

# Sound/Site: sound as articulation of form and event

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This exegesis is submitted to Auckland University of Technology,  
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## 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 nor material which to a substantial extent has been accepted for the award of any other degree or diploma of a university or other institution of higher learning, except where due acknowledgment is made in the acknowledgments.

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## Abstract

Sound and Site: sound as articulation of form and event.

This project is a performance based exploration of the interaction between site and sound. It has aimed to use a focus on sound production as a catalyst for opening up alternate ways of reading, mapping and experiencing the physical environment.

Within this research, sound is perceived as a sonic representation of form, mass, volume and event - an articulation of space, material and their activation.

Through a series of installations/ events this project has looked to exploit resonances inherent within chosen sites, as well as introduce sound to otherwise inert environments in order to communicate the potentials of sound and materials.

Another key focus has been upon the dynamics between artist/ work and audience, experimenting with ways in which to explore these roles.

## Introduction

This exegesis is structured into two main sections. The first section will map out the territory of ideas and issues that I have explored and used to inform my practice. The second section will discuss ways in which I have dealt with these ideas and issues in a practical sense, drawing on works conceived through the course of this project. At the end of this section there is a chronology of these works in order to give an overview of the body of practical work completed during this project.

This text is accompanied by a DVD of video documentation (located at the rear of this document). Specific tracks will be referred to throughout the text in order to further illustrate the ideas and context being discussed. To access tracks on the DVD, scroll down the menu and press on the desired track number.

The DVD should be compliant with any DVD player or computer able to read DVD's.

The thesis is constituted as practice-based work 80%, accompanied by an exegesis 20%.

Documentation of the final exhibition will be included upon completion.

## Section 1: Conceptual framework (marking out the territory of exploration)

### Introduction

The focus of this research project is the investigation of sound within a sculptural discourse. My use of the term 'sculpture' within this context encompasses a broad area, not just object - based but also in reference to site/ space and performance. My interest in the use of sound within a sculptural practice is that it opens up a variant dialogue in which materials, objects and site get the opportunity to speak.

*Everything in the world has its own spirit which can be released  
by setting it into vibration. (Cage, J. 1989)*

This idea of 'speaking', the activation of voice from inanimate material, has become the foundation of my research - sound production as a way of audibly articulating form. The way a site, material or object behaves in relation to sound production is the main focus of my sculptural concerns – this being explored in a number of ways through a method of response. The site-specific notion of responding to a given site is the method in which I have been able to explore the varying dynamics between site and intervention upon the site. The idea of 'intervening' has been a key aspect of my research – intervention occurring in a number of ways for a number of reasons, but always informed by the process of direct conversation with the site in question. The generation of every project I have embarked on within this research has been in response to a given situation. It is the uniqueness and challenge of responding to a scenario that has allowed me to explore thoroughly these ideas and the dynamics between the parties involved (myself, spectator and site).

## Exploration of site

*Site-specific works deal with the environmental components of given places. The scale, size, and location of specific works are determined by the topography of the site, whether it be urban landscape or architectural enclosure. The works become part of the site and restructure both conceptually and perceptually the organization of the site. (Serra, R. as cited Kwon, M. 2002)*

Site-specific work aims to converse directly to a site in question. Through this conversation the sites' function may be questioned, its qualities acknowledged and its alternate potentials activated. My focus, in response to these considerations of site-specificity, has been upon the exploration of room acoustics and the generation of sculptural interventions that interplay with the architectural qualities of a given site.

## Room tuning

*A room imparts its unique sonic signature on all sound produced within it. (Winer, 2004)*

Each room (or enclosed space) has a unique voice due to its particular structural configuration (shape, size, materials). This voice is built up from the natural resonances that exist within a room (the room's modes), the frequency of each resonance being *directly related to the room's dimensions* (Winer, 2004). Generating a sound that has the

The natural response in a small room, top, has resonant peaks that start higher in frequency and are sparser than for a larger room, at bottom. (Winer, 2004)

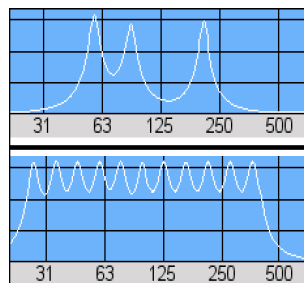


fig 1.1

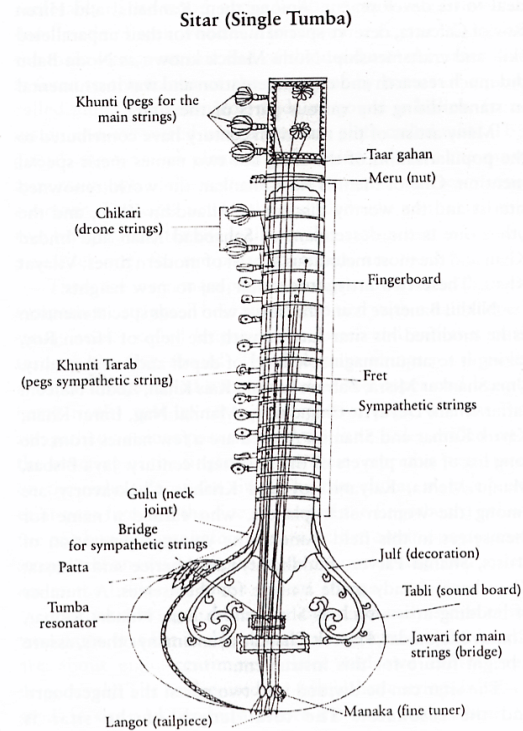


fig 1.2



fig 1.3 Sam Morrison. Image from *Wine Vat sound project*, 2006. When struck, the pole activates the internal acoustics of the inside space. This installation produces a pitch that is sympathetic with the internal acoustics of the vat, once struck resounding for around 30/ 40 seconds. (DVD track 1)

same pitch as the room's natural resonance will result in the accentuation of that sound, meaning that it will be louder and sustain longer than other sounds at pitches that do not correlate with the room's resonance. In such a situation the room is compliantly reciprocating; the initiating sound and the responding vessel (the room) being sympathetic to one another. In a sympathetic interaction the sound and the containment of the sound somewhat merge. Sympathetic relationships have been employed in various instrument designs, such as in the Sitar, an ancient Indian stringed instrument (fig 1.2). There are a number of variations in sitar design, but common amongst these variations is the presence of sympathetic strings, these being activated not by direct touch but in their resonant relationships with the strings that are directly played. Within this research, sympathetic relationships have been explored not only through sound; but also through other aspects such as the relationships that occur between various objects and materials employed. (fig 1.3 - DVD track 1)

The effect of a room upon a sound (*imparting its unique sonic signature* - Winer, 2004.) is called 'colouration'. Room tuning is the act of manipulating this colouration, generally with the intent to remove this '*unique sonic signature*'. Various ideas associated with the terms 'room tuning' and 'colouration', such as room as instrument and sound as material, have become foundations in my approach in the exploration of site.

