

Vibrating Matter – Situating Sound

Rachel Shearer

2011

This exegesis is submitted to Auckland University of Technology
in partial fulfillment of the requirements
for the degree of the Masters of Art and Design

Contents

Attestation of Authorship . . . 3

Acknowledgements . . . 3

Abstract . . . 5

Introduction . . . 7

Genealogy Of Listening

Imperceptible Degrees

Site Analysis . . . 11

Audio Process . . . 12

Description of the Work . . . 15

Description of the Audio Sequence . . . 16

Christina Kubisch's "The Royal Tree" . . . 17

Evaluation . . . 18

Geology Of Listening

The Flooded Mirror

Site Analysis . . . 21

Audio Process . . . 22

Testing the Installation . . . 23

Description of the work . . . 23

Description of the Audio Sequence . . . 25

The use of the voice in "The Flooded Mirror" and Susan Philipsz'
"Lowlands Away" . . . 26

Settling into Site / Evaluation . . . 28

Duration in "The Flooded Mirror" and Max Neuhaus' "Times Square" . . . 30

Conclusion . . . 33

List of References . . . 37

Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Acknowledgements

Thank you Sue Gallagher, Andrew Douglas and Nova Paul for your engagement, enthusiasm, guidance, advice and generosity with your ideas. Spatial Design AUT for providing a stimulating forum for learning. Mike Diack for allowing my ideas to become a technical reality. Kekuhi Kealiikanakaoleohaililani for your willingness to engage with this project and stunning contribution. Chris O'Connor for performing cymbals. Sean O'Reilly for title advice, Dean Roberts for audio discussions. Roxanne Hawthorne for design and layout. Leilani Toiting, Gwynneth Porter, Alie McPherson, The Larnachs, Monique Jarvis and Joseph Leary for helping out with the childcare. Guy Treadgold for providing support on all levels.

Abstract

My research investigates site-specific sound installation practice by way of two public urban sound projects, created for the Auckland City Council in Tāmaki Makarau / Auckland. Contrary to the typically dominant visual aspects of public art, in these works I explore the capacity of the acoustic domain to territorialise and engender space. The works undertaken in this research explore the use of the chant particularly as a key structuring device in the development of acoustic space. I look to find voices and tell stories with sounds shaped in response to the existing soundscape, that resonate with genealogies centred in site and place. These “voice” / place relations suggest, beyond the usual linear emphasis of genealogy, the value of resonance, echo, and sounding in such relations. Through disruption opening up the possibility of a “becoming”, the installations seek to deterritorialise, reverberating out into the wider world and through time. Generally, I have framed these explorations within what Gilles Deleuze and Felix Guattari refer to as a “geophilosophy” – a way of recognizing the complex territorial constituents of thought itself. Whakapapa is engaged with here to deepen and nuance, an understanding of geophilosophy, one that aims to better understand the complex forces binding cultures to place.

Introduction

We find vibration in matter, energy, light and sound. The title of this exegesis in part seeks to invoke the process of actively generating sound waves that travel through matter, a chain reaction of molecules causing vibration and its resonating effects on material bodies. Partly I want to set up an engagement with an idea of a vibrant matter as found in the writings of Deleuze and Guattari (Deleuze & Guattari, 1987, 1994). My project shares their interest in vitalism as a force of self-organising material bodies that make up our world, caught in an ongoing process of becoming. Taking the earth as a figure comprising a singular flow of vibrant matter, the sound projects enacted here look to situate themselves on this overarching site.

This project builds out of a realisation, while studying sound engineering, that sound is not just simply heard but could be “seen” to some degree. Further to it being the emotional and social conduit I associated with music, sound gives presence to spatial depth, to an experiential and existential “world”. The LED lights on the mixing desk indicate the presence and flow of sound. Increments of that signal can be directed into a reverberation unit to simulate distance between the sound source and the listener. Streaming it back to join other signals, it flows out of the mixing desk to be orientated by speakers. Sound waves projected into the air to bounce off surfaces in reflective patterns to be subsequently absorbed by bodies. In this way sound is a substance linking the space between mind and matter.

Much of this substance is noise – the swish of fabric against fabric, leaves in the breeze, droning traffic, the aural combinations of innumerable movements – there is no silence, only noise.

Background noise [*le bruit de fond*] is the ground of our perception, absolutely uninterrupted, it is our perennial sustenance, the element of the software of all our logic... Background noise may well be the ground of our being... (Serres, 1982, p.13)

If noise is the constant datum of our experience, of being itself, the question becomes, how do we perceive and respond to noise, and beyond this, how do we shape it?

The sound of noise depends on a vibrating source to set up waves, a medium to carry the waves and a receiver to detect them. Hearing helps us navigate our way through time and space, an immersion in the temporal processes surrounding us, of which we are not always conscious. Listening on the other hand is selective as Roland Barthes describes: “Hearing is a physiological phenomenon [,] listening is a psychological act.” (Barthes, 1985, p.245)

To listen is to be open to and be disposed towards. Listening expands our connection with our environment. Michel Chion in “Audio-Vision” defines three modes of listening (Chion, 1990 / 1994): firstly causal listening, the locating of the cause or source of sound; secondly semantic, listening that seeks meaning in what is heard, and that allows us to detect emotional content of a voice; and thirdly reduced or acousmatic listening – a term stemming from the Greek word *akousmatikoi*, or hearers, the outer circle of Pythagoras’ disciples who only heard their teacher speaking from behind a veil (Cox, Warner, & al, 2004). This mode of listening was made possible by Thomas Edison’s invention of the phonograph in 1877, the technology of transferring vibrations in a carrying medium to a recording surface. Friedrich Kittler explains: “The phonograph does not hear as our ears that have been trained immediately to filter voices, words and sounds out of noise; it registers acoustic events as such.” (Kittler, 1986 / 1999, p.23)

What the phonograph allowed us to experience is the separation of sound physically from its source, enabling a focusing on the traits of the sound itself, independent of its cause and meaning. Instead of existing as a reproduction of a live event, a recording can reveal a distinct sound world that comprises its own acoustic territory.

Pierre Schaeffer, the pioneer of *musique concrete* (an avant-garde compositional music form made with sounds recorded from the environment), developed the notion of 'reduced' listening, a revolutionary mode of creating and listening to music. "Reduced" refers to the philosopher Edmund Husserl's method of phenomenological reduction (Bracketing or *Époché*), and entails moving attention away from the physical object responsible for auditory perception and toward the content of this perception. As Schaeffer observed "through this we discover that much of what we thought we were hearing, was in reality only seen, and explained, by the context." (Schaeffer, 1966, p.93)

Whereas pure reduced listening as posed by Schaeffer entails a voluntary practice that deducts sound content away from its object-source, crafting sound for public space invokes instinctive spatial and object responses to sound that require a listening beyond simply hearing. My intention was that by removing the signs that might call up causal listening (taking away the opportunity to easily locate the sounds being emitted or providing a sculptural object of focus), I might create an initial experience of surprise and/or disorientation that demanded a listening response of the reduced kind. This would in turn create an opportunity to activate visualising within the work, one dependant on an audience for actualisation.

