeping berths, with coffin-like apertures opening upon a narrow central passage. In this passage are placed night-tubs for the common use of the men during the twelve hours they are locked up. Two of the dormitories contain 88 berths each, two contain 52 each, and one contains 48; in all there are 328 berths of the character described. But as many as 500 prisoners have been upon the island at one time, though nothing like-so large a number appear to have been confined there latterly. While the physical suffering from this inadequate night accommodation must aggravate the sentence of the law to many men to an extent beyond all calculation, the moral results of such a state of existence are, as might have been expected, of the very worst description. Your Committee would direct particular attention in this respect to the evidence of the Chaplains of the Island and Mr. Inspector Lane. The latter witness, who has been in charge of the police force on the island for the last thirteen months, says he has paid much attention to the condition of the prisoners at night; he has often seen them at the iron gratings gasping for fresh air from without, and he "wonders how they live." The brutalising effect upon the prisoners is admitted by all, and it is described by

¹⁴ Select Committee on the Public Prisons in Sydney and Cumberland, 1861, 268.

On December 14, 1861, Gother Kerr Mann provided a Cockatoo Island prison plan to the Select Committee reporting on the public prisons in Sydney and Cumberland (Figure 07)¹⁵. The two dormitories described in the excerpt above are Wards No. 1 and 2 in Figure 08.

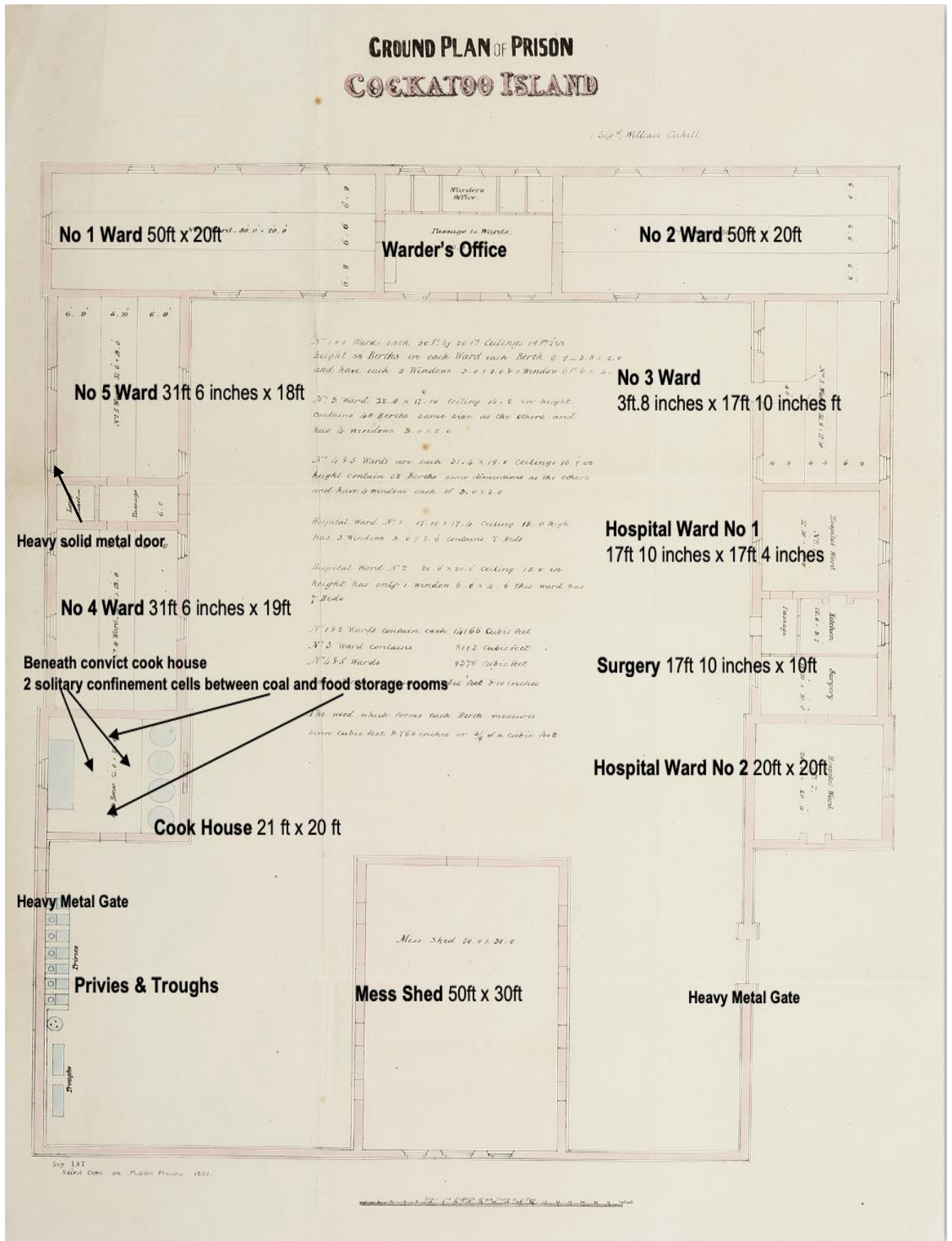
“Stone” is an artistic response to the documented evidence of the “coffin-like” sleeping tubs and the revoking of the prisoners’ previous good-behaviour credit, as described in the Figure 11 extract. For the prisoners, this “heaviest grievance” of good-behaviour credit being withdrawn, according to the 1861 evidence, would have been a heavy price to pay for the Sydney colony’s first drydock. Constructing the dry dock took hundreds of convicts seven years of hard labour and was completed in 1857.¹⁶

Mann’s 1861 Prison Ground Plan and my research visits to Cockatoo Island have been the references for me to understand the acoustic features of the solitary cells and Ward No. 4. My onsite visits to re-experience the spaces and interact with the heavy gates, doors, cell doors, locks, internal and external cells, and ward structures was essential for my creative process. I contemplate and attempt to recreate what the prisoners would have heard. I imagine the acoustic characteristic of reception of the sounds inside the solitary cells and Ward No. 4 for the prisoners inside (Figure 08).

¹⁵ Ibid 266.

¹⁶ Castrique, *Under the Colony’s Eye*, 11.

Figure 08 Gother Kerr Mann, Ground Plan of Prison: Cockatoo Island, 1861 (Source: Google Arts and Culture)



Referring to the above prison plan, the two adjacent solitary confinement cells are

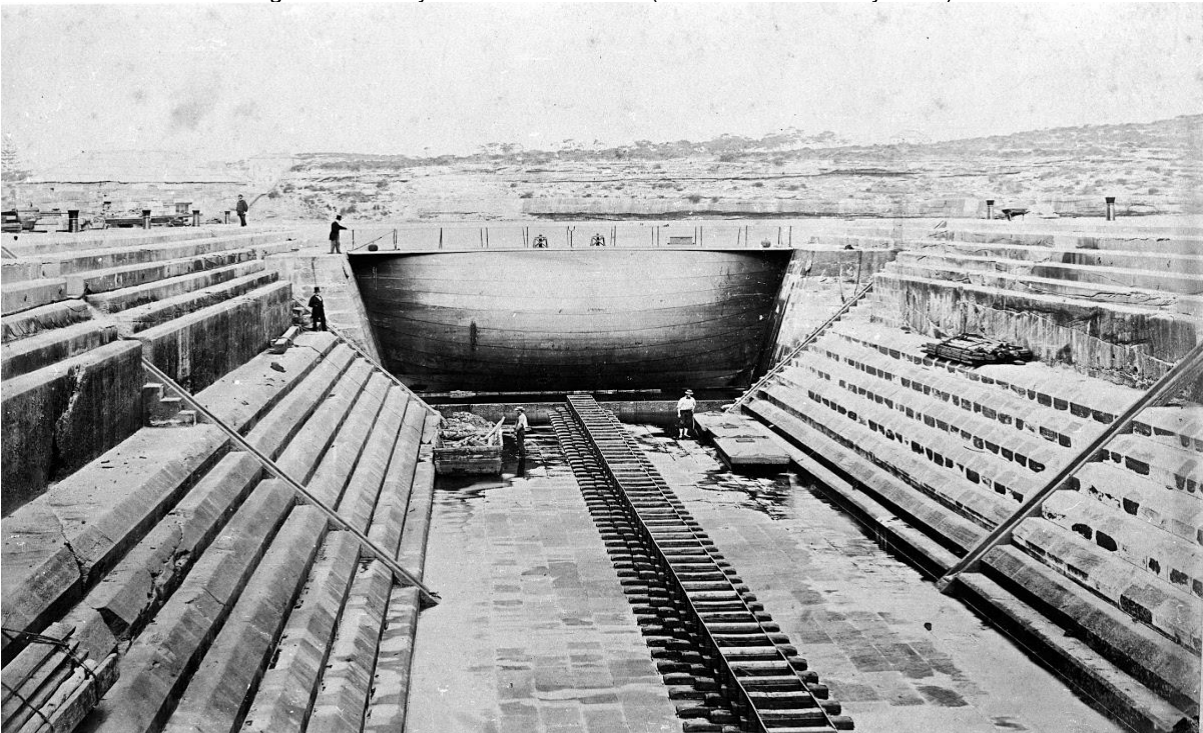
between a food storage room and a coal storage room underneath the cookhouse. Convict Ward No. 4 was next to the cookhouse and next to two large metal doors. I imagine a confluence of sounds emanating from above, below, and adjacent to the solitary cells and the ward.

The work's sonic archaeology consists of various interior cell sounds, such as metal doors, heavy chains, leg irons, heavy keys, metal on wood, metal contact with sandstone walls, and metal kitchen utensil sounds. The exterior sonic ecology consists of seagulls and harbour ambience. Applying convolution reverb, I attempt to replicate the acoustic characteristics of the prisoners' sound world inside the solitary confinement cell and Ward No. 4. I have deliberately chosen not to represent any guard, prisoner, or jail employee voices, further dehumanising the environment. The absence of vocalisations is a deliberate creative choice to embellish the inhumane treatment of the prisoners as they endured the conditions meted out to them during this use. Depicting the melancholic inner monologue of a prisoner in a personal story is intended to engage the audience with those who inhabited the site. The interior sounds are aimed to place my audience within the close reflective qualities of a solitary confinement cell space and to occupy one of the sleeping tubs in the ward location.

Figure 09 Fitzroy Dock - Without caisson (Source: State Library NSW)



Figure 10 Fitzroy Dock - with caisson (Source: State Library NSW)



“Stone” opens with a recorded exhalation in a long sweep reverb and the sonic ecology of seagulls mixed with and without audio delay effects. This juxtaposition of dry and heavily affected audio intends to induce the claustrophobic experience of

sleeping in a berth in a poorly ventilated dormitory by alluding to the confused mental state of unregulated breathing. I am hoping to portray the moment-to-moment changes in having space for fresh air and then not. The closeness of breath, the heartbeat, and the sounds of chains, wood, and heavy metal doors being closed are all in a convolution reverb. Mann's 1861 prison plan instructs the spatial reverb size, and my onsite research visits direct my choice of reflective surface in the convolution reverb plugin. I model a reverb on what I know of the site from Mann's 1861 plan and then place the environmental sounds and human action sounds in this convolution reverb to create the acoustic qualities of occupying a sleeping tub in an overcrowded, 50 foot by 20 foot sandstone-floored and walled space. These dimensions are evident in Figure 08.

Considering the solitary cells' location underneath the cookhouse suggests incorporating metallic kitchen sounds as rhythmic elements.¹⁷ At 01:39, the first "melody" constructed from my onsite recording of me scraping sandstone enters. Sounds of a convict's everyday life spent quarrying sandstone and living in confined quarters transition from an unmeasured rhythm to a dynamic metered beat. The rhythmic sequence consists of chains, metal scrapes, kitchen utensils, pickaxes, and a mixture of breaking stone sounds.

At 01:56, the male breath audio clip becomes increasingly unrecognisable using a DAW effect plugin called "Stutter Edit." To imply how panic can induce hyperventilation, I insert the plugin on the audio channel and perform various triggered effects and volume changes on a MIDI keyboard to break up the motion of the breath. At 02:20, I introduce a metal-on-wood recording to the rhythmic

¹⁷ Owen Suffolk, *Days of Crime and Years of Suffering* (Kew, Victoria: Australian Scholarly Publishing, 2000), 50-58.

arrangement to act as a melodic and rhythmic counterpoint to the first sandstone melody.

Throughout this creative portfolio, I employ a compositional process of listening through audio foley recordings to detect rhythmic loops or materials that suggest melodic aspects that I can incorporate into my composition. I also use faster note value divisions of sound design edits to imply accelerando without changing tempo. The intention is for the listener to perceive this as an increase in the rhythmic intensity, aiming to portray the relentless and bleak nature of captivity on Cockatoo Island. At 02:50, the metal-on-wood sound, which began as an unmetred rhythm, transforms into a sequence pattern processed using a ring modulator effect plugin. This type of sound or signal processing takes two frequencies and modulates them into one audio signal. This process creates combination tones in the audio signal that have an inharmonic metallic quality.

Figure 11 Extract from 1861 Report on Cockatoo Island Prisoner Conditions. (Source: National Library of Australia/Trove)¹⁸

7. The heaviest grievance of which the men on Cockatoo Island complain is the inequality of treatment to which they are subject in carrying out their sentences. Formerly a system prevailed by which the prisoners received marks for labour and good conduct which were placed to their credit in partial remission of their sentences. On the 1st of June, 1858, new regulations were issued by the Government abolishing this system of indulgence, which was done principally in consequence of the abuses of the system previously existing, and, as stated in evidence by the Colonial Secretary, as a temporary expedient. The sentences of the Courts passed upon prisoners since then, except in cases where special circumstances in mitigation have come to light, are being carried out to the letter in point of time. Thus, there are at Cockatoo Island, prisoners working side by side, some of whom, having been tried previous to the 1st of June, 1858, are enabled to make eight and nine days a week to count off their sentences, while others who have received their sentences since that date, though they work as hard, and behave as well, can only make the six days. It

¹⁸ Select Committee on the Public Prisons in Sydney and Cumberland, 1861, 266.

Figure 12 September 5, 2022, Recording Sites overlaid on the diagram (Source: Department of Climate Change, Energy, the Environment and Water)

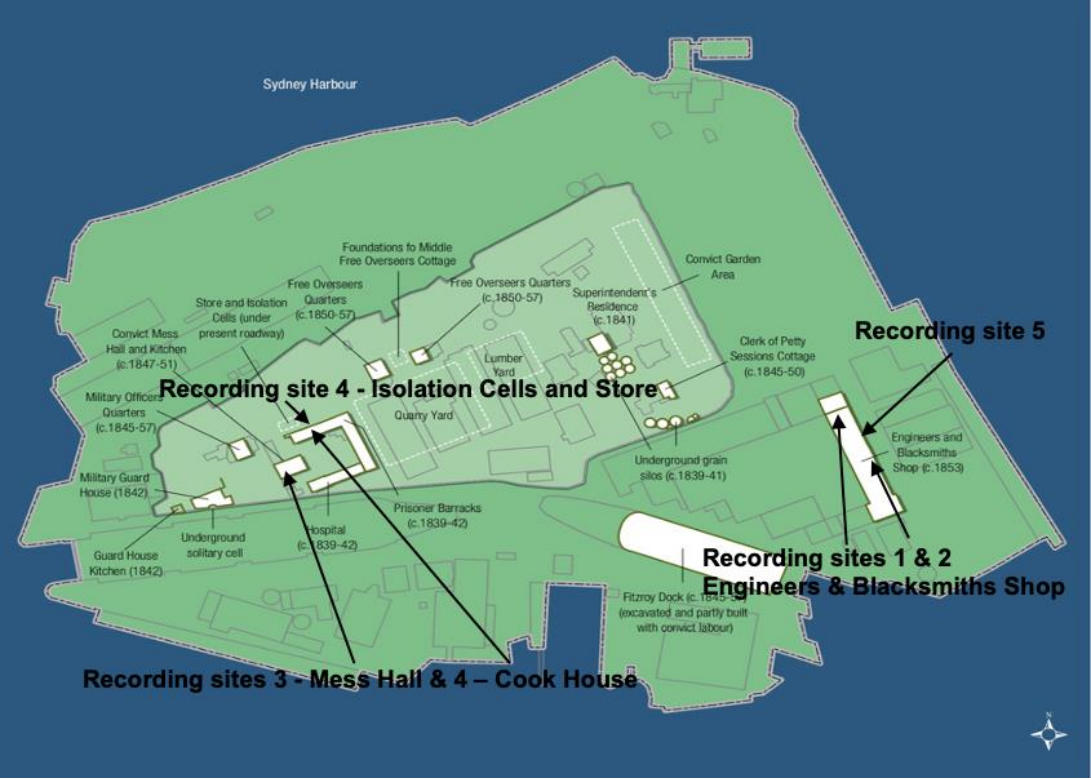


Figure 13 "Stone" Audio Processing

00:00 - 00:41

Establish onsite location: layers of processed environment audio. Recorded breath pitched down in large reverb. Seagull ambience x 2 No. 1 dry (no FX) and No. 2 placed in a spatial delay. Cell foley: onsite solitary confinement - Convict Precinct sandstone scrapes and hits - placed in convolution reverb to replicate inside wards/cells. Heartbeat, chains, metal hits. Kitchen utensil/metal solitary cell soundscape. In sandstone small-space, convolution reverb.