A room is tuned through the manipulation of the various parameters involved in colouration, which mentioned earlier, consist of the size, shape and the material nature of the site. An example of this manipulation is the use of strategically placed sound absorbent panels that act to remove pronounced acoustic features of the room. Through the use of material intervention within a site its inherent natural resonances may be

altered, dulled or removed. Such acoustic design methods have been utilized in many modern sites, from libraries to office environments, resulting in an acoustically 'flat' or 'dead' space.<sup>1</sup> The pinnacle of architectural design in respect to achieving 'acoustic flatness' is the anechoic chamber in which the room makes no residual effect upon sound created within it.<sup>2</sup>



fig 1.4 Alvin Lucier

*"I am sitting in a Room different to the one you are in now. I am recording the sound of my speaking voice and I am going to play it back into the room again until the resonant frequencies of the room reinforce themselves so that any semblance of my speech, with perhaps the exception of rhythm, is destroyed. What you will hear, then, are the natural resonant frequencies of the room articulated by speech. I regard this activity not so much as a demonstration of a physical fact, but more as a way to smooth out any irregularities my speech might have."*

Lucier, A (1970) *I am Sitting in a Room*.  
retrieved October 11, 2006, from <http://a.parsons.edu/~mateo/thesis/background.html>

A focus of this research has been on amplifying or highlighting a room's acoustic qualities and therefore embracing its 'colouration' upon sounds generated within it. This is an approach of dealing with and responding to the sites inherent qualities without the intent of acoustic manipulation. Resonant frequencies are what I have aimed to activate within the exploration of sites and in the various projects that have sprung from these explorations. A work with similar intent is a piece by Alvin Lucier entitled *I am sitting in a room* (1970) which begins with Lucier recording himself reading a text within a room (fig 1.4). This recording is played back in the room through a speaker and re-recorded - a process that is continually repeated - *In each new recording the natural resonance of the room is captured and reinserted, amplifying it until we can no longer distinguish the original text* (Zlata, 2002.). Through this process the rooms resonant frequencies become progressively accentuated. This could be seen as the transference of voice from the person to the room, an idea I have been considering within my explorations of site.

<sup>1</sup> Therefore stopping sounds from leaking throughout the site in a pronounced way and *creating perfect spaces for private conversations* (Zlata, 2002)

<sup>2</sup> Within the site of an anechoic chamber there are practically no reflective surfaces, as sound generated within the chamber is absorbed. This is due to the substantial presence of foam on every surface (walls, ceiling and floor). To enter the chamber one must walk upon a 'floating' surface of wire mesh. As the sound is absorbed there are no reflections – therefore the space is not influencing or 'imparting its unique sonic signature' upon a sound.

## Intervention

The activation of a site necessitates an intervention of some sort. I am interested in exploring the idea of intervention and the numerous ways in which this can be enacted. The way in which intervening upon a site has the ability to highlight and activate what is already existent within it plays a key part in my practice.



fig 1.5 Dadson, P. (2003). *Echo Logo*.

Philip Dadson, in his work *Echo Logo* (2003) from the body of work titled *Polar Projects*, has dealt directly with this idea of intervention upon site. *For Echo Logo, an actual team of Antarctic scientists are recruited for a ritual-like performance staged beneath a 30m high glacial ice-face. In exploring the sonic qualities of this setting their awareness of this environment is evident* (Clifford, 2004). Presented as a video piece, the work documents the interactions of the ‘performers’ with this site (the Dry Valley, Antarctica) – the sounds generated (from voice and the surrounding rocks) locating themselves in relation to the glacier and surrounding environment. (fig 1.5)



fig 1.6 Serra, R. (1981). *Tilted Arc*.

An example of sculptural intervention is illustrated in Richard Serra's *Tilted Arc* (1981-1989) described as an *interruptive and interventionist model of site-specificity* (Kwon, 2002, p.72). This intervention consisted of an enormous single sheet of steel that cut through the Federal Plaza site in New York, dissecting it in two (fig 1.6). Serra's interest was to *expose and subvert the site* (Kwon, 2002) and in *Tilted Arc*, this was achieving not by catering to the architecture of the site but by imposing the work upon it. This work generated great controversy in light of its imposing nature upon the site and was eventually removed due to public pressure - therefore the intervention asserted influence structurally and socially.





fig 1.7 Unterpertinger, J. (2005).

Intervention can take a much less physical manifestation through the conscious assertion of the senses. In respect to sound, the intervention occurs in the act of listening. Imposing the ear upon surrounding sounds allows one to arrange these sounds – an act of responsive composition. This idea was illustrated by John Cage in his seminal piece, '4'33', in which a pianist sits at a piano for the set duration of 4 minutes and 33 seconds without playing. Whilst challenging the audience's expectations, this piece works to bring attention to the audible activity that exists around the listener. (fig 1.7)

## Sound

*A sound is high or low, soft or loud, of a certain timbre, lasts a certain length of time, and has an envelope. (Cage, 1961, p.49)*

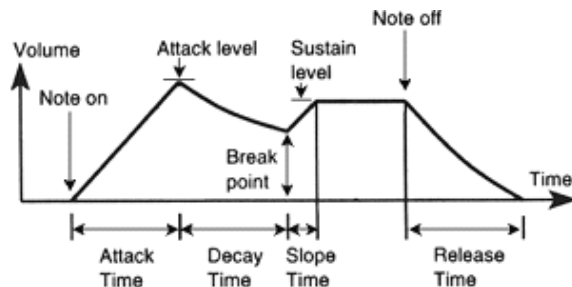


fig 1.8 The envelope of a sound - a simple map of a sounds lifespan.

These are the characteristics indicative to all sounds and the way in which each of these parameters manifest, define the characteristics of a sound. The term 'envelope' describes the way in which a sound behaves over time, sectioned into four parts known as ADSR (attack, decay, sustain and release). A short sharp sound will have a very quick attack and decay with little sustain and a rapid release. (fig 1.8)

The Oxford dictionary describes sound as *vibrations which travel through the air or another medium and are sensed by the ear*<sup>i</sup>. These vibrations, that are picked up by the ear and interpreted by the brain, convey information to the listener about their surroundings. The ability to hear allows one to 'visualize' the unseen, gaining a sense of spatiality and event beyond what is perceived and identified by visual perception. Active

<sup>i</sup> Retrieved on October 11, 2006, from <http://www.askoxford.com/>

listening and making sounds (such as creating an echo amongst mountains) are ways of exploring the nature of, and your relationship with, the surrounding environment. This approach to conceiving a spatial and material awareness that acknowledges the sonic presence and potential unveils another way of reading, mapping and understanding all aspects of the surroundings.

### Sound as a means for articulating form

*All objects have a sound component, a second shadow existence as a configuration of frequencies.* (Viola, 1995, p. 157).

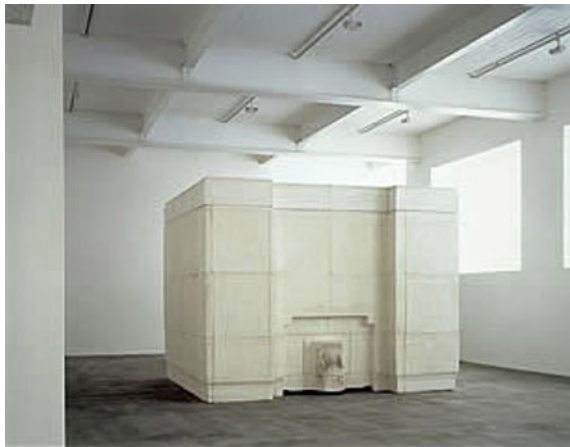


fig 1.9 Whiteread, R. (1990). *Ghost*.

Like a room, every material and every object has a *unique sonic signature* (Winer, 2004). This signature, or 'voice', can be activated by being 'set into vibration'. The act of knocking on a door is the act of engaging its voice, the voice speaking of its material properties and an articulation of its form. The ability to perceive spatiality through sound is a direct relation to the idea of articulation of form. Sculptor Rachael Whiteread has explored this territory through her casts of 'negative space'. Works such as *Ghost* (fig 1.9), a plaster cast of a living room, physically manifest the volume contained within a site. My explorations of sound within a site have had similar intent in aiming to expose and articulate a sites form and volume.

