

*Exploring the experience of a place through the visual
representation of aural presence*

A project submitted in fulfilment of the requirements for the degree of
Master in Arts

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Declaration

I certify that except where due acknowledgement has been made, the work is that of the artist alone. The work has not been submitted previously, in whole or in part, to qualify for any other academic award.

The content of the ADR is the result of work which has been carried out since the official commencement date of the approved research program.

Signature

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Date 07/02/2010

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Contents

Proposal	6
Introduction to works	12
1. <i>Tone and line study</i>	15
2. <i>Small parts of tones</i>	37
3. Paper pieces tests	43
4. Dot drawing tests	49
5. <i>Small sounds</i>	63
6. Experiments with wire pieces	81
7. <i>Soft edges</i>	87
Bibliography	111
Curriculum Vitae	114

Proposal

The following text is the proposal for the Master's candidature submitted at the beginning of the program. The processes described in this section are summarised in the Introduction to works on page 12.

Summary of thesis/project

This project will develop drawing installations that combine a sound analysis process with traditional drawing techniques.

I will investigate the way sound and drawing can contribute to an experience and understanding of an atmosphere of a place. This investigation of atmosphere considers the experiential and ephemeral qualities present in a location. In particular this project seeks to investigate how sound present in a site may subconsciously shape the perception of a place.

WHAT? Brief Description

In this program I intend to develop drawing installations that combine a digital sound analysis process with traditional drawing techniques. The creation of work involves the recording of sound from chosen sites, the translation of selected sounds into images using sound analysis software, the layering and processing of these images into combined forms and the use of these forms as the basis of large scale drawing works.

Making recordings of the ambient sounds present in a specific location allows me to gather and reflect on aspects of a site that may be experienced in subtle or subconscious ways.

The focus of this project is on experiential aspects of a location and the particular sonic characteristics associated with these. I am interested in the idea of an atmosphere that comes from the cumulative presence and activity of people in a location over time. I have usually associated atmospheric qualities with old buildings that have had a lot of use over time; and natural locations that have a strong connection to a passage of settlements and movements of groups of people. I wish to explore sites that are public places used by a diverse community, or a specific group within a community.

In taking recordings, I will seek details of sound that I perceive to be characteristic of the chosen locations and which connect to the atmosphere of the site.

Translating recorded sounds into sound images enables me to explore the application of a visual medium to communicate my experience of the audible aspects of a site and their relationship to the feeling, mood or presence within that specific location. The images created through the software process will be transferred onto slide format, projected and manually re-drawn onto a wall, paper or floor. The intended outcome is to develop visual forms based on audible elements and present these in a way that alludes to or is evocative of an impression I have of a chosen site.

In using sound image based drawing to express the feeling present within a site, I will explore approaches to the representation of the temporal aspects of sound and experience. For example, when recording and processing sound from a site, I consider the different time scales of signature sounds and how they relate to each other, with a view to expressing these relationships in the creation of visual forms. In a site such as a library, examples might include the underlying drone of air conditioning, as compared to more tangible sounds such as the instantaneous drop of a pen.

The composite visual forms used for drawings will be created by layering sound image samples, during which these types of relationships are considered. In this layering process I will express the idea of a gathering of moments/time signatures to represent an accumulation of energy, presence or history. I wish to develop a process of working with sound images that enables me to layer visual forms in a way that is analogous to the accumulation of movement in a site over time.

This research will develop 2D and 3D sound image drawings in studio to focus on different recorded sounds; observational drawings made on location; and major works, drawn to a large scale (approx. 2x1.5m sq) on paper and installed in a gallery space. This will enable me to focus on the three related dimensions of sound: amplitude, frequency and occurrence over a period of time.

The research program will address the following questions:

1. How can sound in space be manifest in drawing to generate an experience of time?
2. How may a visual representation of aural presence of a site encourage an awareness of being in a place in an audience?
3. What acoustic characteristics are significant to the experience of places and how can these be applied to the creation of visual work in order to represent the ambience of these sites?

WHY? Rationale for program

Undertaking this program will enable me to develop my professional practice through the exploration of sound and time in visual installation works.

My recent practice and residencies have investigated concepts such as the relationships between people and place, and the form and influence of voice, boundaries and movement within chosen locations. I have been interested in the idea of an ambience or atmosphere present within a site and how a location may contain or capture an accumulation of histories.

My recent projects, for example *Close listening*, have explored how sound may be used to represent the ideas described above. *Close listening* used sound recordings made in the gallery site (24hr Art Gallery, Darwin) and images created from these to develop site-specific works. The use of sound allows me to concentrate and meditate on aspects of a site that are unseen and may affect people who are in the space indirectly.

This current project gives an opportunity to formalise and develop the way that I use and interpret sound from a site, through a more sophisticated approach to selection, recording, and visual processing of sound. I aim to develop my understanding of the aspects of sound and acoustics that affect perception of a space, and how this can influence peoples' feeling and interaction within an environment. Developing my understanding of the perception of acoustics will help me to refine my approach to the recording of sound and the elements of chosen locations that I focus on in my work.

In exploring unseen or unconscious elements of a site, my work has been informed by artists including Joyce Hinterding and David Haines. Their work, *The levitation grounds*, 2000 is of interest because the way it combines sound and visual material recorded from a site. In this work, subtle movement in video communicated an altered sense of being in place and the passage of time, evoking a sense of mystery in the location.

I intend to address similar concepts within my work, which will utilise "static" mediums such as 2D and 3D drawing, framed as records of chosen sites. I feel that through exploring the temporal nature of sound (i.e. passage of periods of time in sound recordings and related images) within drawing that I will be able to investigate these concepts within new mediums. These works will offer new perspectives and different modes of experience for audiences.

I will address the idea of representing time in the static visual medium of drawing. In previous projects, I have taken "snapshots" of sound to develop the visual works. In this project, the use of new software and techniques for the visualisation of sound will enable me to look at different scales of time in the process of sound visualisation, such as focusing on longer duration ambient sounds or thinking about sound during different times of day or types of activity. The use of a duration of sound as a way of recording an impression of a site also provides a connection to the idea of being within and experiencing that location over time. As well as giving opportunities to explore the idea of the passage of time in a place, use of new software will also present a greater range of visual material to incorporate into my work.

Janet Cardiff's *Words drawn in water*, 2005, uses layered sounds to evoke a blending of history and memory. Cardiff creates a sonic narrative that accompanies a guided walk through a location. Her work offers links between sonic and visual experience and refers to the idea of a residual experience from past presence in a location. These concepts are similar to the ideas I intend to explore through my working processes. My approach offers a different way of experiencing these ideas, by focusing on a visual expression of sound.

I hope that the works created in this program will evoke curiosity in people about sounds present within an environment, and encourage reflection about the innate or underlying feeling within a site and the way that it may be experienced. The research process, including the development of methods to work with time in drawing will help me to better communicate my experience of sound and chosen locations to an audience.

HOW? Methods

This program will be undertaken in three key areas:

- Literature review/research: to investigate other works, artists and philosophies relating the sonic experience of a place, the unseen, sound and speech.
- Software research and new work methodology: to explore concepts relating to sound, time and space and to integrate these concepts into my working process.
- Presentation of work: my working process embeds concepts of sound, speech, time and space in an exploration of a site.

My working process is site specific and involves the recording of sounds from selected sites; analysis of these sounds in spectral analysis software in order to produce images or data; the processing of these images or data for the basis of visual works; and creation and installation of the works. This process will involve collaboration with a composer who works with the same sound recordings as used to create the visual works.

Literature Review

Research into artists, projects and fields of thought working within similar grounds or conceptual frameworks to my practise including web-based searches, electronic databases, catalogues and library material.

Initially these literature searches will be based on artists that have addressed concepts of sound, atmosphere, presence and space through theory, installation work and the use of sound. From this research I will investigate knowledge and artists that have influenced and contributed to their practise.

In developing a method for the recording and analysis of sound I intend to research literature on auditory spatial perception, which considers the role of hearing in the perception of places and the way that acoustics can influence people. The texts *Spaces Speak, Are You Listening? Experiencing Aural Architecture*, by Barry Blesser and Linda-Ruth Salter; and *Sensuous Geographies: Body, Sense, and Place*, by Paul Rodaway are primary texts of interest.

Bill Viola's description of his personal experience of cathedral spaces in Florence is described in *Reasons for knocking at an empty house*. His thoughts on the presence of sound in a location and the relationship of sound to the feeling or experience of a place are of interest; particularly as he is describing publicly significant spaces with an embedded history, having strong acoustic characteristics.

I will also research information on the perception of sound in a space, the representation of sound, software tools for visual representation and the elements of a space that can be measured through sound.

Fieldwork

My working process begins by taking a series of sound samples with a portable recorder at intermittent intervals from chosen sites. Sounds are recorded for variable durations and at different times.

For this program I will select two to three sites for exploration. The choice of sites will be determined by elements such as the range of sounds present within the site, the acoustic qualities of the site, the way the site is used by people and variations in activity over a period of time.

Recordings in sites are chosen because of particular interesting or unusual qualities that are capable of influencing the way people might move or feel.

Laboratory

The recorded samples are then input into audio software where they are edited into useable files. The next phase of working involves translating the sampled information into visible forms using spectral analysis software. The images produced offer a re-mapping of the space originally measured with sound.

For this project I intend to investigate software including *Praat* and *Matlab*, which allow for an analysis of sound samples over variable period of time. A significant aspect of this working process will be the analysis of different sound samples and the way that they are presented visually.

The image/samples are chosen with consideration for the time, event, sound or aspect of an atmosphere that they represent.

I will link and order this information into larger combinations of visible forms. This will involve an iterative process between the spectral analysis and visual representation/processing software. The conclusive images are formed by layering the many image/samples together to represent a corresponding site.

Creation and Presentation of work

The images created through the software process will be transferred onto slide format, projected and manually re-drawn onto a wall, paper or floor.

I intend to explore different options for the creation and presentation of work. Possibilities include works that focus on sound recordings over specific periods time, both long periods and short events, or works that more closely analyse a spoken word or words.

The work will be formed by a layering of sound samples to create works that evoke the characteristics of chosen sites or elements of sound under investigation, having a density shaped by the form and amplitude of present sounds.

For my final project I intend to develop a work that will be installed as an exhibition in an RMIT Gallery or local art space. For this project I will collaborate with a composer to write a soundscape for installation, which will use the same sound samples employed for the visual work.

Introduction to works

The following describes the research through my drawing, sound and installation practice. Through a series of projects, I have studied my experience of the ambience and atmosphere of a section of the Merri Creek Reserve, Northcote.

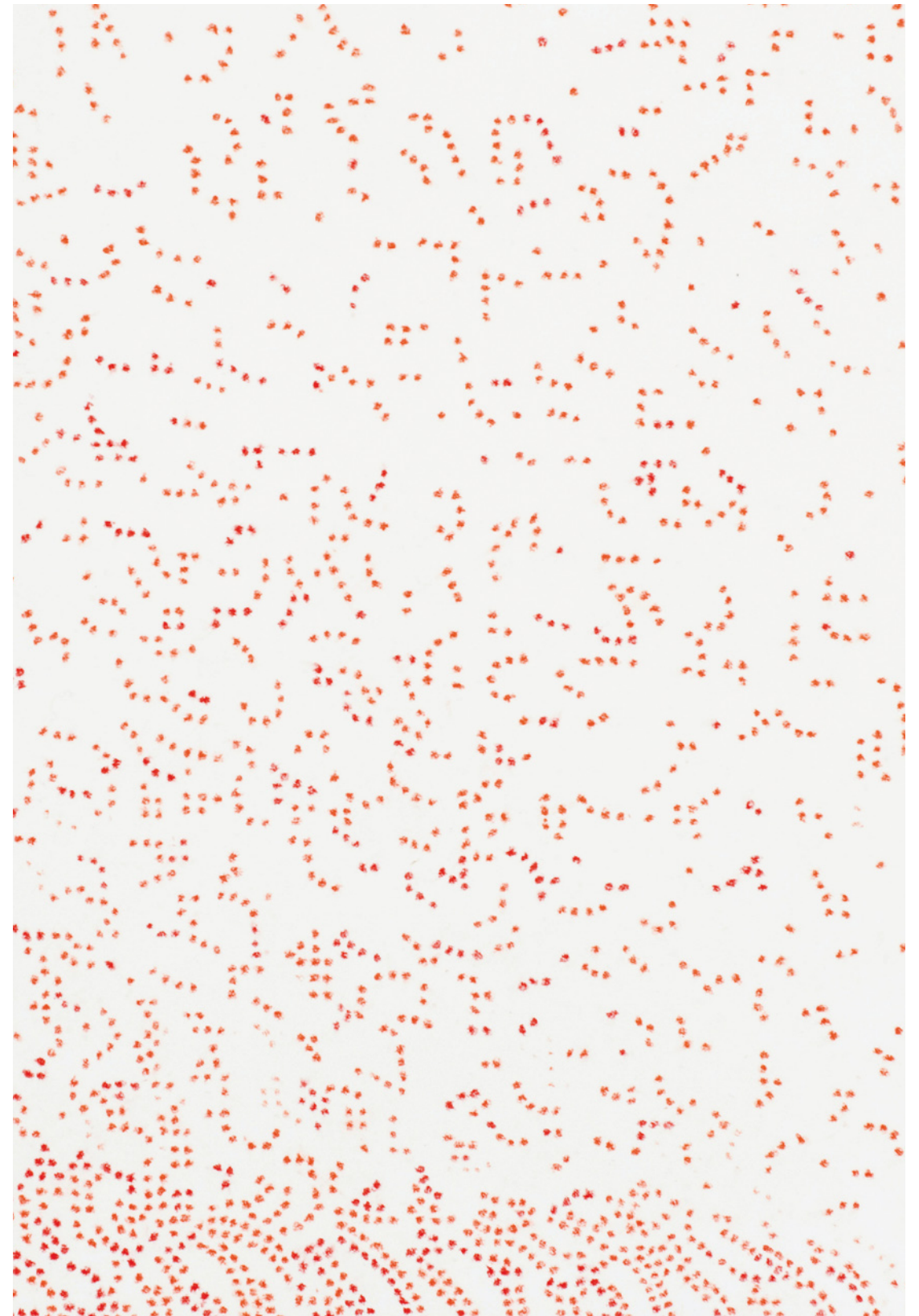
My work involves the visualisation of sound recordings and drawing, to represent movement and alterations in an environment that rest at the periphery of perception.

Each project starts by entering a site, listening and making field recordings.

Using sound imaging software, I translate selections from these recordings into visual forms. These sound images are digitally processed and layered, to provide information for a drawing or sculptural relief work.

As part of installing the work, I collaborate with a composer to develop ambient soundscapes, made from the sounds originally used in the process of creating the visual work.

The works are presented by chapter in chronological order.



Small sounds, 2009, detail

1. *Tone and line study*

Tone and line study

Lead pencils, paper. 160 cm x 120 cm

*Employing new digital and drawing processes to represent sound.
Work in progress exhibited at Findings group show, School of Art Gallery, RMIT.*

The first stage of this project was to make selected sound recordings. Three areas were chosen: the reading room at the State Library of Victoria, a pedestrian underpass to Flinders Street Station, and a track along the Merri Creek.

I selected these areas because of an interest in using sound to map boundaries of places. I wanted to use sound to consider the repeated passage of people through an area, and how this human presence might, over time, contribute to the feeling or atmosphere of a place.

Through recording, listening and editing, I chose the Merri reserve recordings for the next step of visual presentation.

My recordings in the Merri reserve focused on a section of the track. I recorded passages of sounds that I heard in this location such as birds, trams, wind in trees, and water. I also recorded the sounds of people, including myself, using the pathway, such as footsteps and bicycles passing by.

I decided to use these recordings as I felt they represented my repeated journey through the area, which I was doing with my baby boy regularly. I was also interested in how the area, as a boundary between the natural environment and the city-scape, featured an intermingling of natural and man-made sound.



With the recordings, I began experiments with a range of software that offered me new approaches to sound visualisation.

I tried new techniques to represent sound in three dimensions, looking at 0.5-5 second passages of recordings, based on particular sounds and areas of interest.