00:00 - 06:12

Prisoner action within site: rock foley-composer recorded various sandstone rock hits. Mixed with professional library larger rock hits. Created drum kits out of edited audio. Dragged rock foley

01:56

Breath - used as both texture and as rhythmic device: convey the claustrophobic environment of overcrowded cells and sleeping tubs

02:20

Metal on wood recordings - musical loop 02:59. Ring Modulator and Plexi Tape to create tonality and melodic device. Build momentum and dynamic up to 03:30 transition

03:30 - 05:15

Convict discomfort and anger: rhythmic elements form heavy beat to convey the relentlessness of the convicts' situation. Deep basses distorted with Amp Room to signify anger, frustration.

05:10 - 05:38

Shift away from external to internal feelings of convict: flying fox foley pitched down and modulated. Voltage Modular Euclidean synthesiser created from onsite recordings. Otherworldly - transition to narrative arc

05:38 - 09:42

Song structure: vocals have minimum vibrato. Cell SFX and rock foley create rhythmic bed which expands at 07:07 to include deep drum hits in rhythmic patterns.

07:52 - 10:10

Return to situation of incarceration: cell foley, outside cell ambience

At 03:30, introducing two distorted synth basses aims to heighten the intensity of the rhythmic elements. I perform the first bass in a 16th-note rhythmic pattern and the second as a half-time melody. Mixing both basses through a distortion amplifier inserted on their mix channels adds to the heightened tension, aiming to evoke the severity and relentlessness of incarceration on Cockatoo Island. This technique of increasing tension is also a technique I use in electronic dance music to transition to a following section that has a dynamic decrease in energy.

At 05:10, the external environment transitions to what I imagine as an internal monologue of a prisoner. At this point, I meditate on the second excerpt from the 1861 report (Figure 11), which is the committee's discussion of revoking the "good behaviour" terms of the prisoners' sentences. In this quieter section, I imagine a prisoner's sadness and loneliness. In this contemplative section, a radical shift in instrumentation and harmonic development invites the audience to engage with my imagined prisoner experience of isolation in a solitary confinement cell.

Figure 14 "Stone" Vocal and Harmonic Score

Stone

Alison Cole (2022) Music & Lyrics

$\text{♩} = 126$ **With a sense of longing**
p

1
Tenor
Tak ing in a no ther breath _____ Bro ken

KEYS

6
T.
rocks the world forgets Shad dows

KEYS

10
T.
fall a mong the trees_ Chains of time still on_ our feet_ There's

KEYS

Alison Cole@

14

T. no light in _____ this place_ There's no hope of_

KEYS

19

T. _ es cape See the dis tant shore_ So close I know

KEYS

25

T. _ Trou bled wa ters carved in stone Un for gi ven and a lone

KEYS

29

T. You won't break_ me Break me

KEYS

Detailed description: This system shows measure 29. The vocal line (T.) is in treble clef with a key signature of three sharps (F#, C#, G#) and a common time signature. The lyrics are "You won't break_ me Break me". The piano accompaniment (KEYS) consists of two staves: a right-hand staff with a treble clef and a left-hand staff with a bass clef. The right hand plays a series of chords, while the left hand plays a simple bass line.

35

T. When the birds fly on_ the breeze No thing chan ges here for me

KEYS

Detailed description: This system shows measure 35. The vocal line (T.) is in treble clef with a key signature of three sharps (F#, C#, G#) and a common time signature. The lyrics are "When the birds fly on_ the breeze No thing chan ges here for me". The piano accompaniment (KEYS) consists of two staves: a right-hand staff with a treble clef and a left-hand staff with a bass clef. The right hand plays a series of chords, while the left hand plays a simple bass line.

39


T. There's no light in_ this cage_ There's

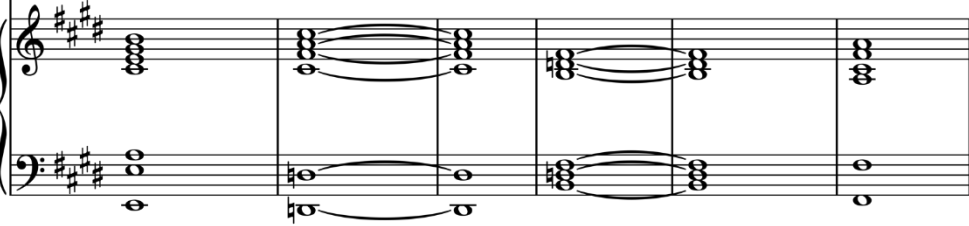
KEYS

Detailed description: This system shows measure 39. The vocal line (T.) is in treble clef with a key signature of three sharps (F#, C#, G#) and a common time signature. The lyrics are "There's no light in_ this cage_ There's". The piano accompaniment (KEYS) consists of two staves: a right-hand staff with a treble clef and a left-hand staff with a bass clef. The right hand plays a series of chords, while the left hand plays a simple bass line.

Alison Cole@


44

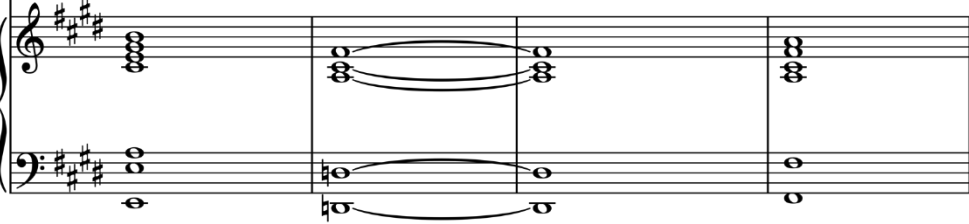
T.  no hope of ___ es cape See the dis tant shore_ So

KEYS 

Detailed description: This system contains measures 44-47. The vocal line (T.) is in treble clef with a key signature of three sharps (F#, C#, G#) and a common time signature. The lyrics are: "no hope of ___ es cape See the dis tant shore_ So". The piano accompaniment (KEYS) consists of two staves, treble and bass clef, with a key signature of three sharps. It features a steady accompaniment with chords and moving lines in both hands.

50

T.  close I know___ Trou bled wa ters carved in stone Un for

KEYS 

Detailed description: This system contains measures 50-53. The vocal line (T.) is in treble clef with a key signature of three sharps and a common time signature. The lyrics are: "close I know___ Trou bled wa ters carved in stone Un for". The piano accompaniment (KEYS) consists of two staves, treble and bass clef, with a key signature of three sharps. It features a steady accompaniment with chords and moving lines in both hands.

54

T.  gi ven and a lone You won't break_ me

KEYS 

Alison Cole©

Detailed description: This system contains measures 54-57. The vocal line (T.) is in treble clef with a key signature of three sharps and a common time signature. The lyrics are: "gi ven and a lone You won't break_ me". The piano accompaniment (KEYS) consists of two staves, treble and bass clef, with a key signature of three sharps. It features a steady accompaniment with chords and moving lines in both hands. The copyright notice "Alison Cole©" is located at the bottom center of the page.

59

T. See the dis tant shore_ So close I know_ Trou bled

KEYS

64

T. wa ters carved in stone Un for gi ven and a lone

KEYS

68

T. You won't break_ me break_____me

KEYS

Alison Cole©

The structural development in the quieter section gravitates towards a more

traditional song form. I keep a metered heartbeat throughout this section to maintain the sonic thread of the opening sound design. I recorded the vocalist Ben Barker on January 18, 2023. Ben's vocal qualities of moving between vocal registers, his falsetto timbre and his improvisation skills are well suited to the intimate storytelling to which I aspire. Ben's voice has an immediacy and connective quality that strives to connect empathically with an audience. At this point in the work, I aim to place the audience in a solitary cell space to experience the momentary repose of contemplation.

At 05:38, the vocal melody, lyrics, and instrumental and vocal builds intend to portray a prisoner's experience of incarceration in a solitary confinement cell. The bridge structure and chorus are also recurring to structure the song with a building repeated refrain. The consonant harmonies in the repeated chorus aim to engage my audience in a build of tension and release with the refrain's completion. An underpinning rhythmic structure intensifies from 07:08 until 07:52. I am using an electronic dance music arrangement technique of increasing rhythmic elements to build dynamic intensity. Throughout this section, I have placed recorded guitars performed by Ben that support the harmonic structure and the intended rhythmic builds that sync with the rhythmic crescendos.

At 07:52 to 10:10, I place the constructed sound environment into a smaller convolution reverb space of sandstone walls and metal and wooden doors, replicating a solitary confinement cell as shown in Figure 02 (Recording Site 4, Figure 12). I use a narrative arc to associate a person with the site. This narrative song form intends to progress the story of Cockatoo Island's use as a prison with the employment of a more recognisable song genre. The decrease in dynamic aims to explore the potential to engage the audience emotionally. At this point, the harmonic structure reverts to a rearrangement of the song's harmonic structure. I intend to

increase the emotional intensity throughout this section, focusing on minor-third chord voicing. At 07:52, the introduction of progressively larger reverbs throughout this end section is a mechanism that seeks to draw the audience out of this momentary immersion in a prisoner's experience. The purpose of the instrumental outtake is to resolve the narrative arc and transition the audience back into the cell setting.

02 “Hardly Hear”

In 1866 the Act for the Relief of Destitute Children was introduced. Any young person found wandering the streets, begging, abandoned, or committing crimes was immediately placed under government protection.¹⁹ This Act allowed the governor to declare “any ship or vessel or any building or place together with any yards, enclosures or lands attached there, to be a Public Industrial School.”²⁰ In 1871 the Biloela Public Industrial School for Girls and the Biloela Reformatory were established on the island. The reformatory was for girls who had broken the law, and the industrial school operated as an orphanage. The distinction between the two was merely in name only. For simplicity, I will refer to the girls' detention facility as Biloela Girls' Reformatory.

The governor of NSW changed the name of Cockatoo Island to Biloela in 1871 to remove any association with the island's convict past.²¹ Problematically, the girls inhabited the derelict cells occupied throughout Cockatoo Island's use as a penal settlement. Simply changing the name to Biloela in no way addressed the circumstances of the girls confined to the area. The following extract is from June 18,

¹⁹ Dictionary of Sydney, s.v. “Society for the relief of Destitute Children.” accessed 19 December 2022, https://dictionaryofsydney.org/organisation/society_for_the_relief_of_destitute_children

²⁰ Legislation NSW: *Destitute Children Act* 1866, accessed 19 December 2022, <https://www.legislation.nsw.gov.au/view/pdf/asmade/act-1866-13a>

²¹ Castrique, *Under the Colony's Eye*, 167.

1874; the *Bega Gazette and Eden District or Southern Coast Advertiser* describes the issues of using the site to reform girls as young as three:

Figure 15 *Bega Gazette* 1874 (Source: National Library of Australia)²²

**BILOELA INDUSTRIAL SCHOOL
FOR GIRLS.**

**THE following extracts from the Report
of the Public Charities' Commission are
of painful interest:—**

part of Mr. and Mrs. Lucas, stating that both these officers had beaten her, and ill-treated other girls named, by knocking them down, striking them with the fist, a cane, and a broomstick; and by knocking their heads against a wall on which some caricatures of Mr. and Mrs. Lucas had been drawn. The other girls named by her were called in and examined, every precaution being taken to prevent collision between them. Every one of these girls bore marks of violence, and corroborated the account given by the first witness of the ill-usage to which they had been subjected. One girl was found with discoloured bruises on her arms, shoulder, and bosom, and asserted, as did the other girls, that they were the effects of blows inflicted by Mr. Lucas. All these girls were from fourteen to eighteen years of age. They complained of having been beaten, kicked, dragged by the hair, caught by the throat, and of having had their heads struck and rubbed against a wall, apparently in a rough effort to make them rub out a rude attempt at a caricature with their hair also of having been locked up in a dark room, which was so oppressive and foul from its closeness that they were unable to sleep. We repaired

“Hardly Hear” is a meditation on the Biloela Girls’ Reformatory experience from a detainee’s perspective. I have envisaged how it might have felt to be in this situation as a young girl in the colony. In this work, I strive to cultivate a sense of invisibility that the girls may have felt during their detention. Being detained on an island with all the hallmarks of a penal settlement but close enough to see and hear the colony may have felt isolating. Reading first-hand accounts of the girls’ situation has inspired me to incorporate into my composition a combination of the sonic ecology of

²² “Biloela Industrial School for Girls,” *The Bega Gazette and Eden District or Southern Coast Advertiser*, June 18, 1874, 2, accessed 15 December 2022 <http://nla.gov.au/nla.news-article106754158>

distant harbour ambience, digitally processed piano melodies, and harmonic progressions performed on a MIDI piano in my DAW. I create musical textures by reversing this MIDI performance, inserting a large reverb on the MIDI channel, and then printing these MIDI parts as audio. I reverse this audio to create the illusion of tones emerging from the atmosphere. I insert various effects and process them with various gated reverbs to create harmonic textures.

Figure 16 "Hardly Hear" Vocal and harmonic score

Hardly Hear

Lyrics - Alison Cole

Alison Cole 2022

Fragile $\text{♩} = 120$
p

Soprano

Hard - ly hear__ Hard - ly - know - In the - deep - flow

PIANO

p

7

S.

Time - stood - wai - ting - Tides - kept - chan - ging Under - neath she's__

PIANO

mp

11

S.

fa - lling__ Can't - you see Search - ing pie - ces - of - her float_a

PIANO

mp

16

S.

way____ pul - ling her into Light - slips - a

PIANO

23

S.

way - un - heard____ Lost - where-her ghosts look for

PIANO


28

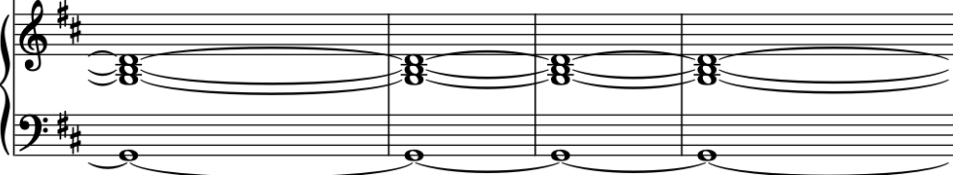
S.

shel - ter____ Breath - slips a way


PIANO

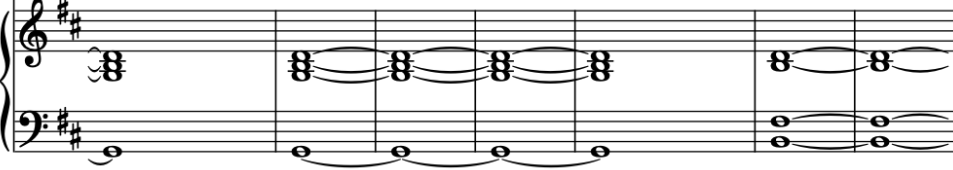
33 *pp* *p*

S. 
Out - of - reach - she stays _____ Mo - ments where


PIANO 


37

S. 
time - floods-in _____ Ne - ver near _____

PIANO 


44

S. 
In - be - tween shad dows find ding _____ her light _____

PIANO 


49

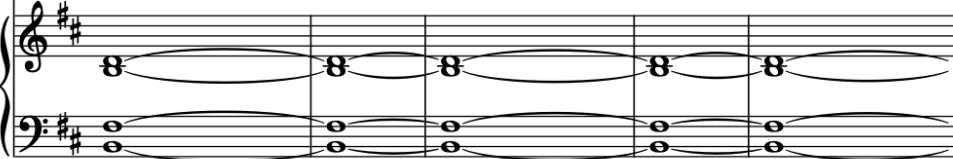
S.  No - one is - no - where she's - ta - ken_____

PIANO 

Detailed description: This system shows measure 49. The vocal line (S.) is in treble clef with a key signature of two sharps (F# and C#). The melody consists of a half note G4, a quarter note A4, a quarter note B4, a quarter note C5, a quarter note B4, a quarter note A4, a quarter note G4, and a half note F#4. The piano accompaniment (PIANO) is in grand staff with the same key signature. The right hand plays a series of chords: G4-A4, G4-A4-B4, G4-A4-B4-C5, G4-A4-B4, G4-A4, and G4-A4. The left hand plays a series of chords: G2-A2, G2-A2-B2, G2-A2-B2-C3, G2-A2-B2, G2-A2, and G2-A2.


55


S.  Time - stood - waiting_ She - steals a way In - the - deep -

PIANO 

Detailed description: This system shows measure 55. The vocal line (S.) is in treble clef with a key signature of two sharps. The melody consists of a half note G4, a quarter note A4, a quarter note B4, a quarter note C5, a quarter note B4, a quarter note A4, a quarter note G4, and a half note F#4. The piano accompaniment (PIANO) is in grand staff with the same key signature. The right hand plays a series of chords: G4-A4, G4-A4-B4, G4-A4-B4-C5, G4-A4-B4, G4-A4, and G4-A4. The left hand plays a series of chords: G2-A2, G2-A2-B2, G2-A2-B2-C3, G2-A2-B2, G2-A2, and G2-A2.

60

S.  - flow Time - stood - waiting Tides - kept - chan - ging Be - neath she's

PIANO 

Detailed description: This system shows measure 60. The vocal line (S.) is in treble clef with a key signature of two sharps. The melody consists of a half note G4, a quarter note A4, a quarter note B4, a quarter note C5, a quarter note B4, a quarter note A4, a quarter note G4, and a half note F#4. The piano accompaniment (PIANO) is in grand staff with the same key signature. The right hand plays a series of chords: G4-A4, G4-A4-B4, G4-A4-B4-C5, G4-A4-B4, G4-A4, and G4-A4. The left hand plays a series of chords: G2-A2, G2-A2-B2, G2-A2-B2-C3, G2-A2-B2, G2-A2, and G2-A2.