## Materials and Objects

*An object produces a specific tone when struck. The shape and materials of an object represent frozen sound potential.* (Viola, 1995, p.156)

Materials and objects have a rich language, which this research has endeavored to explore. This language is built up by all the attributes that come with a particular material or object, such as their physical properties, sound-making potential, functional uses, associations and sources. In acknowledgment of this language materials and objects reflect or 'speak about' their surroundings. In bringing various materials and objects together, one is creating a discussion between them. A great example of objects speaking of their environment is the inorganic collections run by the Auckland City Council. As each section of Auckland City is selected, a wide array of goods are splurged onto the kerbside awaiting collection. Each pile of random detritus speaks of the inhabitants indoors and awaits the fossicking of scavengers (who swarm like hungry seagulls). The goods gathered from the discarded piles are given a new life and reinterpreted into a new context.

## Performance

John Cage cites music as the *organization of sound* (Cage, 1961, p. 3), which implies that music can be created by active listening (the act of organizing surrounding sounds within the brain and therefore composing). Performance may exist in a similar light as 'organization of events'. If the street is seen as a stage, then those that enter it, even

without knowledge of this, are performing upon that stage. The gallery site also acts as a stage and within this context there are many performative dynamics to consider. These exist within the many dynamics such as those between the work, artist, audience/ participant and exhibition space. Within this research I have explored a number of different ways in which to acknowledge the role of performance within each of these dynamics.

## Section 2: Methodology (ideas in practice)

### Activation of space: preliminary research



fig 2.1 Interaction with enclosed space at local school, Grey Lynn, 2004.  
DVD track 2



fig 2.2 Tunnel, New North road, 2004.  
DVD track 3



fig 2.3 Carpark, downtown Auckland City, 2004.  
DVD track 4

There have been a number of key developmental explorations and discoveries that have determined the parameters within my field of research. The primary one being a work I made early on in the final year of my undergraduate studies entitled *Prepared piano*, 2004. This was a significant catalyst in finding a way in which to explore sound within a sculptural context. The basis of the piece was my response to the profound acoustic qualities of an enclosed concrete space located next to a basketball court within the grounds of a local school. My response to this particular space was to play it like an instrument - the interactions of my body with the space demonstrating its unique sonic qualities (fig 2.1 - DVD track 2). Video recording was used to capture these interactions - the ideal medium due to its ability to communicate the visual and audio components of the event.

The numerous interactions recorded became material for the work *prepared piano* - a piece made in reference to the John Cage invention of inserting materials within the body of a piano, transforming it into a percussive instrument. In *Prepared piano*, 2004, the intervention was 26 micro-switches connected to the keys, which when pressed would activate an excerpt of footage - allowing the player to compose these percussive interactions with the space.

Numerous site investigations ensued from the 'prepared piano' project; recording interactions with sites throughout the city, such as car parks and tunnels (fig 2.2.+2.3 - DVD tracks 3 + 4) with the intent of capturing the way sound behaved in these



fig 2.4 Street signpost, Pitt street, 2004.  
DVD track 5

selected spaces . These investigations expanded to incorporate engagements with not just spaces, but also objects and materials within the surrounding environment, from street signposts to fences and rubbish bins; my interactions exploring their inherent sound making potential (fig 2.4 - DVD track 5). The focus in documenting these interactions was on the point of sound production. This was in order to highlight the relationships that occur between the various elements involved in the act of producing sound.

## Response/ Conversation with a site

*The relationship with site begins with a response (of me to it) and then an ensuing conversation - a process of site exploration. It is the qualities of a space, not only it's structure and acoustics but also it's function, history and relationship to surrounding space that play key factors in generating a work within it. (Morrison, S. 2005)*

Responding to a site is a process of engaging with the sites' qualities. The first point of engagement with a site is to explore its' acoustics – generating sounds within and from the site in order to get a sense of its' sound-making potential. Directly linked to these investigations is the consideration and documentation of the architectural qualities of the site. The architectural considerations I aim to address in making work are issues of form, materiality, function and the relationships that exist to surrounding spaces. It is responding to these aspects of a site that serve as the building blocks for a project.





fig. 2.5 Pre - installation shot of wine vats, facing forward from main entrance route.



fig. 2.6 Preliminary research of site. Examples of vats in their original state.



fig. 2.7 Preliminary research of site. Particular features that helped inform construction decisions



fig 2.8 Cleaning process shots, clearing out gutter full of mud and debris.

An illustration of this approach is the *Wine Vat sound project*, a work I developed earlier this year in an exhibition at the Corbans Estate Arts Centre (CEAC). I chose to centre the work around a row of old wine vats that were unused and in a slightly derelict state. The row of vats consisted of two blocks, creating a substantial corridor. In each block there were 7-8 vats on each side (roughly 30 vats in all). Each vat is self-contained with a small opening at the front, positioned at the base (many of them boarded up by the Council), and an even smaller opening on the top of each one, that was once used to pour the wine into the vat. There was limited ability to see the details of the vat interior due to the lack of light and the positioning of the front door, although the activation of the vats acoustics allows one to imagine the interior sonically.

The reason for basing the work around these vats was that they have amazingly rich acoustic qualities, which are easily excited by acts, such as simply banging on the wooden boards covering up the openings (DVD track 6). This was my initial point of reference. The second was in defining how I would approach the space, especially in light of its historical context. From this I concluded that there would be no manipulation of the space beyond its natural state, such as drilling into the walls. Therefore, the structural characteristics and traces of previous interventions (nails, holes and wooden boards in the walls, courtesy of the Council) dictated the decisions made in regard to sculptural intervention.

A key component to this approach was the general act of spending time with the space (something that has been integral to most of my projects but more specifically in this context, being an outdoor public location as opposed to a clean white gallery). Cleaning up and removing the rubbish, dirt, weeds and various other detritus was an integral



fig 2.9 Images from exhibition. (left) example of an intervention on the vat door with strings. DVD track 7  
(right) people playing. DVD track 8



fig 2.10 Images of the air conditioning duct. Yellow ratchet tie-downs used to hold strings against the ducting.

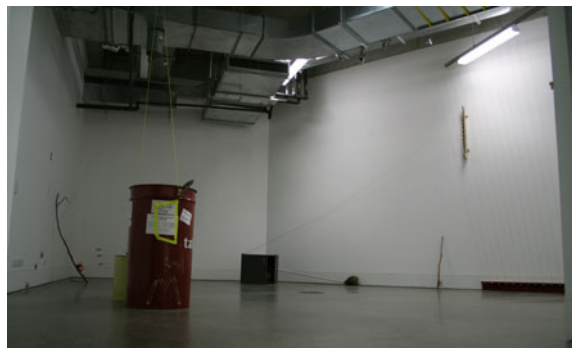


fig 2.11 Installation shot from room entrance.

‘knowing’ engagement with the site as it revealed new opportunities for intervention with little details continually presenting themselves. Any intervention I made in the space was attempting to articulate this site’s pre-existing qualities. The interventions I made were created to facilitate a number of different interactions, each activating relationships between the audience, the materials, objects used and the acoustics of the vats.

(DVD tracks 7 + 8)

## Site as workshop

Many sites I have interacted with have not been nearly as acoustically interesting as the ‘Wine Vat’ site. In these cases the focus lies on generating sound-making sculptural interventions within the site. A way in which I have initiated this type of interaction with a site is to use it as a workshop, directly generating the interventions within the given site. The construction of *the Duct Harp & Co.* project (an installation for the end of year exhibition, 2005, in St. Paul Street Gallery) illustrates this approach. This site, the exhibition room at the back of the main gallery space has a few particular qualities. For one it has strangely angled walls, but the primary feature of the space in which I installed *the Duct Harp & Co.* is the overhead network of an air conditioning duct and metal railings that hold the lights and wiring. Through exploration, the ducting revealed, amongst other things, it’s potential to act as a resonating cavity. The use of the ducting was the only preconceived element of the installation prior to construction. (DVD track 9)  
The rest of the installation was conceived directly in the space during the installation of the work (in this case, over two days). The site was transformed into a workshop.