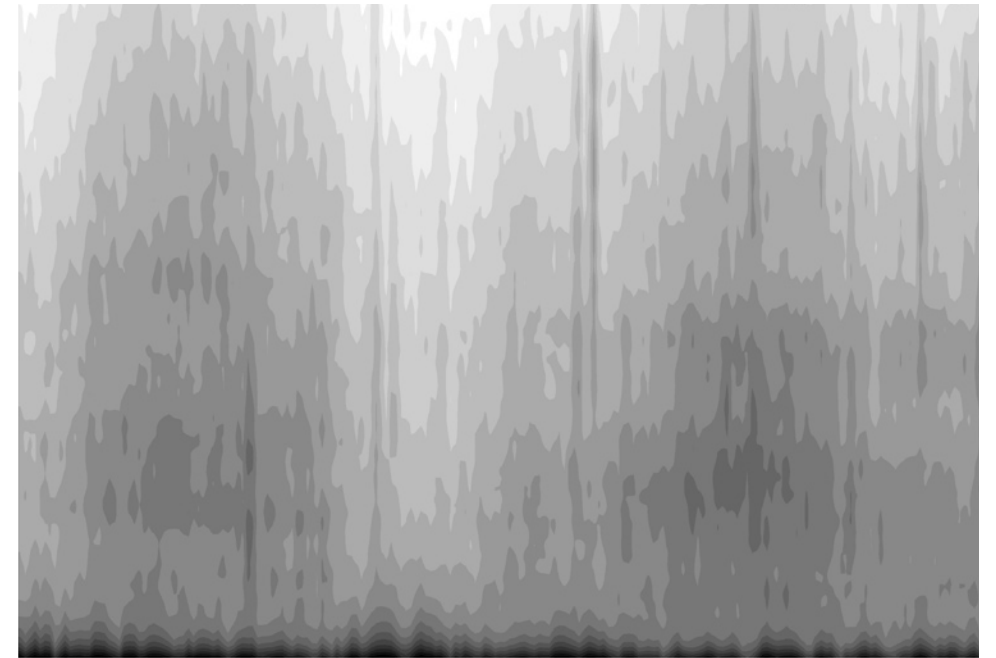
I also developed my understanding of the relationship between the character and processing of sound and the visual result, such as:

- adjusting the length of a sound sample,
- changing the intensity (loudness) of the sounds to adjust the image,
- gaining a more intuitive understanding of how sounds of different character (whether sudden or ambient, high or low frequency) would display visually, and
- adjusting software settings to change the visual representation.

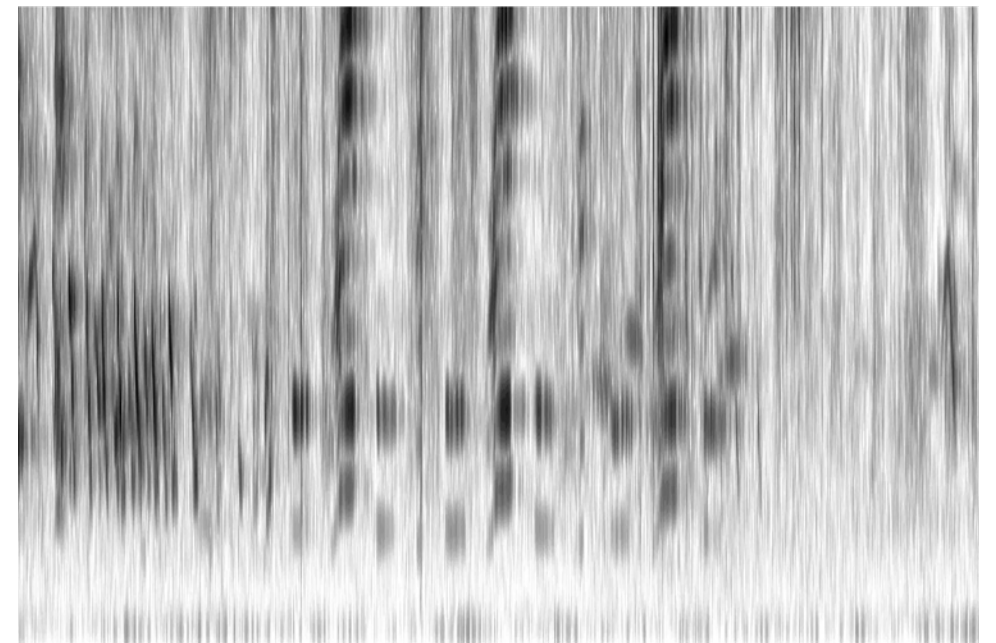
I was principally working with the program, *Praat*, which specialises in sound images for speech analysis. I was working with types of sound images called spectrograms, which represent three dimensions of sound (time, intensity and pitch) two dimensionally (x-axis for time, y-axis for frequency, and tone for intensity).

Praat is capable of a range of visualisation approaches. Of the experiments, I chose to use cochleagrams for the drawing work. Cochleagrams are a type of spectrogram intended for speech analysis, which highlight aspects of recordings which human perception 'latches' onto.

Cochleagrams present darkened bands that highlight the rising and falling of dominant frequencies, such as the consonants in speech. When applied to field recordings they help highlight more noticeable aspects such as footsteps or birds. I chose cochleagrams because of their explicit connection to listening and hearing.



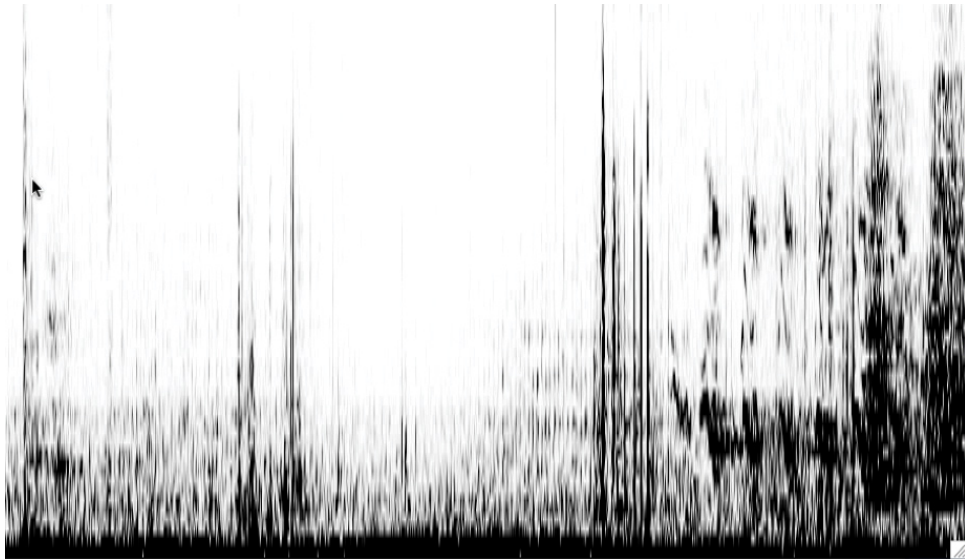
1



2

1. Spectrogram/sonogram, *Praat*. Frequency vertical axis, time horizontal axis. Loudness/intensity for a frequency at a time point shown by tone intensity. Approx. 2 second sample, ambience

2. Spectrogram/sonogram, *Praat*. Adjusting log/linear frequency display (different representation of low and high frequencies, used for different sound analysis), and time-window.



3

3. Spectrogram using *Wild Spectra*, designed for animal and natural sounds analysis. I changed tone by adjusting sound levels in the program. Sound is three seconds long, shows short, sharp (with high frequencies) sounds, being the crunch of feet on stones and twigs.

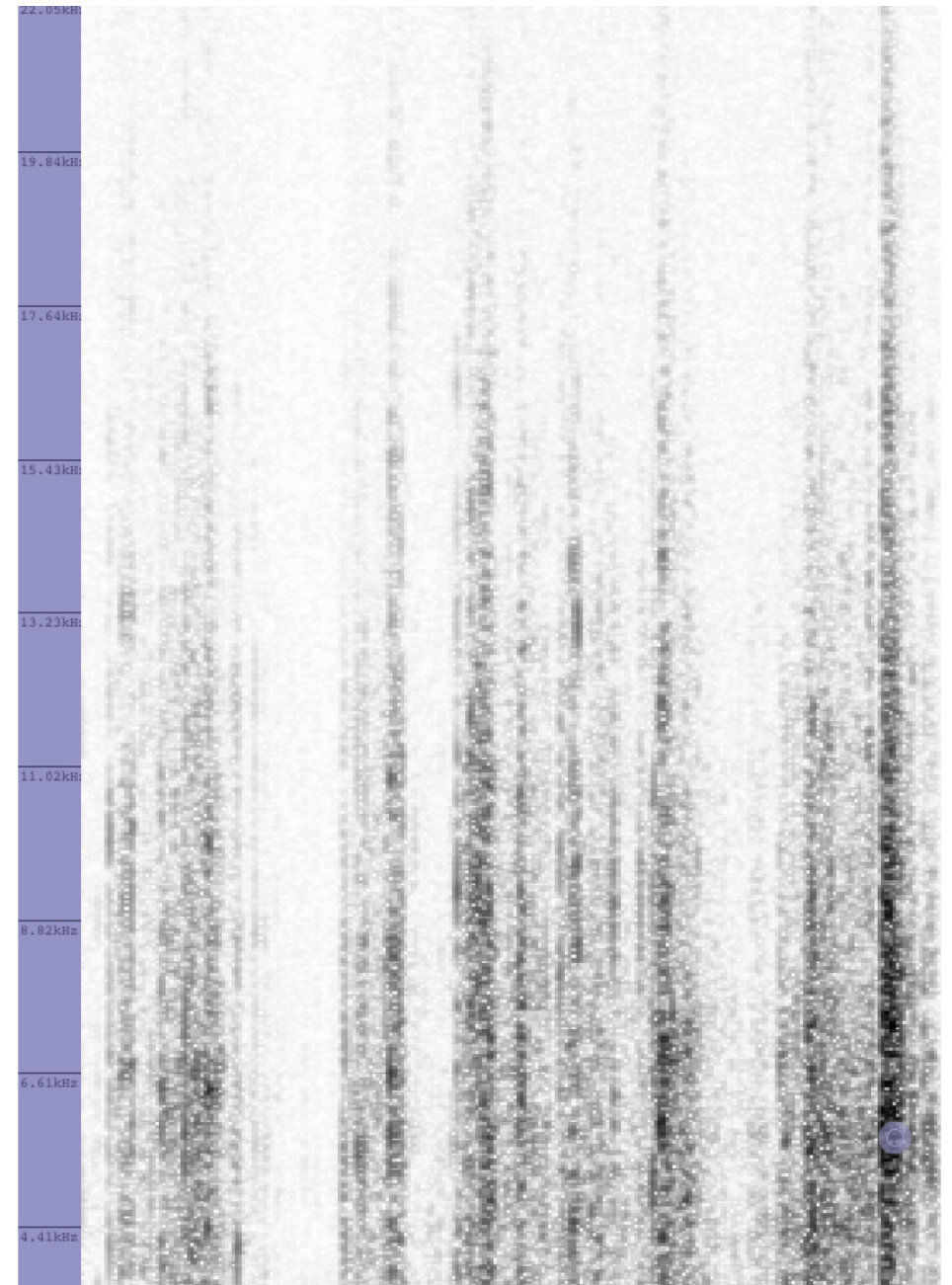
4. Using program *Sonogram*, with different visual display and adjustments

5-7 (Over)

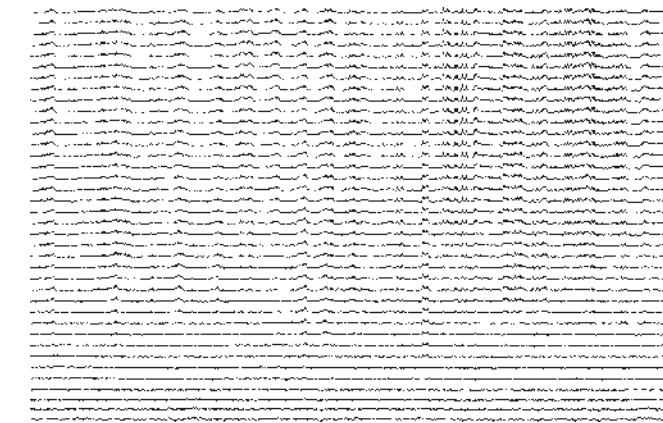
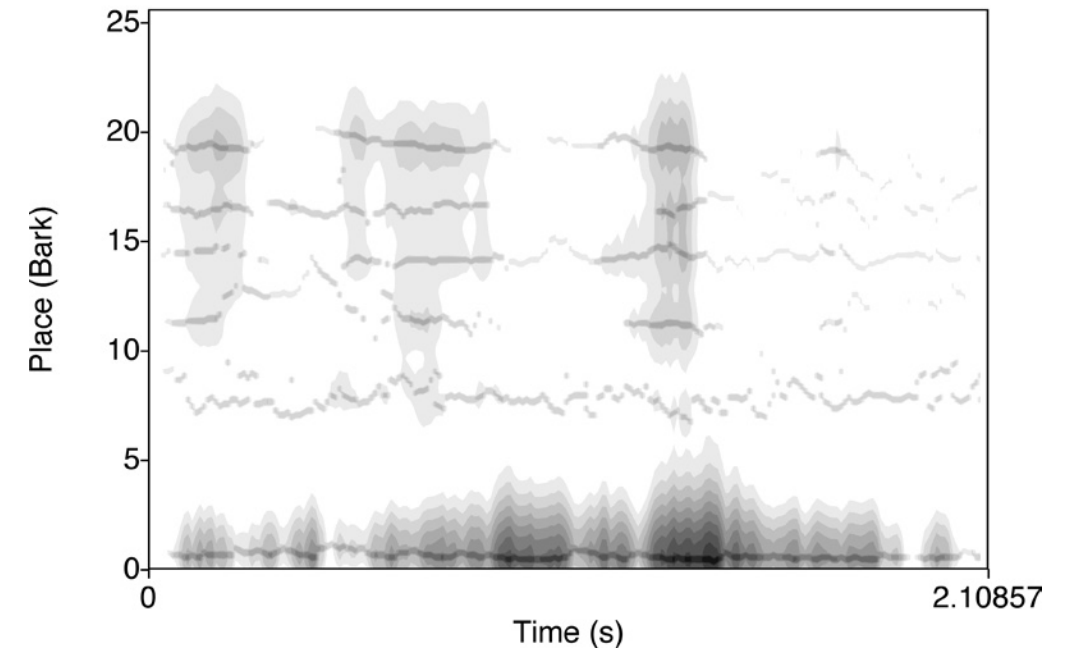
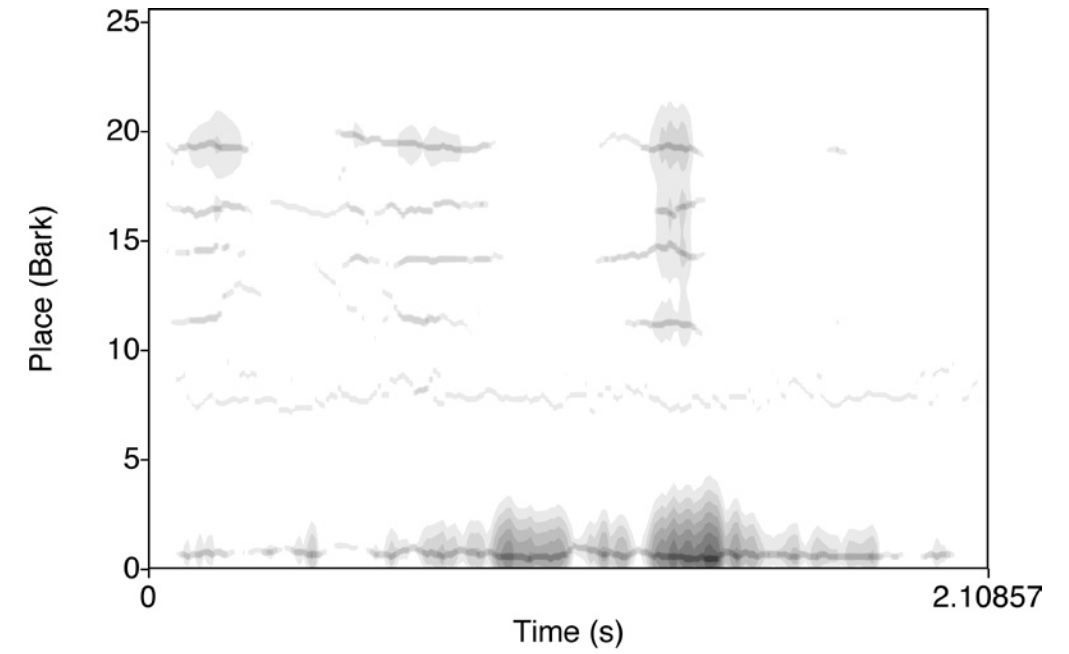
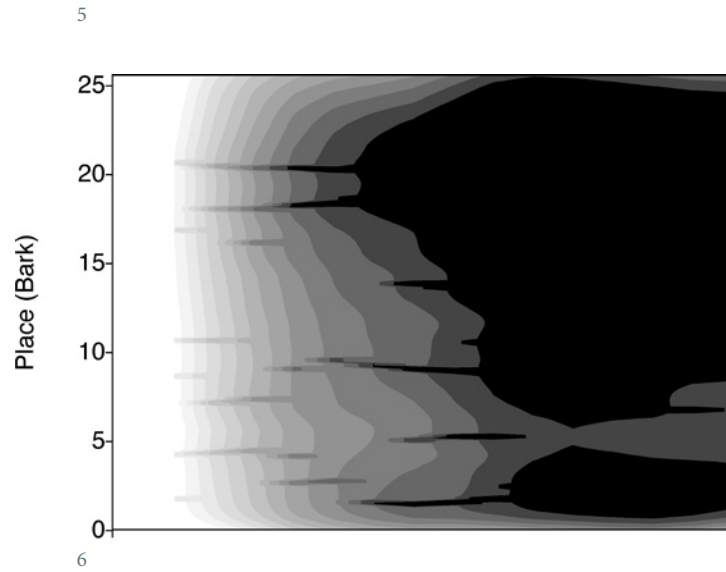
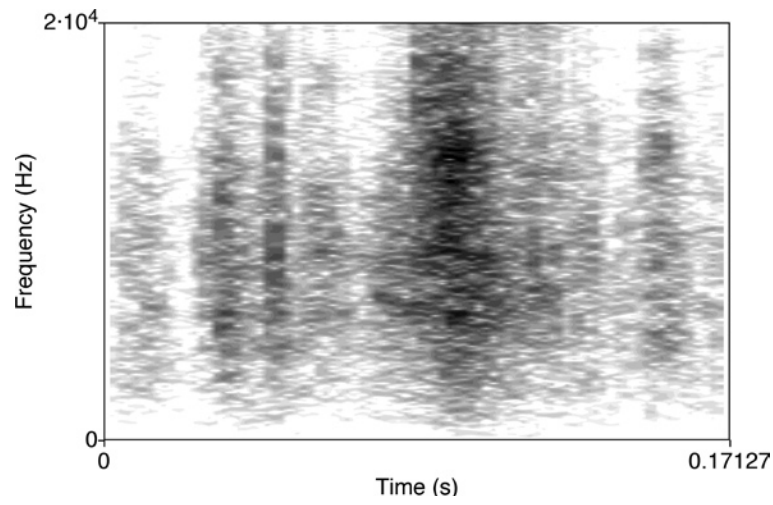
5. *Praat* alternative cochleagram display, of a 1-2 second sample of leaf rustle. A narrow time window (duration of sound sample) was used to concentrate on a short element of the sound.