64

S.

- fat - ling - Can't - you see - Torn - a - part

PIANO

70

S.

she stays

PIANO

78

S.

No - one - hears - her fears a lone now

PIANO

84

S.

Mem - or - ies washed from the shore

PIANO

The opening harmonic progressions of “Hardly Hear” are layered DAW instruments I have created from tuned playground swing foley and bending metal foley. The audio segments are transposed down, lengthened with granular synthesis, and then looped in a DAW sampler instrument. I perform them as a continual sound, like a smooth keyboard string pad. There are limitations to the range of notes available when utilising MIDI notes processed with this technique. When functionally tuned, they add an intentionally disassociated and haunting quality throughout the piece through the resulting timbral characteristics. I have used these textures from 01:30 to 03:47. Throughout this first section, I aim to create an otherworldly atmosphere by moving in and out of the rhythmic meter. At 00:08, I integrate the harbour ambience I recorded on September 5, 2022, to create a rhythmic texture (Site 5, Figure 12 and Figure 16). Olivia Parker’s vocal recording is assembled out of sequence to elicit a sense of fragmentation. I have mixed these vocal edits in increasing reverb and diffusion to remove the clarity in the lyrics. I envisage this increasing lack of clarity as an expression of the girls’ invisibility.

Figure 17 "Hardly Hear" Audio Processing

00:00 - 00:41

Establish location and mood: harbour ambience placed in spatial delay and large reverb. Layers of DAW performed piano audio. Processed melodies and chords. Forwards MIDI performance-reversed-print audio-reverse printed audio.

00:08 - 01:07

Onsite ambience recording: find suitable rhythmic loop in site ambience recording

01:30 - 03:47

Shift from unclear representation of reformatory girls into plain site: vocal recording and harmonic elements-defragmentation process. Vocals placed in large reverb. Increased reverb diffusion to portray faded memories

04:02 - 04:44

Transition to recognising the story of the reformatory girls: elements of the piece consolidate. Reversed melodies, reversed sequences, reversed melodic materials suggest movement towards the storytelling.

04:44 - 07:43

Biloela Girls' Reformatory story: vocal has minimal reverb - clarity in narrative

07:40 - 09:34

Faded memories of the girls: Voltage Modular Euclidean synthesiser sequence created from onsite recorded metal sounds. Fading out. Harbour ambience in outdoor convolution reverb.

Figure 18 September 5, 2022, Zoom H6 recording of harbour ambience (Source: Alison Cole)



Researching my childhood playground gives me pause for thought, as I would have been of a similar age to the Biloela girls as I rollerskated and played in the space of their confinement. I feel a sympathetic connection through the disparity of our circumstances. Conceptually, I am attempting to engage my audience with my empathetic connection to my research via a more traditional song arrangement structure. Exploring this compositional form is intended to create a narrative arc and enhance my audience's connection with the young girls portrayed in this work. The current lack of detailed onsite information of the reformatory poorly reflects the true circumstances of their site experience: the poor conditions they endured and their inequality in comparison with the education and purpose that was given to the *Vernon* boys. "Hardly Hear" attempts to construct the first-hand perspective of a Biloela girl. The lyrics allude to the reformatory experience, their public invisibility,

and how their circumstances were only acknowledged by the authorities once their circumstances were completely untenable. With sparse instrumentation and slow speed of harmonic changes, I hope to construct a musical arrangement that allows my audience the space to focus on the voice and reflect on the lyrics. The choice of instruments is intended to work as a timbral contrast to the lyrical shape of melodies and Olivia's pure vocal timbre and emotionally sympathetic performance. This creative choice of extremes hopefully reflects the young age of the reformatory girls and the deteriorated penal settlement environment in which they lived. These contained elements within the piece are attempting to portray emotions that support my empathic bridge model. The incorporation of verse strives to aid in constructing a sympathetic consideration of the Biloela Reformatory experience. For instance, the opening lyric, "Hardly hear, hardly know, In the deep flow. Time stood waiting, tides kept changing," reflects on the lack of recognition the reformatory girls experienced during their detention and since. The lyrics, "No one is nowhere, she's taken," allude to how nobody heard them and the way they were taken off the street in response to the Act for the Relief of Destitute Children. Similarly, with the pre-contact piece "Ghosts" and the other convict work, "Stone," this narrative device attempts to connect emotionally with audiences by personifying loss.

The vocal and harmonic score in Figure 16 is the final recorded version. My compositional process when collaborating with singers is to present an initial score to the singers, which they rehearse. The initial recording allows them to shape their performance as we workshop the vocalist's interpretation. In Olivia Parker's recording, we reduced the number of lyrics to lengthen phrases. For example, the lyric "out of reach" had rhythmic changes to the melody to extend the phrase to capture the pure tone of Olivia's voice.

03 “Reflective”

This work is an artistic response to photographs I found during my research into the Biloela Reformatory and Industrial School and the *Vernon* nautical training ship. I sourced photographs of the *Vernon* training ship and the Biloela Reformatory from the Trove online resource.²³ The pictures of the boys’ nautical school-ship *Vernon* and the Biloela Reformatory depict vast differences in living conditions and available activities. I have also sourced the Royal Australian Historical Society’s compilation of government and media accounts that reflect different educational standards and expectations between female and male institutions.²⁴ (Figures 19 to 22)

Unlike the *Vernon* boys, there was no expectation of education or rehabilitation for the Biloela girls (Figures 23–25).²⁵ Unlike the *Vernon* boys, the girls only received training in cleaning, cooking, needlework, and laundry. They also tended a garden that provided for the island’s prison population. The *Vernon* boys were taught nautical skills, given seafaring apprenticeships, and enjoyed activities such as music, gardening, rowing, and swimming.²⁶ Trained teachers, physical drills, and a system of privileges and grades also afforded the *Vernon* boys a conventional education.²⁷ Castrique mentions former boys’ letters of appreciation of their education written to the Premier of the NSW colony, Henry Parkes after their time on *Vernon*.²⁸ In stark contrast, the detailed accounts of the physical abuse suffered by the confined girls (see Figure 18) are a chilling commentary on the colony’s attitudes towards orphaned girls. From a female perspective, “Reflective” meditates on these apparent differences between Cockatoo Island’s male and female reform institutions and my

²³ Castrique, *Under the Colony’s Eye*, 61.

²⁴ “Biloela,” *Wikidot*, accessed 15 December 2022, <http://nis.wikidot.com/biloela>

²⁵ MS Clark and J. Clark, *The Islands of Sydney Harbour* (Sydney, NSW: Simon & Schuster, 2000), 41.

²⁶ Sarah Luke. *Like a Wicked Noah’s Ark: The Nautical School Ships Vernon & Sobraon* (North Melbourne, Vic.: Arcadia, 2020).

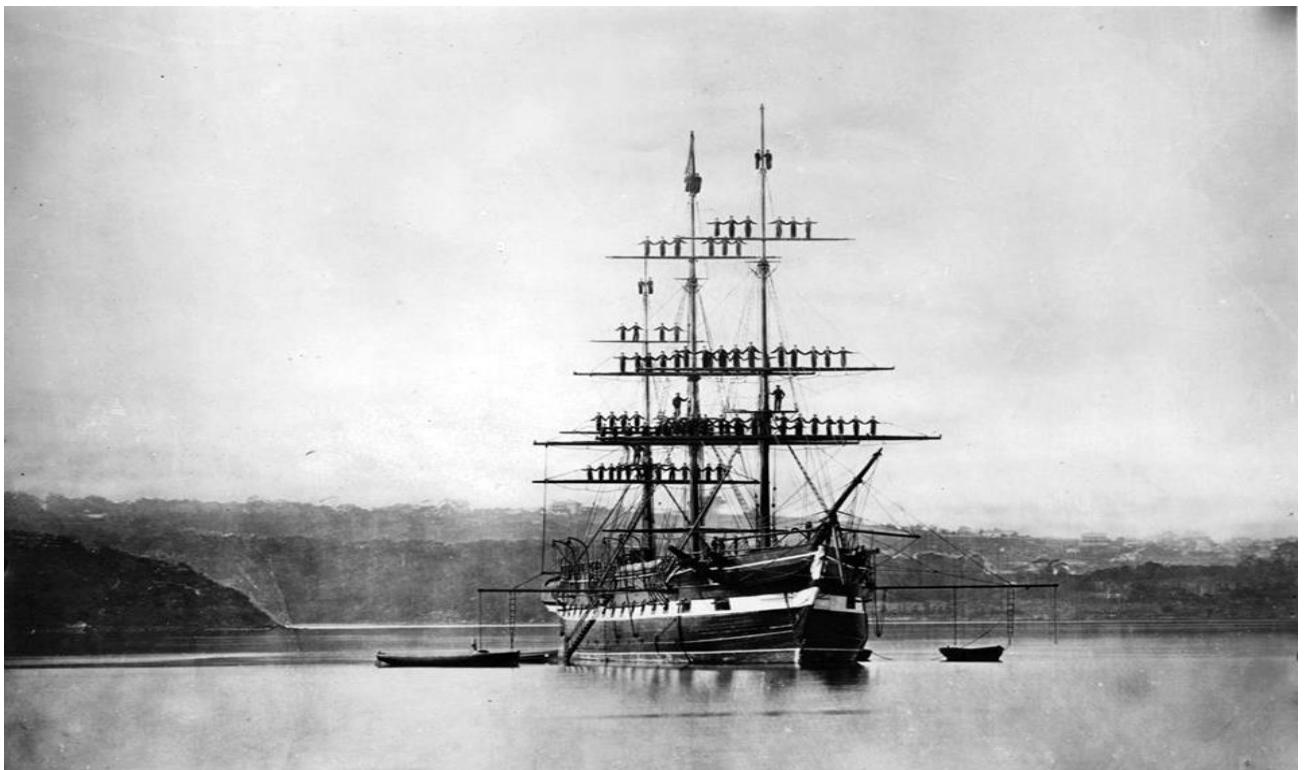
²⁷ S. Garton. “Frederick William Neitenstein: Juvenile Reformatory and Prison Reform in New South Wales 1878–1909,” *Journal of the Royal Australian Historical Society* 75 no. 1 (1989): 52.

²⁸ Castrique, *Under the Colony’s Eye*, 161.

imagined experience of being placed in Biloela.²⁹

Throughout this piece, I aim to engender the imagined sombre and unsettling atmosphere of Biloela Reformatory's deteriorated spaces of the convict cells. I process the recording of the spatial ambience with pitch modulation resulting in the lack of a strong tonal grounding (Figure 28). From 00:00 to 00:41, my recording of a listing ferry at Long Nose Point, Balmain, on September 5, 2022, descends in semitones with increasing amounts of reverb to signify stepping back in time and entry into this environment. I combine natural harbour ambience boat sounds in reverb to emphasise immutability.

Figure 19 Vernon moored off Cockatoo Island/Biloela 1875 (Source: Dictionary of Sydney)



²⁹ Sarah Luke, "The *Vernon* and the *Sabraon*," *The Harbour Trust Digitalk* (Online Talks), April 14, 2021, accessed 31 December 2022, <https://www.harbourtrust.gov.au/en/learn/digital-harbour/digitalks-archive/#mod-13708>

Figure 20 The Vernon Band (Source: State Archives & Records New South Wales)



Figure 21 *Vernon* moored off Cockatoo Island, 1877 (Source: State Archives & Records New South Wales)



Figure 22 *Vernon* Boys Exercising on Cockatoo Island, 1877 (Source: State Archives & Records New South Wales)



Figure 23 Inside the sewing room. Biloela Reformatory and Industrial School (Source: State Archives & Records New South Wales)



Figure 24 Inside the Biloela Reformatory and Industrial School mess hall (Source: State Archives & Records New South Wales)

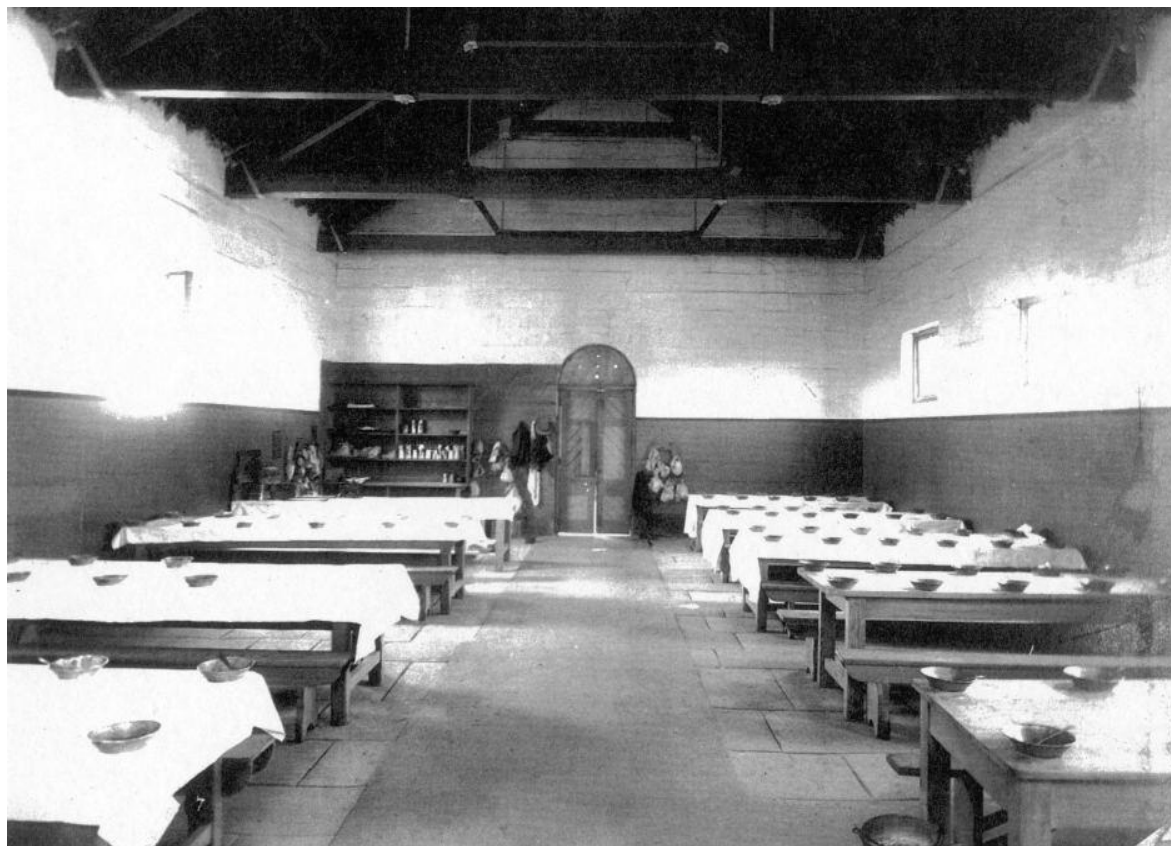


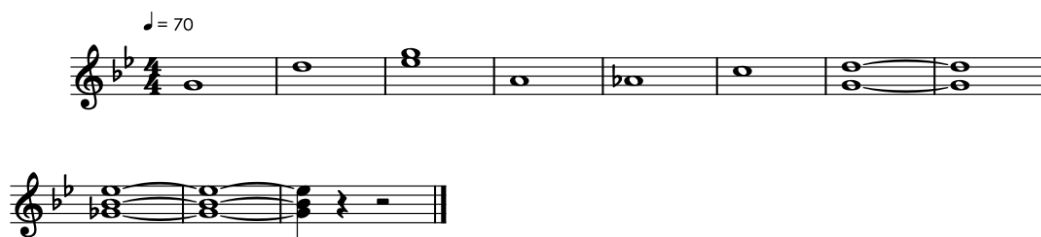
Figure 25 Inside the Biloela Reformatory and Industrial School laundry (Source: State Archives & Records New South Wales)



Figure 26 "Reflective" Leitmotif

Reflective - Melody

Alison Cole 2019



At 00:27, the water lapping moves into a large acoustic space reverb to suggest the dilapidated convict structures that Biloela Reformatory occupied by sonically resembling dripping water in a large empty room. At 00:56, a recording of an onsite metal door handle enters, and is placed intermittently throughout the work (Figure 08, Ward No 5).

There are three occurrences of the “Reflective” leitmotif (Figure 26); the first appears at 00:52, which I double with a pure tone “ah” recording of myself processed with granular synthesis. In this section, I take a tiny “grain” or snapshot of the audio recording. I slow down the grain speed to create more extended legato versions of the audio segment and increase the grain speed to generate shorter, staccato repetitions of the audio portion. With each return to the tonic in the melody, at 01:45 and 02:13, a shorter granulation doubles the melody. The third granular synthesis has modulations or variations in pitch frequency as it returns to the tonic at 02:26. The intention of incorporating this pitch modulation is to create an otherworldly atmosphere and suggests echoes of the Biloela girls’ voices.

Figure 27 "Reflective" Audio Processing

00:00 - 00:41

Location sound established: layers of processed environment audio. Recorded listing ferry sounds. Ferry audio pitch has been filtered. Spatial delay + large reverb. Water lapping tuned down in pitch, placed in large reverb to replicate drips in the wards/cells

00:04 - 05:20

Tonality and mood development: onsite visitors ambience x 3 recordings. Pitch filter and large plate reverb place on channels. Stepping back in time. Composer's voice "ah" recording filtered in Reaktor "Black Rain" filter. Audio device to mirror melody reverb tail.