Through this type of actualisation a rupture in our accustomed modes of being in such spaces occurs, and in turn our habitual modes of thought. Such a rupture would make possible what Deleuze and Guattari call a "becoming"; in other words, a "becoming" is the opening of space and the normative coordinates delineating habitual responses and spatial identities. (Deleuze & Guattari, 1987)



Above: Map of Imperceptible Degrees location, Albert Park, Auckland, NZ.
Below: Imperceptible Degrees, installation view, 2010

Genealogy Of Listening:

Imperceptible Degrees

Site Analysis

In January 2010 I was invited to submit a proposal for a public art project named Micro Sites, an Auckland City Council public art initiative developed in partnership with The University of Auckland and AUT University. The Council's public art manager and the Advisory Panel for Public Art selected nine proposals, one of which was mine. The works were to be located in the Learning Quarter – an area that encompasses Albert Park, The University of Auckland, AUT University and the surrounding streets and neighbourhoods. This provided an opportunity with which to develop the first part of my research.

Albert Park is a public space in Auckland, New Zealand, that provides an opportunity to relax, socialize or reflect within an urban context. The former Ngāti Whātua village and gardens of Rangipuke, and then the colonial site of Fort Britomart and its barracks is now a formal Victorian garden, well utilised by a public, the two Universities and the City Public Art Gallery, all of which border the park. As the early capital of the colonial government (from 1856 until 1865 after which Wellington became the capital) and a centre for the colonial military during the New Zealand Wars, the site remains a monument to colonial ambition and force. A statue of Queen Victoria symbolises the strength of the colony's patriotism. Trees planted from seeds Governor Grey had collected from other colonised countries frame the park. Sixteen oak trees planted in 1908, commemorate the sixteen battleships that was the visiting US naval "Great White Fleet". (Law, 2011)

My selection of Albert Park as a site for this installation was partly because of these overt colonial icons, which provided a defined and provocative political context. There was a personal reason too. My ancestor William Swanson helped build the Albert Barracks walls. After the wars, he bought his third Māori wife Ani Rangitunoa (my forbear from Ngāti Kahungunu iwi) and children to live nearby.

In Māori “whakapapa” is to place in layers. It is used to describe the recitation in proper order of genealogies and to name the genealogies. Whakapapa includes not just these generational layers but also the stories – human, mythological and spiritual that accumulate within the genealogies. Genealogies themselves account for Creation, the evolution of the Universe and all living within it, as Cleve Barlow describes:

Since all living things including rocks and mountains are believed to possess whakapapa, it is further defined as “a basis for the organisation of knowledge in the respect of the creation and development of all things.” (Barlow, 1994, p.173)

Thinking of the Albert Park locale in terms of “whakapapa” meant stretching its site analysis back to the creation of the universe. It presented an image of telling stories by drawing a line through layers of matter and time.

A Queensland Kauri tree presented itself as the ideal site for many practical reasons. It is situated next to a thoroughfare traversed by the same people regularly. It has a tall, slippery trunk with no footholds making it difficult to climb without specialist gear thereby protecting the installation from tampering. It was not one of Governor Grey’s trees, which were not available for hosting artworks for (colonial) heritage reasons. This Kauri – even if an imported species – forms part of a very ancient family of trees dating back to the Jurassic era – the period in which the super continent Gondwana began its breakup – and lends itself to the idea of the tree not only being a conduit of the past, but a marker of an ancient amalgamation of geological and botanical matter. Its roots then can be thought to tap something more than local soil; they plumb a deep temporal reservoir.

Audio Process

Working in sound design for film taught me to be conscious of the intricacies of the foundation of background noise, and from that substructure to create a



Above: Imperceptible Degrees, installation views, 2010

sound world that supports images and / or a narrative; a process of assembling a subconscious sonic field. In workaday sound design you know your job is well done when your sound becomes so believable the audience does not consciously perceive it. Designing sound for public spaces reverses this process; it gives you an existing sonic field with which to work with but instead of merging with it, the goal is to design sounds that demarcate themselves from the background noise. Nevertheless, mapping the components of this background sound field gives you a starting point from which to develop the qualities of any new sound work.

I began an analysis of the background sound of Albert Park by recording the environment at different times of the day and week. This data was listened to in a studio environment to examine the contents away from any visual cues. This reduced listening situation allowed me to build a picture of the aural cycles of the site and to analyse particular acoustic textures that were present in the soundscape. These textures were used as an initial guide to determine what qualities in the sounds should be developed. Qualities such as frequency range, reverberation and their temporal patterns and distribution helped determine to what degree sounds might be able to blend or stand out from this environment.

In terms of whakapapa, the reciting of genealogies presented itself as an idea for a structuring device for the audio component. I anticipated the work could be a recitation of aural images sourced from the associational narratives and perceptions of the genealogies of the site. The repetitive and transformational qualities of a chant in its form as an incantation is utilised by many cultures as a way to experience oneness with a spiritual or an elemental dimension. These qualities also worked well with the audio technical parameters allowing a

prepared audio signal to loop indefinitely. This gradual sedimentation allows the opportunity for eventual recognition of spatial structure and a comprehension of contributing elements to a territorial distribution. As Jean-Francois Augoyard and Henry Torgue suggest: “The territory is defined by a certain number of repetitions, and is then perceived by others as having a spatial shape.” (Augoyard & Torgue, 2005, p.94)

The concept of the Refrain, as proposed by Deleuze and Guattari, as a form of rhythmic incantation that claims a territory helps clarify my approach of inserting a repeating composition within a site.

We call a refrain any aggregate of matters of expression that draws a territory and develops into territorial motifs and landscapes... In the sense, we speak of the refrain when a assemblage is sonorous or “dominated” by sound. (Deleuze & Guattari, 1987 p.323)

Elizabeth Grosz uses an example of indigenous groups inhabiting the central western desert in Australia, who while travelling across the country during the prehistoric Dreamtime would sing out the names of everything they came across showing awareness of the refrain establishing a territory;

...every living thing, plants and animals, every natural feature, river, mountain, valley, singing the territory into existence. (Grosz, 2008, p.50)

Gilles Deleuze and Felix Guattari similarly contend that acoustic refrains or repetitions are central to territoriality. Every refrain, as they argue, has three basic components which may vary in their emphasis of combination: firstly, a point of order or inside – a home: secondly, a field to be guarded – a yard: lastly a line of flight to an outside – a way out. These refrains mark out territories ranging from that which a bird might claim through its song to the immense refrain of the earth in its demarcation of terrestrial patterns and recurring placements. What they call molecularised refrains, refrains of deterritorialised matter like the sea and the wind, tie us in turn to an even broader, Cosmic refrain. In this regard, refrains of vastly divergent scale can be seen to constitute a variable, shifting whole. (Deleuze & Guattari, 1987)

Besides creating territory, the sonorous can also break down territorial structures. The refrain creates and occupies a territory through a rhythm, tempo or melody. Mimicry is used as a device in this installation to reconfigure these markers of territory. The sound components for Imperceptible Degrees were selected and assembled to reflect in essence what already exists in and around the tree but were concentrated, intensified or subtly manipulated to give them a figural quality over the prevailing background 'noise'. By introducing designed sounds that are themselves reconfigured markers of territory, removed and abstracted from their original place of function, the existing rhythm of the territory they are placed in is disrupted.