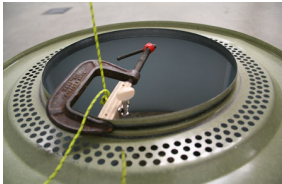


fig 2.12 Sculptural scenarios built in the site and integrated into the structure of the room.

This process strikes resonance with my interest in improvisation and performativity. The gallery is transformed not only into a workshop, but a theatre where space and objects are performed in the process of construction. An amassed collection of objects and materials are deposited in the space. The site becomes a stage where my role is that of mediator between space and object. Their multiple relationships are explored until particular resonance is found (through the most appropriate object/ material on-hand that best engages with a particular aspect of the room, whilst simultaneously having the ability to clearly state it's purpose).

## Drawing

*I see 'the Duct Harp & Co.' as an installation consisting of a series of spatial, sculptural, drawings. These drawings aim to be illustrative of the rich potential that lies in our surrounding environment, which, when recognized and activated, allow it to speak back.'* (Morrison, S. 2005)

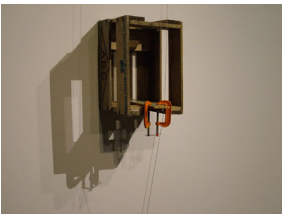


fig 2.13 *An Activation*. Installation details. Examples of sculptural drawings built onsite. (DVD tracks 10 + 11)

My recent installation entitled *An Activation* (at the Auckland Art Gallery) was constructed in a very similar manner to the *Duct Harp*, the site being used as a workshop in which to generate the installation. The resultant installation comprises of a series of playable drawings; functional scenarios that are fused with the sites architecture (fig 2.13 - DVD tracks 10 + 11). It is the way in which these scenarios are constructed, in an improvised free-form manner, that is relational to the nature of drawing. These drawings are constructed by isolating a part of the site in which to intervene upon.



fig 2.14 Video drawings.  
 (left) exploring site in preliminary research for *Wine Vat sound project*, 2006. DVD track 12  
 (right) walking home with stick, 2005. DVD track 13

Following this, a construction is built from the collection of surplus materials and objects, aiming to be sympathetic to the site of installation. These drawings/ constructions/ interventions become sites of sound activation. Another way in which I have generated drawings is through the use of video, developing through the process of recording my site explorations (i.e. fig 2.1 - 2.4). These video drawings exist as documents of improvised experiments. (fig 2.14 - DVD tracks 12 + 13)

## The role of sound in highlighting relationships

A sound speaks of the elements involved in producing the sound - and also of the relationships between those elements. My aim is to focus on the point of sound production. This focus brings forth the relationships that occur between various elements in the act of producing sound.

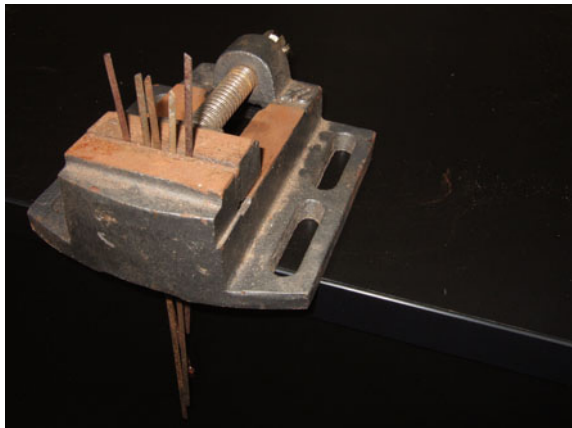


fig 2.15 Finger piano drawing, 2006 (found metal prongs and vice).

The focus within fig 2.15 is on the various physical elements that define the sound production such as the:

- tension required to hold the metal prongs, in this scenario provided by the vice.
- varied lengths of the metal prongs in relation to the point they are held, equating to varied pitch results.
- relationship of the vice to the surface it is placed on. Here it sits on a wooden cabinet, which acts as a resonating body, amplifying the sound produced.

It is the acknowledgement of this visual language that is the representation of the sound produced.



fig 2.16 *Typespace*, 2005. detail.  
DVD track 14

This focus has evolved through the research – a particularly informative work in developing this focus was *Typespace* from 2005 (exhibited at Artspace). This work centered around an adapted typewriter, each of its keys activated sound, which had been recorded within the room in which it was installed (fig 2.16). The sounds were recordings of my interactions with the space, again exploring its sonic potential and attempting to articulate the structural and material qualities of the site (DVD track 14). The issue prevalent within this work was that the sounds were removed from the physical act and therefore became somewhat disembodied. This result informed my decision to veer from the electronic realm to focus primarily on acoustic sound. A recording is the removal of a sound from its source. Some sounds can maintain their association in playback but often become abstracted. Even those sounds that we can locate in playback (i.e. familiar sounds, such as the recording of someone eating) are still removed from the wider context in which the sound was generated. It is the physical nature and context of the sound production that I am wanting to focus on and highlight within my practice.



fig 2.17 Collected materials, Images taken in studio, 2006.

## Materials (the collection process)

The collection of materials and objects is a key process in this research; within the various methods of acquiring materials; bought, found, borrowed, swapped, stolen and gifted! The primary method of acquisition within this project has been 'found'. The materials utilized are generally common ones – materials that are often discarded such as cardboard, styrofoam and wood. Common 'everyday' materials are 'easy to relate to' in the sense that they are familiar and readily associated with. When these materials are used

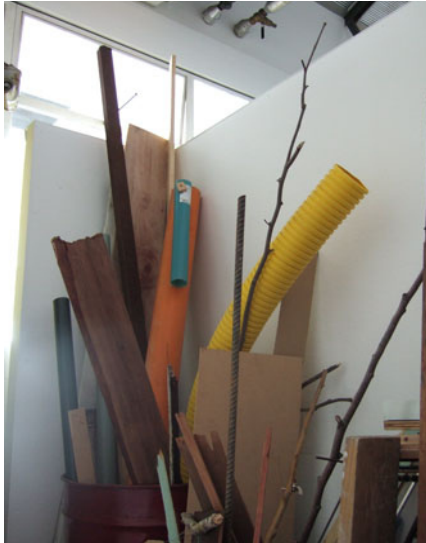


fig 2.18 Collected materials. Image taken in studio, 2006.

in an alternate way for an alternate function they are communicating the potential of the surroundings. Collection of materials is a continual process, not only from the street, but from other venues, such as industrial contacts made through the Auckland City Council recycling website, Renew Waste Exchange (<http://www.renewwasteexchange.org.nz/>). I am interested in the approach of 'honesty to materials', communicating the abilities and inabilities of the materials I utilize. Materials and objects used in conjunction with one another are used because of their resonance - to generate sound, but also to highlight their particular qualities. This is really the same approach I take to a site and in considering this point, I have begun to see an object - or construction of an object as a site in itself. Therefore the considerations of site-specificity apply to materials and objects also, particularly in the act of responding to the nature of a material or the structural qualities of an object.