00:41

Version 1 of melody: mirrored in reason granulated composer's voice recording singing "ah." Mirrored in MIDI strings. Forward MIDI performance-reversed-audio print- audio reversed. Audio recording of metal gate in large reverb

01:15 - 01:55

Version 2 of melody on piano: tail of piano reverb mirrored again by Reaktor vocal device

02:17 - 07:08

Dynamic tension: pulse 1. Created from sampled 808 kick drum. 02:27 pulse enters. 02:41 pulses 3 and 4 enter

04.10 - 05:20

Stepping back into the present: onsite visitors ambience recordings.

At 02:27, an 808-kick drum enters to create a low-metered pulse. The pulse introduced at 02:54 functions to amalgamate the lower frequencies and transform the dynamic via increased rhythmic intensity. I incorporate a recording of myself

striking a solid piece of wood with a metal rod, from which I construct a rhythmic sequence at 02:52.

Figure 28 Biloela Reformatory and Industrial School site ambience recording September 5, 2022 (Source: Alison Cole)



Figure 29 "Reflective" Piano Score

Reflective

Alison Cole 2019

Deliberate and heavy ♩ = 70
Arp = play as gliss throughout

The musical score is presented in four systems, each labeled 'Piano' on the left. The key signature is B-flat major (two flats) and the time signature is 4/4. The first system (measures 1-4) features a right-hand part with sustained chords and a left-hand part with a steady eighth-note bass line. Dynamics are marked as *mf*, *f*, and *mp*. The second system (measures 5-7) continues the texture with a *mf* dynamic. The third system (measures 8-11) shows a change in the right-hand part with more complex chordal textures, while the left-hand part remains consistent. The fourth system (measures 12-15) features a *f* dynamic in the right hand and a *mf* dynamic in the left hand. The fifth system (measures 16-19) shows a *ff* dynamic in the right hand. The sixth system (measures 20-23) concludes the piece with a *ff* dynamic. The left-hand part throughout consists of a steady eighth-note bass line, with some measures marked 'Arp' (arpeggiated) and 'gliss' (glissando).

I intend the piano part that enters at 02:54 to mimic the Alberti bass, left-hand

accompaniment style of piano compositions from around the 1870s (Figure 29). I intend to evoke the oppressive nature of the reformatory by using low rhythmic hits to replace what would have typically been the piano's melodic or chordal parts. DAW symphonic strings double the top notes of the piano chords to reinforce the leading note melody of the piano's harmonic progression. Pitched recorded island ambiences are a continual harmonic drone under the piano part (Figure 26). The harmonic bed rises and falls in volume, and the applied granular synthesis lengthens and shortens. At 03:22, the shortened granulated vocal is triggered as a MIDI chord to support the harmonic return to the tonic and following harmonic chordal movement. By lengthening the extracted grain or area of the audio edit, I perform it as a chromatically pitched instrument on my MIDI keyboard during this section. From 04:10 to 05:20, the recorded visitor ambience becomes more recognisable, aiming to draw the audience out of this historical association and into its current use as a tourist destination (Figure 18).

Throughout the creation of these works, considering the use of Cockatoo Island as a penal settlement and site to reform youth has led me to understand the site from a different perspective. The Convict segment of my creative portfolio aims to express the severity of the conditions that those incarcerated experienced on the island and explore creative expressions of narrative. The following chapter surveys my work in response to Cockatoo Island's use as a naval and commercial dockyard and its subsequent demise as a shipbuilding facility.

Chapter Five

In this chapter and the corresponding section of the creative portfolio, I consider Cockatoo Island's industrial use through the perspectives of nationalism, soundscapes of machinery, and island workers. The works are intended to artistically express the transition from the island's era of high industrial productivity to the island's demise as a shipbuilding facility. I use sound synthesis, audio editing, and spatial, harmonic, melodic, and rhythmic composition when composing the two works "Romance of Steel" and "Volte Face." I derive the compositional underpinnings from film audio from newsreels, and a documentary primarily shot on the island during its closure.

In "Romance of Steel," I integrate audio extracted from newsreel footage that includes an onsite speech by Prime Minister Robert Menzies to the workers on Cockatoo Island on July 29, 1941.³⁰ This speech is compelling in tone, and the patriotic sentiment of the dialogue communicates the intention to galvanise the workers at the time of its delivery during WWII. The first audio extract reflects Australia's continuing relationship with Britain, as Cockatoo Island was the leading ship repair facility in the southwest Pacific during wartime. The second extract comprises worker vocalisations and machinery sounds. Sourced from more recent footage are audio excerpts of the workers assisting in the launch of HMAS *Success* in 1984.³¹ I incorporate the later audio segments into the rhythmic and melodic components of the work. The second work, "Volte Face," responds to the documentary *The Occupation of Cockatoo Island 1989* by Frances Kelly and John Tognolini.³² This film documents the fourteen weeks of industrial action resulting from the announced closure of the dockyard on May 10, 1989. This work aspires to

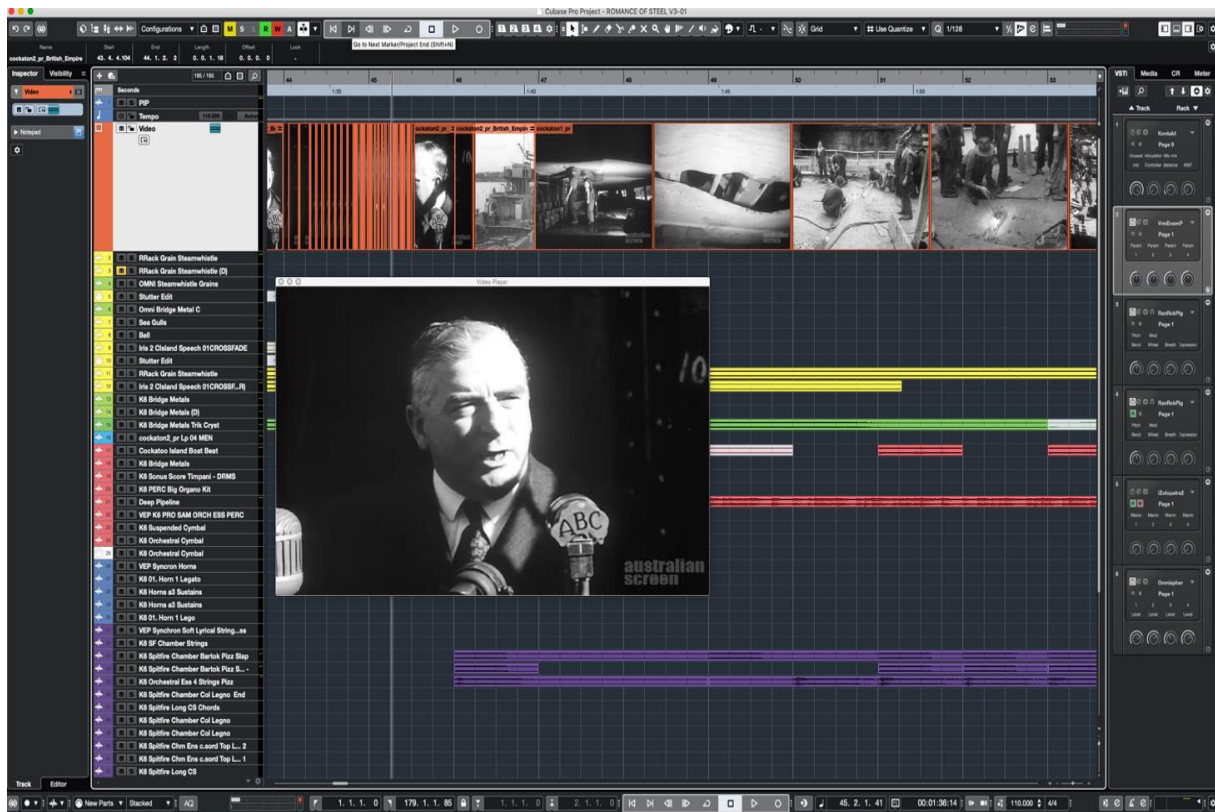
³⁰ *Cockatoo Island: Newsreel of Dockyard Activities* (Australian Screen: c.1939), accessed 26 October 2019, <https://aso.gov.au/titles/historical/cockatoo-island-newsreel-film/>.

³¹ *Cockatoo Island: HMAS Success Launching* (Australian Screen: 1984), accessed 26 October 2019, <https://aso.gov.au/titles/historical/cockatoo-island-hmas-success/>.

³² John Tognolini and Frances Kelly, *The Occupation of Cockatoo Island 1989*, YouTube, accessed 01 January 2023, <https://www.youtube.com/watch?v=Lmc6-dgFYsA>.

embody the emotions that I imagine the workers would have felt at the end of their working relationship with the island. In this work, I incorporate edited audio from the documentary film, *The Occupation of Cockatoo Island 1989*. The extracted audio choices in this work reflect the striking workers' conflict with the proposed closure of the dockyard. The two works trace Cockatoo Island's history from its height to its demise.

Figure 01 "Romance of Steel" Cubase arrangement using video sound as a tonal, melodic, and rhythmic source (Source: Alison Cole)

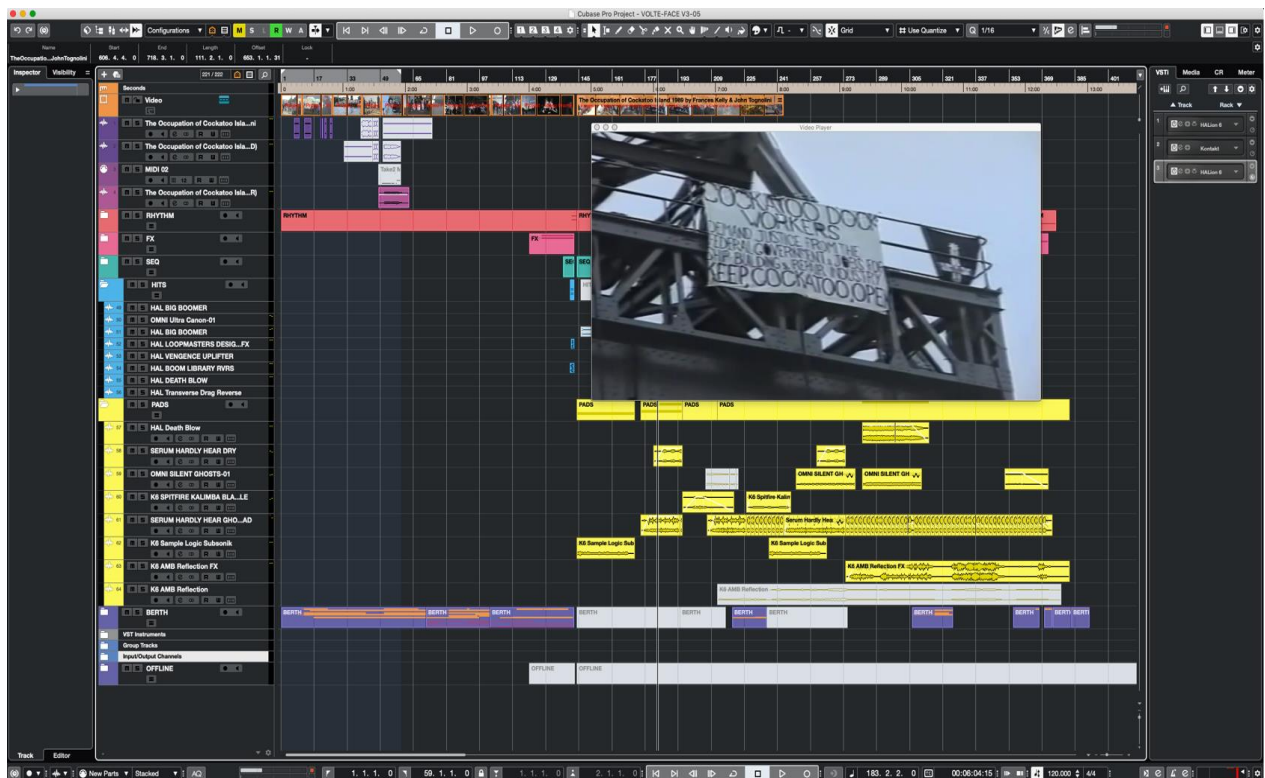


The video assets for "Romance of Steel" are sourced from the Australian Screen website, a National Film and Sound Archives subsidiary website.³³ Access to these film footage resources is inspirational as an evocative phonic resource for the works. The documentary *The Occupation of Cockatoo Island 1989* is sourced online. This

³³ *Cockatoo Island: Newsreel of Dockyard Activities*

documentary provides a different perspective to my prior understanding of the island's closure. For example, before watching this documentary, I was unaware of the complexities of the island's proposed purposes after its closure. The viewpoints captured in the materials from WWII and the 1980s communicate worker solidarity and circumstances from different perspectives.

Figure 02 “Volte Face” Cubase arrangement using video sound from *The Occupation of Cockatoo Island 1989* by Frances Kelly and John Tognolini (Source: Alison Cole)



Both works combine historical moments captured on film including onsite worker activity and researched industrial foley relevant to the site in the timeframes covered in each piece.³⁴ John Jeremy's *Cockatoo Island Sydney's Historic Dockyard* has been invaluable for detailed accounts of shipbuilding throughout the island's industrial use.³⁵ It provides a well-documented shipbuilding and repairs chronology. Additionally, my onsite recordings contribute to the historical representation of the

³⁴ Sounds of Changes, “Find Your Sound,” accessed January 15, 2020, <https://www.soundsofchanges.eu/decade/1940s/>.

³⁵ John Jeremy, *Cockatoo Island: Sydney's Historic Dockyard*. Sydney: UNSW Press, 1998.

site and those who worked on it during the periods portrayed. For example, in “Romance of Steel,” in the film excerpt during the launch of the ship HMAS *Success*, I have extracted and edited the metered ring of the steward’s bell whose rhythmic meter workers follow to strike the wooden cradle that releases the ship down the slipway. I construct the sonic environment of the WWII era with a ship whistle sourced from a historically based professional sound library called Sounds of Changes.³⁶ I process and then integrate environmental sounds into the work for harmonic and sound design purposes. I have mixed these audio sources to recreate the relevant historical sonic archaeology. In “Romance of Steel,” I procure the genesis of the work’s tonality from various audio processing procedures obtained from multiple 1939–1941 newsreels. I will elaborate on the piece’s audio processing in analyses of the individual works (Figure 01). “Volte Face” (Figure 02) has audio edits of union leaders and workers extracted from the video *The Occupation of Cockatoo Island 1989* by Frances Kelly and John Tognolini.³⁷

01 “Romance of Steel”

The story of this place over the last few years would, I believe, make a remarkable romance. It is, in my opinion, an astonishing thing to look back over the last four or five years and realise the development that has taken place all over Australia in the production of ships. And I want to say to all of you who are engaged in this work of shipbuilding, and I want you to regard yourselves as being engaged in the true service of this country and the true service of the British empire.³⁸ Sir Robert Menzies, July 29, 1941

³⁶ Sounds of Changes.

³⁷ Tognolini and Kelly, *The Occupation of Cockatoo Island 1989*.

³⁸ *Cockatoo Island: Newsreel of Dockyard Activities*.

This work aims to evoke the sense of pride that I imagine the workers felt during their reception of Menzies' speech as he acknowledged their contribution to the war efforts of WWII. The audio segment, comprising the last sentence of Menzies' speech, is preserved in its original condition to indicate the historical time frame of its delivery. The raw audio is recorded on magnetic tape, resulting in its muffled quality. I am conscious that some listeners would not be familiar with Sir Robert Menzies' voice, but without restoration the imperfect media conveys the period in which it was captured. The subsequent processing of Menzies' speech via edits and reverb at 00:17 to 00:48 is intended to evoke a sense of the words fading over time for the listener as they shift from recognisable to unrecognisable. At 00:48, I apply further fragmentation of the speech via MIDI-triggered lengthening, shortening and effect-driven modulations. This stutter-like effect emulates a DJ performance "scratch" technique created from the forward and back manipulation of a phonograph record on a turntable. Deteriorating the speech in this manner aims to break down this hopeful sentiment to portray the eventual demise of Cockatoo Island as a leading shipbuilding facility.

Employing segments of documented historic sound in both compositions is intended to engage my audience in the story of Cockatoo Island and substantiate the inclusion of a narrative arc within my empathic bridge model. In "Romance of Steel," 00:00 to 00:48, Menzies' July 1941 address demonstrates the point of time, location, and audience. Similarly, from 01:49 to 04:37, the workers striking the wooden cradle are in time with the steward's metered bell that rings during the 1984 launching of the HMAS *Success*. These audio extracts are integrated into the harmonic and rhythmic elements of the work.

From the same 1941 newsreel, I identified audio segments of the workers' vocalisations and machine sounds that suggested a triplet leitmotif (Figure 03). I

assign the motif to different instruments throughout the work. The machine shop pipe instrument performs the first instance of this motif. I constructed this DAW instrument from a recording of a metal pipe being hit as a percussion instrument on Cockatoo Island on September 5, 2022 (Figure 09). I have chromatically mapped the audio segment so that it is possible to perform melodic sequences when played. The cellos, bass ostinato, and machine shop pipe enter at 01:39 with the machine shop pipe instrument performing the motif in Figure 03. The cellos and bass play down beats every four and then every two beats. This initial build intends to release dynamic tension once the counter melody of the cellos and basses enter at 02:37. The worker's audio leitmotif comes in at 01:55 in tandem with the machine shop pipe instrument. Throughout the work, the newsreel island worker edits interact rhythmically and melodically through shifts in the rhythmic editing. The various iterations of these rhythmic edits also result in various melodic changes. I utilise these modified edits of the source materials to achieve a syncopated meter or to add different dynamics. The different types of modifications are evident at the following time stamps in the work. At 02:02 (dynamics), 02:15 (syncopated meter), 03:13 (dynamics), 04:52 (syncopated meter), and 06:06 to 06:26 (dynamics).