In a bid to make sense of the reassigned aural images, a listener's perception is activated. This engagement opens the possibility of a 'becoming', and through this the installation seeks to echo beyond the immediate territory it occupies, reverberating out into the wider world and through time. By this movement of leaving the territory, a deterritorialisation takes place.

Description of work

The work is comprised of two speakers attached high within the Queensland Kauri tree in Albert Park, Auckland City. The speakers are powered by a solar panel higher still in the canopy of the tree. The speakers house a 60-minute long audio composition that plays continuously from sunrise to sunset (being activated only by sunlight) and is intended to remain installed until July 2015. The hardware for this work was developed with Mike Diack, an electrical engineer who customised equipment to fit my specifications.

Charged and activated by light, and with many of the sound components themselves derived from the immediate environment, the work looks to inhabit the tree as a 'natural' part of the environment; electronics behaving organically. As the intention of the work was meant to respect the prevailing atmosphere of respite characterising the park, a subtle presence was sought. Further to this, after each 3-5 minute sound sequence around 3 minutes of "silence" was incorporated into the composition to allow the sound to be also felt as much by absence as acoustic presence.

Description Of The Audio Sequence

The acoustic narrative travels a path from deep in the earth where the tree roots are lodged, up, ascending through the trunk and then out onto the leaves and branches.

Audio Sample 1

Rumbling of volcanic activity embedded with the reverberations of a haka.

– pause –

Audio Sample 2

Creaking – as we move through and up the trunk of the tree. *(The creaking could suggest the sound of the interior of the tree, ropes on settler ships or tectonic plates straining against each other)*

– pause –

Audio Sample 3

The creaking slows and pops. *(Like gunfire / fireworks / embers popping and crackling in slow motion)*

– pause –

Audio Sample 4

The fire crackling becomes the rustling of rain and leaves. *(As the narrative travels up through the tree to the branches)*

– pause –

Audio Sample 5

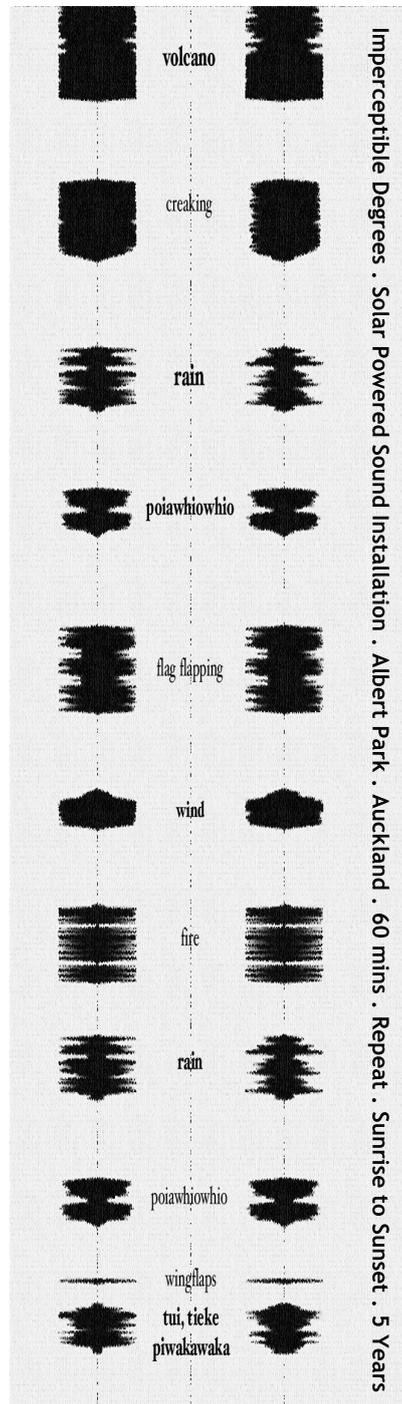
The sound of a flag flapping in the wind. *(The staking of a territory)*

– pause –

Audio Sample 6

Four winds twist, turn and collide to make an elemental music. *(An eddy of air pressure fussing around the tree)*

– pause –



Above : Graphic Score
Imperceptible Degrees, 2010

Audio Sample 7

A poiāwhiowhio – my approximation of the sound

(Traditionally a bird lure made from a gourd with holes and then swung around the head.

A sound of singing wind layered to create a chorus)

– pause –

Audio Sample 8

A flurry of wing flaps beat the air and quickly disperses.

– short pause –

Audio Sample 9

A sequence of bird song – the tieke, piwakawaka and tui.

These birds feature in Māori myths but are also commonplace today.

The sound of these birds familiar in Aotearoa / New Zealand but I have edited and processed their songs so if you listened you would quickly realise that this was no ordinary birdsong. Ordinarily birdsongs might locate the singer within a particular territory, a territory that can be desirable to potential suitors or dangerous to potential rivals.

*This image has been removed
by the author of this thesis
for copyright reasons.*

*This image has been removed
by the author of this thesis
for copyright reasons.*

Above : Christina Kubisch, The Royal
Tree Installation, Berlin, Germany, 2006

Christina Kubisch’s “The Royal Tree”

Audio Sample 10

In researching if there were other sound artists that had developed similar themes in their work I came across Christina Kubisch’s permanent installation “The Royal Tree”, commissioned in 2006. Installed on a large oak, the only old tree in the vicinity, it stands beside the foot of a bridge on the former site of Kaiser Wilhelm’s city palace, subsequently destroyed when the site became part of the German Democratic Republic (or East Germany). Fourteen solar panels on the roof of a nearby construction container power fourteen electronic control modules that feed the fourteen bronze-coloured loudspeakers fastened in the branches of the tree. The modules generate sounds that vary according to the light’s intensity and are emitted by the speakers in the tree. Sometimes they sound like birds, sometimes insects, sometimes like cell phones.

As in “Imperceptible Degrees”, the sounds are in harmony with nature’s temporal rhythms, its audibility dependent upon the hour of day or night, upon the weather – again, as if electronics were behaving organically. Both offer sounds mimicking nature but adjusted to heighten their essence. In both works their ephemeral forms offer a counterpoint to the visual predominance of historical monuments.

Where the works differ though – apart from the obvious historical resonances specific to each site – is that Kubisch’s speakers are a pointedly visual adornment of the tree, whereas mine set out to be as inconspicuous as possible. While the Oak tree she utilises is conspicuously alone, mine blends in with others of its species. The chant motif in “Imperceptible Degrees” utilises pauses between sounds to not only frame the existing soundscape, it opens the acoustic site to a pause capable of being answered by the contingent sounds that may present themselves. The call and response pattern of the work in this way institutes a subtle karanga claiming territory and rights to presence by reciting its whakapapa, by comparison Kubisch’s composition persists as a monologue, confident in its right to place and its claim to an authorized historical presence.