## Colour

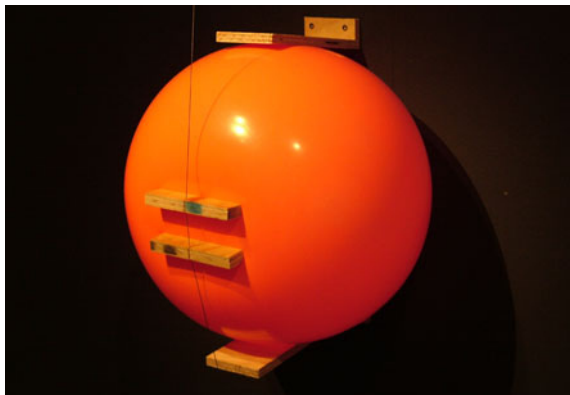


fig 2.19 *An Activation*, Auckland Art Gallery, 2006. detail (large rubber ball, wood, steel string)

Colour is an effective tool when trying to amplify and highlight the relationships existent between the site and the interventions occurring within that site. (fig 2.19)

Colour has the ability to articulate the physical relationships occurring in the site. I am interested in the functional use of colour but also in the compositional sense it adds to the construction idea of sculptural drawing. The palette I work from is that which is already prevalent upon a tool, material or object. Therefore the compositional choices I make with colour relationships are primarily for the functional purpose of highlighting relationships and true to the 'natural' pre-existing colour of that particular element, a continued approach to 'honesty to materials'.



## Practical concerns



fig 2.20 *Sun rhythm*, installation shots, 2005.

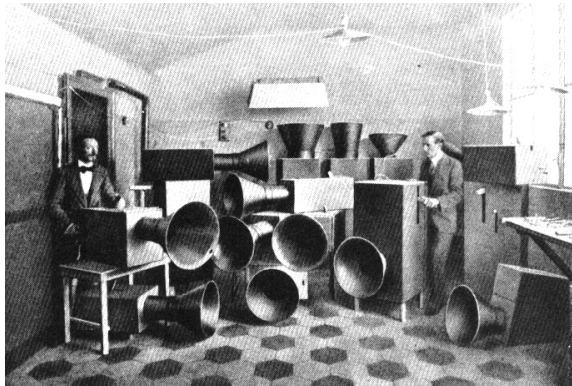


fig 2.21 Luigi Russolo,  
*Intonarumori*, 1913.

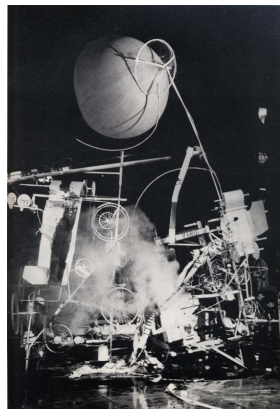


fig 2.22 Jean Tinguely,  
*Homage to New York*, 1960.

Practical concerns play a central role within the decision making process. This is particularly relevant in respect to the areas of interactivity and performance, as the work is often put under physical demand by either the audience or the work itself. A particularly informative work was a piece exhibited at the Creative NZ offices in early 2005, entitled *Sun rhythm*. This was the first work I installed outside an institution. The piece was an outdoor self-playing installation consisting of boxes with inbuilt motors running off a singular solar panel, designed in reference to the *Intonarumori*, the acoustic noise machines made by Luigi Russolo in 1913. These motors would generate sounds when there was sufficient sunlight present to power them. On the first day of *Sun rhythm*, the sun shone bright and the motors quickly overworked themselves to the point of breaking down. Because of their construction, there was no easy way to fix them other than de-installing the work. So they sat there - some struggling to function, others not even trying at all. This result finds resonance with the work of Jean Tinguely, specifically his piece *Homage to New York* (1960), a mechanism built to self-destruct. Although architected to destruct with specific engineered events, once it set off on its path it took on a life of its' own. Whilst this was something that Tinguely encouraged and intended, the degeneration of my own particular installation raised a number of issues that had not been previously considered. The conflict between stability and a free construction method is an unresolved conflict within my practice. Although there is a desire for the work to last its tenure of being exhibited, I enjoy and am interested by sculptural construction that has a tentative nature. If it is made too perfectly then it has the potential to lose its sense of improvisation and playfulness. From this point I have developed a greater amount of room for experimentation within my preliminary design process to accommodate issues of

stability. This has become even more valid with the dynamic shifting in allowing the audience to play the work, especially when children are involved, as a fragile construction can degenerate easily. A work that shifts and changes in some form over time begins to take on a life of it's own. In this process the work starts to perform and this is a territory I am interested in continuing to explore.

## Performance

In my research I have been interested in exploring the various dynamics that exist between myself, the work and the audience. In the exploration of these dynamics my role has continually shifted, at times being a 'performer' in the traditional sense and at other times as a mediator or mechanic thus existing in a more indeterminate region between work and audience. I have explored ways in which the work is able to 'perform' itself and have, most recently focused on ways in which to facilitate audience participation through a number of interactive installations.

## Self-playing installation

One of the ways I experimented with the shifting of my role was to make an automated work that 'performed' itself through motorized actions within the installation - creating a degree of removal from the work. This scenario has much potential for the controlled



fig 2.23 Performance still.  
DVD track 15



fig 2.24 Pierre Bastien

accident to flourish. My interest in the accident lies within the partial loss of control; sound, rhythm, interactions between objects and space that generate unforeseen results allowing the work to take on a life and direction of it's own. I adopted this experimentation into a 'traditional' performative context for a piece I made for the Allelulya Noise Festival. By 'traditional' I refer to the dynamic of artist/musician performing in front of a quiet and attentive, seated audience. The boundaries were clear and stayed so throughout the performance. The boundaries I explored within this context was the dynamic between myself and the installation, as the performance was based around responding to, or mediating amongst a range of self-playing scenarios.

(DVD track 15)

This interest in placing myself into the role of mediator/ mechanic was largely influenced by Pierre Bastien, a musician I saw perform at Artspace as a part of the Alt. Music Festival in 2004. Pierre Bastien's performance centered around the use of a number of motorized mechanisms generating rhythms and one playing a keyboard, a small electric player piano. A striking result from this performance was the amazing degree of sensitivity infused through these motorized scenarios. In a performative context this is particularly interesting as once a structure has been made for self-functioning (especially without engineering expertise), then it has room to go off and somewhat develop its' own characteristics. It is this potential for encouraging the unforeseen that I found particularly relevant and a reason why I continued, in various ways, to allow for an element of uncontrollable space within my projects.

## Interactivity (the audience as performer, the site as stage)

*This work explores the dynamic of direct physical engagement between audience and installation. Activating audience participation in order for the work to speak. It allows the audience to navigate the work and it's relationship with space physically, challenging the ingrained 'don't touch' attitude often prevalent within a gallery context. (Morrison, S. 2005)*



fig 2.25 interaction at Artstation. DVD track 16

A way in which I have explored the idea of uncontrolled space has been through the incorporating of interactivity within my practice. This space is that which exists between the work and the participants. To encourage interaction I have worked on developing various interfaces that facilitate audience exploration of an installation, these interfaces acting as a bridge between the participant and the installation. The first result of this thinking was a keyboard interface made for a kinetic sound installation at Artstation gallery (*untitled*, 2005). The keyboard was a crude construction of wood and bamboo with plastic piano keys attached. The keys, with their direct association to an instrument were used as a visual cue that would communicate its' potential playability. Each key, when activated, set off a mechanical sound event in the room (DVD track 16). Another manifestation of this idea was the work *Typespace* exhibited at Artspace in 2005.

*While Sam's engagement with the space is intensely physical, the ensuing installation offers a chance to discover the room's resonance with minimal effort. Activating the type-writer instrument is easy and familiar, requiring only the slightest physical movements, which even the most timid performer can muster. (Armstrong, E. 2005)*





fig 2.26 Tools.