6. Highly amplified sound as a cochleagram

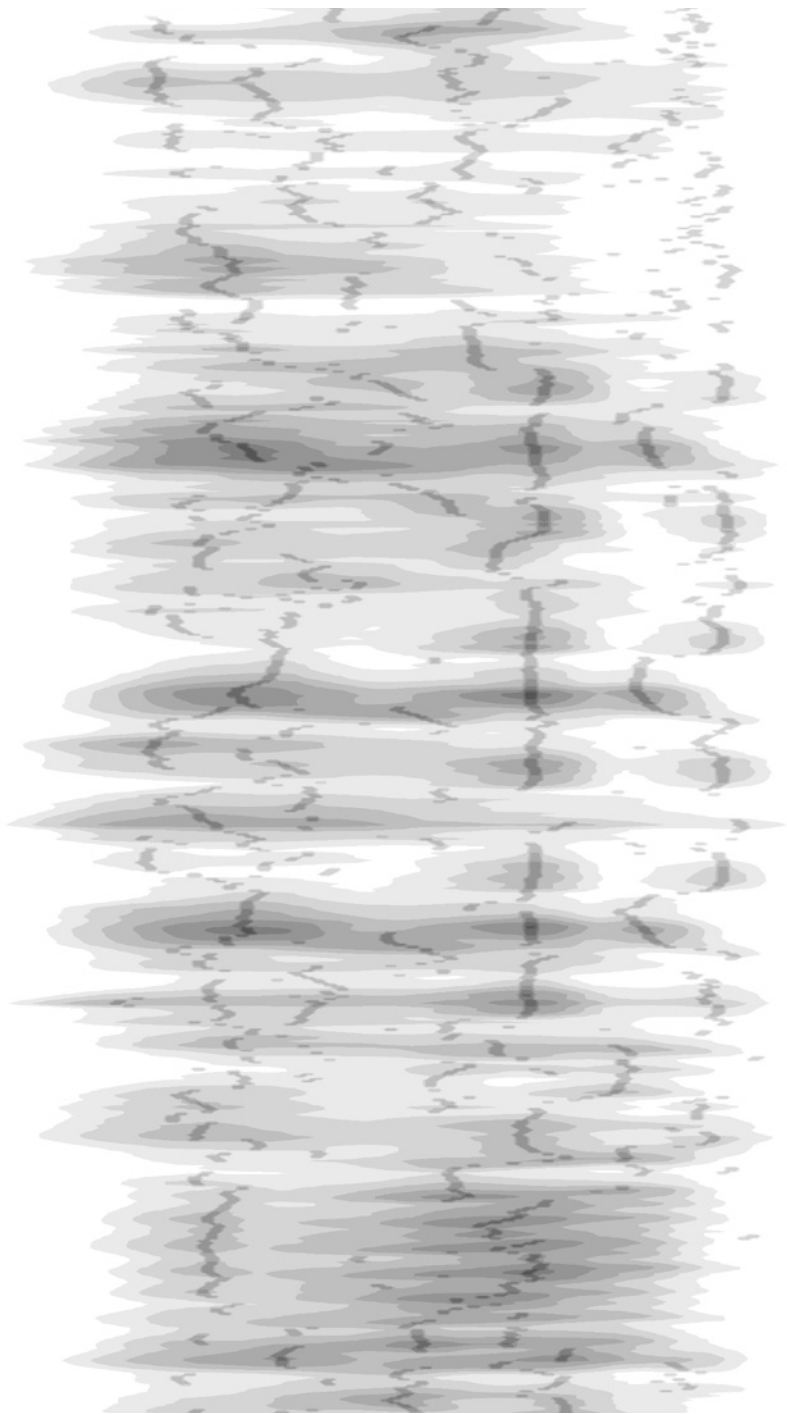
7. Experimenting with different display filters. A scraping sound.



4



8. Cochleagrams of a sound at different intensities. Sound images will change depending on the intensity of the sound, from lighter patterns (quieter recordings) with more distinct, separate 'bands' of key sounds, to more dense, sometimes overloaded images for louder recordings. I spent time with sounds of interest at different levels (through sound software) then processed in *Praat* for a range of image results.



9. Cochleagram of a longer recording, many seconds, but less ambient noise – the way a sound is prepared (cleaned up) will change the density and shape of the visual pattern. This image was selected as the basis for my drawing work.

The next stage in this work was to use a cochleagram image of ambient sound, including footsteps as a guide to drawing.

When drawing, I thought about my experience of observing, recording and listening back to sound from the Merri reserve track. This experience gave me a sense of the passage of time, particularly in relation to the presence of people moving through the area.

The use of pencils in this work allowed for an intricate study of the sound image. I used small repetitive pencil marks to build up a tonal study, using a large print of the sound image as a guide. This detailed, slow process of drawing to build tone provided a connection to the natural landscape, and the experience of time and sound.

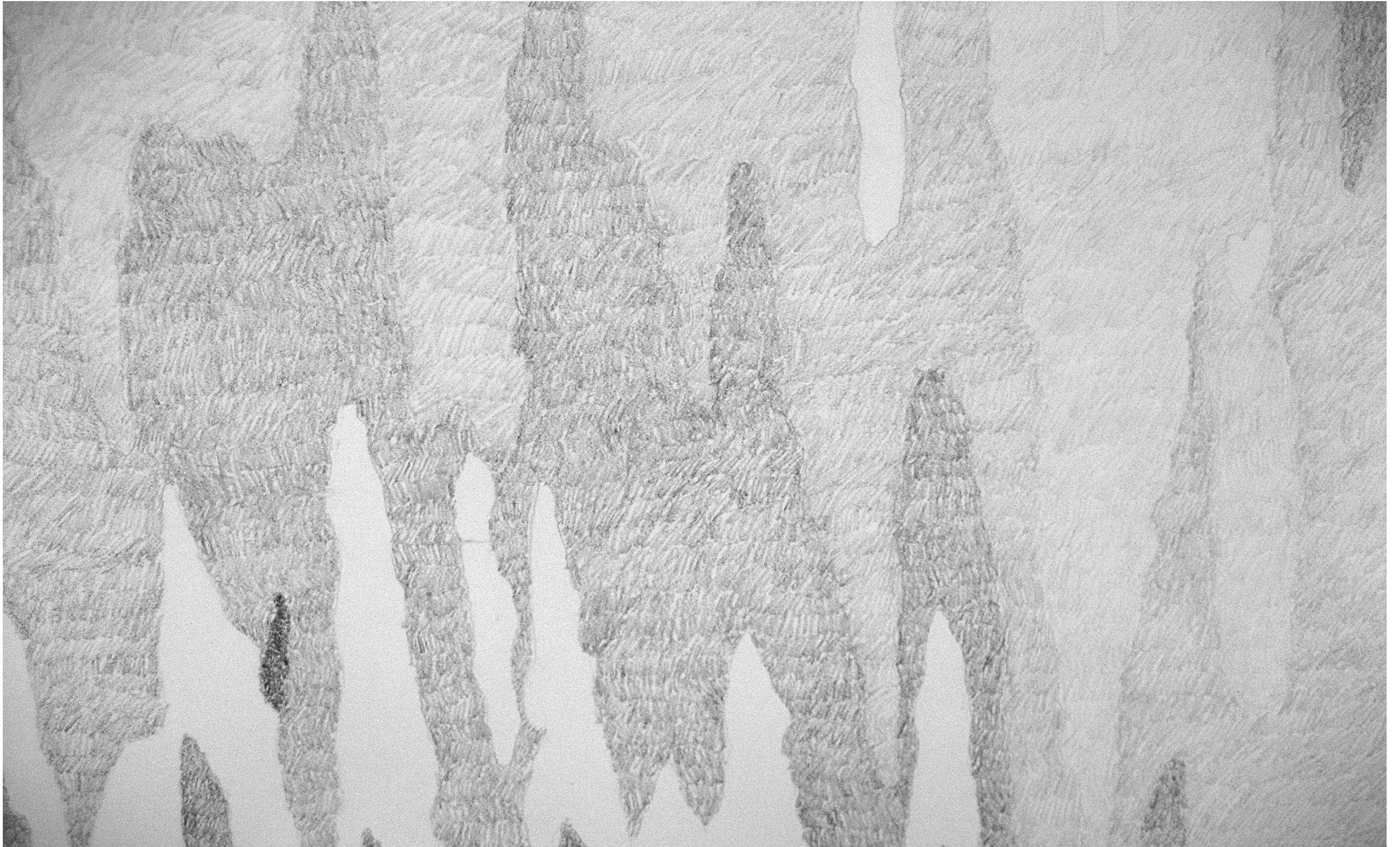
Although two-dimensional, this work is a representation of three dimensions of sound – frequency (vertical axis), time (horizontal axis) and amplitude (tone). I used five different tonal grades of pencil to give a sense of depth to the amplitude component of the sound recording.

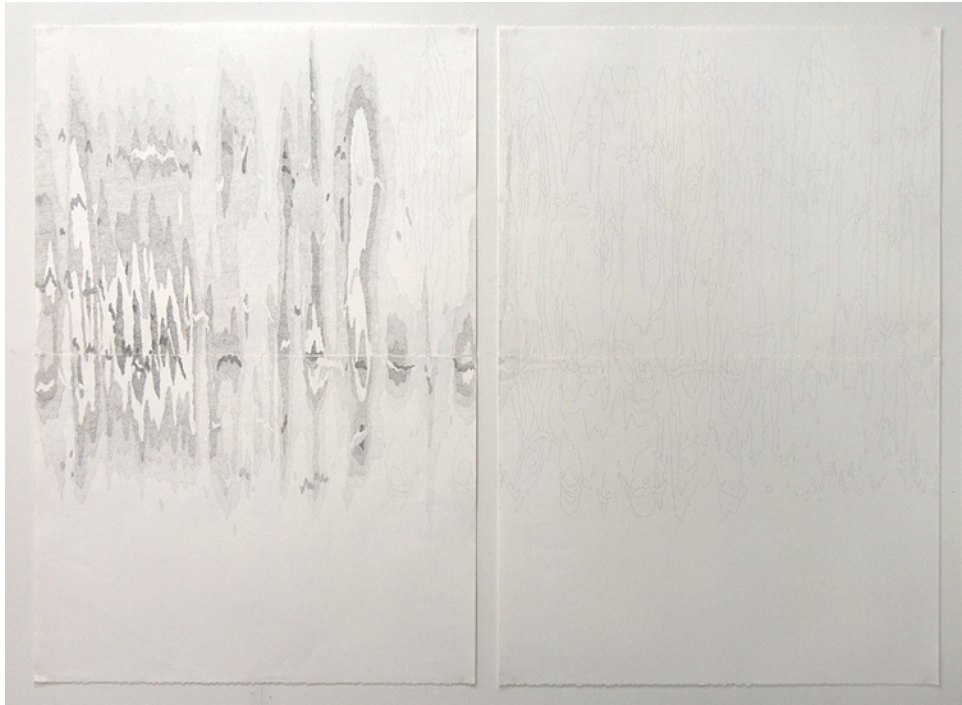
The line aspect of the work is contours outlining the patterns of sound amplitude and frequency.

During the stages of developing this work, as throughout my program of research, I also looked at other forms of sound visualisation, including in music-playing software, sound visualisation for moving image, sound analysis for the purposes of audio production, generative audio-visual art and interactive systems where movement or sound activates or alters a visual display.

In *Tone and line study* I sought out the specific approaches to sound visualisation that best enabled me to reflect on my experience of listening to sound recordings, and considering the site and context they are taken from. My exploration was not for the purpose of describing the multitude of applications and practices where sound visualisation may be applied.







12

A work that I considered important during this time was Susan Hiller's work *The last silent movie*, 2007, for the way it presents the 'residue' of recorded voice and draws attention to the acts of listening, capturing and re-presenting sound.

Technically, *The last silent movie* has similarities to my approach, by using drawn, static sound visualisations. The series of simple waveform (time and amplitude plot) drawings of voices highlight differences between the voice recordings, inviting the audience to reflect on what they are listening to.

In *Tone and line study*, as with later works, I built from the same starting point as Susan Hiller of a straightforward, scientific language of representation with clear connection to the form of the sound. My exploration of different sound imaging methods, representing sonic attributes such as frequency and the emergence and decay of a sound over time, offered original material for an audience to access and consider the drawn sound.

10. *Tone and line study*, 2008, detail. 70 cm x 60 cm

11. *Tone and line study*, 2008, detail. 20 cm x 15 cm

12. *Tone and line study*, 2008. 160 cm x 120 cm

Facing page: *Tone and line study*, 2008, detail. 75 cm x 120 cm

13. *Tone and line study*, 2008, detail. 20 cm x 15 cm





Findings group show, School of Art Gallery, RMIT, May 2008

Curated by Lesley Duxbury and Lisa Byrne

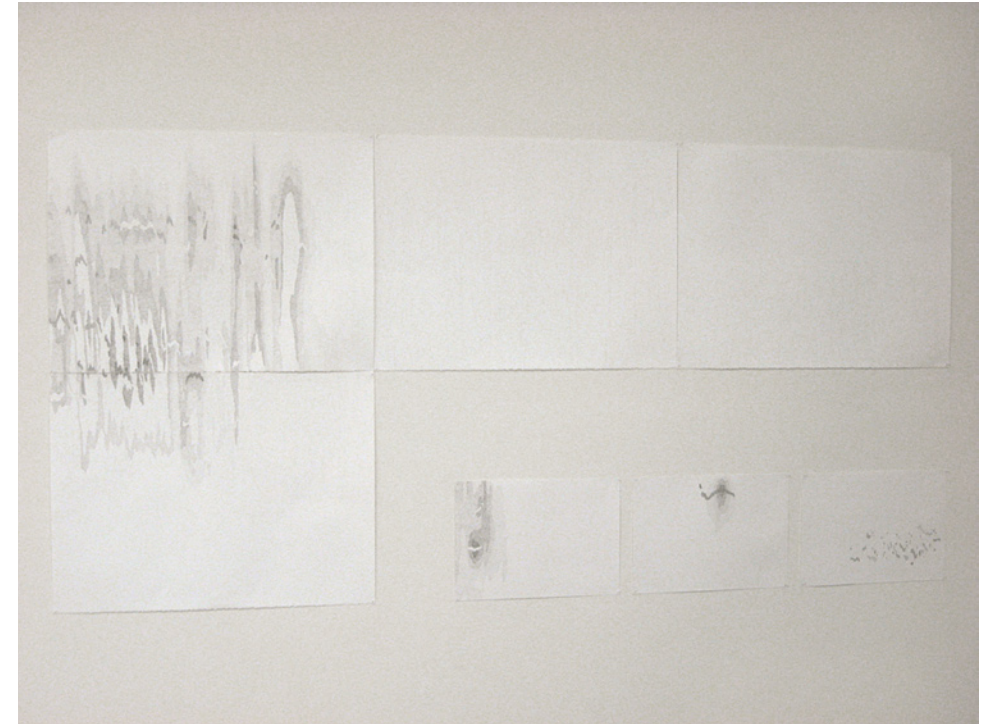
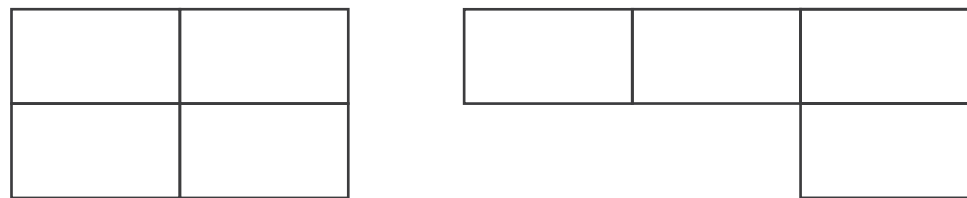
Findings was an opportunity for me to explore my research question in a gallery context, through the installation of my drawing with a sound component. At this time, *Tone and line study* was a work in progress.