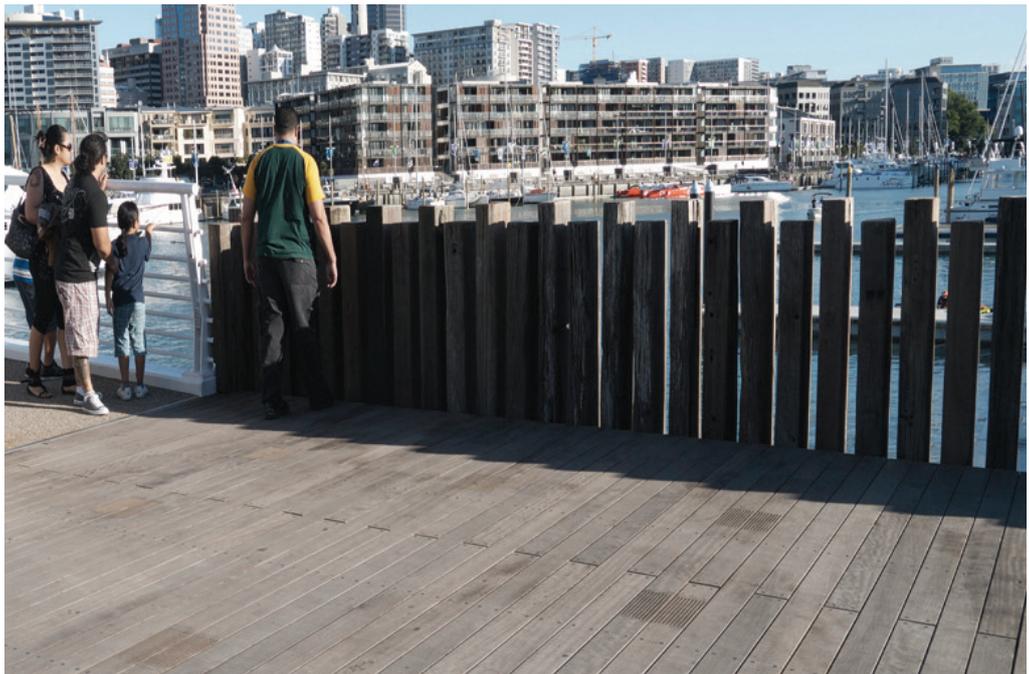
Evaluation

By considering the multiple histories embedded in the site in the manner of whakapapa and recording the park’s soundscape and sonic territoriality, I have shaped a response to a Victorian, colonial visuality and a post-colonial, urban aurality, one drawing on an elemental / animal / territorial / indigenous presence.

Anecdotal feedback has indicated that the installation is effective for a range of frequent users of the park who had a repeated engagement with the work. For instance, the writer in residence at The Sargeson Centre situated in Albert Park related her experience of hearing the sound work as first involving confusion and surprise as the ‘poiāwhiowhio’ sequence made her think of alien ships invading. However, repeated encounters with the sound meant she started hearing additional details within the sounds and she was able to recognise an explicit Māori connotation. A disc jockey at BFM who walked through the park every Sunday on his way to his radio show reported a certain tree was often creaking unnaturally when he was passing by it. Last I heard he had worked out that there were more sounds and that there was a pattern.

A few factors meant that the acoustic presence of *Imperceptible Degrees* is at times a little too subtle. The height at which the speakers are hung allows them to be visually inconspicuous but it also means that the sound can sometimes become dissipated in the environment before reaching the listener. This is due to the fact that at certain times the traffic on Wellesley Street overpowers the installation – I am obliged to not exceed 75db regarded as the sound level of the adjacent traffic. Unfortunately, the traffic sound level is at times louder due to the acoustics of this part of Wellesley St. The subtlety of the sound palette means that it merges with the environment too well at times. Sometimes too, the work goes to sleep for a few days if there hasn't been enough direct sunlight to power it. This inconsistency can be considered as both a strength and a weakness though. Even people who know it is there are often surprised again by it precisely because of this variability. As a long-term work this helps sustain a certain freshness in people's encounter with it. While this wasn't anticipated when preparing the work, this irregularity has become an aspect of its identity.

Even so, in my second work I wanted to create a more consistent sonic presence and decided one way of doing this was to get the point of audio projection closer to the potential audience and to power it electrically. In this way I hoped to achieve a more dominant presence than the previous work while at the same time being mindful that the work would need to leave enough 'room' for people frequenting the space not to be irritated by it since this work is intended to be permanent.



*Above : Map of The Flooded Mirror location, Wynyard Quarter, Auckland, NZ
Below : The Flooded Mirror, installation view, August 2011*

Geology Of Listening

The Flooded Mirror

Site Analysis

I was given the opportunity by the Auckland City Council to propose a permanent sound installation for the Wynyard Quarter on the Auckland waterfront. As this site was under construction a different approach to the site analysis was required than that was used in *Imperceptible Degrees*. A model from the architectural firm of the proposed space had to be my guide to the final spatial configuration. I was unable to observe in advance how the space would be used or analyse the existing soundscape as the sound of ongoing construction was loud and intense during the day. Equally problematic was the area being closed after construction work hours.

As the site is on an observation deck at the foot of a temporary bridge, in keeping with a strategy of avoiding a conspicuous visual presence or a clear indication of the sound source, I proposed projecting the sound from underneath the deck where it was to connect to the proposed bridge. By emitting sound beneath the pedestrian surface, I sought to emphasise the Wynyard Quarter's historical origin as reclaimed land. I saw the site as a temporal hole in a shifting landscape; a landing; a softening of the junction between sea and earth. The proximity of the Waitematā became the key focus for the work and its title alludes to the Waitematā's mirror-like waters (literally it refers to 'obsidian glass') in an incoming tide. The cycle of the tides gave me a temporal framework to organise the project.

Audio Process

Though one site is elevated on the volcanic slopes and the other down at the edge of the sea on reclaimed land, both sites fall on thoroughfares. Whereas the first work was activated during the daylight hours, *The Flooded Mirror* takes its temporal cue from the time the tide takes to flood or ebb – 6 hours and 10 minutes. I similarly used the format of the chant as a device to present a repeating narrative cycle, which would again increase the likelihood of an accidental engagement. Whereas the first work used silence to create a level of porosity allowing the existing sonic landscape to permeate – I decided for this work that I would allow periods of rest in the composition by varying the density and intensity of the sound, a model following that of the waves and tides peaking and receding, flooding and ebbing.

I fortuitously met a woman with the same name as one of my Māori forbears. When I told her I tried to use sound to describe textures she responded with a description of Patupaiarehe (Māori fairies) whose songs sounded like greenstone becoming crystal. From this exchange, the possibility of transformations of minerals from one state to another became a key image with which I proceeded to research the conceptual base of this work.

Examining the geological processes involved in the formation of crystals led me to a poetic resonating loudly in Deleuze and Guattari's consideration of "geophilosophy". Manuel de Landa's interpretation suggests Deleuze and Guattari's geophilosophy takes cues from the scientific research area of "Complexity Theory", that describes "how interacting components self-organise to form potentially evolving structures exhibiting a hierarchy of emergent system properties." (CALResCo, 1996) DeLanda suggests their description of the earth reveals a flow of materials accumulating into constructions of geological, biological, social and linguistic forms – all shaped by their particular genealogies. (DeLanda, 1997)

That all these forms accumulate into strata had parallels with the way in which I put sound together digitally, merging successive layers of sounds but more significantly it resonated with an image of whakapapa – genealogies evolving layer upon layer, interacting and reorganising at each strata face.