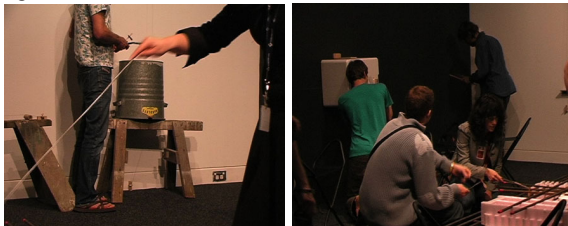


fig 2.27 Interaction shots. (24/09/2006)  
DVD track 17

In my most recent installation, *An Activation* (2006), I presented an array of tools that could be employed by the audience in order to explore the sound-making potentials of the installation (fig 2.26). These tools were a mixture of made (bows and mallets) and found (sticks, stones, shells, chains) objects that acted as the bridge for interaction. In this context the site operates performatively and the audience is elicited as performer, indirectly (simply by being present within the site/ stage) and directly (if they accept the invitation to physically engage with and explore the presented scenario) The site is a stage – for activity not only on the floor plane, but activation of its' complete body. These performative interventions occur by way of object and body, the aim being that within this act, the site and materials involved are explored and acknowledged.  
(DVD track 17)

## Maintenance

Through the need to maintain aspects of previous installations there comes a shifting of the relationship to the work in question. I noticed in this process that the role of artist was dissolving into that of mechanic or maintainer. In the installation at Artstation gallery (*Untitled*, 2005), the staff got involved by 'fixing' elements of the work that 'broke down'. This development opened up another new dynamic within the work, allowing the work to move even further away from me, and me from it. With this action taking place the work operated not as fixed, but as dynamic and changeable - acting as a catalyst for interactions and interventions, being performed in the maintenance.

## Chronology of works

2005



### *Rhythm-robot ensemble* - Ignite exhibition, St. Paul street gallery, AUT

(motors, contact microphones, mixed media)

A collection of self-made string instruments, from various materials such as tins, cardboard boxes and sticks. These were mounted on the wall and continually activated by a series of motorized pluckers (stripped sea-gull feathers connected to long metal sticks).

<sup>1</sup> Foyer space of St. Paul street gallery, AUT. Wall installation with motors placed on the floor in front.

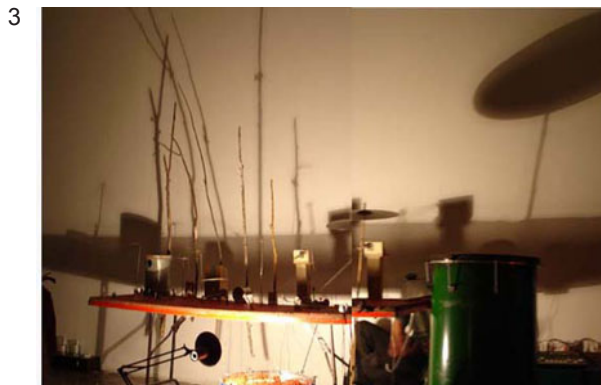


### *Sun rhythm* - Creative NZ office, High st.

(solar panel, motors, mixed media)

Solar powered sound installation. 5 boxes with a range of internal motorized scenarios that produced various sounding rhythms. All boxes sufficiently powered by the presence of sunshine upon the solar panel, rhythmic/ functioning intensity fading when clouds present.

<sup>2</sup> (left to right) Shot of formation with solar panel at the fore-front/ sound box.



### *Performance at Artspace* - Alleluya noise festival

(motors, contact microphones, mixed media) DVD track 15

This portable installation was constructed around a long, red collapsible table. Various self-made string and percussion instruments were installed on the table to be activated by motors that could pluck and hit. The motors could be sped up, slowed down, turned on and off. My performative approach had no defined compositional structure other than to respond to the activity generated by the self-playable elements of the installation.

<sup>3</sup> performance shot (retrieved October 02, 2006, from <http://www.audiofoundation.org.nz/noise.html>)



### *Untitled - Nothing Doing, sound and kinetic works at Artstation gallery*

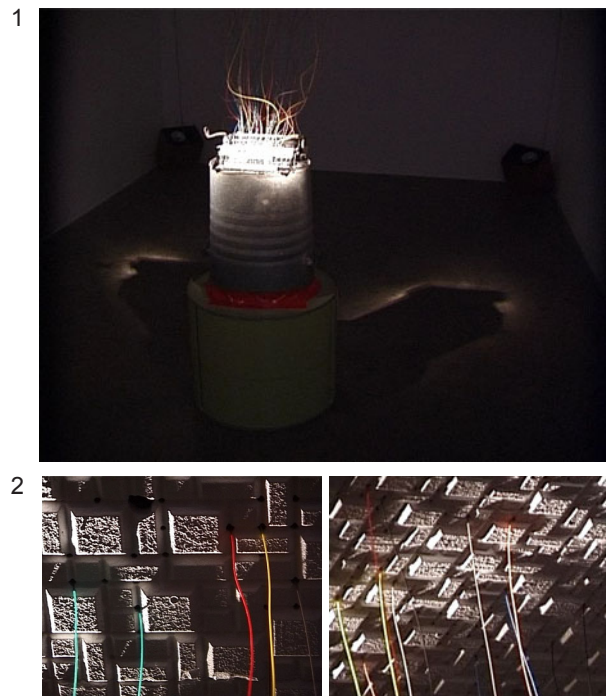
(motors, mixed media) DVD track 16

I built a keyboard interface which participants could use to activate kinetic sound events throughout the room. These kinetic sound stations were installed in the spaces that hadn't been taken up by the other pieces in the exhibition. (primarily around the ceiling space)

<sup>1</sup> (left to right) Key board interface (plastic keys, bamboo, wood, piano hammer mechanism, switches)

/ People playing (exhibition opening)

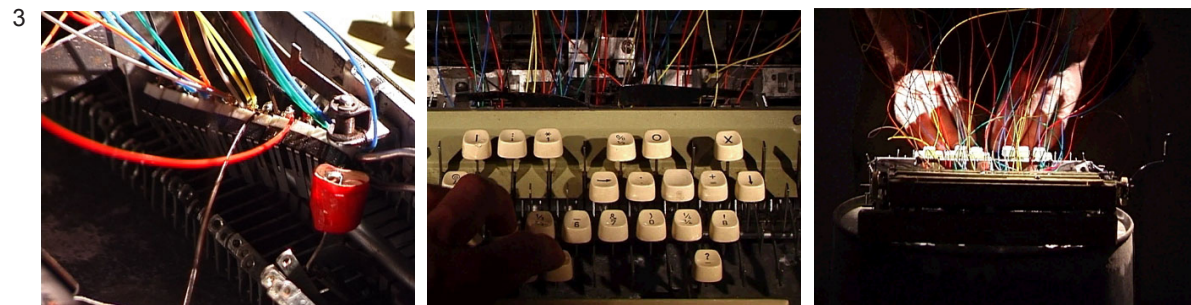
<sup>2</sup> (left to right) Detail of one the sound event stations. When its key was activated, a kick pedal (from a drum kit) banged upon the top of the rubbish bin. The bricks under the bin were placed there by an anonymous collaborator (previously a piece of wood that kept falling) / Room shot from entrance, facing keyboard.



### *Typespace - Compelled, annual new artist show, Artspace gallery*

(typewriter, computer, speakers, mixed media) DVD track 14

This installation centred around a typewriter, reconfigured so that each key activated a particular sound I had recorded within the room. This gave the audience the ability to re-edit and compose these pre-recorded sounds. <sup>1</sup> Installation shot taken in front of entrance. <sup>2</sup> Both images are details of the wires fed through the ceiling, the typewriter interfacier physically fused with the room. Each wire sent a signal to the computer in the ceiling that activated the recorded sounds. <sup>3</sup> Detail of switches embedded in typewriter/ playing shot (front) / playing shot (behind).