Tone and line study was drawn on four large panels of paper (75 cm x 60 cm). I experimented with rearranging the panels to open up the work for an audience. I tried various configurations such as illustrated below.

Playing with rearrangements into clusters freed up my approach towards placement and relationships between paper panels. This approach was explored further through later experiments with paper pieces, moving into relief form.

For the *Findings* exhibition, I also developed a short soundscape, using the Merri creek recordings, to accompany the drawing. The soundscape focused on recordings of footsteps and ambience, relating back to my passage through the site.

[CD-R Track 1 - 3min, 28sec]



14

14. *Tone and line study*, 2008, work in progress. Photograph from *Findings* installation.

2. Small parts of tones

Small parts of tones

Lead pencils, paper pieces

Smaller pencil drawings. Looking at different ways of separating and layering sounds.

The work was based on the same sound image, and its related processes, as *Tone and line study*.

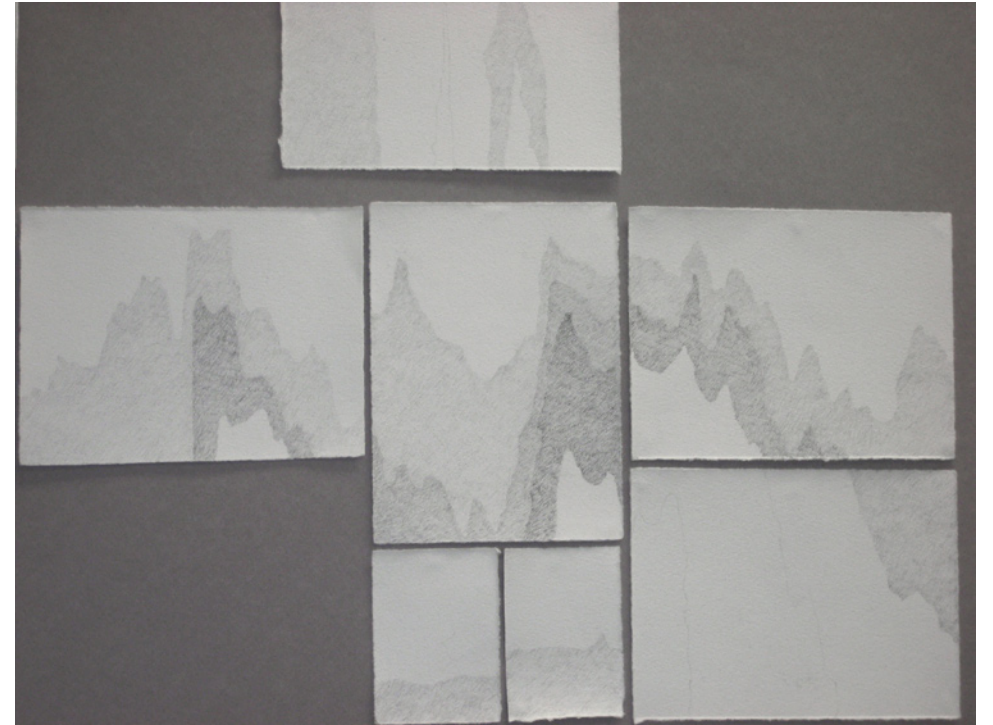
Tone and line study was based on a 2-D representation of 3-D sound image, of a passage of sound. *Small parts of tones* used the same source material.

However, in creating this work, I drew smaller parts of the sound image on separate pieces of paper, and worked with these to illustrate separate moments and aspects of the sound recording.

The main part of my experiments and working process was to arrange these pieces of paper in clusters.

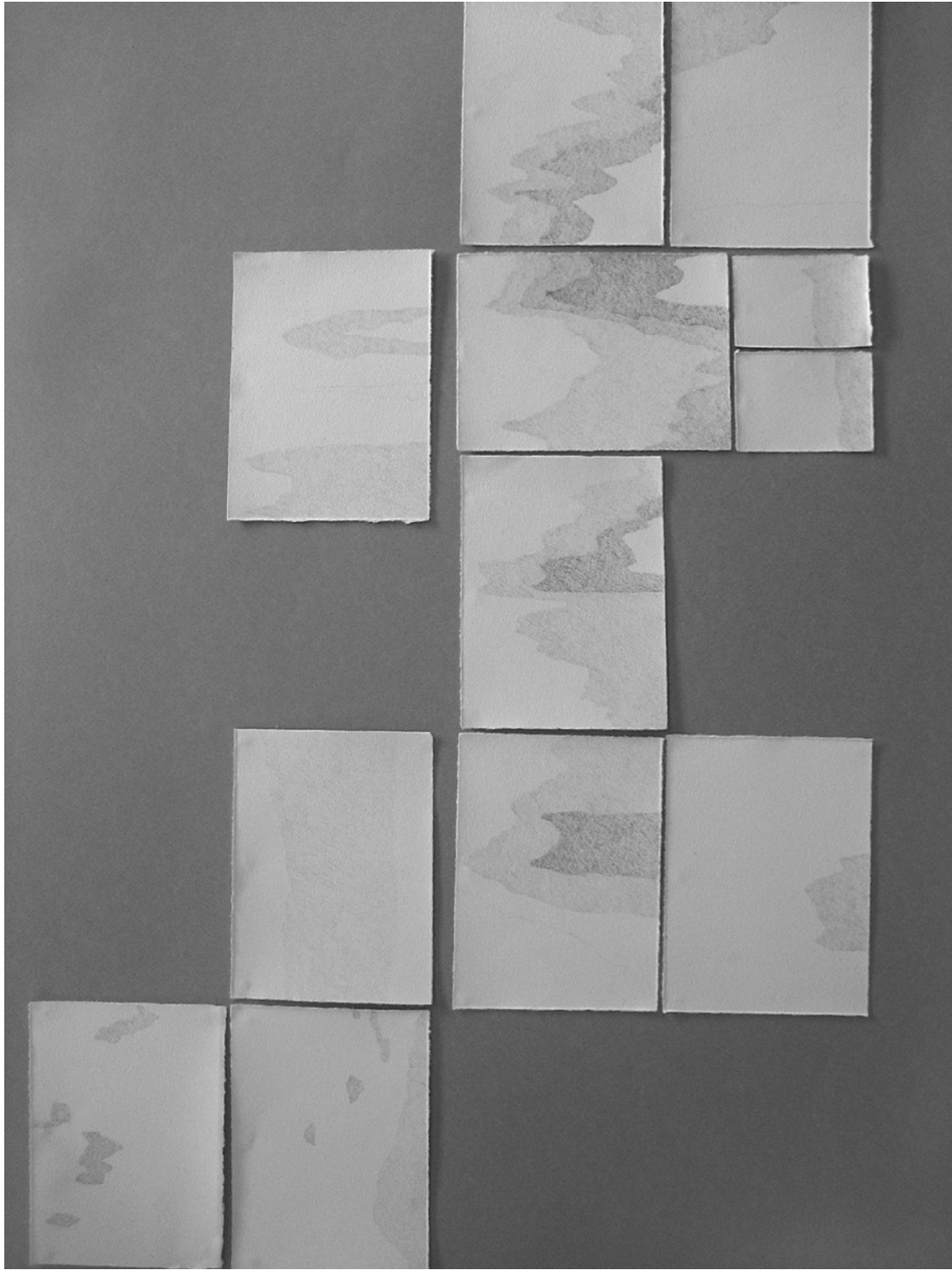
In earlier works before I began my research, I had employed a 'sandwiching' approach, where layers of sound images were placed on top of each other as the basis for a drawing work. In *Small parts of tones*, this idea of layering was approached in a different way, through grouping and clustering of the smaller aspects of the sound image.

By drawing aspects of the sound sample individually, pulling them apart and re-presenting them in clusters, I felt that time could be read and understood in relation to the Merri Creek site.



1

1. *Small parts of tones*, 2008, detail. 60 cm x 50 cm
2. *Small parts of tones*, 2008 (Rotated 90 degrees). 85 cm x 70 cm
3. *Tonal drawing*, 2008 (Rotated 90 degrees). 60 cm x 50 cm



2



3

3. Paper pieces tests

Paper pieces tests

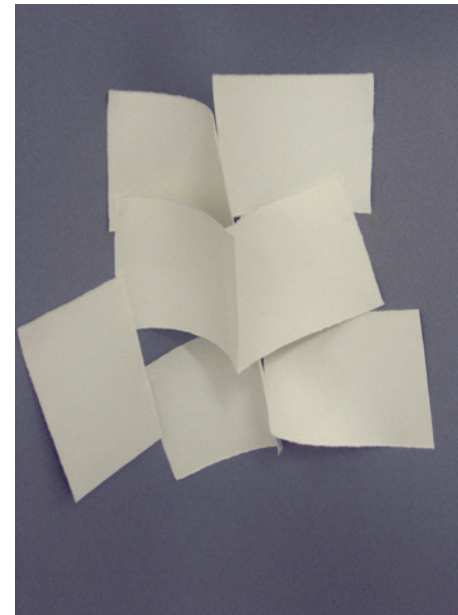
Experimenting with clustering paper pieces and paper relief

These tests extended my thinking and experimentation from the *Small parts of tones*. I began to use paper as a drawing medium. These experiments were a new way for me to explore volume, tone, shadow, light and rhythm.

The clustering used in *Small parts of tones* was extended into new arrangements. For example, paper was moved together and overlapped, and/or installed in the corner of my studio.

After these tests, I worked with even smaller pieces of paper. I tore and curved each piece by hand, and began to play with these in clusters, arranging them directly onto the wall. I noticed that these pieces held a sense of movement, highlighted by varying tones (light and shadow).

In my previous drawing *Tone and line study*, one of the main aspects of the image was volume (loudness), represented by tone. With these paper tests, volume extended from this two-dimensional representation, and was suggested through relief and depth.



1



2

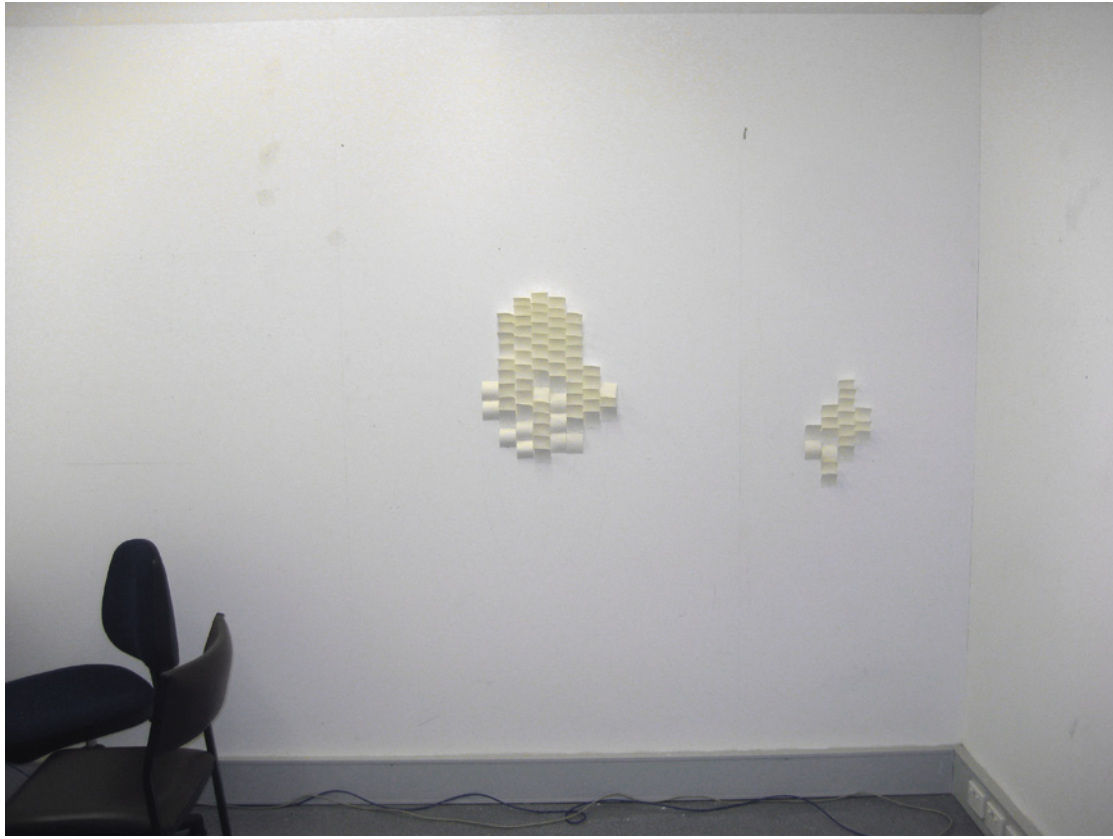


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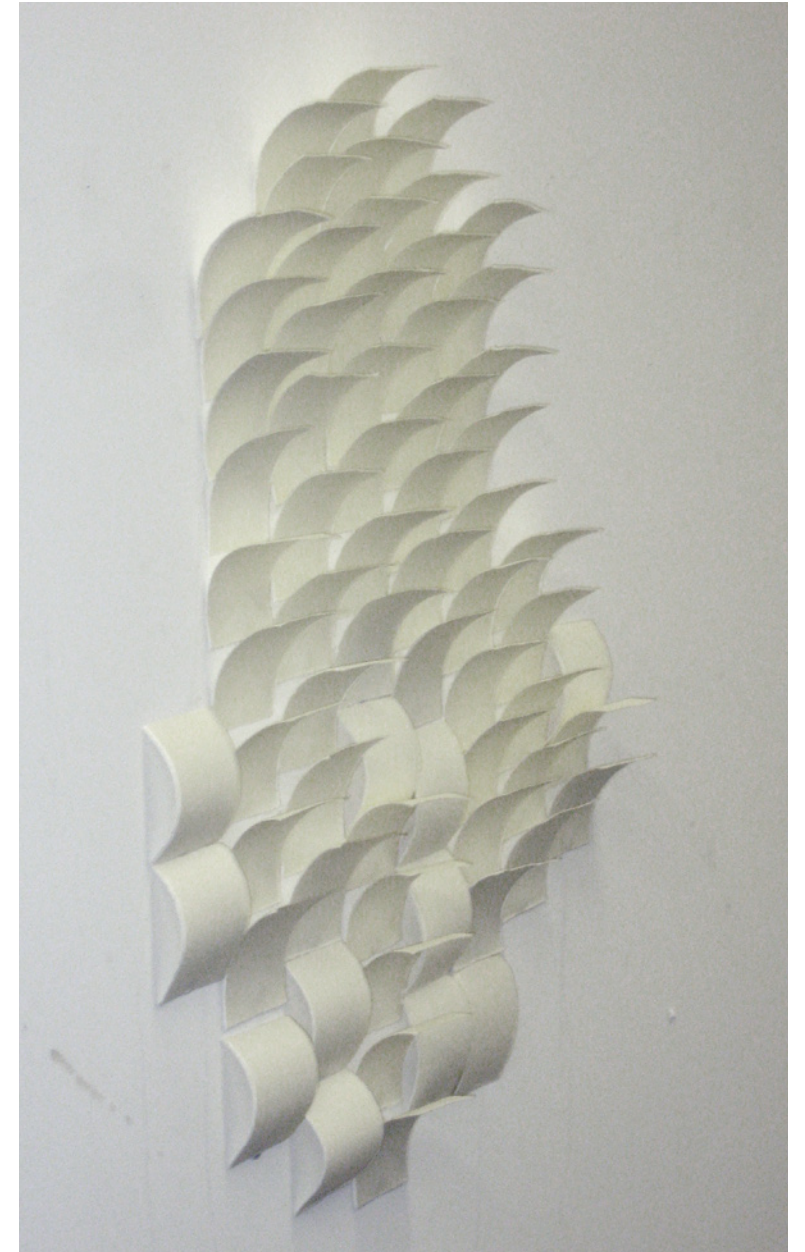
1. Paper pieces test, 2008. 55 cm x 75 cm

2. Paper pieces test, 2008. 55 cm x 75 cm

3. Paper pieces tests, 2008.



4



4. Paper pieces test, 2008. 150 cm x 75 cm

Facing page: Paper pieces test, 2008. 55 cm x 70 cm.