Extensive site recordings were made around the Waitematā utilising a hydrophone (underwater microphone). The most successful one was done at night when there was no human / mechanical interference. Identifying a

need for a vocal component to connect my narrative of material transformations to a human element, I approached Kekuhi Kealiikanakaoleohaililani a Hawaiian performer, to collaborate on a series of abstract guttural vocalisations. Choosing to work with her rather than a local performer was based on a decision to look for ways to extend the idea of the site into the wider pacific. As she comes from Hilo, a volcanic 'hotspot' (an area of persistent volcanic activity) on the edge of the pacific, similar to Tāmaki Makaurau / Auckland, her presence in this work looks to reference the wider connections of the volcanic, oceanic and genetic paths that traverse the pacific.

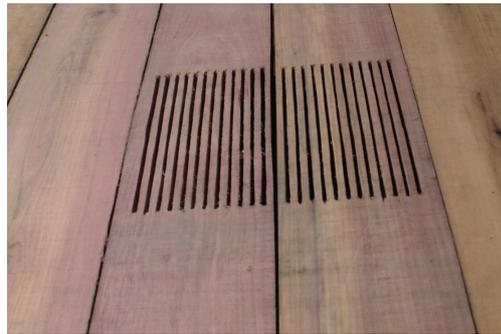
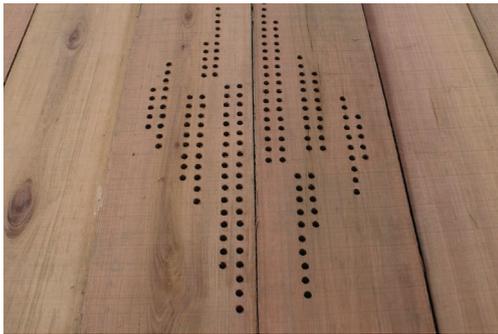
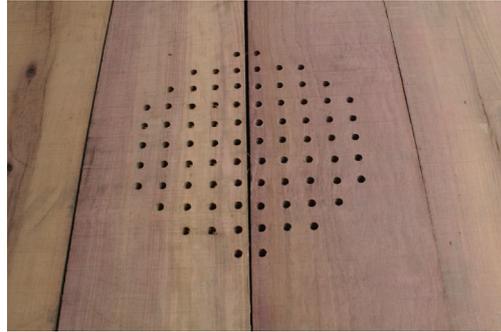
Testing the Installation

The project developed over a 9 month period from November 2010 to August 2011. In March 2011 a 3 metres by 3 metre prototype of the deck was constructed at AUT, constructed out of the same materials to be used for the final deck on the waterfront. As it had already been agreed in consultation with the architectural firm, the deck was to be perforated above the speakers to allow the audio to be heard. (Though metal grates would've sounded better, perforations in the wood would look better visually and would contribute towards minimising visual cues as to the source of the sound). The prototype deck allowed us to test what pattern of perforations in the wood would allow maximum sound flow and to evaluate options as to how the speakers would be attached to the underside of the deck. This also allowed an opportunity for the members of the Auckland Panel for Public Art and members of the Auckland Council to see the work in progress, raise any concerns and ascertain if the work should be funded to the completion stage. The technical systems were developed with the electrical engineer Mike Diack, who also worked on 'Imperceptible Degrees'.

Description Of The Work

The work is an acoustic installation that runs on a 9 track audio loop from 5 solid state .wav players containing audio cards that play 5 stereo .wav files continuously. These are connected to 8 speakers and a subwoofer attached to the underside of the deck, projecting sound up from under the feet of passersby through slots cut in the timber. The subwoofer vibrating the deck in certain sections emphasizes the subterranean and marine themes of the work.

The work is composed of five discrete and merging acoustic passages that are sequenced to utilise the arrangement of the 8 speakers for spatial effect.



Row One Left : The Flooded Mirror, test installation view, March 2011
Row One Right & Row Two : The Flooded Mirror, test installation view – speaker slots, July 2011
Row Three : The Flooded Mirror, installation view – underneath subwoofer, July 2011
Row Four : The Flooded Mirror, installation view – opening, August 2011

The soundscape aims to build, similarly as the harbour's geology sediments transforms over time a complex embedding of sound and landscape, folding into the site a range of distant and local, ancient and recent, social and biological, linguistic and marine acoustic details. By inducing people to slow and listen, it aims to call awareness to the textures arising from the content, suggesting the indigenous and post-colonial histories of this place, through depicting an aural Pacific.

Description of the Audio Sequence

Audio Sample 11

The first section is a series of vocalisations.

(The voice sounding out a reference to how 500 million years ago biological life became mineralized through our bones, the part of us that most readily crosses the threshold back into the world of rocks)

Audio Sample 12

The voice gives way to sustained shimmers of sound.

(Suggesting through their reverberating high frequencies the reflection of light off glassy waters – a description inherent in the name Waitemata. It is also meant to provide a gentler presence after the intensity of the vocalisations)

Audio Sample 13

A soft enveloping drone overtakes the shimmering sequence.

(Evoking the mist emitted from this body of water. The drone causes a constant and gentle vibration throughout the body with the aid of the subwoofer. It harmonises with the background of cars and millions of electronic objects droning in the surrounding soundscape in unison)

Audio Sample 14

Sounds of bubbling water emerges through the speakers eventually merging into...

Audio Sample 15

The sound of Swirling water rolling around single speakers sequentially.

(Creating an image of a whirlpool)

Audio Sample 16

The water eventually becomes a sound that suggest earth grinding against earth which builds up to an intense release of hissing air and crackling fire.

Audio Sample 17

Subsequently the sound descends back into the depths of the Waitematā where recordings from 15 metres under the water's surface reveal it to be crackling with the electrical sounds of underwater life. And through this we eventually return to the voice of Kealiikanakaoleohaililani.

The use of the voice in 'The Flooded Mirror' and Susan Philipsz' – 'Lowlands Away'

The vibration of the vocal cords in the larynx produces the voice; the tongue, teeth, palate and lips shape the sounds. The voice resonates in the head, amplified and modified by the bones of the skull. The vibrational effect of the voice in the body is utilised during chanting in a wide range of traditions. Kealiikanakaoleohaililani herself says, "Chanting to me is to communicate with the most primal parts of myself... that is to embody the whole universe in a sound. I think it one of the most accessible, permeable and alchemistic modes of verbal communication." (Kealiikanakaoleohaililani, 2011)

Questions of power emerge in the concept of voice – the right or privilege of being heard. In this context Michel de Certeau has usefully examined what he describes as the West's prevailing of a 'scriptural economy' (Certeau, 1984). Through this he suggests that in western culture voices are written out of history through the practice of writing. Yet what he holds to be the repression of "orality" in such an economy nevertheless invariably "returns". Through listening to the resonances of the genealogies of the site I sought to hear distanced voices and narratives that the scriptural economy seeks to silence.