Figure 03 "Romance of Steel" Machine shop pipe melody that mimics the suggested melody from the 1941 newsreel audio segment of occupational noise and worker vocalisations

Romance of Steel

Alison Cole 2023

Machine Shop Pipe

♩ = 110

Pipe

The image shows two staves of musical notation. The top staff is labeled 'Machine Shop Pipe' and the bottom staff is labeled 'Pipe'. Both staves are in 4/4 time with a key signature of one sharp (F#). The tempo is marked as ♩ = 110. The 'Machine Shop Pipe' staff contains two measures of music, each featuring a triplet of eighth notes. The 'Pipe' staff contains four measures of music, each featuring a triplet of eighth notes. The notes in both staves are chromatically mapped to mimic the original audio segment.

Throughout this work, onsite recordings are processed to generate a pitch. For example, at 00:34, onsite metal scrapes are chromatically mapped in a DAW virtual sampler and looped to create an internal rhythm in the sample. I am accenting a higher frequency range with sound processing to resemble the process of sandblasting, in which the air-driven small particles are used to clean the bottoms of dry-docked ships. From 01:56 to 03:30, the initial musical loop for this work enters. Switching the rhythmic accent is a rhythmic counterpoint to the metal drum kit that enters at 00:56. I experiment with moving rhythmic elements by a quarter, eighth or sixteenth denominations to create rhythmic syncopations. At 02:08, 02:13, and 02:15, I shift the rhythmic elements to simulate my imagined interruption and timing alterations in workers' movements. I am using the interaction of these melodic and rhythmic phrases to portray the sound characteristics of a busy shipyard.

Figure 04 "Romance of Steel" Audio Processing

00:00 - 00:41

Establish historic context: Menzies' speech edit 00:00 - 00:23 secs without FX. Descending pitch filter to signify the eventual industrial demise. 00:17 seagulls in large reverb 00:25 Speech rhythmically edited-looped spectral filter 00:48 speech processed with stutter edit. Triggered FX

00:034 - 01:53

Melodic site synthesis: onsite metal scrapes recorded in workshop (Building 137/138) Mapped chromatically in Kontakt Inst.

01:56 - 03:20 & 04:56 - 06:34

Island workers' occupational noise and vocalisation synthesis: audio loop sourced from edited newsreel footage. Melodic, tonal & rhythmic foundation

00:56 - 06:54

Rhythmic Site synthesis: metals drum kit constructed from various onsite recordings and sample library. Rhythm derived from edited newsreel segment

01:39 - 06:37

Melodic duplication of diegetic sound: onsite pipe recording on island. Mapped in sampler. Tonality triggered for melody - mirrors the newsreel segment audio loop

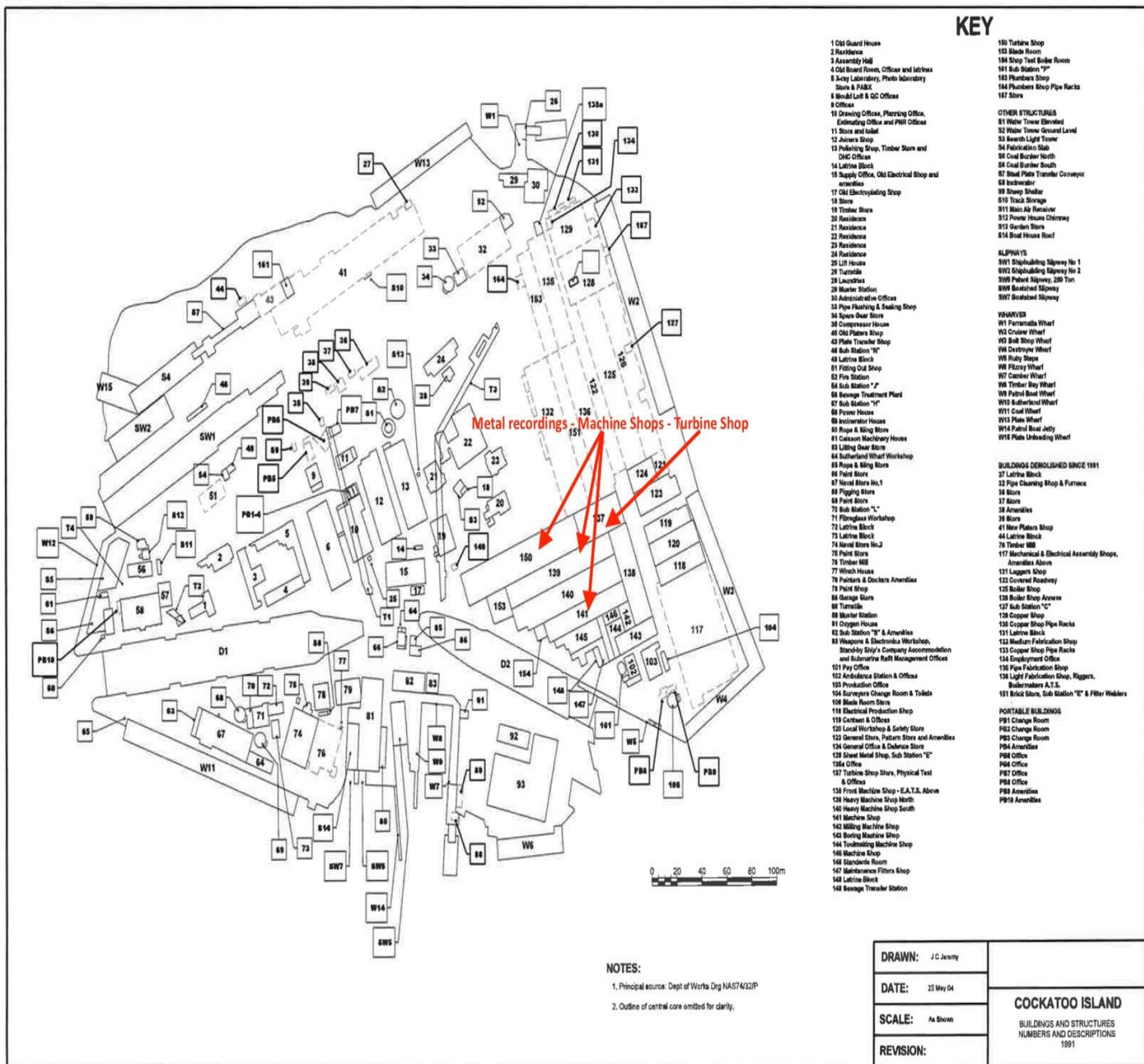
01.49 - 06:37

Rhythmic duplication of diegetic sound: Cockatoo Island boat beat. Sourced from 1941 newsreel footage. Rhythm loop foundation for triplet feel of work

03.51 - 07:05

Timbral/melodic site sound synthesis: early steam ship. Granular synthesis. Melodic, timbral, and harmonic component. Used as sound design in outro

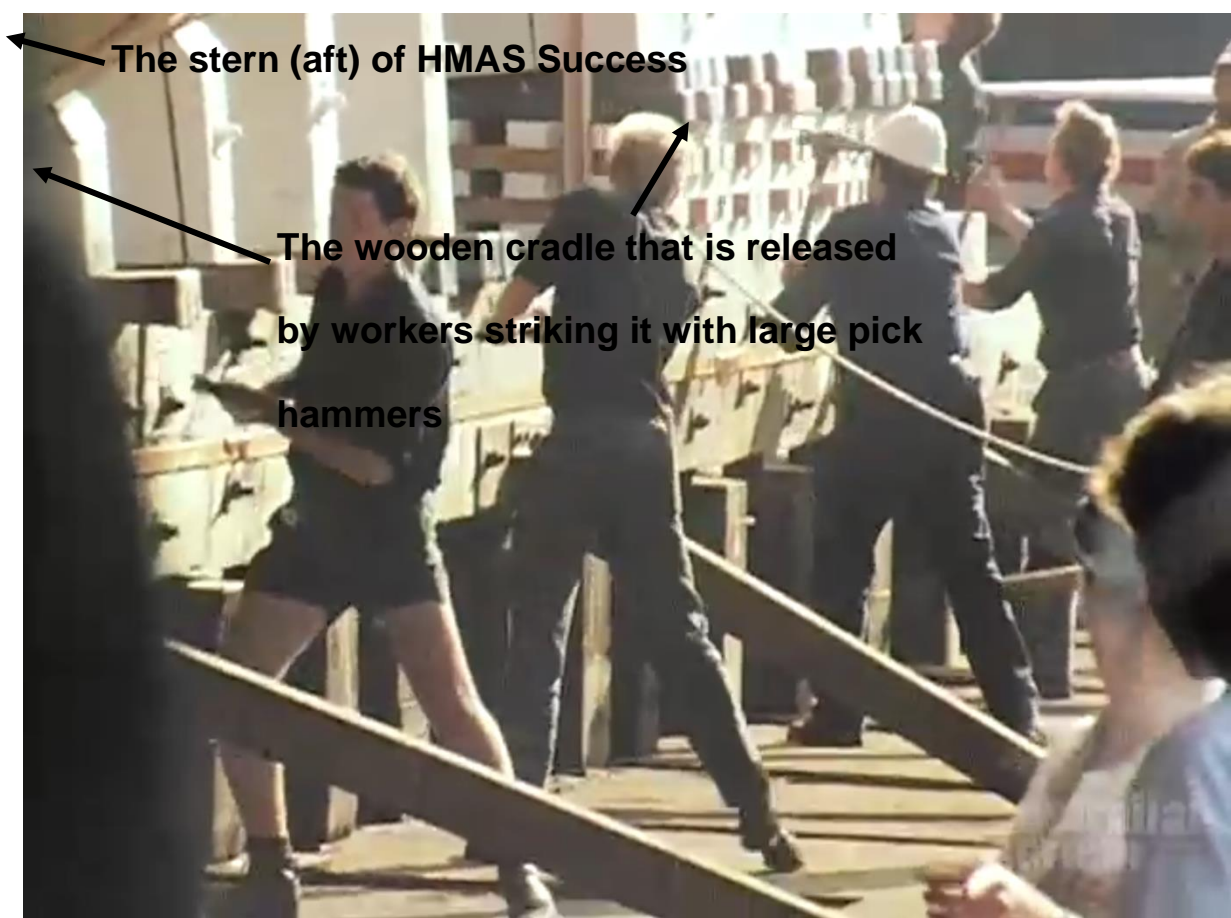
Figure 05 Onsite recording locations of audio sources for “Romance of Steel” and “Volte Face” September 5, 2022 (Source: GML, Sydney)



I incorporate rhythmic patterns, suggested in the audio of the workers hitting the HMAS *Success*'s wooden cradle (Figure 06) to the steward's bell strike rhythm, into the rhythmic and melodic foundations of the piece. This rhythmic element enters at 00:56 and continues until 06:54. Workers would strike this physical structure to the rhythm of the steward's bell to release the tension of the ship's cradle, allowing the

lubricated ship to “slip” down the slipway.³⁹ I construct a DAW drum kit from various 1984 newsreel sound edits, onsite recordings, and my professional sound library (Figures 06, 07, 08, 09). The drum sounds are initially edited for more accurate timing in the virtual DAW sampler instrument and triggered via a MIDI keyboard.

Figure 06 HMAS Success's 1984 launch (Source: Australian Screen, Cockatoo Island: HMAS Success Launching, (Film) 1984.)



Considering timbral possibilities that result from audio processing and subsequent sonic combinations is central to my endeavours in electro-acoustic composition. I process the ship whistle for use as both a music layer and as an environmental

³⁹ George J. Bruce and David J. Eyres, *Ship Construction*, 7th ed, (Oxford, United Kingdom: Butterworth-Heinemann, 2012), 164.

sound. The first orchestral build starts at 03:51 to 04:39 and combines with the ship whistle alternating in pitch between G3 and A3. The drone-like quality of the ship whistle functions as a monophonic accompaniment to the orchestral string harmony, ostinatos, and melodic movement in the horns. The ship whistle returns at 05:52 to function similarly during the final multi-instrumental build, finishing at 06:32. At this point, the ship whistle audio shifts from unrecognisable to recognisable at 06:27, when its function as a timbral and tonal element within the composition changes to be part of the sonic archaeology sound design of the environment portrayed during the work's conclusion.

At 06:27, the location sounds of the steward's bell, seagulls, harbour ambience, and the ship whistle at a decreasing volume create the impression of this memory becoming faint. These sounds of the surroundings are in large ambient reverbs to depict the acoustics of departing the island and to portray fading memories.

Figure 07 Machinery Workshop Recording Sources (Source: Alison Cole)



Figure 08 Machine Shop (top), 09 Machine Shop (bottom left), & Machine Shop (bottom right) (Supplied: Alison Cole)



Figure 11 Machinery Workshop (Source: Alison Cole)



Figure 12 Machinery workshop (Source: Alison Cole)



02 “Volte Face”

This work is a response to the documentary *The Occupation of Cockatoo Island 1989*,⁴⁰ which documents the fourteen weeks of onsite and offsite industrial action. This work aspires to portray the worker’s emotional state during this period and the soundscape of their work environment. First, I would like to provide a brief background on this period of the island before the analysis of the work. On May 10, 1989, the Cockatoo Island Dockyard management announced the island’s

⁴⁰ Tognolini and Kelly, *The Occupation of Cockatoo Island 1989*.

occupation in response to a decision to sell off the site. The dispute would last for fourteen weeks. Sydney Harbour's foreshore was a very different locale during the twentieth century, lined with manufacturing, piers, docks, and industry. The central location of Cockatoo Island Dockyard saw its development as a leading industrial employer and training facility for more than twenty trades over its period as a maritime industrial hub.⁴¹

I combine audio edits from *The Occupation of Cockatoo Island* documentary in "Volte Face" at 01:39 to 01:48 and from 05:23 to 06:03. I consolidate a historical reference and a cultural context in each piece with the integration of the sourced audio segments. Subsequent audio processing of audio segments allows their assimilation into the works as harmonic, rhythmic, and sonic components. I propose that the use of extracted audio from these media sources contributes to the narrative arc of each piece, as they are part of the musical framework that communicates the story of the site.

Combining the site's sonic archaeology into rhythmic and harmonic elements within the works, I endeavour to further actuate audience immersion through recognisable and unrecognisable site sounds within the musical components. In both Industrial works, I focus on the workers' point of view, sonically and culturally. In "Romance of Steel," I imagine the workers' reception of Menzies' speech from their experience of actively listening. In "Volte Face," I envision the emotions of loss and solidarity as the workers strike and occupy the island for fourteen weeks. The following analyses explore the various approaches to incorporating these sonic elements into the corresponding section of the creative portfolio.

⁴¹ Jeremy, *Cockatoo Island: Sydney's Historic Dockyard*, 164.

My experience of the dockyard was that of a unionised workplace. My father, Graham Cole, was part of the management team on the island and envisaged the island beyond shipbuilding, repairs, and submarine refitting. His vision was for the island to develop into a contemporary workplace that could facilitate the design and construction of turbines, industrial machines, smaller vessels, and the floating dock named Vick Dock (Figure 13).