4. Dot drawing tests

Dot drawing tests

Conte, paper

Viewing sound in 3-D detail. Drawing to represent a 3-D image two dimensionally.

My approach to sound recording and processing developed during this time. Rather than a passage of sound, as was used in *Tone and line study*, I took recordings with a focus on smaller elements of the Merri Creek aural environment.

This linked back to the previous tests with grouping images that represented smaller aspects or parts of a sound recording.

In recording, I was more actively considerate of the sonic motifs of the area, including recurring sounds and underlying aspects that seemed significant to the way I perceived and experienced sections of the Merri Creek. For example, the rustle of leaves, birds, wind, footsteps and general ambience from different times of day.

Recordings were taken near to the Rushall Station pedestrian cycle and footbridge. In recording branches, there was a mixture of field recordings, such as natural movement of branches, and crunches of leaves underfoot, as well as recordings made at home, of sounds of leaves and twigs that I collected from the area.

I then worked with a new software application, *Sonogram*, that offered a rotatable, three-dimensional graph/image of analysed sound. The way that images were represented depended very much on how the sound samples were processed. For example, by moving from a series of footsteps, to a single step, or using a single twig snapping sound, I could see how that change in focus was traced in the contours of the sound-image.

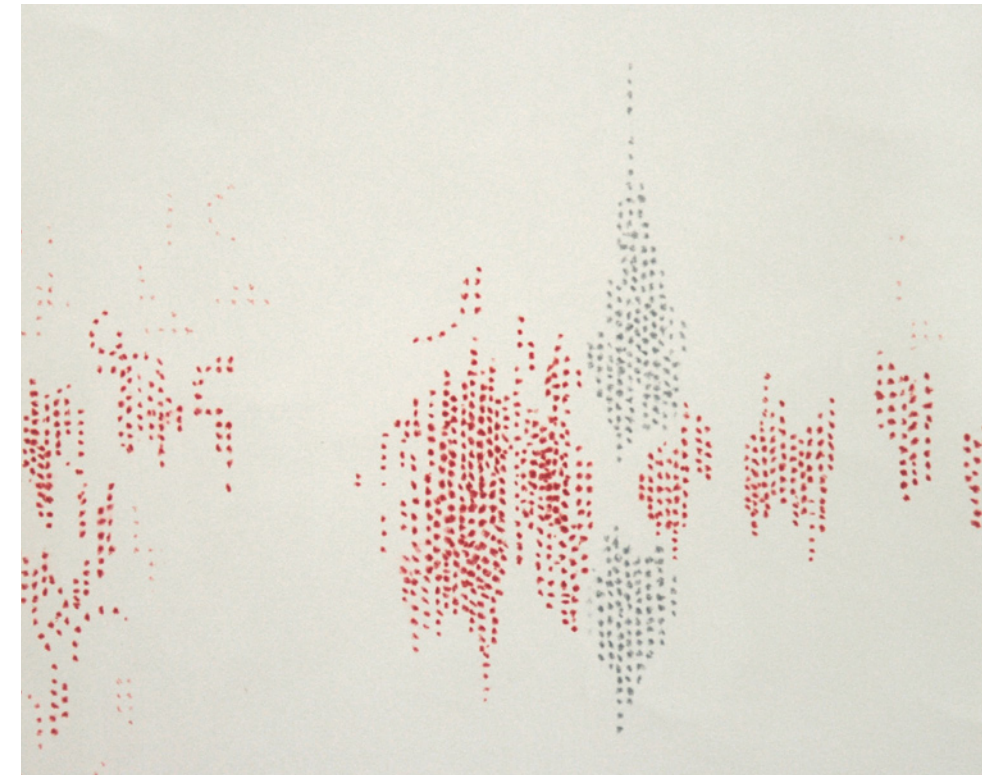
During this time, I considered the character of the a sound, how I wanted to represent this, and how I could better connect the steps of recording, editing and visual analysis to achieve this aim. The three-dimensional representation enabled me to look 'inside' a sound sample from different perspectives, and consider the characteristics of the sound (volume, duration and its movement through a short period of time), as illustrated through the digital image.

I made a large dot drawing (approximately 200 cm x 170 cm) from a chosen three-dimensional sound image. My aim was to represent the movement of a sound through time, through the form and sense of dispersion in the work.

This was a long process, with each dot hand drawn over approximately eight weeks. I projected the image onto wall mounted paper, and used this as a guide to the drawing.

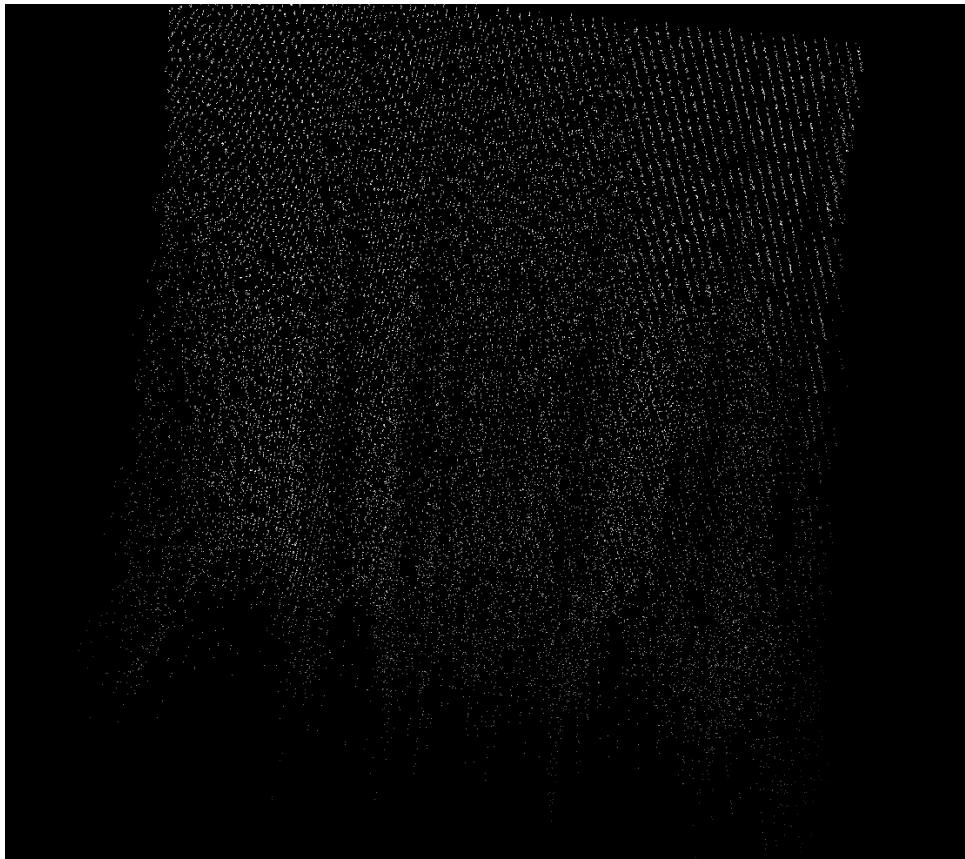
The image was chosen because I felt that it represented the occurrence of a sound event over time (a crunch of leaves). It had more dense areas of dots and contours that mapped the dominant part of the sound. It also had a dispersed area showing the ending of the occurrence of the sound, as it faded into the ambient environment.

As well as the large work, I did a number of smaller dot works to represent other sound images.

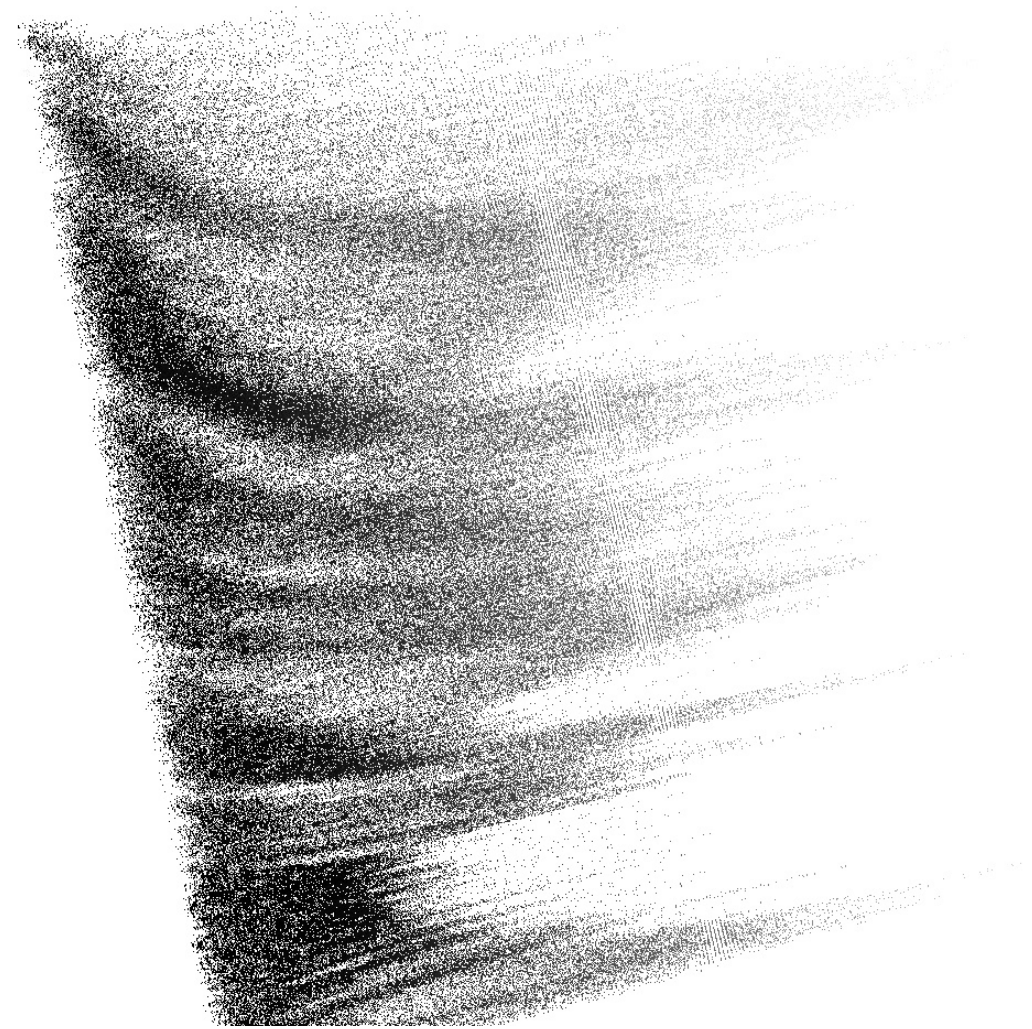




2



3

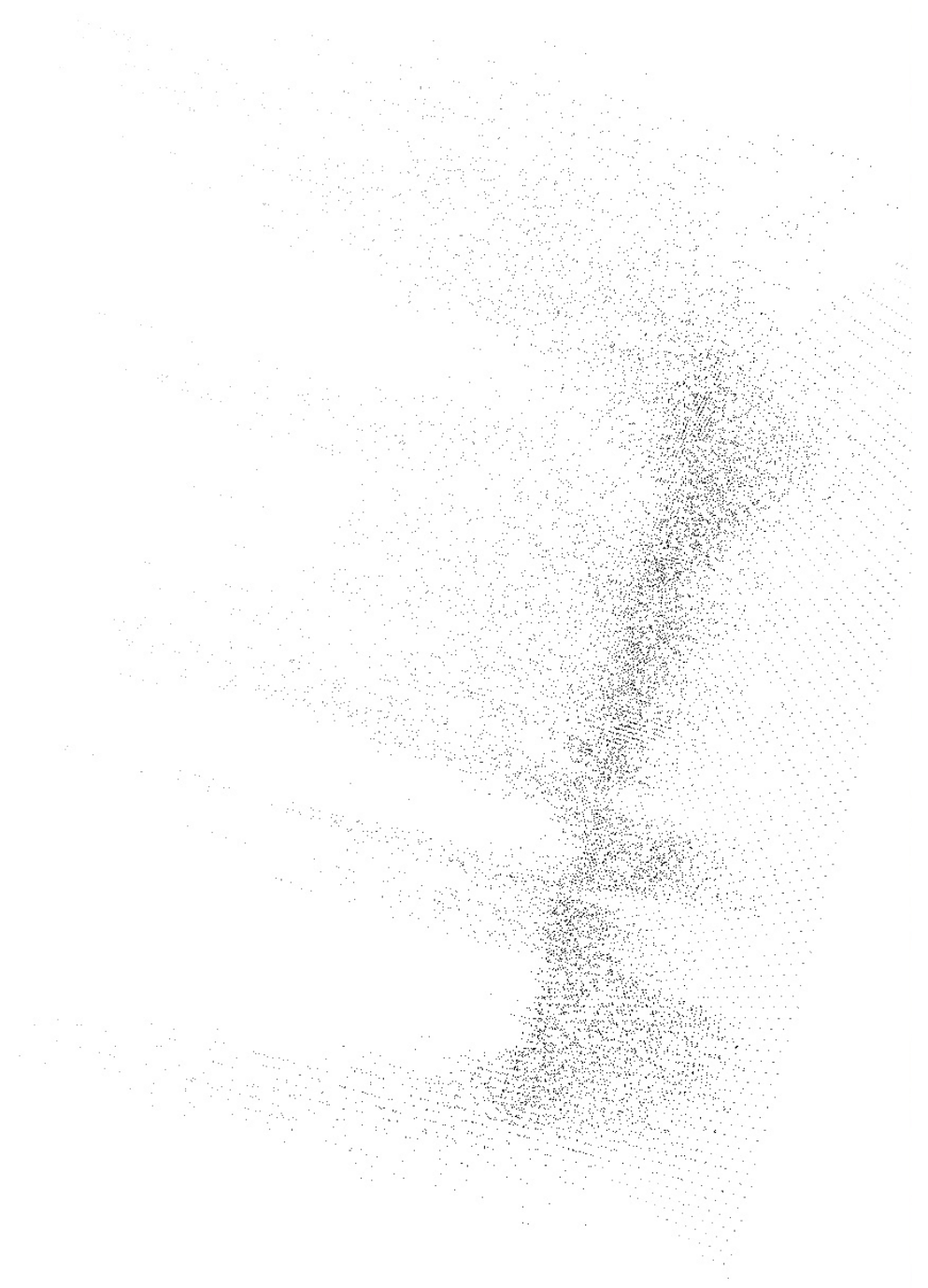


4

1. *Dot drawing*, 2009, detail. 55 cm x 50 cm

2-6. Three-dimensional sound images. Digital output from software *Sonogram*.

Image 6 was used in the large dot drawing test.