*The Duct harp and Co.* - Honours exhibition, AUT gallery, St. Paul street

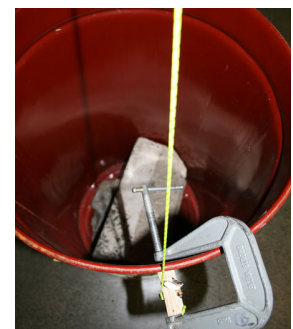
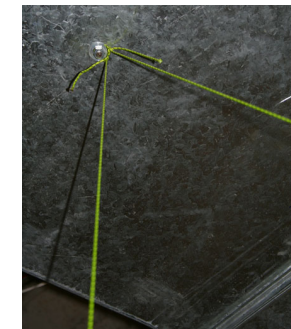
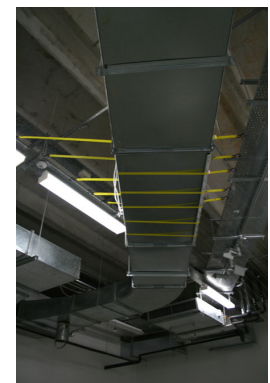
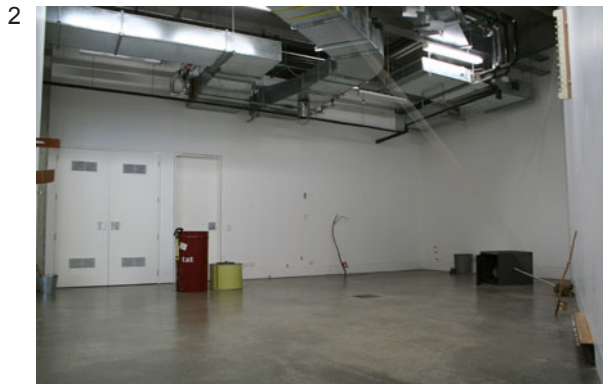
(mixed media) DVD track 9

Interventions on the site initially generated in response to the air conditioning duct.

Then other playable scenarios were inserted, all connecting to an aspect of the room's structure.

<sup>1</sup> Installation shot from entrance. <sup>2</sup> Installation shot from right corner, entrance to the left of the image.

<sup>3</sup> Installation shot facing towards the entrance. <sup>4</sup> (left to right) Office cabinet at forefront of image, strings tensioned off it and onto the wall/ opposite view/ Watering can mounted onto the ducting with strings tensioned off it/ Tie down ratchets (in yellow) holding strings against the duct. <sup>5</sup> (left to right) Tea chest mounted in corner with strings tensioned off it, acting as a resonating box. These strings were mounted over hinges allowing the player to change the pitch of the string with the adjustment of the hinge/ rope tensioned off duct and connected to.../ the 40 gallon drum in this image. Rocks were placed in it to hold the tension between the drum and the duct.





2006

# *Wine Vat Sound Project* - StillMoving exhibition, Corbans Estate Art Centre

(mixed media) DVD tracks 1, 6, 7, 8, 12

Sculptural interventions rendered the vats into a range of playable instruments, allowing for participants to explore the site acoustics by interacting with these interventions. The activity from this outdoor location was picked up by a camera and microphone that fed into an internal gallery space (Opanuku studio), allowing for people inside to observe other participants real-time sound explorations.

<sup>1</sup> Exhibition shot of site, facing towards the main entrance. <sup>2</sup> Pre-installation shot from main entrance.

<sup>3</sup> Pre-installation shot facing towards entrance. <sup>4</sup> (from left to right) Outward facing vat wall/ row of vats from distance/ wall detail/ plate lip in front of vat opening (a key structural component used to clamp interventions on to) <sup>5</sup> A range of interventions made on vat openings. <sup>6</sup> (from left to right) Tv and Amp in Opanuku Studio picking up the live feed of sound and video/ people watching/ interaction shot/ interaction shot/







## *An Activation - 54321: Auckland Artist Projects, Auckland Art gallery*

(mixed media) DVD tracks 10, 11, 17

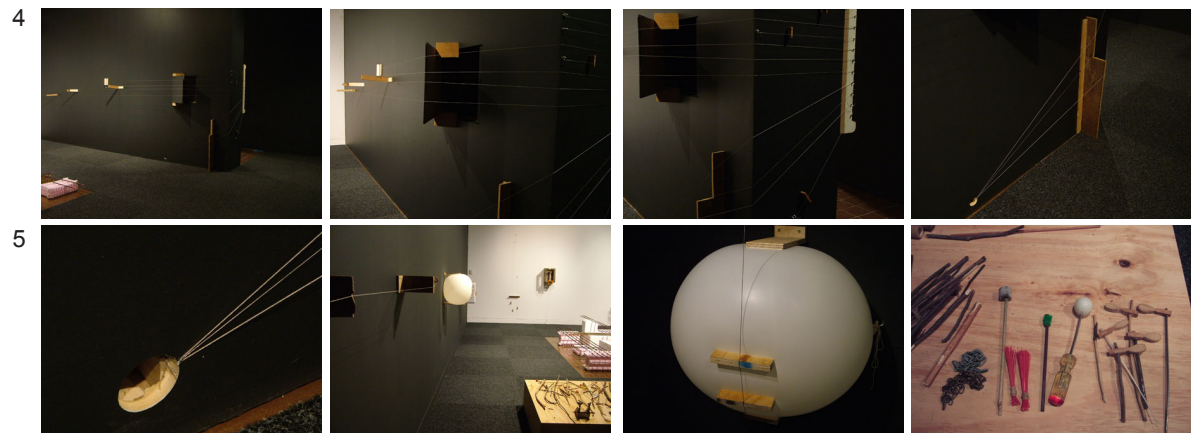
The installation started by a response to the architecture and the remnants of the previous installation exhibited within the space (black painted walls, carpet and a wall opening). With a range of various materials, objects and tools I constructed stringed and percussive 'sculptural scenarios' that interacted with the structure of the site. A range of tools (made and found) were supplied in order to aid audience interaction with the interventions. During this installation I also took the liberty to change elements – replacing, moving and adding to the work.

<sup>1,2,3</sup> Room shots. 6 carpet panels (1m x 1m) were removed from the floor, revealing the tiles underneath.

On this I installed a construction of styrofoam and reinforcing rod to make a marimba - like instrument.

<sup>4</sup> (left to right) Stringed intervention on wall (the wall was made to divide the room from the rest of the gallery). To the right of the image is the rooms entrance/ Strings tensioned over wall opening (made for the previous installation), activating the internal acoustics of the cavity/ To the right of this image is where the strings were tuned/ strings wrapped around a wooden panel.

<sup>5</sup> (left to right) Strings mounted inside hole made for power leads in the previous installation/ side wall shot/ weather balloon with string tensioned over it. This needed continual maintenance and was popped a number of times, later replaced by an orange ball (see fig 2.19 ) / close up of supplied tools - chains, sticks, mallets and brushes.





## *Drawings with air* - MA Exhibition 2006, Art & Design, AUT University

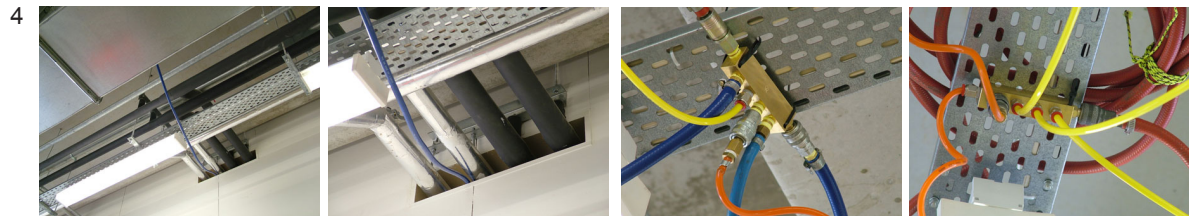
(mixed media) DVD - menu 2 (Individual events - illustrates the activation of each separate scenario.

