

Studies in Material Thinking, <http://www.materialthinking.org>
 Vol. 5 (December 2011), ISSN 1177-6234, AUT University
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Rachel Shearer

AUT University
 Research Candidate, Lecturer
 rachel@rachelshearer.com

Abstract: My research investigates site-specific sound installation practice by way of two public urban sound projects, created for the Auckland City Council in Tamaki 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. 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 here to deepen and nuance an understanding of geophilosophy, one that aims to better understand the complex forces binding cultures to place.

Key words: sound, public art, installation, site-specific

Vibrating Matter – Situating Sound

Introduction

We find vibration in matter, energy, light and sound. The title of this paper seeks in part 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 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.

The world is full of 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?

A sound depends on a vibrating source to set up waves, a medium to carry the waves, but it also depends on 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 thirdly reduced or acousmatic listening. This mode of listening was made widespread by Thomas Edison's invention of the phonograph in 1877. The phonograph allowed us to experience 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. 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).

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).

GENEALOGY OF LISTENING:

Project one: *Imperceptible Degrees*



Figure 1. Map of *Imperceptible Degrees* location, Albert Park, Auckland, NZ.
Figure 2. *Imperceptible Degrees*, installation view, 2010

In January 2010 I was given the opportunity to make a public art project in Albert Park through an Auckland City Council public art initiative named *Microsites*. Albert Park is a public space in Auckland, New Zealand. The former Ngati Whatua village and gardens of Rangipuke, and then the colonial site of Fort Britomart and its barracks, became a public park in the 1880's. It is 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) 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 Maori wife Ani Rangi Tunoa (my forbear from Ngati Kahungunu iwi) and children to live nearby.

In Maori '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 through 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. 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 Treatment

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 sound world that supports images and/or a narrative; a process of assembling a subconscious sonic field. 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. By recording the environment at different times of the day and week and examining them in a studio environment I was able 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 constructed sounds should be developed. Qualities such as frequency range, reverberation, 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 being 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 work well with the technical parameters allowing a prepared audio signal to loop indefinitely. This repetition allows the opportunity for eventual recognition of spatial structure. 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 Gilles Deleuze and Felix Guattari, as a form of rhythmic incantation that claims a territory fitted with 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 an assemblage is sonorous or "dominated" by sound (1987, P.323).

Deleuze and Guattari similarly contend that acoustic refrains or repetitions are central to territoriality. These refrains mark out territories ranging from the most mundane 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).

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. This is the movement of leaving the territory, a deterritorialisation.

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 audio composition that plays continuously from sunrise to sunset (being activated only by sunlight) and is intended to remain installed until July 2015. Charged and activated by light, and with many of the aural 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.



Figure 3. *Imperceptible Degrees*, installation view, 2011

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 Description 1

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

Audio Description 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 Description 3

The creaking slows and pops.

(like gunfire/fireworks/embers popping and crackling in slow motion)

pause

Audio Description 4

The fire crackling becomes the rustling of rain and leaves

(as the narrative travels up through the tree to the branches)

pause

Audio Description 5

The sound of a flag flapping in the wind.

(The staking of a territory – historically and conceptually)

pause

Audio Description 6

Four winds twist, turn and collide to make an elemental music.

(An eddy of air pressure fussing around the tree)

pause

Audio Description 7

A poiawhiwhio (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 and movement layered to create a chorus)

pause

Audio Description 8

A flurry of wing flaps beat the air and quickly disperses

short pause

Audio Description 9

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

These birds feature in Maori myths but are also commonplace today. I have edited and processed their songs so if you listened you would realise that this was no ordinary birdsong.

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.

A few factors meant that the acoustic presence of Imperceptible Degrees is at times a little too subtle due to it competing with peak hour traffic. Sometimes the sound palette merges with the environment a little too well. Sometimes 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

Wynyard Quarter's historical origin as reclaimed land; a temporal hole in a shifting landscape. The proximity of the Waitemata became the key focus for the work and its title alludes to the Waitemata's mirror-like waters (literally it refers to 'obsidian glass') during an incoming tide.

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 framework 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. Whereas the first work used intermittent silences to allow 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.

The transformations of minerals from one state to another as a possible narrative/conceptual base for the work led me to a poetic resonating in Deleuze and Guattari's consideration of geophilosophy. Manuel 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.

Description of the work



Figure 6. *The Flooded Mirror*, installation view, 2011

Figure 7. *The Flooded Mirror*, installation view – underneath subwoofer and speaker, 2011

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 sound is composed of five discrete and merging acoustic sequences edited to utilise the arrangement of the 8 speakers for spatial effect. The soundscape aims to build, similarly as the harbour's geology sediments transforms over time, embedding sound from and within this landscape back into this site, depicting an aural Pacific.

Identifying a need for a vocal component to tie in the human element to a narrative of material transformations, I approached Kekuhi Kealeohailani, a Hawaiian performer, to collaborate on a series of 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 Tamaki Makaurau/Auckland, her presence in this work also looks to reference the wider connections of the volcanic, oceanic and genetic paths that traverse the Pacific.

Audio Description 10

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 Description 11

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 Description 12

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 Description 13

The sound of bubbling water emerges through the speakers eventually merging into...

Audio Description 14

The sound of swirling water rolling around single speakers sequentially.

(creating an image of a whirlpool)

Audio Description 15

The water eventually builds into sounds suggesting the pressure of earth grinding against earth building up to an intense release of hissing air and crackling fire.

Audio Description 16

Subsequently the sound descends back into the depths of the Waitemata 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 Kealeohaililani.

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. The vibrational effect of the voice in the body is utilised during chanting in a wide range of traditions. Kealeohaililani 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" (Kealeohaililani, 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 may silence.

Settling into Site

As the site really only came into being once it was officially opened, *The Flooded Mirror* needed settling in. Individual sounds needed to be adjusted to refine their presence. A period of observation was required to ascertain whether the pacing of sequences suited the temporal flow of the environment. As I intended to create 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 composition was too dense and so a lighter presence was sought through lower volume and more spaces between sounds. Max Neuhaus, a pioneer of sound installation in public space, usefully described his approach to refining a sound installation's presence: "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).

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. Negotiation has been required to find an acceptable presence to some of the nearby residents. Some have found the 'vocalisations' confronting. Balanced with positive anecdotal feedback, it indicates that this sequence particularly is activating an emotional reaction and is successful from a perspective of the works intentions.

An interpretive statement is to be placed in the proximity of the installation aiding 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, n.d.). As the first

sound installations of their type in New Zealand (the other existing two permanent sound installations *Akau Tangi* (2010) and *Tenantennae* (2005) by Phil Dadson are both sculptural instruments that amplify the environment in less populated situations) there has not been many opportunities for a public that is not use to engaging with these vocabularies to practice and respond to.

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.

As these works were meant for a public space, making *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. Their engagement with these sound installations takes time, either through a momentary presentness, or through repeated visits allowing an orientation into the narratives. 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 earth.

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Rachel Shearer

AUT University
Research Candidate, Lecturer
rachel@rachelshearer.com

Rachel Shearer's history in a range of sound practices contributes to her approach to art making. As an artist she has been exploring the spatial and temporal aspects of sound design through site-specific sound installation practice. She has worked professionally in live sound and postproduction audio for film and television. She has sound designed and composed for a number of NZ award winning feature films, documentaries and short films. As an active recording and performing experimental musician for over two decades she has released material and performed both internationally and nationally with well-known New Zealand and US music labels. Rachel has recently completed a Master of Art and Design (in the Spatial Design Department) at AUT University (Auckland, New Zealand).

Vibrating Matter - Situating Sound