7



8

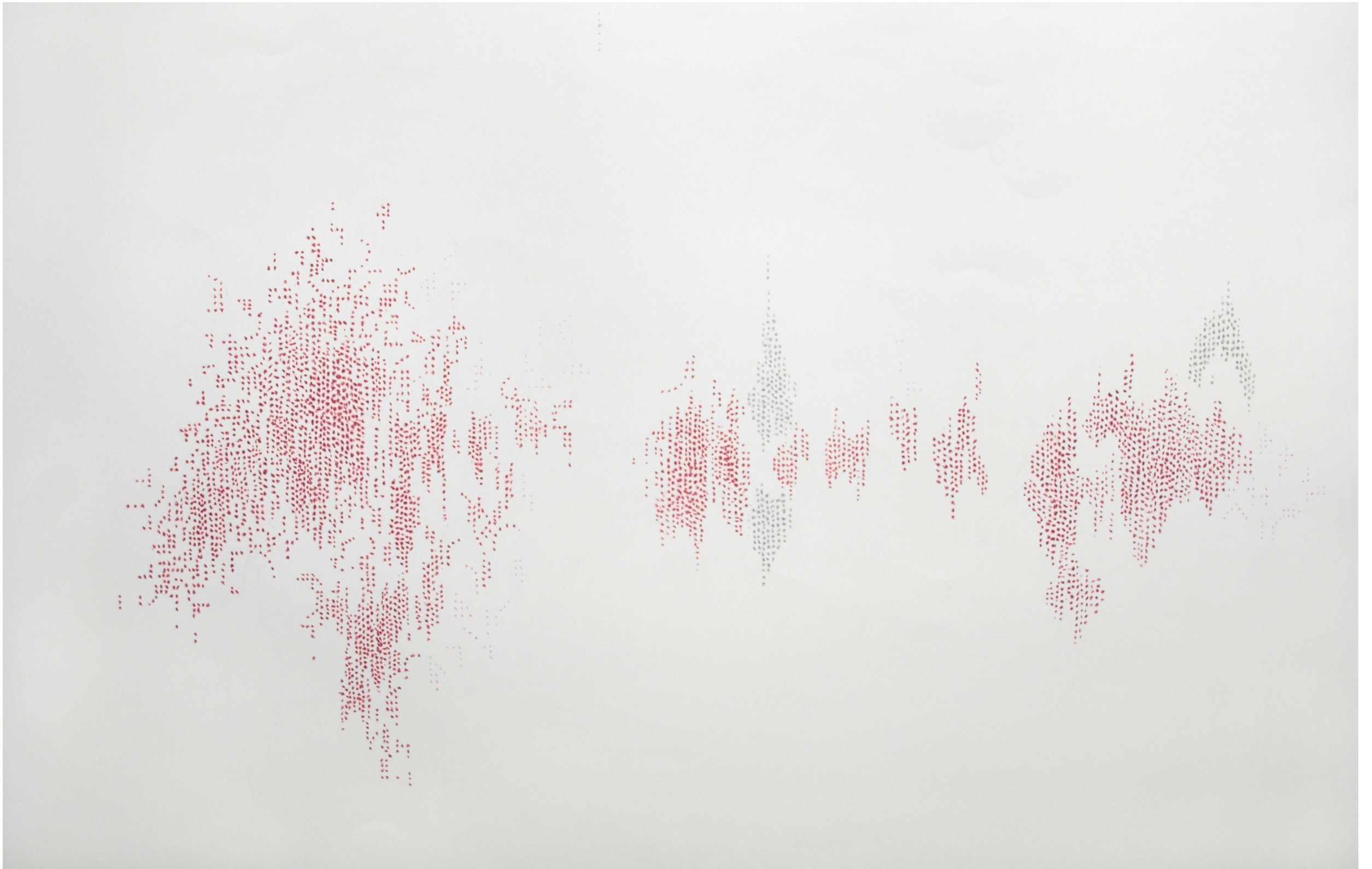
7. Dot drawing test, 2008-9. (Rotated 90 degrees). 200 cm x 170 cm

8. Dot drawing test, 2008-9, detail. 100 cm x 85 cm

9. (Next page) Dot drawing test, 2008-9,detail. 100 cm x 85 cm

10. (Following page) *Dot drawing*, 2009. 120 cm x 75 cm





5. Small sounds

Small sounds

Conte, paper. 350 cm x 200 cm

Expressing time within sound through layering and drawing

Small sounds developed from the recordings and working process in the dot tests.

Small sounds combines three digital sound images. I used a combination of ambient and more instantaneous sounds, having varying length and focus. These provided sound images of differing resolution and detail, which were layered together.

I selected quiet sounds that were either continuous or recurring in my experience of being in the Merri Creek area. I used a longer ambient recording, a snippet of my movement along a pathway, and a crunch of leaves underfoot.

In combining the sound images, I also thought about the potential commonalities with the way I had approached soundscape composition for my works.

For example, in the soundscape for the *Tone and line study* installation, sounds were not used as one linear recording. There was an overlapping of sounds, combining ever-present aspects, with smaller events, to allude to elements of the perception and experience of the site, rather than a literal presentation of the sounds occurring at a point in time.

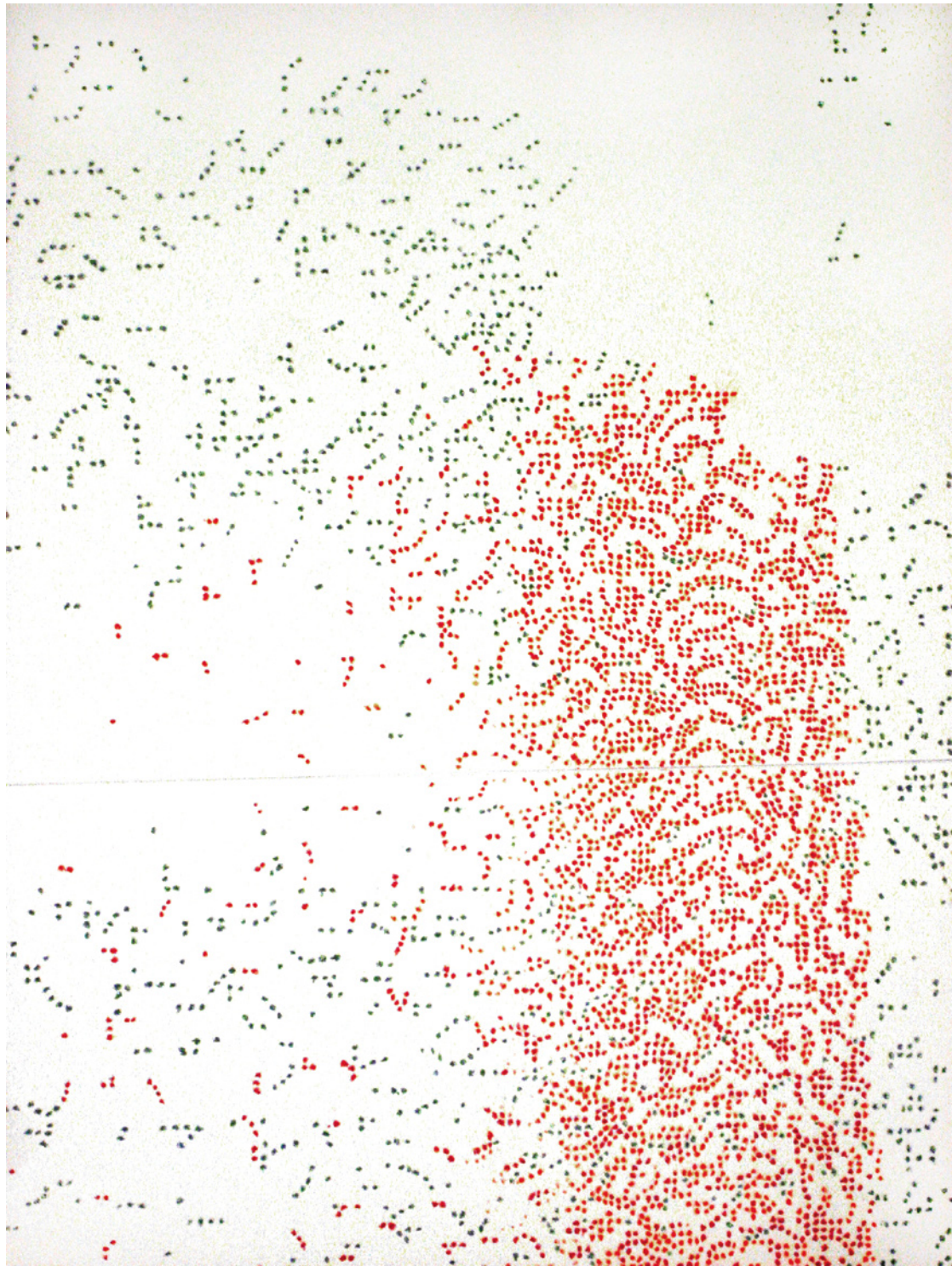
The combining of images was an iterative process between *Sonogram*, where I would generate the images, with consideration for their character and significance, and *Photoshop*, where images were layered in different colours.

The work was drawn from projection onto six large sheets of paper. The methodical process of making this work, of thousands of dots drawn over the course of four months, involved a consistent way of drawing repeated dots. For example, ensuring a regular angle when making each mark, and establishing rules for closely following the projected pattern, with occasional variations or reinterpretations, such as where a projected dot was larger than others.

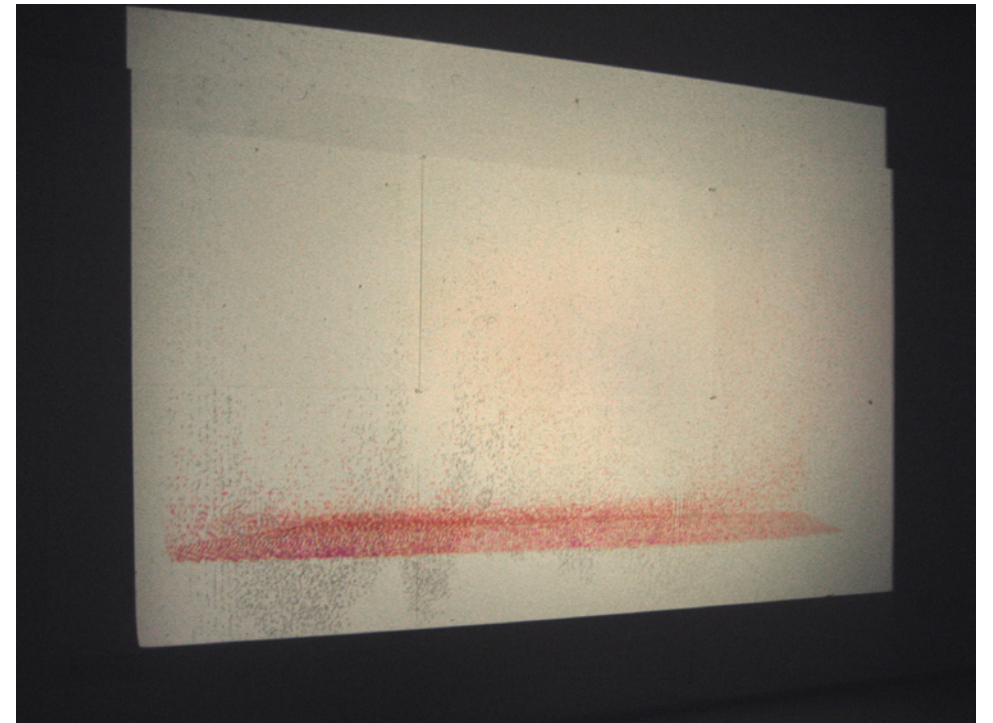
1. *Small sounds*, 2009. 350 cm x 200 cm
2. *Small sounds* work in progress, detail. (Rotated 90 degrees) 70 cm x 60 cm
3. *Small sounds* work in progress, drawing and slide projection.
4. *Small sounds* work in progress, detail. 150 cm x 100 cm



1



2



3



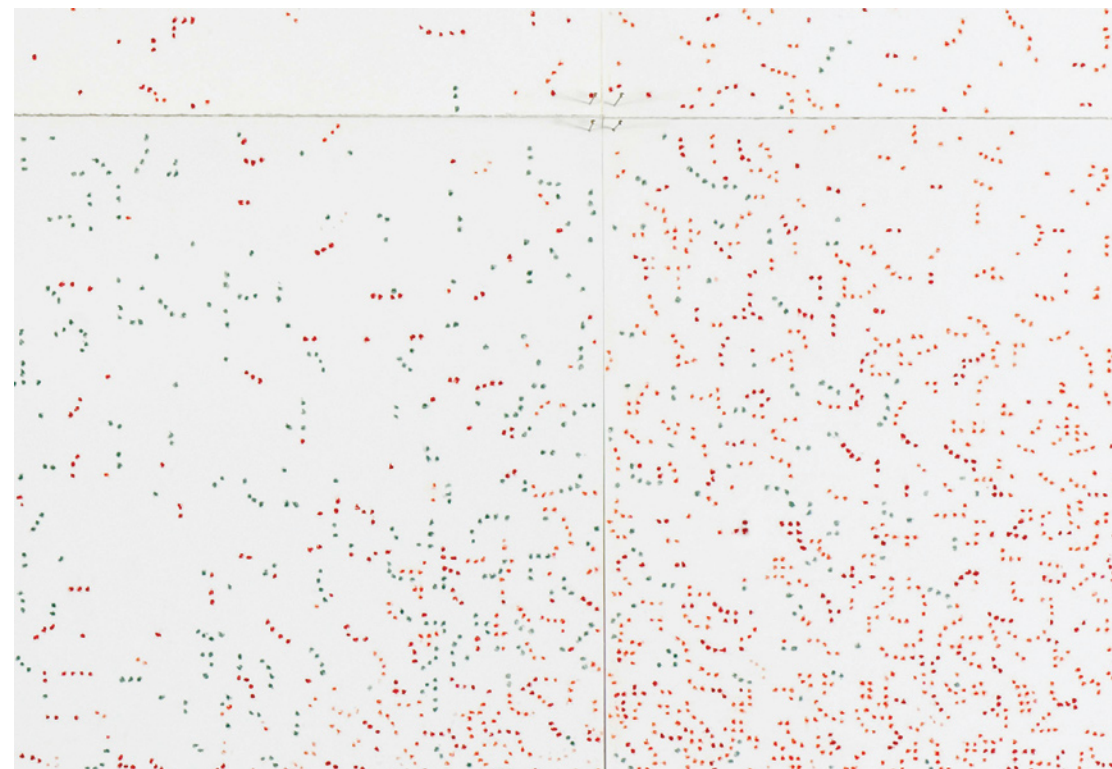
4

Sol LeWitt's early line drawing works (for example, *Wall Drawing 47*, 1970 and the colour pencil *Wall Drawing 85*, 1971) employ a similar methodological rigour in the way they are planned and executed. The system and ordering within these works require the drawer to follow set instructions, with work being made over an extensive period of time. Within this system there is the possibility for variation according to the way in which marks were made.

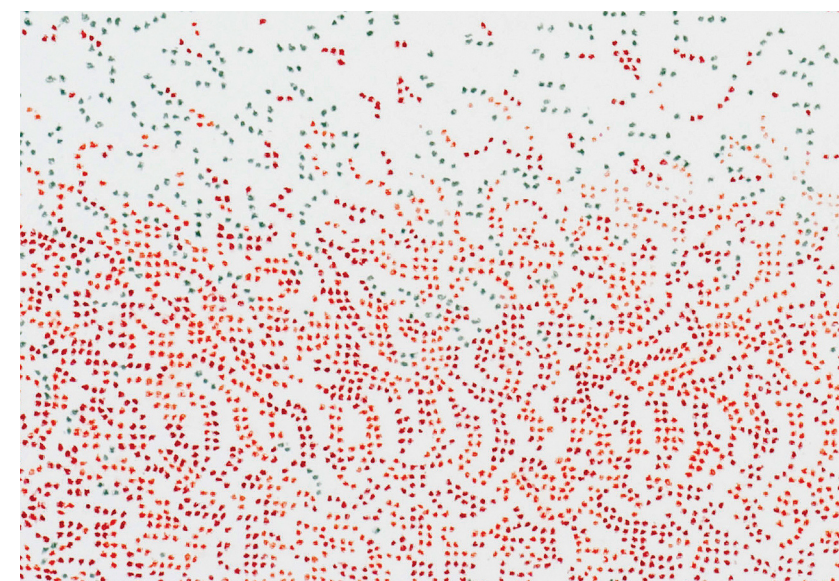
While I am also following rules and a process-driven approach to creation of work, pieces such as *Small sounds* have an organic variation that comes from the sonic source material and my approach to interpreting it.

In considering my research questions around representing the ambience of a site, and generating an experience of time, I felt that the process of making this work became a way of imbuing a sense of the Merri Creek environment into the drawing, through a focus on the presence of sounds as an integral aspect of the ambience of the location.

See *Soft edges* notes on how the work was installed, with soundscape.