Figure 13 Vick Dock floating dock (Source: Alison Cole)



Figure 14 Cherry Audio Voltage Modulator - Image Oscillator Monochrome Photographic Source “Volte Face”
(Source: DAW Screenshot, Alison Cole)

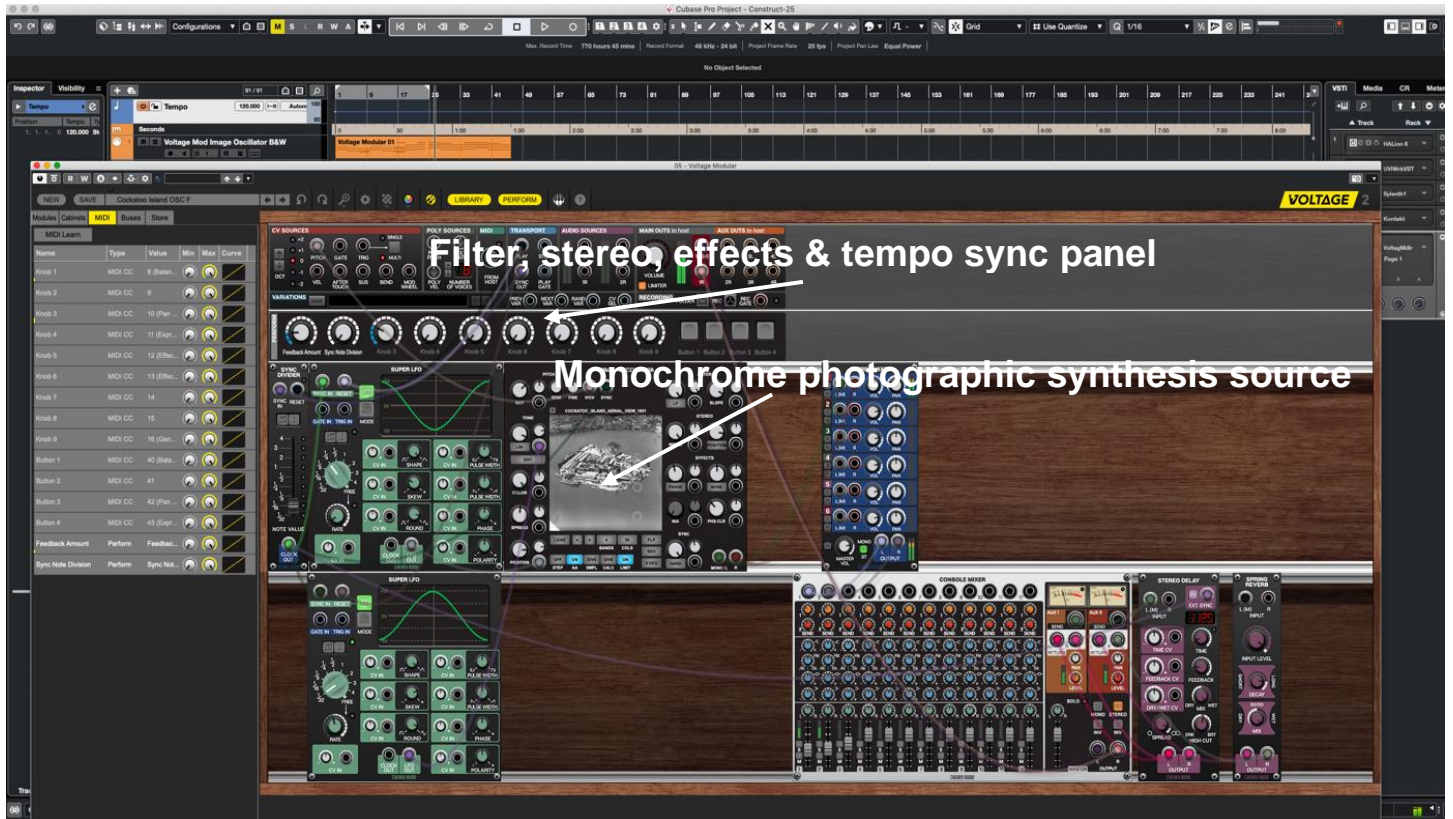


Figure 15 Cherry Audio Voltage Modulator - Image Oscillator Colour Photographic Source “Volte Face” (Source: DAW Screenshot, Alison Cole)



“Volte Face” opens with a blend of melodic parts performed on a DAW instrument called Voltage Modular, Image Oscillator layered with an audio edit of “What do we want” from the documentary, *The Occupation of Cockatoo Island 1989*. The images of Cockatoo Island in the middle of the module define how volume, tone, and pitch interact with the imported image of Cockatoo Island (Figures 14 and 15). Figure 14 is a screenshot of my DAW arrangement featuring the Voltage Modular Image Oscillator instrument processing a monochrome photographic image of Cockatoo Island. The image in the middle of the module, together with the Tone control, defines each frequency band’s pitch. The Filter, Stereo, Effects, and Sync complement this to allow for variations in timbre.

This synthesis builds a sound by combining sine waves of different levels and frequencies. When they are combined, they start to generate added harmonics. In

Figure 15, the Voltage Modular Image Oscillator is processing a colour photographic image of Cockatoo Island. The Voltage Modular Image Oscillator generates variations between the synthesis components from continual scans of the photograph as the oscillator or sound source. The combination of the filter fluctuations, effects, and tempo sync generates a waveform. This type of synthesiser is modelled on the early 1980s modular CV or Control Voltage (electrical voltage) synthesis that uses physical knobs on the interface of a synthesiser to control synthesis parameters. The variations of synthesis differences between the monochrome and the colour photographs occur mainly in pitch modulation variations. There is a wider range of pitch resulting from the colour photograph as a synthesis source than from the monochrome photo as a synthesis source. The photographic representation of Cockatoo Island is used to generate unique waveforms.

Figure 16 "Volte Face" Voltage Modular Image Oscillator Harmonic and Melodic Score

Volte Face

Alison Cole 2022

V.Mod Image Osc

$\text{♩} = 120$

Volt. Mod. Image Oscillator

5

V.Mod

11

V.Mod

16

V.Mod

22

V.Mod

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28

V.Mod

34

V.Mod

40

V.Mod

47

V.Mod

53

V.Mod

58

V.Mod



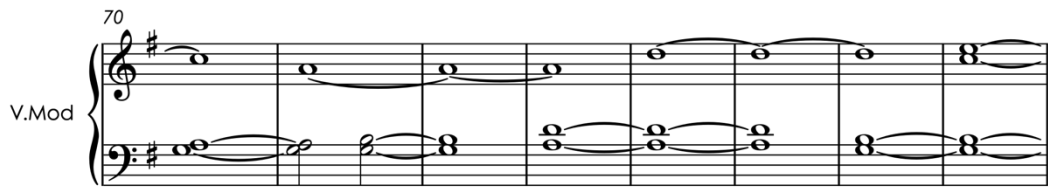
63

V.Mod



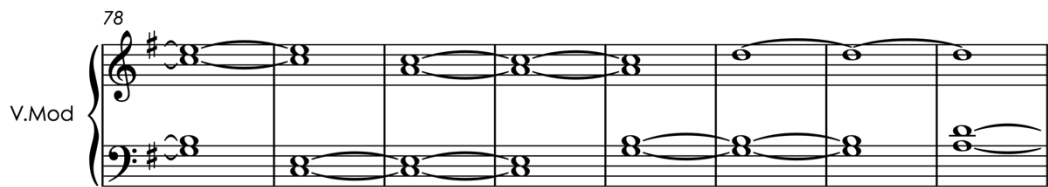
70

V.Mod



78

V.Mod



86

V.Mod



92

V.Mod

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From 00:00 to 04:43, I performed the various melodic and harmonic MIDI parts on the monochrome and colour Voltage Modular Image Oscillator instruments (Figure 16). The repeated melody, instrumental timbres, and slow harmonic resolution throughout this first section are used to evoke a sensation of uncertainty that I imagine the island workers may have felt throughout their occupation of Cockatoo Island.

The environmental sound world, from 00:00 to 04:20, comprises a series of berthing and listing boat sounds. On September 5, 2022, I recorded a ferry docking at Long Nose Point wharf. The tightening of the rope around the bollard creates a higher-pitched snap sound. I process the ferry recordings to descend in pitch and then place them in a large reverb to create a hyper-real sound of boat movement when listing. I use the rope squeaks around a metal bollard sound throughout this section to evoke the usual method of transport to the location. Location sound intends to place my audience in situ with the workers occupying the island during 1989. The sonic archaeology from 00:00 to 04:46 consist of the sourced sound of a rivet metal press, a machine used to mould metal. The granular synthesis procedure I employ results in the audio segment being lengthened and lowered in pitch to replicate a low hum. This tonal artefact from this audio processing is in tune with the existing harmonic structure.

From 04:00 to 04:43, I use a drum kit constructed from onsite metal sounds chromatically mapped in a DAW sampler. These sounds have been edited, looped for their tonal and rhythm characteristics, and then performed as MIDI to create rhythmic patterns. I edit audio segments in a virtual DAW sampler by finding an area of edited audio suitable to create an even length of audio that does not have artefacts of either audio clicks or pops. When played or triggered by MIDI, it can be performed continually beyond its original length. Throughout this section, layers of the performed looped metal sounds create a dynamic build in volume and rhythmic intensity to transition to the more rhythmic and sonic archaeology-based second section.

The Sydney Harbour Federation Trust report, *Cockatoo Island Management Plan 2017*, documents remnant equipment on the island today. They list two Bellis and Morcom steam engines, lathes, planing equipment, hydraulic presses, plate bending machinery, boring machines, rivet presses, threading machinery, plate rolls, steam hammers and cutting equipment. The following section, from 04:46 to 09:36, comprises various onsite metal recordings (Figures 07–12), sound libraries and vintage machinery sound sourced from the Sounds of Changes website. I attempt to construct sound equivalents to the original machinery listed in the abovementioned Sydney Harbour Federation Trust report and from my memory of the site ambience. This online project records and preserves the sounds of industry and society.⁴²

I transition from the contemplative emotions of uncertainty to the everyday occupational sound environment of the workers. The whirring, clanking, hum, hammer, pound, and patterned sounds of various engines are integrated into the work to portray the intensity of an industrial workplace. I derive rhythmic elements

⁴² Sounds of Changes

from surveyed foley libraries of machine sounds intended to replicate my imagined ebb and flow of sound from the shipyard. Throughout this section, I integrate audio from the documentary *The Occupation of Cockatoo Island 1989*.⁴³ For example, at 02:54, the audio is of a union leader, Bill Hegarty, addressing the workers at Parliament House during the industrial action. His dialogue, “They are the people, who are instrumental, in taking away our jobs on the waterfront,” is edited to construct a syncopated rhythm. An eighth triplet delay is inserted on the audio channel to generate continuing syncopation.

Throughout this section I construct dynamics that strive to emanate the electronic dance music builds that engage dance music audiences. I use the saturation and mild distortion of the kick drum to add an insistent dynamic at this point in the piece. I accentuate the attack of the electronic kick drum boom by boosting the 50- to 60-hertz area of the frequency range in the instrument EQ by six decibels. Using a MIDI drum kit assembled from the metallic sound sources mentioned above, I am triggering these sounds in my DAW to create rhythmic patterns. I incorporate an electronic drum kit with a four-quarter-notes beat structure, which embodies the energy of the Cockatoo Island workers picketing at Parliament House in Canberra. At 07:49, a different syncopated rhythm comprising prepared piano hits adds further build to the crescendo culminating at 08:27. The higher frequency range of the prepared piano rhythm adds a dynamic layer to the frequency spectrum. I use a delay effect on a speech segment as a transition device that affects the audio with repeated loops with tonal and frequency range shifts. I increase the dynamic using faster edits of the sound design rhythmic elements by quarter, eighth or sixteenth denominations and a triplet pattern accentuating the approaching transition.

⁴³ Tognolini and Kelly, *The Occupation of Cockatoo Island 1989*.

Figure 17 "Volte Face" Audio Processing

00:00 - 04:43

Site photographic image synthesis: Voltage Modular DAW instrument - Image Oscillator
B&W and colour photos of Cockatoo Island are synthesised

Location sound established:

00:20 - 04:38 Boat berthing sonic archaeology-reverb. Diagetic sound edits placed in reverb

00:32 - 04:42 Eccentric metal press granular synthesis - transposed down - low hum - lengthened

04:00 - 04:43 Onsite metal mapped in sampler, looped, performed as MIDI. Volume gated to create rhythm

01:39 - 01:56 & 05:23 - 06:03

Audio excerpt extracted from *The Occupation of Cockatoo Island 1989*: diagetic sound
fragmented speech. Edited excerpts from speech

04:00 - 09:36

Rhythmic site synthesis: construction of rhythm from site-sourced metal recordings and sound
libraries: metals drum kit rhythm derived from edited machinery SFX, construction noises.
Sampler processing - looped and pitch modulation. Melodic, timbral, and harmonic component
Incorporation of site into composition. Diagetic sound from video edited and placed in eighth
triplet dub delay rhythm.

04:00 - 09:36

Melodic and harmonic site synthesis: onsite metal recordings on island. Mapped chromatically in
DAW sampler to construct tonal instruments. Granular synthesis. Melodic, timbral, and harmonic
component

09.06 - 11:03

Machinery of site synthesis: rhythm drops accentuated by booms & transposed air press
machinery. Eccentric metal press granular synthesis - pitched down-low hum-lengthened. Boat
berthing sonic archaeology-reverb.

At 04:43, 06:27, and 08:52 I accent crescendo peaks with synced low boom audio
FX hits, which I have also reversed. I position reversed versions on the downbeat of
the bar before each synced crescendo hit. I invert these audio segments as a
transition effect that creates a drop in dynamic to accentuate the following section.
Flipping a copy of an audio component produces the impression of the beat being

pushed by creating the sonic pull in reversed audio, followed by the forward audio push. This audio processing aims to reflect the interaction of the workers with the police during their march on the Australian parliament in Canberra. This sequence can be viewed from 06:54 until 07:29 in the online Tognolini and Kelly documentary. The melodic, timbral, and harmonic components throughout this section are fabricated from long, onsite metal scrapes recorded in buildings/workshops 137 and 138 on September 5, 2022 (Figure 05). These recordings are edited and then chromatically mapped in my DAW sampler to trigger a fixed tonality. I process the audio edit in my DAW sampler by defining a smooth audio loop without artefacts and using pitch variation to establish a functional tonality. I play these instruments as I would a keyboard sound with equal temperament. These unique timbres are repurposed fabrications of the site and created by those who inhabited its workplace. From 09:06 to 11:04, the arrangement is streamlined with the Black and White Image Oscillator melodic and harmonic fragments returning. I have placed wharf sounds, the rhythms of an air compressor machine, and pitched-down metal sounds in large reverb to create a drone-like, sonorous foundation for the sonic ecology layers that follow. Throughout this section, I employ an eccentric press processed with granular synthesis and a filter to create a subtle movement that attempts to evoke the sonic equivalent of a picture out of focus. This combination of textures and return to the Voltage Modular aims to produce release from the tension of the harsh industrial sounds and rhythms in the proceeding section. I utilise rhythmic composition to remind the audience that it was not only a workplace soundscape but also a way of life that, for some, spanned generations.

The following chapter will analyse the works about my personal history on Cockatoo Island. I will explore concepts relating to the site as an acoustic playground and the process of revisiting my past.

Chapter Six

This chapter, and the related section of the creative portfolio, consider my experience growing up on Cockatoo Island when it was a historical working dockyard in the heart of Sydney Harbour. Researching previous historical and cultural uses of Cockatoo Island has altered my perceptions of the location. Much of this project has involved reconciling my personal experience of the site with new insights gleaned through research and heightened engagement with its sonic archaeology. My creative response, represented in the creative portfolio, can be understood as recognising my unique experience on this site. An additional element is an awareness of the location itself, which sometimes felt remote and disconnected from the culture of suburban childhood. The following discussion of my creative portfolio explores these two observations of the site through an analysis of the works.

“Playground” intends to encapsulate a nostalgic recollection of the site for my childhood entertainment. The location afforded the freedom to explore, mainly without parental supervision or restrictions. In the first section of “Playground,” I strive to communicate the sound characteristics of my childhood experience exploring the site’s workshops. This work is situated at the juncture of the turbine shop and what was the fabrication shop. With the sounds of heavy doors opening and closing and heavy metal chains, I intend to embody the heritage attributes of the surrounding convict structures of sandstone jails, guard barracks, and convict accommodation that inspired childhood ghost imaginations. Growing up on Cockatoo Island during the 1970s and 1980s provided me with a sound palette of commercial pop music and film soundtracks that I enjoyed with my family during that period and which I employ in this work. The second section in “Playground” is a meditation on my positive experience of site isolation. I enjoyed the island’s tranquillity during dockyard inactivity, as well as the harbour panorama, and time alone.

The second work, "Memory's Fabric," explores my re-engagement with the site. The location holds personal memories and the impression of those who inhabited the island before I lived there. I artistically realise the process of researching the island's history and recognising different perspectives to my experience of the site. Even though my acquaintance with the site was vastly different, I feel connected to those whose stories I am attempting to tell through a unique shared experience of habitation on the island. This section of my creative portfolio aspires to reflect on the physical location and represent my response to the circumstances of my use of the site through spatial composition and narrative arcs. The physical location is depicted by occupational dockyard ambience, structural and equipment sounds of specific workshop locations, and the sounds representing movement and action within the compositions. I continue to emulate the spatial representation of the site via spatial reverb processing. I consider the sonic vocabulary and acoustic spaces I inhabited during the sixteen years I lived on the island, and I contextualise these creatively within a personal narrative.

First, I will provide some background to the works. I moved to Cockatoo Island when I was four. My childhood experience at the site relates to family, water, stray cats, sandstone, bikes, workshops, machinery, fishing, kayaking, swimming in the docks and exploring the location with the other children who lived on the island. Seven children were living on the island during my childhood. There were also some older teenagers who I had some interaction with, but the younger children regularly played and explored the island together. Our parents knew we could not leave the island without catching a launch or ferry. Island departure and arrival meant walking through the security guard's office at the northside wharf. We were familiar with the watchmen's security route around the island, which enabled us to explore a broader range of offices and workshops. Until about the age of ten, it was usual for the island

kids to meet up on our bikes and target a particular area of interest to explore. Group gatherings of the island children often resulted in exploring workshops and equipment storage areas or playing around turbines, propellers, cranes, and tunnels. I learned to swim in the Sutherland drydock. I enjoyed machines and exploring the spaces on the island. As I got older, I spent significant time alone, riding my bike or rollerskating around the Convict Precinct.

The island's industrial soundscape emanated from large, noisy workshops filled with machinery, vehicles, and working cranes. A population of workmen also inhabited the island. The workshops contained heavy lathes, planing equipment, hydraulic presses, steel plate bending machinery, plate rolls for large pieces of steel, boring machines, threading machines, and cutting equipment. Other sonic ambiences were associated with transporting goods and materials, including trolley tracks, cranes, tunnels, and roads. The soundscape of arrival to and departure from the island encompassed boat engines, snapping and squeaking ropes, boat contact squeaks, and associated sounds of embarking and disembarking ferries and launches. My sonic ecology consisted of seagulls, grey-headed flying foxes, sulphur-crested cockatoos, Indian myna birds, cormorants, sparrows, dogs, cats, and sheep. A flock of sheep kept the grass areas of the island manicured. There were significantly more industrial workshops on Cockatoo Island at that time (Figure 01) than in its current use as a tourist site (Figure 02).