I looked to to capture the resonance of evolution, migrations and movements of becoming along oceanic and volcanic pathways as depicted by Kealiikanakaoleohaililani's chanting vocalisations. As the vocalisations avoided using any recognisable language, a literal translation was not possible or intended. Voice no less evokes emotional content and communicates pathically and viscerally. This in turn triggers memories related to those emotions – especially when this voice comes from a disembodied source.

*This image has been removed
by the author of this thesis
for copyright reasons.*

*This image has been removed
by the author of this thesis
for copyright reasons.*

Above: Susan Philipsz, Lowlands Away
Installation, Edinburgh, Scotland, 2010

Audio Sample 18

Susan Philipsz utilizes voice as the sole aural focus with which to activate her site-specific sound installations. Her sound installation “Lowlands Away” was made for the art festival Glasgow International in May 2010. (Significantly she won Britain’s top art award, the Turner prize for this installation, a first for a work of sound art.) Beneath each of the three historic bridges in the city centre were installed recordings of Philipsz recorded voice singing versions of the 16th-century traditional Scottish song, Lowlands Away, a folk ballad in which a drowned lover returns to haunt their sweetheart. It is a song of loss and longing, the presence of the past in empty spaces. Because her singing voice is untrained and unaccompanied, listeners can easily identify with it.

In the same way both works look to the emotive and psychological effects of sound to heighten your awareness of the space you are in. Using a form of refrain (in this case a repeating folk song) is also something both works employ. Even though “The Flooded Mirror” combines a series of audio elements, not just voice, both use the voice to directly address listeners and access emotional responses.

Inevitably, Scotland and Aotearoa/New Zealand carry different histories. Even though in “The Flooded Mirror” Kealiikanakaoleohaililani and I discussed presenting a form of vocalizing that could be read universally by its emotional content, Kealiikanakaoleohaililani’s performative style is informed by a traditional Hawaiian form of chant. This is recognizable to Pacific inhabitants as a Pacific form. An indigenous presence highlights a colonial history.

Settling Into Site / Evaluation

As the site really only came into being once it was officially opened, 'The Flooded Mirror' is still in a process of settling in. Individual sounds need to be adjusted to refine their presence. A period of observation is required to ascertain whether the pacing of sequences suits the temporal flow of the environment. As I had an image of creating a more 'monumental' sound work than 'Imperceptible Degrees', I quickly realised once the work was installed that this would not work long term. The initial mix was too dense and now a level of porosity and lightness of presence is being sought. As Max Neuhaus describes the settling in process:

I never do a piece where I'm not sure that 50 percent of the people who come across it will walk right through it without hearing it...And that means it's available but without imposition, that people find it when they're ready to find it... (Neuhaus, 2002)

Neuhaus was a pioneer of sound installation in public space, his most famous being 'Times Square' which I will discuss later in this exegesis. Though I believe aiming for a "50 percent" response from the public could be increased or decreased depending on different works, I do believe that a key to a sound work's longevity in a public space is consistent with his statement.

Another aspect of settling into the site has been to observe which 'public' frequents the space. Making work for a public space involves a responsibility of thinking of the work in terms of how people engage with the work and the spatiality it generates. The term "public" implies accessibility and accountability to "the people." But who are the people? Rosalyn Deutsche contends that our prevailing notion of public space arises with the development of democratic political process and is never similarly all-inclusive but carries with it the fundamentally conflicted aspects of this process. As she writes, democratic power is derived from 'the people' but the people are not a harmonious totality.

The public space, in Lefort's account, is the social space, where in the absence of a foundation, the meaning and unity of the social is negotiated – at once constituted and put at risk. What is recognised in public space is the legitimacy of debate about what is legitimate and what is illegitimate. (Deutsche, 1996, p.273)

Certainly this site, more so than the Albert Park one, has revealed a more contentious space in terms of the presence of sound. Apart from the bulk of

this public not being made up of people involved with learning institutions, the key difference is the Wynyard Quarter includes a public of local residents. In response to a few residents concerns about noise levels, I have installed a timer that schedules the work to run between 8am-6pm during the week, 10am-6pm on weekends. It is interesting to note that even though this installation can only be heard within a 5-10 metre radius, nearby restaurants are open till late with people talking and music playing. This indicates a certain amount of ‘filtering out’ of sounds already familiar in the environment. Once a final adjustment of the aural component of the work is put in place at the end of October 2011 I will be looking to re-negotiate the timeframe that the installation runs as ideally I would like people to engage with it at all hours.

Some residents have found the “vocalisations” confronting. Anecdotal feedback indicates many members of the public are responding positively to it also, a few recounting that they feel this sequence “in their bones”. These responses indicate that this sequence is activating an emotional reaction and is successful from a perspective of the works intentions. How much their response is to the indigenous inferences that this sequence is meant to suggest is uncertain. An interpretive statement is to be placed in the proximity of the installation which I believe will aid the public in an introduction to the conceptual foundation of the work and hopefully contribute to giving the sound a context for those whose perception might be that it is just noise.

Noise is the usual interpretation of hearing sounds that have no meaning. Bill Fontana explains, “Language and music have been our main aural concerns culturally so there is potential for developing a capacity to perceive patterns or qualities in sounds that are recognizable as part of a context of meaning.” (Fontana, 2004) As the first sound installations of their type in New Zealand there has not been many opportunities for a public that is not use to engaging with these vocabularies to practice and respond to. Philip Dadson’s wind-driven piece ‘Akau Tangi’ (2010) in Evans Bay, Wellington and Tenantenna (2005) on Waiheke Island are the two other existing permanent sound installations in New Zealand.

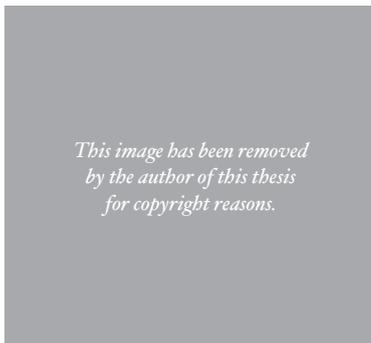
*This image has been removed
by the author of this thesis
for copyright reasons.*

*This image has been removed
by the author of this thesis
for copyright reasons.*

Above : Philip Dadson, Akau Tangi
Installation, Wellington, NZ, 2010

Below : Philip Dadson, Tenantennae
Installation, Waiheke Island, NZ, 2005

In contrast to the use of sound reproduction technology being crucial to their presence as in my installations, these are instruments that utilise airflow to produce tones, or amplify the soundscape through their physical form. Their visual appearance is also a feature of both works unlike “Imperceptible Degrees” and “The Flooded Mirror”.



Above: Max Neuhaus, Times Square Installation, New York, USA, 1977-1992 / 2002-present

Duration in ‘The Flooded Mirror’ and Max Neuhaus’ ‘Times Square’

Audio Sample 19

In Max Neuhaus’ sound installation, “Times Square”, situated in Times Square, New York, a rich harmonic sound texture emerges through a grate 24 hours a day, seven days week. The sound is generated by a device that amplifies and enhances the natural resonances present below ground and relays it through the grate to the street above, filtering into the street like a low frequency musical air conditioning unit. Originally installed from 1977 until 1992, it was reinstated in 2002. Neuhaus claims he chose Times Square as around 30 million tourists pass through it each year, he thought it the epitome of the public place. (Neuhaus, 2002) Emitting from underfoot like “The Flooded Mirror”, it initially conceals its source from its audience, enabling an initial sense of surprise or disorientation on recognition of an unexplained sound presence.