5



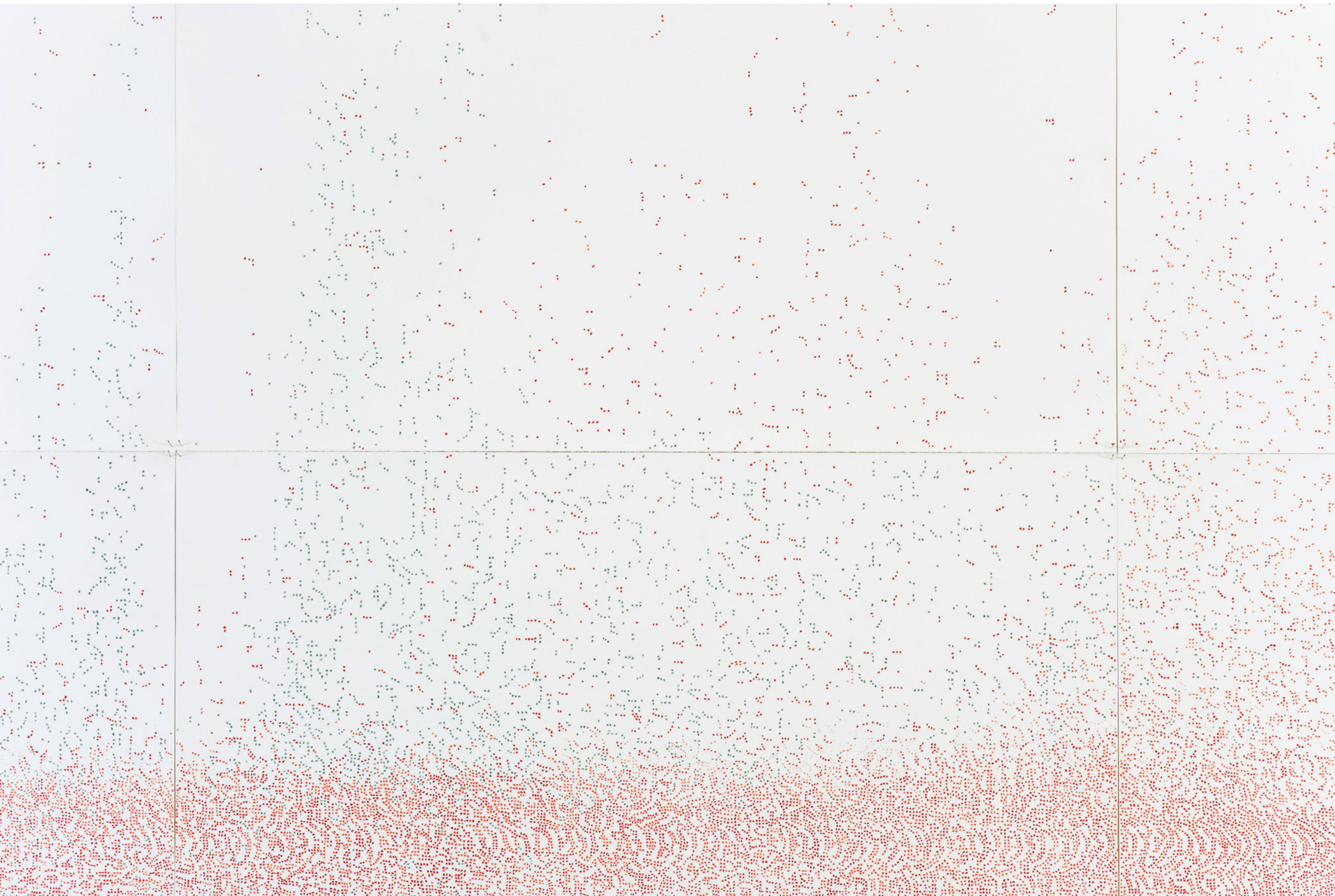
6

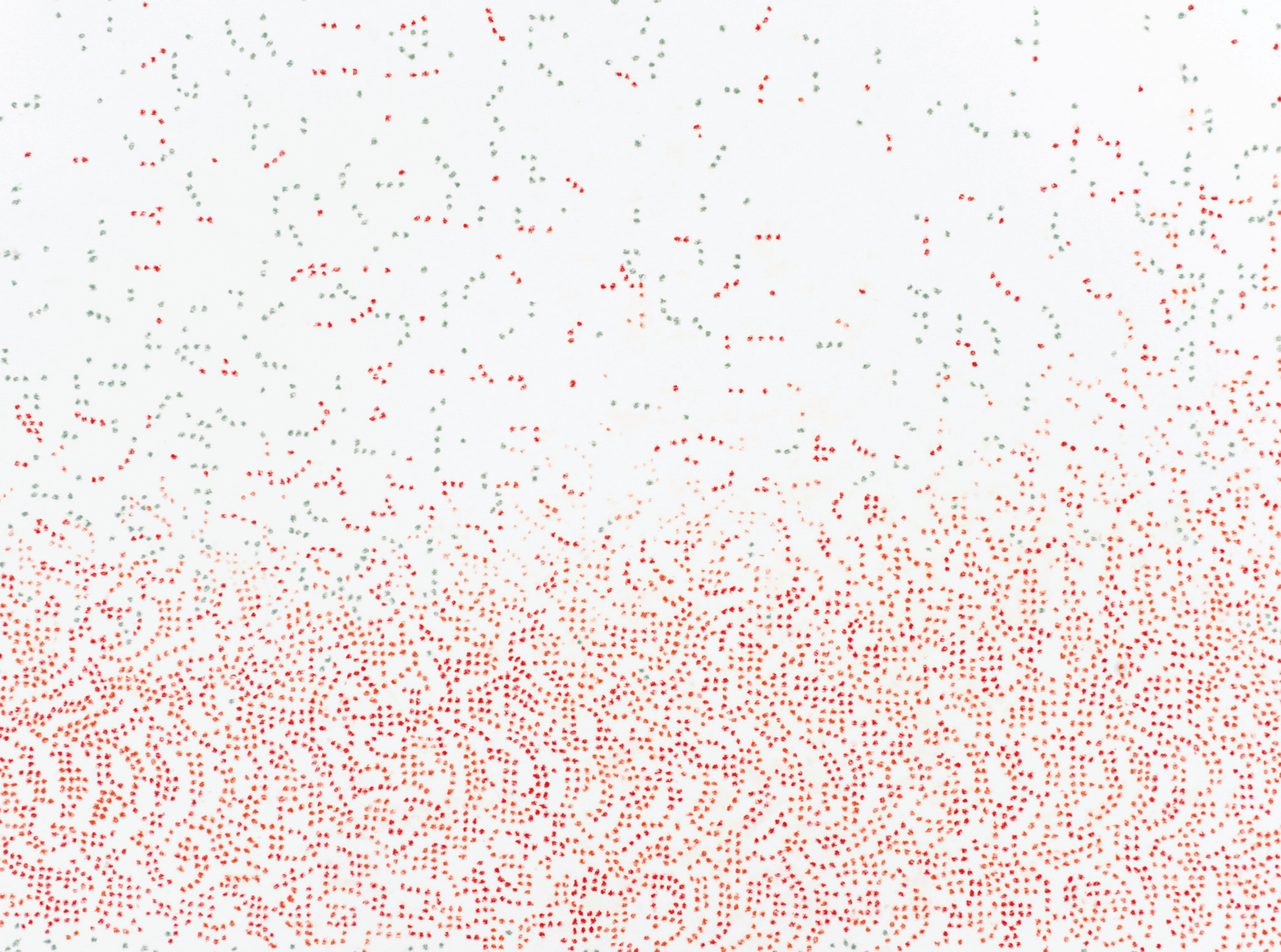
5. *Small sounds*, 2009, detail. 120 cm x 90 cm

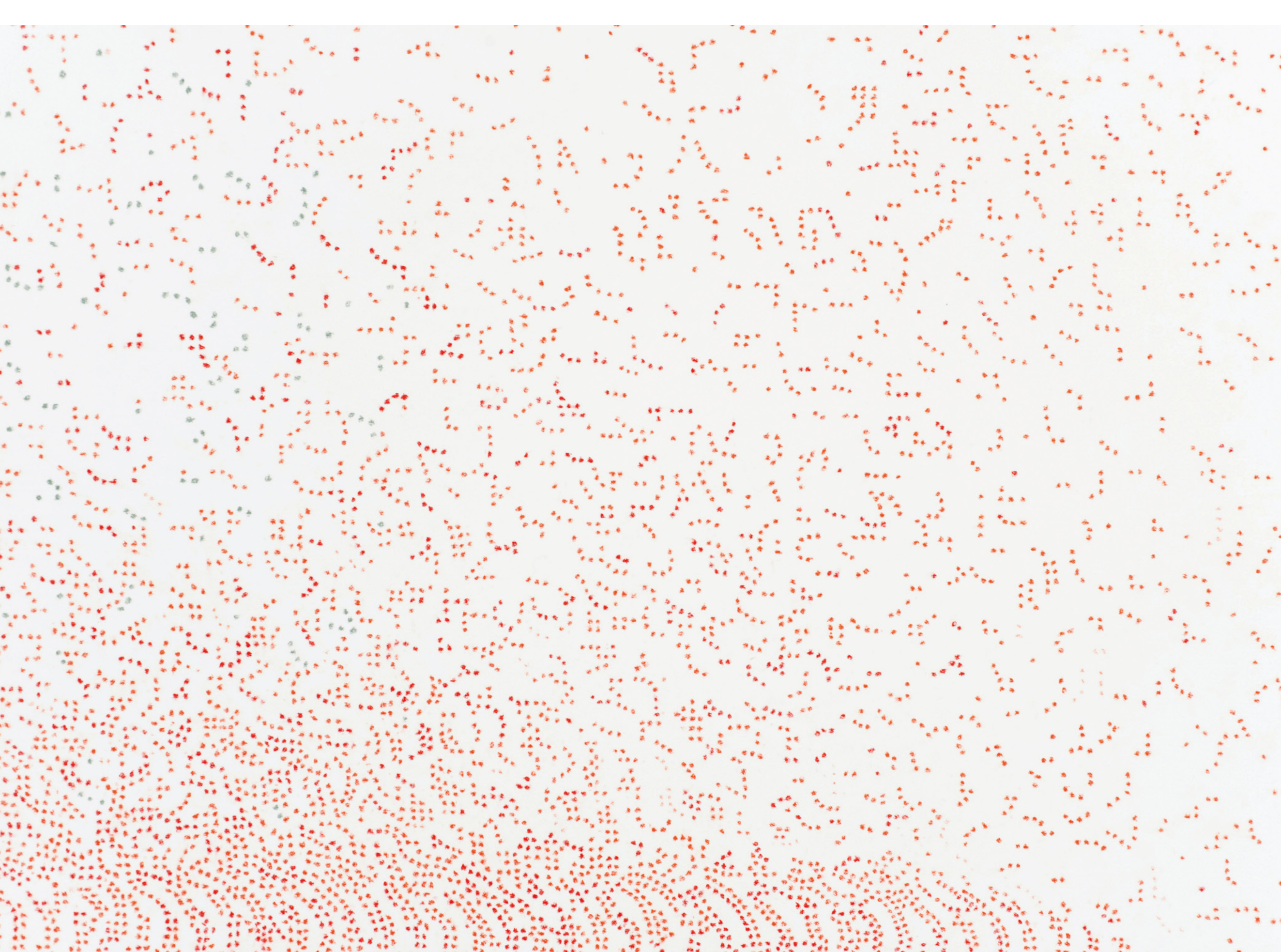
6. *Small sounds*, 2009, detail. 45 cm x 30 cm

Following pages: *Small sounds*, 2009 details:

- 180 cm x 165 cm
- 55 cm x 40 cm
- 70 cm x 60 cm
- 20 cm x 100 cm









6. Experiments with wire pieces

Experiments with wire pieces

Wire, paper, mount board

Following *Small sounds*, I played with different ways of drawing out or extending the sound image, beyond two-dimensional drawing. In particular, I considered the viewing experience and a sense of touch and volume in relation to sound.

The sounds I used for these experiments were sections taken from the dot tests project. Digital sound images from this work, in a dot form representation, were used as the basis for works with wire.

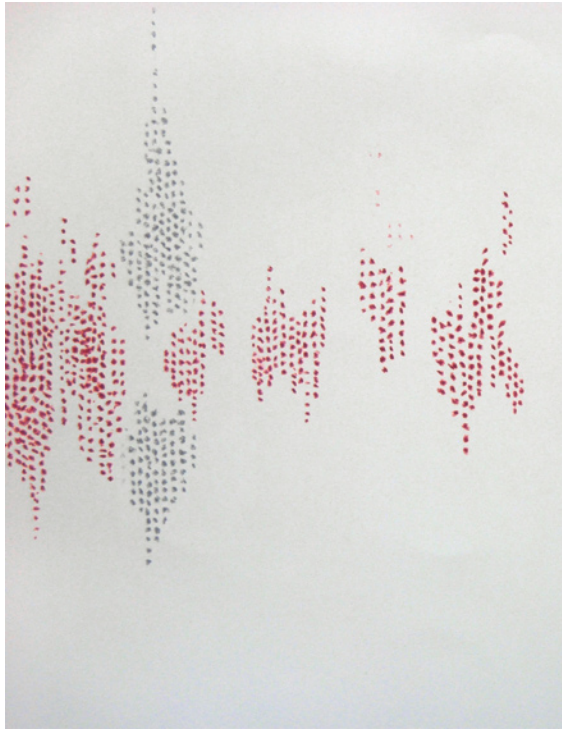
I used small wire pieces about 1 cm-1.5 cm long, and pushed these into paper and mount board. I wanted to create an effect of a dispersed form, like the dot drawings.

I realised that this work appeared clumsy attached to mount board, and what I really wanted was to be able to directly install into a gallery/space wall, at large scale.

While I saw the potential in doing this kind of work, I recognised that larger works would be very time consuming and physically difficult to attach. Overall, I was unsure about the effect that a large wire installation would have, and was concerned about a form that was too 'rigid'.

However, I did like the idea of a long wire line being cut up to make 'marks' on paper. I considered the relationship this has with drawing – with pencil marks/lines, and an invisible link between each mark (being from the same material).





Dot drawing, 2009, detail.



7. Soft edges

Soft edges

Paper relief, pencil drawing, soundscape composition.

Investigates the image, sound and movement of tree branches from a particular location along the Merri Creek. Installed in Project Space Gallery, RMIT, as part of the Peripheral group show in October 2009.

Paper pieces

As with my dot drawing works, the first step in this project was selecting a sound recording and generating a sound image. In this instance, the sound was that of branch rustle, from a tree overhanging the section of pathway along the Merri creek. I used the sound program *Praat* to generate the sound image.

This sound image was drawn in detail onto paper at a small scale, and then used as a guide to begin a sequence of paper pieces.

The form of each paper piece was based on the experiments undertaken earlier in the year. Each piece of paper was approximately 7.5x5cm and was curved by hand.

This process provided a way for my work to move out of a two dimensional representation of sound. In addition to the representation of time and frequency, volume (the intensity or level of sound occurring over time) seemed to be more at play in a literal sense as the pieces created shadows and highlights, accentuating the paper and giving the work more presence in a space.



1

This working process also seemed to offer a more tangible connection to the sense of the passage of sound occurring over time, and the experience of listening to sound in the Merri Creek location. This came through the rhythm developed in the placement of each piece, and the order and association of the paper pieces.

I felt that this work resolved questions formed at the beginning of my research, around how to represent the three dimensions of sound and sound images, and how to engage an audience into the work.

Over a period of around six weeks I installed this work onto the wall of my studio. This involved playing with moving the paper pieces around, and turning them over in different arrangements.

I documented this, and remade the work on a wall in Project Space, RMIT (September-October 2009) for the exhibition *Peripheral*, curated by Lisa Bryne.



2

1. *Soft edges - paper*, work in progress. 20 cm x 80 cm

2. *Peripheral* installation, Project Space / Spare Room, 2009



3

3. *Soft edges - paper*, 180 cm x 170 cm

Following pages: *Soft edges - paper*, details.

Peripheral was a five-person group exhibition around the concept of observations resting at the periphery of perception. The theme of the show developed from my research concepts around the role of subconsciously perceived sound in the experience of the ambience of locations. Works by the other artists explored different aspects of peripheral observations.

My installation involved the paper, drawing and soundscape work *Soft edges*, as well as the work *Small sounds*.