Figure 03 1980s Cockatoo Island (Source: Naval Historical Society of Australia)

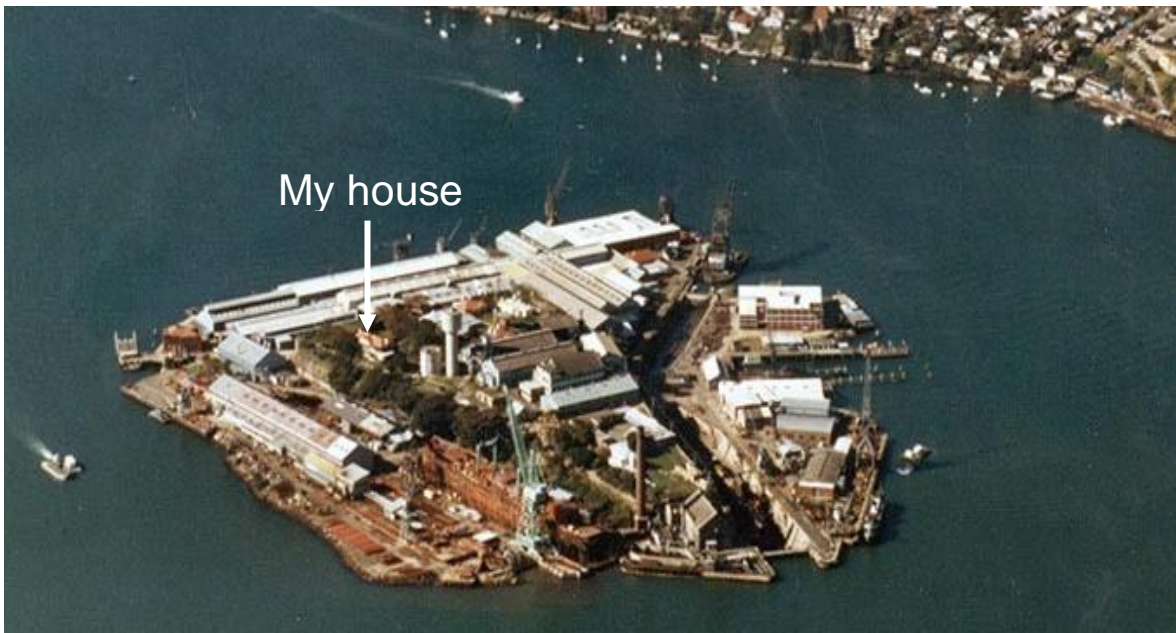


Figure 04 Cockatoo Island 2023 (Source: <https://janhawkinsau.wordpress.com/>)



Night-time sandblasting and ferry cruises with onboard music imparted an early awareness of how sound carries over reflective surfaces. Childhood play piqued an interest in how different locations on the island exhibited distinctive acoustic qualities. Sutherland Tunnel, Dog-Leg Tunnel, various large workshops, sandstone cells, barracks, air-raid shelters, cliff faces, drydock ships, and down in the wheat

silos all produced unique acoustic experiences. The low microphonic hum and glow of the island's powerhouse's diodes was a unique sonic and visual experience (Figure 03). The following works incorporate the soundscape and recreation of real-life sound experiences of the abovementioned childhood noise environment. The electro-acoustic composition, "Playground," explores the electronic instrumentation and genres utilised in commercial music and soundtrack composition during the 1970s and 1980s.

Figure 05 Powerhouse on Cockatoo Island (Source: flickr)



01 "Playground"

"Playground" aims to engage an audience in my use of the site for play and enjoyment by incorporating specific environmental sounds and era-specific synthesisers. To represent my memory of onsite recreation as a child, from 00:00–00:14, I employ sound design to communicate entering the location to the listener (Figure 04). I create this sound environment from a mixture of background ambience

consisting of distant water motion, harbour foley of seagulls, and shipyard activity foley. Entering the workshop environment is constructed from heavy chain foley, chain movement, and heavy door sound to replicate opening the industrial roller door of the workshop. Other physical environment sounds include a metal door slam, steel bar contact noise, large metal sliding door, a pulled chain winch and metal fence contact. Human activity within the environment consists of children's laughter, footsteps on cement and dirt, and bicycle motions.

Figure 06 "Playground" sound design location. Turbine Shop and Fabrication Shop junction (Source: Naval Historical Society of Australia)



I emulate the acoustic characteristics of the island's large, resonant machine workshop by applying convolution reverb to the environment and human activity sound design. I use a binaural spatial panner to simulate audio movement through the audience's sound field when wearing headphones. I process the motion sound design of footsteps and bike tyre noise with an audio plugin called dearVR PRO to generate this real-life sound memory.

From 00:15–00:55, environmental sound design continues, and tonal elements generated from two pitch-modulated onsite metal recordings enter to introduce site synthesis in a musical form. In the first instance, at 00:18, I create melodic sound

design elements by applying formant filtering to the audio segment in a DAW virtual sample instrument. A formant filter adds vocal characteristics, particularly vowel sounds, of the human voice to audio. I use this type of filter processing to mimic the sound of vocalisations I made in the Sutherland and Dog-Leg Tunnels. These were frequent locations for acoustic exploration as a child. A formant filter applies a chain of narrow bandpass filters that refines specific frequencies to reflect formants of human speech. I use a MIDI keyboard to trigger the different audio clips I perform to develop the music. I print this performance as audio, which is then further processed with two instances of convolution reverb. First, I edit the resonant tail of the convolution reverb processing to generate melodic phrases. I then insert a reverb on the instrument bus to create a more extended musical phrase. In the second instance, at 00:18, I chromatically map audio clips in a DAW virtual sample instrument and loop them to accentuate the tonal properties of the audio segments. These sounds aim to replicate the timbre and tonality of an empty forty-four-gallon drum strike. I tune these sounds to G2, C3 and G3 in both work sections. These sounds are sonic representations of the site resulting from synthesising and processing recorded site sounds.

To construct the layers of rhythm, I employ onsite sound recordings, from which I create a drum kit to generate a dynamic build. I combine Hip-Hop and metal drum kits to emulate the rhythmic characteristics of the early Hip-Hop genre. Through the timbre of the drums and syncopated cross-rhythms, I hope to evoke artists such as Grandmaster Flash and the Furious Five, Run-DMC, the Beastie Boys, The Double Dutch Girls, and Tom Tom Club, incorporating Hip-Hop and syncopating cross-rhythms in their music. Early Hip-Hop has syncopated kick drums intermittently placed between the claps' consistent rhythmic meter. This rhythmic technique displaces the accents to generate the impression of the dominant beat shift between

accented and non-accented. “Playground” is 155 BPM, but the impression of the notes is at half tempo. The half-time shuffle is characteristic of Hip-Hop music, which allows time between beats to generate syncopation as a rhythmic dynamic (Figure 05).

Figure 07 “Playground” Half-time shuffle

Playground Drum Kit Half Time Shuffle

Alison Cole 2023

The image shows musical notation for a drum kit pattern in 4/4 time, marked with a tempo of 155 BPM. The notation is organized into two systems. The first system contains four measures of music. The second system contains one measure, starting with a measure rest labeled '5'. The drum parts are: Tom (represented by a triangle), Ride (represented by a cross), Snare (represented by a vertical line), and Kick (represented by a vertical line with a cross). The pattern features a half-time shuffle feel with syncopated rhythms.

From 00:55 to 04:26, I use virtual synthesisers modelled on popular commercial timbres of the 1970s and 1980s. Please see Figure 06 for a list of synthesisers used in this section of the work.

Figure 06 “Playground” modelled synthesiser instruments

MODELLED SYNTH	COMPOSITION INSTRUMENT	PRODUCTION YEAR	FEATURES
ROLAND JUNO-106	DEEP BASS + SOLO VOICE	1984	Standard-setting analogue polyphonic synthesizer.
REPRO 5 modelled on Pro One	DARK CHOCOLATE	1981	Sequential Circuits released the Pro One. Monophonic version of the prophet 5.
MINIMOOG	DARK BASS	1970 - 1981	Analogue synthesizer first manufactured by Moog Music.
ALESIS ANDROMEDA A6	ANDROGYNE STRINGS	2000 - 2010	A true analogue synthesiser using two analogue oscillators per voice, sub-oscillators, hard and soft sync.
FREEMAN STRING SYMPHONIZER	CLOUD CITRUS	1970	Also known as the Cordovox CSS 5 octaves.
SOLINA STRING ENSEMBLE	BLUE STRINGS	1970	Uses divide-down technology, common in organs of the era, to achieve full polyphony.
KORG MONO-POLY	POLYM STRINGS	1981 - 1984	44 key "mono-polyphonic" analogue synthesizer manufactured by Korg.
YAMAHA CE-20	ALMOST KEYS	1982	Like the DX7 the CE20 is an FM synthesizer.
ARP2600	CHERRY AUDIO SEQ SIXTEENTHS	1970s	Modelled on the synthesizer systems coming from MOOG throughout the 1970s.
PROPHET-5	WARM POLY	1977	Sequential Circuits, who aimed to create the first polyphonic synthesizer with patch memory.
ENSONIQ ESQ1	COLD KEYS	1986	8-voice, multitimbral digital/analogue hybrid synthesizer and a featured 8-track sequencer.
KONTAKT6 INSTRUMENTS – ALISON COLE	FOLEY METALS	2020 - 2023	Recorded metallic hits on Cockatoo Island with Zoom H6 recorder. Looped, added formant modulation, pitch modulation.

A model of an analogue synth emulates the sound and behaviour of the original electronic circuitry in a convenient digital form (Figures 07 & 08).¹

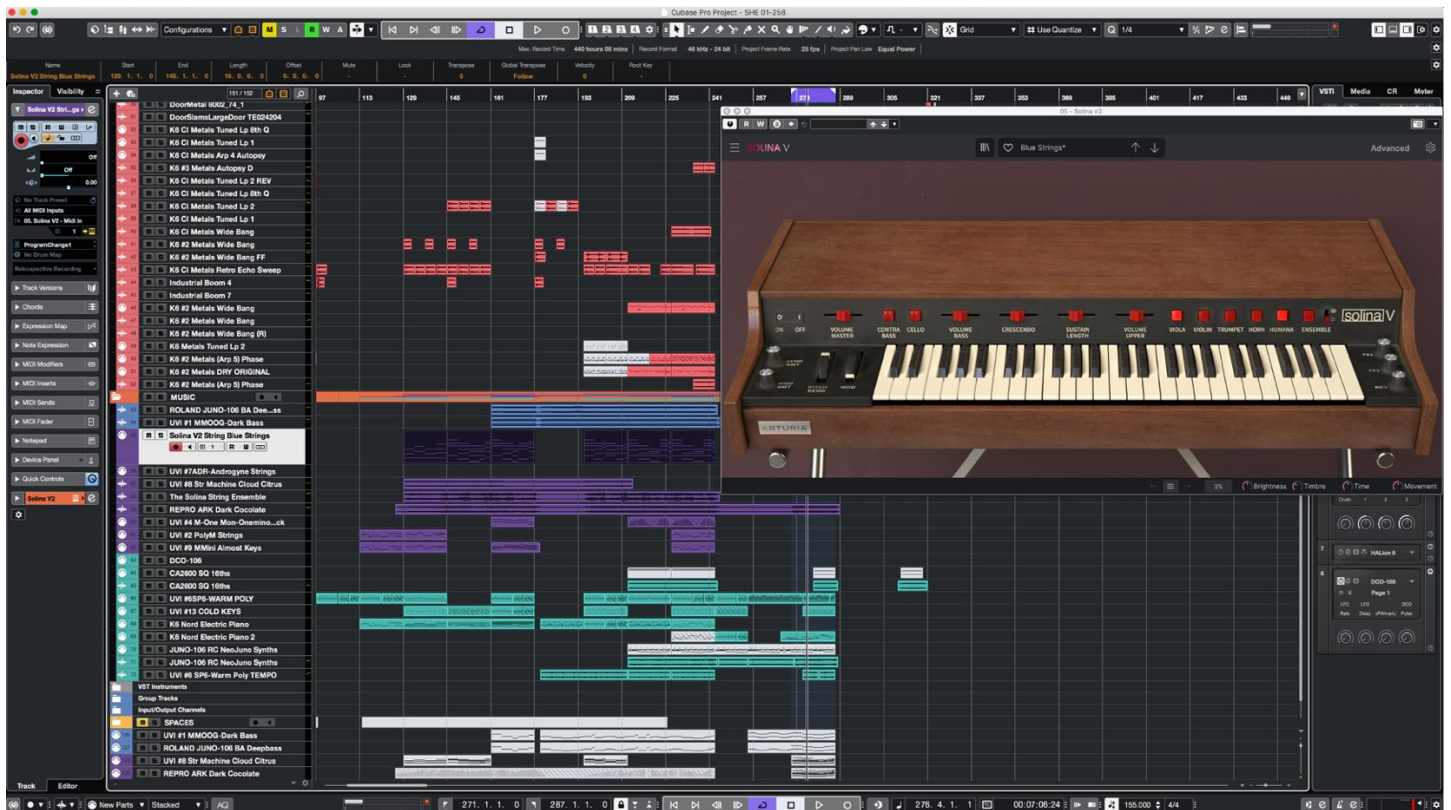
¹SoundGuys, “What is DSP?” accessed 17 January 2023, <https://www.soundguys.com/what-is-dsp-28013/>.

Figure 07 “Playground” REPRO 5 Modelled on the Prophet 5 (Source: screenshot from DAW)



Contrapuntal keyboard sequences in the synthesiser keyboard parts strive to evoke the soundtrack composition practices of popular culture music and gothic horror soundtracks of the 1970s and 1980s, such as Jonathan Elias’s soundtrack to the 1984 gothic horror film *Children of the Corn*. Vocal melodies, devoid of lyrics but vocalising “ah,” “oo,” “oh” and other variants, were exploited by popular music artists such as ABBA, with *Arrival* (1976) and Alan Parsons, with *I Robot*, *Total Eclipse* (1977). Artists such as Kraftwerk, Electric Light Orchestra, Jean-Michel Jarre, Giorgio Moroder, and Pink Floyd used synthesised vocal instruments.

Figure 08 “Playground” Arturia Synth modelled on the Solina V (Source: screenshot from DAW)



“Playground” integrates the vocal synth aesthetic of popular keyboard sounds of the 1970s and 1980s to represent my childhood ghost fiction games. For example, Jonathan Elias’ soundtrack to the 1984 gothic horror film, *Children of the Corn*, utilises the synthesised “ah” as a melodic instrument. To achieve a similar effect to *Children of the Corn*, I recorded three vocalists (Figure 09) and blended the recorded vocals with the synth version of the same vocal parts. At 03:02, the central recorded vocal motif, which first entered at 01:56–02:11, returns at the end of this first section. The repeated motif (Figure 09) is intended to create a dynamic build that starts at 03:58 and continues until 04:23. Using the overhead workshop cranes, the group of resident island children, including myself, would manoeuvre each other in forty-four-gallon drums hooked up to a long chain attached to the crane. This activity sometimes had moments where we had to abandon someone in the drum to avoid getting caught. This organisation of the vocal elements uses a song structure

arrangement to depict this type of climatic moment by employing this motif as a chorus hook. I end this section with environment sound to emulate the departure from the machine shop playground and my return home.

Figure 09 "Playground" vocal arrangement

Playground

Alison Cole 2023

Airy and Breathily ♩ = 155

This musical score system is for the first five measures of the piece. It features four staves: Soprano, Mezzo-soprano, Tenor, and Piano. The key signature has one sharp (F#) and the time signature is 4/4. The Soprano part consists of a melodic line with a long note in each measure, accompanied by the vocalization 'Ah'. The Mezzo-soprano and Tenor parts have more active melodic lines. The Piano accompaniment is a simple harmonic texture with chords in the right hand and rests in the left hand.

7

This musical score system continues from the first, starting at measure 7. It features four staves: Soprano (S.), Mezzo-soprano (M-S.), Tenor (T.), and Piano. The key signature has one sharp (F#) and the time signature is 4/4. The Soprano part continues with a melodic line and a long note. The Mezzo-soprano and Tenor parts have more active melodic lines. The Piano accompaniment is a simple harmonic texture with chords in the right hand and rests in the left hand.

13

S.
M-S.
T.
Piano

Motif – repeats at 03:02 & 03:58–04:23

20

S.
M-S.
T.
Piano

MOTIF
MOTIF
MOTIF

27

S.

M-S.

T.

Piano

32

S.

M-S.

T.

Piano

Figure 10 "Playground" Audio Processing Timeline

00:00 - 00:55

Location sound movement back in time: layers of DAW looped metal onsite recordings and placed sound design. Convey entry into workshop site. Dock/harbour ambience recorded by composer, placed in a spatial delay and large reverb to convey temporal acoustic concepts of stepping back in time.

Tonality established from tuned metals processed in convolution reverb with pitch modulation. Simulate the sound characteristics of a 44-gallon drum. Looped DAW metal rhythm - forward MIDI performance-reversed-audio print-audio reversed.

01:45 - 01:52

Placement of composer in location: sound design of young children's laughter. Placed in large reverb. Convey distant memories . Nostalgic heritage aesthetic

00:55 - 04:26

Retro instrumental nostalgia: synthesis modelling. In-instrument reverbs, distortions, filters, delays used. Capture retro sound characteristics of popular synthesizers of the '80s

Mixture of synthesised and recorded vocals.