Multiple events - illustrates the effect of numerous lines opened simultaneously)

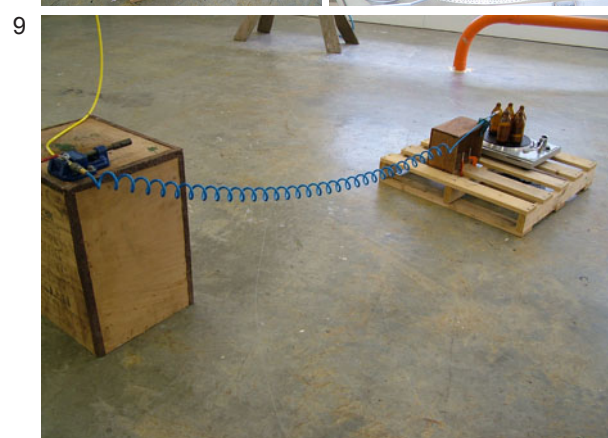
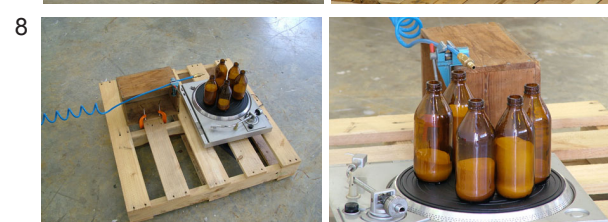
Compressed air formed the basis of this installation. Adjacent to the exhibition space was an enclosed workshop with compressed air outlets which I tapped into, feeding a large air hose through a gap in the wall and into the exhibition space. A regulator was attached to the outlet to keep the air pressure at 40psi. The main line was split into a further nine lines, each corresponding to a particular scenario which could be activated and played by participants using valves, allowing the lines to be gradually opened or closed.

<sup>1,2,3</sup> Room shots (top to bottom) - left side/ right side/ Looking from the entrance to the exhibition space.

<sup>4</sup> (left to right) Main hose line (blue) fed through gap between exhibition space and workshop/ main hose line/ Manifold - splitting the single main air line into five air lines/ The second manifold - also splitting a single line off into five separate lines. <sup>5</sup> (left to right) Ceiling shot showing the air lines coming off the second manifold, woven around the above head network of sprinklers, lights, etc. and down into the respective valves/ hose fed through pre-existing eyelet embedded in ceiling.







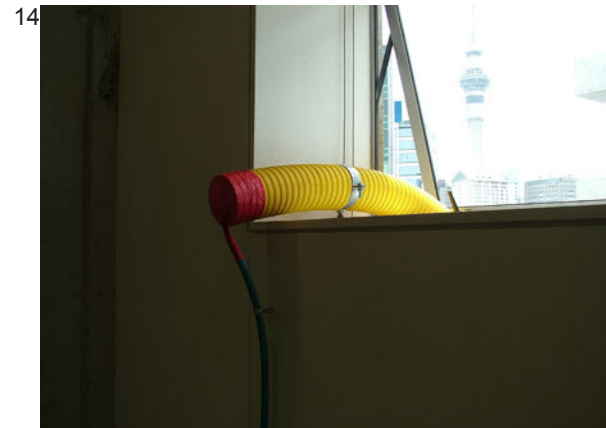
<sup>6-9</sup> Bottles placed on a turntable. During the exhibition the turntable was on continuously revolving at 33rpm. The bottles were filled with varying amounts of silica, creating a rhythm with varying pitch when the air line was opened. <sup>10</sup> Valve connected to wooden box which when activated spun the ping pong balls in the glass jar located on the other side of the concrete column.

<sup>11</sup> A precarious arrangement involving a disposable glove, two rulers, a few bricks, a boot, string and a road cone. When this scenario was activated the glove filled with air and made the rulers jump up and down, creating a fluctuation in the air output and making a sound slightly reminiscent of a helicopter.

<sup>12</sup> This airline split into two scenarios - Middle image: on the left is rolled up brown paper held down by a brick. On the right is a plastic bag with a small stone on top, the air line held in place by two bricks. Both of these set ups made a squeaky animal type sound as the air vibrated the respective materials.







<sup>13 - 15</sup> This valve was connected to a builders horse. this activated a 'Horn' made from a plastic plumbing tube with a balloon stretched over one end. Air vibrated the stretched balloon, creating a loud drone. The tube was mounted to the window ledge and fed out, emitting its voice into the street below.

<sup>16</sup> A bucket from a dust extractor mounted on top of milk crates acted as a drum. The valve (attached to a beer crate) when opened sent the yellow ball banging in various motions against the extractor bucket drum.

<sup>17</sup> Electrical tube was used as a mount for the valve and airlines which fed to a bass drum. A random rhythm was created by the two yellow balls in front of each airline.

<sup>18</sup> Valve mounted on a builders horse with an airline split into two, being fed into the bottom of each trumpet (held in place by corks). Inside each trumpet was a light seed embedded with pins which when activated would dance around the trumpet creating an erratic rhythm.



## Concluding comments

The emphasis of this research has been on the continual development and execution of projects in order to explore the issues and ideas within my practice. These projects have occurred through involvement in a number of exhibiting situations, many occurring outside the institutional context. This process has conceived a methodological approach that is based around responding to a situation.

Every situation, with its unique context, has helped open up new avenues of exploration, pushing and challenging the ideas and issues that constitute my practice. I find this particularly exciting as there is no end to the amount of unique spaces and contexts in which to work with, creating an endless supply of fuel for the continual growth and development of this research.

## List of Illustrations

fig 1.1

*Room frequincies graph*. Retrieved September 19, 2006, from [http://www.realtraps.com/art\\_tuning.htm](http://www.realtraps.com/art_tuning.htm)

fig 1.2

*Sitar (single tumba)*. Retrieved October 02, 2006, from <http://www.india-instruments.de/pages/glossar/pics/sitar-single.gif>

fig 1.3

Morrison, S. (2006) *Wine Vat sound project - details (vats 6, 7)*

fig 1.4

Lucier, A. 1970. *I am sitting in a room*. Retrieved October 11, 2006, from <http://a.parsons.edu/~mateo/thesis/background.html>

fig 1.5

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fig 1.6

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fig 1.7

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fig 1.8

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fig 1.9

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Collected materials. Image taken in studio, 2006.

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*An Activation*, Auckland Art Gallery, 2006. detail (large rubber ball, wood, steel string)

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*Sun rhythm*, installation shots, 2005.

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Luigi Russolo, *Intonarumori*, 1913. Retrieved October 02, 2006, from [http://www.windworld.com/feature\\_pages/feature\\_images/russolo.jpg](http://www.windworld.com/feature_pages/feature_images/russolo.jpg)

fig 2.22

Jean Tinguely, *Homage to New York*, 1960. Retrieved October 12, 2006, from [http://web.tiscali.it/nouveaurealisme/images/tinguely\\_hommage\\_newyork.jpg](http://web.tiscali.it/nouveaurealisme/images/tinguely_hommage_newyork.jpg)

fig 2.26

Tools. (*An Activation* detail)

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Performance shot.

fig 2.24

Pierre Bastien. Retrieved October 12, 2006, from [www.pierrebastien.com/en/download.html](http://www.pierrebastien.com/en/download.html)

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Interaction shots. (24/09/2006)

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