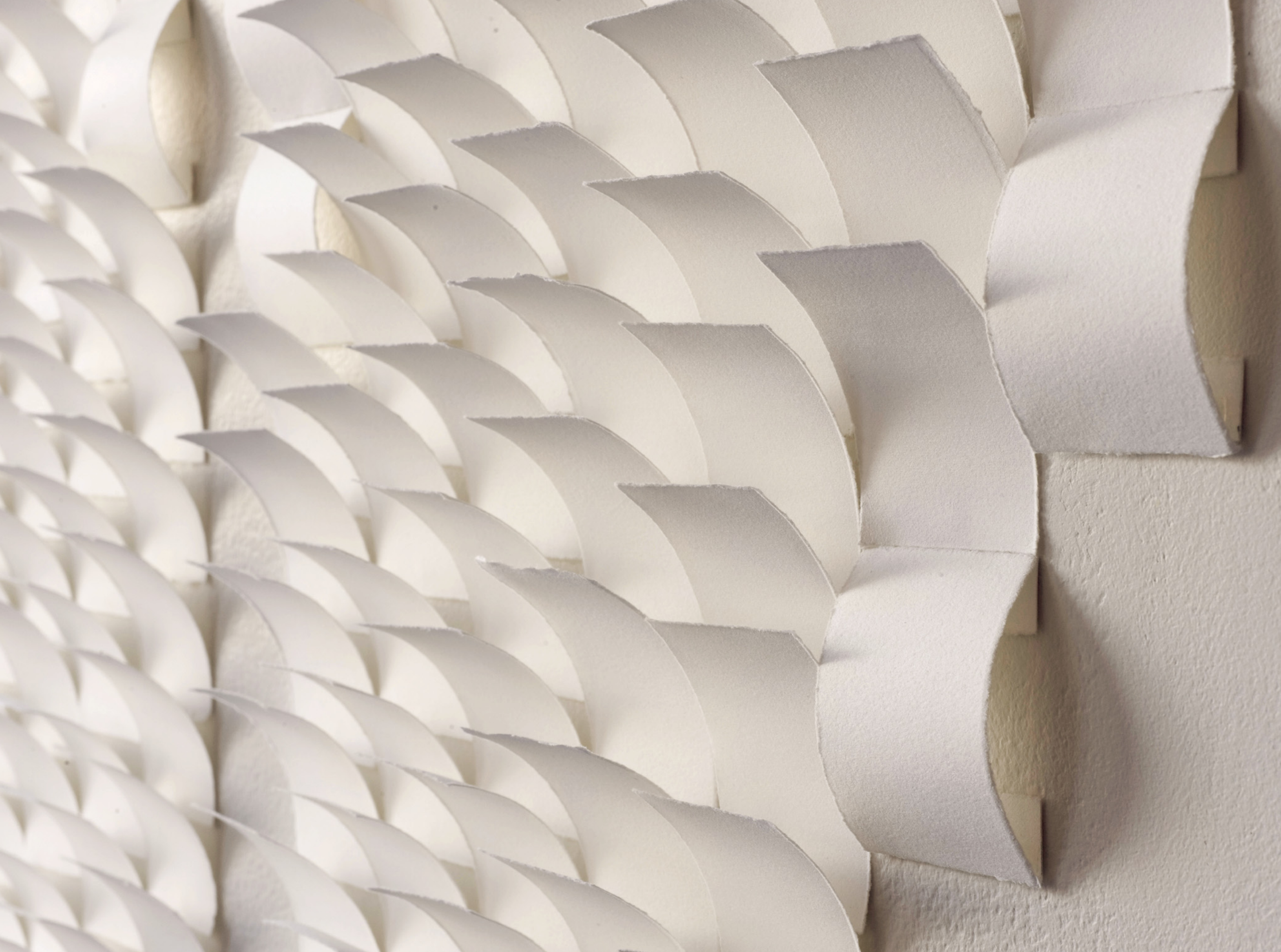
For the installation, a soundscape was made to accompany the viewing of the work, in the gallery space. It was made with the assistance of Eliot Palmer. It was mainly made from recordings of the movement of branches and ambient sound in the Merri Creek reserve area.

[CD-R Track 2 - 7min, 28sec]

When preparing *Soft edges - paper* for the exhibition, I also experimented with creating subtle movement for the paper pieces, as a way of making presence of the paper more tangible within the space. I used a fan that created slight fluctuations across the surface of the work. I didn't employ this idea in the exhibition, as it didn't work effectively in the work's context within the larger space.

[See movie soft edges movement on CD-R]







4

4. *Soft edges - paper*, 2009, detail. 75 cm x 45-70 cm.

5. (Next page) *Soft edges - paper*, 2009, detail. 80 cm x 70 cm.

A concept underpinning my practice is about bringing a tangible visual presence to sound, as a way of drawing an audience's attention to the act of listening. I focused on this idea through *Soft edges*.

In Susan Hiller's work, *Witness*, 2000, she brings this presence through the installation of a cluster of small, hanging earphones. The audience is invited to listen to recordings of voice in various languages.

A work such as *Witness* relates to my practice to the extent that the work deals with similar audience relationships and connections to the source material.

In my works, the invitation to listen is achieved through the combination of the visual detail of the work, and the soundscape composition. For example, both *Small sounds* and *Soft edges - branches* require a closeness of observation, inviting sustained viewing whilst listening to the composition. The soundscape component slows down the experience of recordings, and brings attention to specific subtle elements of the environment under observation. This in turn supports the viewing of the work.

It is with *Soft edges - paper* installation with soundscape, that I have opened up original material to extend possibilities for installation that can bring a more tangible visual presence to sound and connection to the act of listening.

In past works, my sound-image drawings have been made directly onto the wall of a gallery space. The focus and research of the Masters program has helped me to establish an approach to paper installation. I envisage that my ongoing practice will further develop this within different installation contexts.



Another aspect present in the works installed in *Peripheral* was an interest in communicating my personal experience of being in a place (observing Merri Creek), and how this relates to the process of making work.

As my working process is very time intensive, I can imbue a sense of time in the making of work. As part of this process, I often listen to the field recordings while making visual work, helping me relate back to the daily rhythm and decay of sounds and activity in the place.

Chen Zhen's work influences me conceptually and poetically, in the way that it explores similar ideas of transience, decay and the unseen. For example, *Purification Room*, 2000, an installation of detritus and dust, suggests passage through another location, or event in time. I viewed this work at the *Yokohama 2005 International Triennale of Contemporary Art*.

Facing page: *Soft edges - paper*, 2009, detail. 15 cm x 20 cm



Branches

This work was drawn directly from images photographed from the same location that the recordings were made for *Soft edges - paper* and the soundscape. It is a detailed pencil drawing on large pieces of paper (two pieces each 100 cm x 75 cm) of tree branches.

The work was installed with the paper pieces and soundscape. This helped me impart a visual association to the subject of tree branches, as part of the visual and sonic ambience of the Merri Creek location.



6. *Soft edges - branches*, 2009. 100 cm x 150 cm

7. (Next page) *Soft edges - branches*, 2009, detail. 100 cm x 75 cm

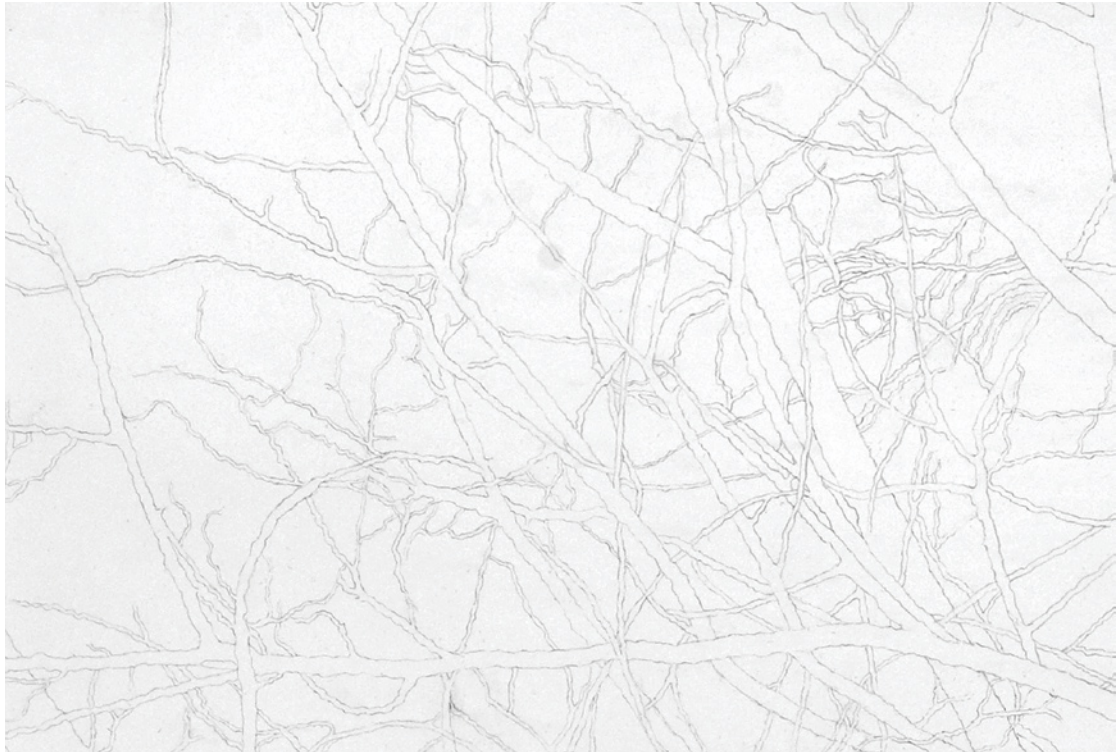
8. (Following page) *Soft edges - branches*, 2009, detail. 100 cm x 75 cm



6







9



10

9. *Soft edges - branches*, 2009, detail. 45 cm x 35 cm

10. *Soft edges - branches*, 2009, detail. 45 cm x 35 cm

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YOKOHAMA 2005: International Triennale of Contemporary Art. *Art Circus Jumping into the ordinary*. Catalogue published by The Organising Committee for the Yokohama Triennale.

Chen Zhen: The Body as a Landscape, authors Ken Lum, Maite Vissault, Wang Min An, and Matt Gerald. Verlag Fur Moderne Kunst Nurnberg, August, 2007

Sound Visualisation Resources

Intelligent Speech Analyser: <http://www.sci.fi/~pitchsys/index.html>

Mac the Scope: <http://www.macthescope.com/>

Wild Spectra: <http://www.unc.edu/~rhwiley/wildspectra/>

PRAAT: <http://www.fon.hum.uva.nl/praat/>

Sonogram Visible Speech: <http://www.christoph-lauer.de/Homepage/Sonogram.html>

MATLAB: <http://www.mathworks.com/>

Curriculum Vitae

Education and relevant experience

- 2007-10 Masters Research Candidate (submitting February 2010), School of Art, RMIT
- 2002 Resident Artist at Tower Studio Melbourne University, Facilitated by Gertrude Contemporary Artspace. Research project involved collaboration with physics department and digital imaging. Funding received through Australia Council for the Arts.
- 2001 E-media Major in Sound, University of Tasmania.
- 1997 English and Cultural Studies, University of Tasmania.
- 1995 Bachelor of Fine Arts, with first class Honours, RMIT University, Melbourne.

Solo Exhibitions

- 2004 *Close Listening*, 24HR Art NT Centre for Contemporary Art, installation of wall drawing and soundscape, New Media space, collab. with sound designer Eliot Palmer, composer Ai Yamamoto.
- 2002 *Incoming*, an installation of drawings and sounds in the Tower studio Melbourne University, based on a residency facilitated by Gertrude Contemporary Artspace.
A haunted place for an exhibition, Bus Gallery, Melbourne.
- 2001 *Cusp*, Mass Gallery, Melbourne. Collaboration with composer James Gordan Anderson.
Cusp, Maria Island National Park, Tasmania.
Cusp, Foyer Installation Space, Hobart. Dual exhibitions part of 'Ten days on the Island' International Arts Festival. Collaborated with composer James Anderson.
- 2000 *Ordinary Ether*, Dianne Tanzer Gallery, Melbourne.
New work, Dick Bett Gallery, Hobart, Tasmania.
Small Parts of us, Fine Arts Gallery, University of Tasmania

Selected Group Exhibitions

- 2009 *Peripheral*, curated by Lisa Byrne, Project Space/Spare Room RMIT
- 2008 *Findings*, curated by Associate Professor Lesley Duxbury and Lisa Byrne, RMIT SOA Gallery
- 2006 *Bird*, National History Museum, Beijing China.
- 2005 *Leticia Street Studio exhibition*, curated by Micheal Edwards, Plimsoll Gallery, Hobart.
- 2004 *Selected Australian and Japanese printmakers*, Australian Embassy Gallery Tokyo Japan,
Hanga, Devonport Regional Gallery. Curated By Michael Schlits
Tidal, City of Devonport Art Award, Devonport Regional Gallery.
Exhibition of woodblock printmaking artists, Kobe City Gallery Space. Curated by Keiko Kadoka.
- 2003 *Nagasawa residency recipients*, Kobe University Gallery, Kobe, Japan.
Liquid Architecture: women in sound, West Space Gallery, Melbourne.

Selected group exhibitions - continued

- 2002 *Nagasawa Artists*, Tsuna Town City Gallery, Awaji Island, Japan.
A Haunted place for an exhibition, sound component, collaboration with Felicity Mangan and Sol Wyre, Bus Gallery Melbourne.
- 2001 *In between here and now*, Contemporary Arts Service of Tasmania (CAST) Gallery Hobart, *emerging artists working with sound and new media*, curated by Kylie Johnston.
In between here and now, Devonport Regional Gallery.
- 2000 *Shifting Axis*, Dick Bett Gallery, Hobart Tasmania.
Buffalo, Leticia Street Studios, North Hobart.
Melbourne Art Fair, Dick Bett Gallery, Melbourne.
Cashe, Glen Eira Arts Complex, Melbourne.
- 1999 *Cashe*, CAST Gallery, Leticia Street studio exhibition.
Solitude, Wilderness Residency recipients, Carnegie Gallery, Hobart, Curated by Mary Knights.
Coalesce, Dianne Tanzer Gallery, Melbourne, Curated by Dianne Tanzer.
Three Small Places, Maria Island Tasmania.

Residencies

- 2004 *Close Listening*, two month residency in Darwin NT, facilitated by 24HR Art Centre for Contemporary Art, supporting project, exhibition. Funded by 24HR Art, Aust. Council for the Arts
- 2002 *Nagasawa Art Park Woodblock Printmaking Residency*, Japan. Facilitated by Asialink, jointly funded by Arts Tasmania and Australia Council for the Arts
Tower Studio, Melbourne Uni., five month residency facilitated by Gertrude Contemporary Artspace
- 2001 *Maria Island*, Collaborative Residency with composer James Anderson for 10 Days on the Island
- 2000 *Leticia Street Studios*, (12 months) Hobart.
- 1999 *Dombrovskis Wilderness Residency*, Maria Island (four months), funded by Arts Tasmania

Grants and Awards

- 2004 *24HR Art Centre for Contemporary Art*, funding for residency. NT Arts, Australia Council for the Arts
- 2002 *New Work National Grant*, Australia Council for the Arts, Visual Arts and Craft board
Nagasawa Art Park Residency Japan, Arts Tasmania, Japan Foundation, Asialink
- 2001 *Ian Potter Foundation (Cultural Trust)* sound equipment and exhibition grant
Pat Corregan grant to produce catalogue for Cusp
- 2000 *New Work Grant*, Arts Tasmania. Supporting income for six months
Key Events travelling exhibition Grant, Arts Tasmania
- 1999 *Dombrovskis Wilderness Residency*, Maria Island (four months), Arts Tasmania Grant

Selected Publications

- 2005 **Louise Finch**, review of 'close listening' for *Filter*, magazine produced by Australian National Art and Technology (ANAT)
The Age newspaper, review of Hanga exhibition shown at Devonport Regional Gallery.
- 2004 **24HR Art exhibition program**, cover image and details of 'close listening' project.
Jane Stewart, catalogue essay for 'close listening' project at 24HR Art Centre NT.
- 2003 **Yuko Fugishima**, article for *Osaka University Press Paper, Buddhism and Community: discussing the work of Australian Artist Larissa Linnell*, Kobe Japan.
- 2002 **Keiko Kadoka**, essay for *Nagasawa Art Park catalogue*, Tokyo Japan.
- 2001 **Philip Watkins**, catalogue essay for Cusp.
Robyn Archer, essay written for the *Ten days on the Island, International Arts festival catalogue*.
- 2000 **Jenny Spinks**, Art and Text, review of Cashe exhibition.
- 1999 **Eliza Burke**, catalogue essay, Solo Exhibition, Dick Bett Gallery.
Jorg Anderson, review of solo exhibition, Mercury Newspaper Hobart.
Sean Kelly, catalogue essay, Cashe, CAST Gallery.
Mary Knights, catalogue essay Solitude, Carnegie Gallery.
Mel Scofield, Radio National, ABC, interview on *The Arts Show*. 7ZR ABC Radio.
- 1998 **Margaret Scott**, *40 Degrees South. Contemporary Artists working in Tasmanian Wilderness*.
Mercury newspaper, feature article on Dombrovskis Wilderness recipient.
- 1997 **Jane Stewart**, catalogue essay, *Next: Tasmanian Emerging Artists, Contemporary Arts Service Tasmania*. (CAST)
Art and Australia, full page image.

Collections

Stevensons Architects, Melbourne; University of Tasmania; ArtBank, Sydney; Computerland, Hobart; Australia Council for the Arts, Sydney; Tsuna City Council, Awaji Island, Japan; Kobe University, Japan.