02:37 - 04:29

Rhythmic site synthesis: looped metal rhythm. Edited and then phased to construct rhythmic patterns

04:26 - 05:53

Island tranquility: exit from workshop site. Looped DAW metal rhythm - forward MIDI performance-reversed-audio print-audio reversed. Dock/harbour ambience, placed in a spatial delay and large reverb.

Bridge to second section - a different type of playground. Tuned metals transposed up two semitones

Looped DAW melodic elements - forward MIDI performance-reversed-audio print-audio reversed

07.40 - 09:34

Repurposing tranquility melodic and harmonic secondary synthesis: celestone, piano processed with Meringue delay effect. Produces interesting and unusual effects - delay echoes play alternately forwards/backwards. Create textures then edit into musical phrases. Children's laughter throughout this section

07:20 - 09:20 Harbour and shipyard ambience returns

The tuned metals and harbour ambience of the seagulls in the first section return at

the end of this section to harmonically connect and suggest a continuing narrative of my experience of the site (04:38–05:45). The second section of the work is a meditation on the tranquillity of the island. Throughout this section, I intend to sonically realise the shimmering visual effect of the sunlight on the harbour. I process a DAW Celestone instrument melody with a delay effect called Meringue to evoke these optical characteristics (Figure 11). This digital effect is a delay that runs alternately forwards and backwards, not continually forwards. I use this to create timbral melodic sequences derived from the piece’s tonal elements. I blend the “dry,” unprocessed audio signal with the “wet,” processed audio signal. The processed signal follows the original audio to create an echo effect.² These reversed melodic sequences are intended to portray the breeze interrupting the shimmering pattern of the sunlight on the harbour.

Figure 11 Meringue forwards and backward motion of processing site sound (Source: Alison Cole screenshot from DAW)



² musicradar, “The ultimate guide to effects,” accessed 17 January 2023, <https://www.musicradar.com/tuition/tech/the-ultimate-guide-to-effects-delay-457920>

Figure 12 Hohner Guitaret (Source: Eva Heuwieser, *Hohner Guitaret Klangprobe*, YouTube, posted February 27, 2015)



Throughout this second section, a series of modelled DAW instruments emulate the Hohner Guitaret. The Guitaret was invented in 1963 by Ernst Zacharias, the creator of the Clavinet (Figure 12). The system of the Guitaret is like the electric piano system of reeds and tines. It is played in a similar position to the guitar. The left-hand functions as the damper release, and the right-hand sweeps across the reeds. Various DAW iterations of Guitaret perform repetitive and harmonically static sequences that are intended to capture a meditative aesthetic. I apply audio signal granulation effects to emulate slowing down in time. A bowed piano is layered with the Guitaret and uses a phase effect. Phasing in the stereo field produces an impression of sound disappearing from the centre. The result creates the impression that two sounds from opposing speakers cancel each other out. I imply delayed time by continuously slowing down the rate of phase. At 07:20 to 09:20, the harbour ambience returns to gently draw the audience out of my narrative and into a recognisable harbour-sound environment.

Figure 13 "Playground" Harmonic structure and melody second section

Playground

Alison Cole 2023

♩ = 155

7

14

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21

Musical notation for measures 21-27. The system includes a single treble clef staff and a grand staff (treble and bass clefs). The treble staff contains a melodic line with slurs and ties. The grand staff contains a complex accompaniment with many beamed notes and slurs.

28

Musical notation for measures 28-34. The system includes a single treble clef staff and a grand staff (treble and bass clefs). The treble staff contains a melodic line with slurs and ties. The grand staff contains a complex accompaniment with many beamed notes and slurs.

35

Musical notation for measures 35-41. The system includes a single treble clef staff and a grand staff (treble and bass clefs). The treble staff contains a melodic line with slurs and ties. The grand staff contains a complex accompaniment with many beamed notes and slurs.

time from the past to the present. From 00:00–00:55, I intend to create timbres with a subtle internal pulse to imply the physicality of swimming against the tide. A square wave modulates the opening keyboard timbres of a bowed piano sound and generates a phasing metallic resonance. A muted Hohner Guitaret DAW instrument is processed with granular synthesis, causing a muted staccato sound. I create the sense of slowing down by inserting a plate reverb on this instrument. I place seagull sound foley in a large reverb at 00:40 to allude to the sound ecology of the island being in the distance and immerse my audience in the past. I loop a sine wave in a sixteenth-note rhythm and apply an eight-bit noise filter to excite the higher frequencies of the sound to add subtle movement. On a celeste DAW instrument, I perform the notes of the melody in Figure 14, reverse the MIDI, print the audio, and then reverse the audio to create the impression of a fragmented melody. The result still has the existing melody, but the hanging overtones and clipped artefacts produce a disjointed interpretation of the melody.

From 01:19 to 02:17, a crescendo in the looped sinewave doubles with a DAW keyboard instrument with an LFO Tool plugin (Low-Frequency Oscillator) by Xfer Records, inserted on the instrument bus to simulate a sidechain effect. This effect creates the impression of a low-frequency pulse as it mimics a sidechain effect. I add harmonics and octaves in the keys to increase the dynamic tension and anticipation leading to the transition at 02:17. These moments of anticipation connect with my desire to go back in time to clarify a memory. After my first collaboration with Olivia Parker, I composed this work specifically for her voice, which I recorded on September 19, 2022.

Figure 15 "Memory's Fabric" Vocal and Piano Score

Memory's Fabric

Music & Lyrics Alison Cole 2023

Reflective ♩ = 97

VOCAL

PIANO

5 *pp* *cresc.*

Look back this heart A

9 *dim.*

place em - bers - glow I

PIANO

Alison Cole

13 *p* cresc.

VOCAL

climb through emp - ty - space I -

PIANO

17 *dim.*

VOCAL

- wait mo - ments - keep

PIANO

21 *mp*

VOCAL

Each - tear - - she - slips a - way Dark - ness

PIANO

25 *mp*

VOCAL

stays _____ What - you - take _____ I - can't - say _

PIANO

30 *mf*

VOCAL

_____ Time's been ta - ken _____ Mem - or - ies _____ This fab -

PIANO

36 *p*

VOCAL

- ric cuts so deep _____ Night - falls - - re - ver -

PIANO

Alison Cole

42

VOCAL

p *mf*

-rie _____ won't - bring _____ to - your - heart _____ I -

PIANO

48

VOCAL

- see _____ Finds - a - place Heart - of - stone _____ In - piec - es _____

PIANO

53

VOCAL

_____ scat - tered - free _____ to dream

PIANO

60

VOCAL

PIANO

p \longleftarrow *mf*

I can't - say _____

66

VOCAL

PIANO

(4) *p* (5) *p* \longleftarrow *mf*

Time's for - sa - ken _____ Mem - or - ies _____ These - em -

71

VOCAL

PIANO

pp

- bers - - fad - ing _____

Alison Cole

My aim during this vocal recording was to ensure an intimate performance. The

narrative presented in this piece is personal. Re-experiencing Cockatoo Island during the creation of this work has been, at times, emotional. “Memory’s Fabric” hopes to convey this sentiment. Highlighting the emotion in Olivia’s vocal performance aims to encourage my audience to engage empathically with the vocal timbre, dynamics, and simple harmonic and instrumental arrangement of her performance. I compress the vocal audio signal with a digital Teletronix compressor to reduce the range of soft and loud dynamics in the vocal performance. This effect accentuates the treble or higher frequencies of the audio signal to create more presence in the vocal audio. I use a software emulation of the original plate reverb device that uses transducers to convert the audio signal into vibrations that excite the metal. On the other side of the metal plate, a second set of transducers converts the vibrations back to audio. I use a digital plate reverb to accentuate the perceived brightness of the vocal so it can cut through in the mix. I mix the verse with less plate reverb than the chorus. I use this variation to create a closer, more intimate ambience in the verse vocal and an overall sonic blend in the chorus, so the vocal sounds bright but without sounding harsh. “Memory’s Fabric” employs a traditional song structure. I utilise this recognisable format to elicit a direct emotional response from my audience and support my empathic bridge model.

As the final sequence in the whole experience of this work, I decided to focus on the cumulative mood that I associated with the site and in which I wanted to leave my audience. Apart from the song structure, there are moments throughout this piece where I utilise creative production techniques to draw attention to specific musical elements. From 02:18–03:17 the first verse has reduced rhythmic elements, and a harmonic lift at the harmonic resolution of the verse functions as a bridge to transition to the first chorus. From 03:17–03:34 the first chorus has a sine wave bass added. An 808-kick drum enters to interact with the bassline, increasing the rhythmic

momentum. I fortify the chorus resolve with vocal harmonies that transition to the second verse.

The second verse scales back to the rhythmic activity level of the first verse. I do this so the focus is on the voice, lyrics and emotional intensity of the stronger emotions expressed (03:45–04:24). At 04:24, the last word of the second verse lyric, “free,” has increased plate reverb applied to create a smooth lead into the following bridge section harmonically.

The bridge section increases tension by incrementally adding rhythmic and harmonic features. Using the vocal reverb tail of the last lyric of the first verse, I construct contrast with the preceding verse and the following chorus to bridge from the second verse to the second chorus. In the bridge, I compose dynamic tension to increase anticipation and build expectation so that when the chorus melody returns, there is a release and payoff of emotional gravitas (04:24–04:44).

At 04:44–05:30 a repeated chorus reiterates the central motif melodically with lyric development to provide further context. The dynamic build of tripled vocal takes in the chorus vocals focuses on the vocal lyrics, melody, performance, and timbre. The outro, from 05:31–07:05, incorporates the reversed celeste melody from the introduction and fragmented melodic phrases to construct the sentiment of fragility. I loop a section of the recorded vocal, modulate the pitch frequencies then reverse it to create a texture from the existing tonality. I introduce a low-pitched pulse with overtones and harmonics created by applying resonant frequencies as a subtle lower-frequency spectrum reinforcement. I repeat the last line of the chorus lyric and apply an increased amount of plate reverb to the vocal channel as a transitional device. This connective device connects the audience to the site location, represented by the returning shipyard ambience and harbour sounds in a large

reverb to imply a departure from Cockatoo Island.

Using a song structure to reflect on the research process and creating my composition portfolio is an emotionally gratifying experience. Lyrically, I hope to express my reconnection to Cockatoo Island, not only through my perspective but from those who have inhabited the site before me. I have returned to the imagery of fire and embers as a way of circling back to the First Nations' ongoing relationship with the island and the fourteen-week protest, at which a fire burned continuously. I also return to the poetic idiom of stone to connect to the convict men and reformatory girls who endured such harsh treatment during their time on Cockatoo Island. The simple harmonic structure and sparse instrumental arrangement hopefully allow for the emotion in Olivia's vocal performance of my lyrics to convey my intimate connection with Cockatoo Island. I recognise how unique my childhood experience was, and by applying my empathic bridge model to my creative process throughout this project, a different understanding of the site has emerged. The research and creative approach have engendered a new depth of empathy for the stories I portray. My aim throughout the project has been to understand this transformative process to encourage audiences to engage with the multimedia so that they feel the empathy I have generated creatively. "Memory's Fabric" realises the emotional context of my creative practice and my objective to build an empathic bridge between the entire work and my audience.

Figure 16 "Memory's Fabric" Audio Processing Timeline

00:00 - 00:55

Movement in time from the past to now: layers of DAW performed MIDI instruments and placed sound design. Looped sine wave 16th note pattern and 8-bit noise to add subtle movement - forward MIDI performance-reversed-audio print-audio reversed. Celeste motif is treated similarly.

00:40 - 01:12

Site location sound to place audience on site: seagull ambience placed in large reverb to convey temporal acoustic concepts of stepping back in time. Prior use of seagulls in the creative portfolio and the concepts of my experience of site.

01:19 - 02:17

Approaching the present moment: build in dynamic tension. Looped sine wave crescendo, keys volume gated - sonic sensation of moving backwards. Forwards keys and synths - dynamic build. Added harmonics and octave in keys to create build in tension.

02:18 - 06:01

Intimate vocal focus: vocals- a digital Teletronix compressor + Sound Toys Little Plate reverb. Modelled plugins to elicit an intimate aesthetic to the mix of the vocals. Compression reduced the range of soft and loud dynamics in vox recording. Plate reverb on vocals. In the verses there is minimal plate, in the chorus there is increased plate reverb.

Rhythmic dynamic construction:

04:44 - 05:30 Drum pattern is added to lift energy in the piece.

05:19 - 05:30 Crescendo and energy build - layering looped sine wave. Low and large drum hits are reversed to propel sonic energy forward.

05:31 - 06:21 Recorded vocals are looped, pitched and reversed to create texture derived from the existing tonality

Return to harbour location and departure from site: 05:31 – 07:05 low-pitched pulse with overtones and harmonics created by the application of resonant frequencies. Increased vocal plate reverb. Reversed celeste motif returns.

Harbour and shipyard ambience returns to signify present time larger reverb indicates distance from location.

Conclusion

One way we can express a sense of place in a composition is with multimedia work, in which both musical and non-musical media represent a place. It is hoped that in combining my techniques of site sound and sound archaeology together with visual content developed in collaboration with Max Brading, I can enhance audience engagement with the unique site of Cockatoo Island. We can observe apparent features of my multimedia composition and theorise how my empathic bridge model may affect an audience's experience of the site, which is dependent on the distinct perspective of the audience. This thesis has endeavoured to articulate and theorise how I intended the creative work, *Fabric of Memory*, to be received and the purpose I consider it provides.

I have argued that multimedia composition creatively expresses site identity and can facilitate an empathic connection to a site. I use this method as an engagement tool to elicit imaginative listening in the audience experience.¹ I suggest the use of site sound and site visuals in location-specific multimedia composition extends sense modality to generate increased empathy in audience reception. I integrate these sounds into my pieces; at times, these are obvious and at other times they are imperceptible. Of note in the third, fourth, and sixth sections of the work is the inclusion of a narrative arc to support the empathic bridge between the multimedia work and the audience. My narrative arcs, imagined or, in my instance, real, tell direct stories to evoke the first-person experience of those who inhabited the site. The sections of the work that employ traditional song forms also draw upon lyrics I have written to further convey the perspective of those who were connected to the location. The narrative shifts are mirrored in dynamic changes to the sonic and visual

¹ Nicholas Cook, *Analysing Musical Multimedia*. (Oxford:Oxford University Press, 1998).

material.

The written thesis seeks to articulate how my research into the site has informed my creative work. I have used various sound processing methodologies to transition site sound from unrecognisable to recognisable and vice versa. Even when sounds are no longer perceptible to an audience, the use of site sounds is a useful conceptual tool for organising my compositional processes. Replicating the acoustic characteristic of being in place in a multimedia composition encourages spatial awareness to engage an audience in point-of-view listening experiences. These sonic features in my works transform how an audience can experience the site, facilitate understanding of its historical and social value, and encourage contemplation of material culture.

A research process allows for creative realisation through a measured strategy of site research of the sonic ecology, sonic archaeology, site structures, and surrounding environment. In creating my portfolio, each composition has shared a consistent conceptual approach of reconnection to place and identity by including site sound as a work component. The project has artistically responded to four historical uses of Cockatoo Island and has been realised through the following process:

1. Research into the sonic ecology and sonic archaeology of the relevant use.
2. Onsite research into the site's material structure and dimensions.
3. Collation and organisation of relevant audio resources. This includes capturing foley sound, developing software instruments, recording vocals, audio editing, and sound processing.
4. Music and sound composition—sonic ecology and archaeology in context.

5. Production and engineering of music and sound compositions.
6. Briefing and creation of visual components.
7. Final mastering of audio mixes.
8. Assembly of all assets.

I seek to engage a broad community with this work. One future direction I envisage is for my empathic bridge to serve as a model for other artists who wish to engage with site. The context of multimedia for other sites to create content and improve audience engagement with site has significant potential. I would like to work on an expansion of this methodology to other sites. Future research could contribute to dialogue around First Nations' history, culture, and the importance of location in the material landscape. This strategy could provide a blueprint for future site-specific creative collaborations looking to understand historical sites.

There is also the possibility for cross-discipline collaboration utilising this model. In September 2022, I presented my research at ASHA (Australian Society for Historical Archaeology) in New Zealand, looking at the potential for cross-discipline collaboration; considerable interest was shown in the sound design interactivity in the exhibition. Sound design interactivity in the exhibition of archaeological sites has exponential possibilities to facilitate an audience's understanding of a site and those who inhabited it. Image mapping, sound design, acoustic environmental treatments, and multimedia broaden the experiential scope.

New technological developments in binaural sound processing have meant that the audiences who experience my multimedia wearing headphones will experience a stereo image as a 3D sound simulation. I have incorporated these technologies in the works "Call," "Stone," and "Playground" to explore the potential for new transmission methods, performance, and reception. My work across art forms aims

to cultivate new models of understanding musical meaning by introducing new environments in which sound interacts with the material conditions of reception. This is how I seek to fulfil my goal as a composer and artist: to create work that explores new meanings, intentions, and sonic hierarchies in the audience experience.

The ideal presentation of the work is an installation onsite at Cockatoo Island. My initial plan of this mode of exhibition was interrupted by the advent of COVID-19 in 2020. My solution was to create a fixed media work. A fortuitous outcome has been my artist collaboration with the visual artist Max Brading, who has created a series of visual responses to each piece in the work.

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