Both “Times Square” and “The Flooded Mirror” look to create an initial experience of a “transcendent presentness”. In “Times Square” this concept is enhanced by the audio consisting solely of a never ending undulating tone, creating a richness in its simplicity in stark contrast to the intense urban clamour and the hectic visuality of its surroundings. In contrast, “The Flooded Mirror” resides in a less populated site and so doesn’t have to compete with as much environmental information. Its acoustic sequence offering the possibility of a narrative to unpack by repeated encounters and the taking in of fragments which over a given duration can piece together an orientation into the work.

Rather than an immediate visual encounter, engagement with these sound

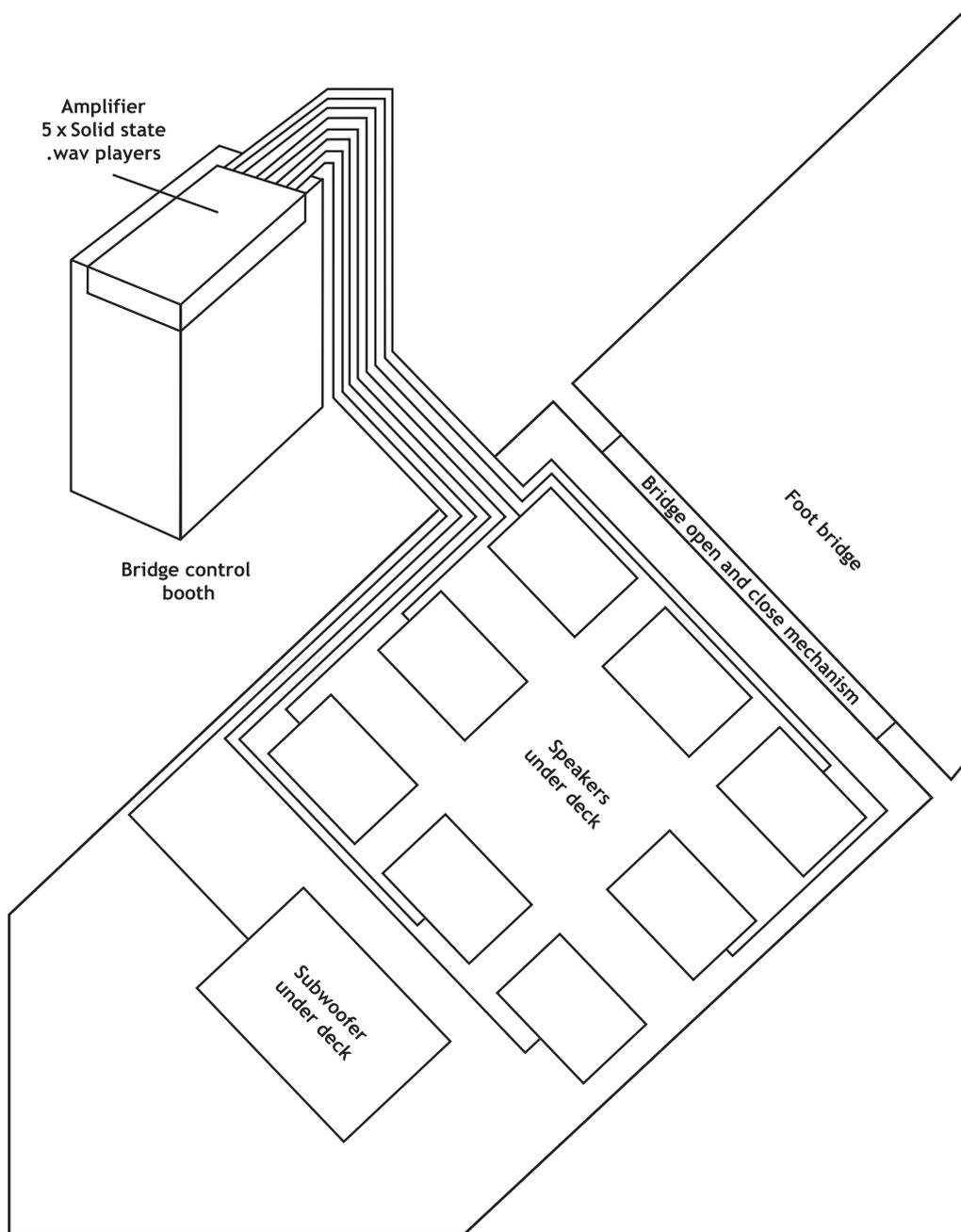
installations takes time. Brandon LaBelle contends that space is a potential awaiting activation through durational insertion. (LaBelle, 2006) Sound installation, such as “Imperceptible Degrees” and “The Flooded Mirror” offers up information that is both present and passing. Through activating perception with sound, our attention of that space is activated by our memory of spatial experience. Perception moves us to the real, present and future, while memory takes us towards the past, duration – the push and pull between these ambivalent states are housed within these types of work.

Conclusion

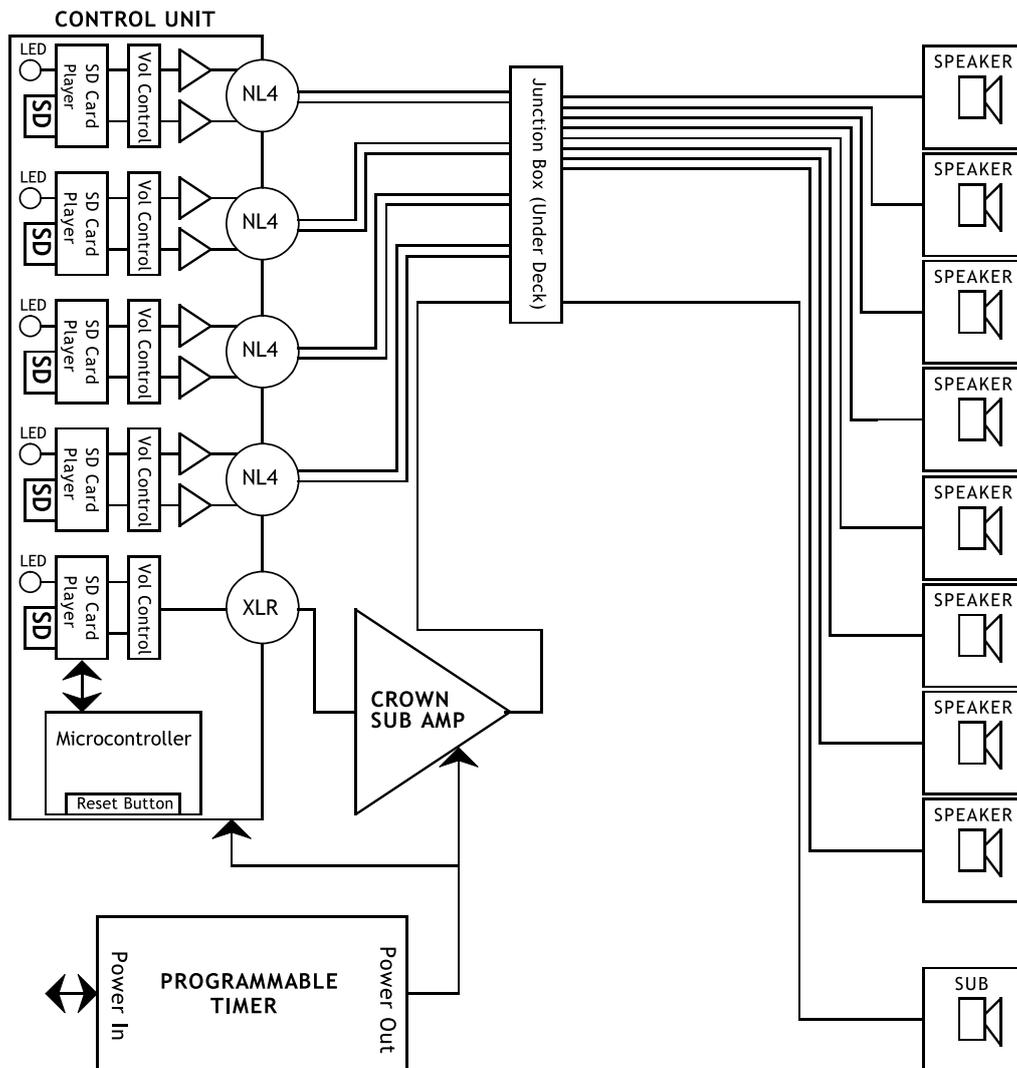
Deleuze uses the term “Fabulation” to depict artistic practices that foster a “people to come”. “Fabulation” is a French word that translates into English as storytelling or myth-making. (Bogue, 2010) Henri Bergson originally used the term to describe the instinctive human tendency to ascribe intentionality to natural phenomena, claiming that this leads humans to invent god, religion, social rules that enforce group obedience within traditional society. These stories counter the potential despair that our intelligence as a species might experience in perceiving our mortality and ultimate powerlessness. (Bogue, 2007, p.93) Deleuze’s use of the word calls on an ethical or political dimension. Through fashioning larger than life narratives or images that transform conventional representation and conceptions of collectivities it enables the invention of a people to come. (Bogue, 2010) As an artist this offers an exciting potential.

Vibrant Matter: Situating Sound has brought together and challenged my accumulated skills as sound designer, sound artist and sound engineer. Having the opportunity to create two public sound works, “Imperceptible Degrees” and “The Flooded Mirror” has entailed considering the political ramifications and responsibility of occupying a public site. In drawing on my relationship with “whakapapa” to find a way to “read” and “tell” a site, and through this discovering a parallel and poetic in the theories of Deleuze and Guattari’s “geophilosophy”, I found an illustration of the earth that I could utilise as a compositional tool. This meant charting layers and the processes of transformation associated with the genealogies of the site which could then be expressed by a narrative of audio segments. By presenting this narrative in the form of a repeating chant I looked to build a spatial presence based entirely on the vibrations of acoustic forms.

In the process of welding sound to site, these works set out to solicit a potential listening audience – “a people to come”. For this audience listening calls on a presentness, resonating with genealogies of a site that are not apparent in the visual surroundings. Aiming to not just entertain, this project includes an element of hope that entails the possibility of “becomings” through the disruption resulting from the audience’s bid to make sense of the reassigned aural images. In this way the works look to contribute towards “a people to come” who would ethically question their place and choices in the processes that affect the broader site of society, culture and the vibrating matter of our earth.



Above: Diagram of The Flooded Mirror
by R. Hawthorne



Above: Flooded Mirror Wiring Diagram
by Mike Diack

References

- Augoyard, J. F., & Torgue, H. (2005, p.94). *Sonic Experience: a guide to everyday sounds* (A. McCartney & D. Paquette, Trans.). Quebec: McGill-Queen's University Press.
- Barlow, C. (1994, p.173). *Tikanga whakaaro: key concepts in Māori culture*. Auckland: Oxford University Press.
- Barthes, R. (1985, p.245). *The Responsibility of Forms* (R. Howard, Trans.). New York: Hill and Wang.
- Bogue, R. (2007, p.93). *Deleuze's Way : essays in transverse ethics and aesthetics*. Hampshire: Ashgate Publishing Limited.
- Bogue, R. (Ed.) (2010). *Fabulation*. Edinburgh: Edinburgh University Press.
- CALResCo. (1996). *Complexity, Artificial Life and Self-Organising Systems Glossary*. Retrieved 2011,
- Certeau, M. D. (1984). *The Practice of Everyday Life*. Los Angeles: University of California Press.
- Chion, M. (1994). *Audio-Vision* (C. Gorbman, Trans.). New York: Columbia University Press. (Original work published 1990)
- Cox, C., Warner, D., & al, e. (2004). *Audio Culture : readings in modern music*. New York: The Continuum International Publishing Group Ltd.
- DeLanda, M. (1997). *A Thousand Year of Nonlinear History*. New York: Zone Books.
- Deleuze, G., & Guattari, F. (1987). *A Thousand Plateaus : Capitalism and Schizophrenia* (B. Massumi, Trans.). Minneapolis: University of Minnesota Press.

- Deleuze, G., & Guattari, F. (1994). *What is Philosophy?* New York: Columbia University Press.
- Deutsche, R. (1996, p.273). *Evictions:art and spatial politics*. Massachusetts: Massachusetts Institute of Technology.
- Fontana, B. (2004). *Sound as Virtual Image*. Retrieved 2011 from [http://www.resoundings.org/Pages/sound As Virtual Image.html](http://www.resoundings.org/Pages/sound%20As%20Virtual%20Image.html)
- Grosz, E. (2008, p.50). *Chaos, Territory, Art: Deleuze and the Framing of the Earth*. New York: Columbia University Press.
- Kealiikanakaoleohaililani, K. (2011). [personal communication - email]
- Kittler, F. (1999, p.23). *Gramophone, Film, Typewriter* (M. W. Geoffrey Winthrop-Young, Trans.). Stanford: Stanford University Press. (Original work published 1986)
- LaBelle, B. (2006). *Background Noise : Perspectives on Sound Art*. New York: The Continuum International Publishing Group Ltd.
- Law, R. G. (2011). *Auckland, August 1908: A Stop on the Great White Fleet World Cruise*
- Neuhaus, M. (2002). *Arts Electric : EMF's Guide to Music, Sound Art, and Technology Worldwide*. Retrieved 2011, from http://www.arts-electric.org/stories/2002/020530_neuhaus.html
- Schaeffer, P. (1966, p.93). *Traité des objets musicaux*. Paris.: Le Seuil.
- Serres, M. (1982, p.13). *Genesis* (G. J. a. J. Nielson, Trans. 1995 ed.). Ann Arbor: University of Michigan Press.

The End