

A Sound Encounter of En Creux

in-between Roni Horn, Alvin Lucier and Robert Smithson

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I hereby declare that the work in this dissertation and the work presented in the accompanying portfolio have been carried out by myself except as otherwise specified.

Signed,

Hsiang-Ying Chung

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Abstract

This practice-led Ph.D. research consists of a body of work and its contextual analysis and reflection through the creative practice of Roni Horn, Robert Smithson and Alvin Lucier. Initiated with the following questions: *why do I hear sound when there is no sound to hear? What is it to cause the impression of something that is not present?* which emerged from my own practice and my chance encounter of Horn's work, the aim of this writing intends to explore and adumbrate the notion of *en creux* evoked and circumscribed in and through sound as a creative medium in the light of the practice of Roni Horn, Robert Smithson and Alvin Lucier. Five pieces of artwork have been developed, analysed and discussed as case studies alongside with the foregoing artists' work and aesthetic thinking. In order to tease out the constituents of an encounter of *en creux*, each case study focuses the examination and investigation on different aspects of Horn's creative strategy of doubling, Smithson's dialectic of Site and Nonsite and Lucier's *I am sitting in a room*, and in turn, their aesthetic and critical influence on my approach to use sound in the pursuit of the subject in question. The primary concern of this practice-led research is not to develop and define sound as specific aesthetic object impinging on in its environment, but as specific aesthetic agent in which the form and the content constantly modifies and contains each other, and as an aesthetic agent through which specific circumstances are created in time and space.

The creative practice of this research project is thus modulating between these three artists' practice while the critical reflection and the analysis of the work produced is triangulated by their conceptual and aesthetic thinking. Five pieces of artwork, varying from stereo recordings, installations, performance and textual instructions, are selected and discussed as case studies in the written thesis. These include *Spring Piece* (2009), *2 p.m.* (2009), *Folding* (2009-10), *Hear One Near and Think of the Other* (2011) and *Measurement No.1 - NAB* (2011-). Being both the source and the outcome of the critical findings and analysis, these works are considered as doubling to the written thesis, and vice versa.

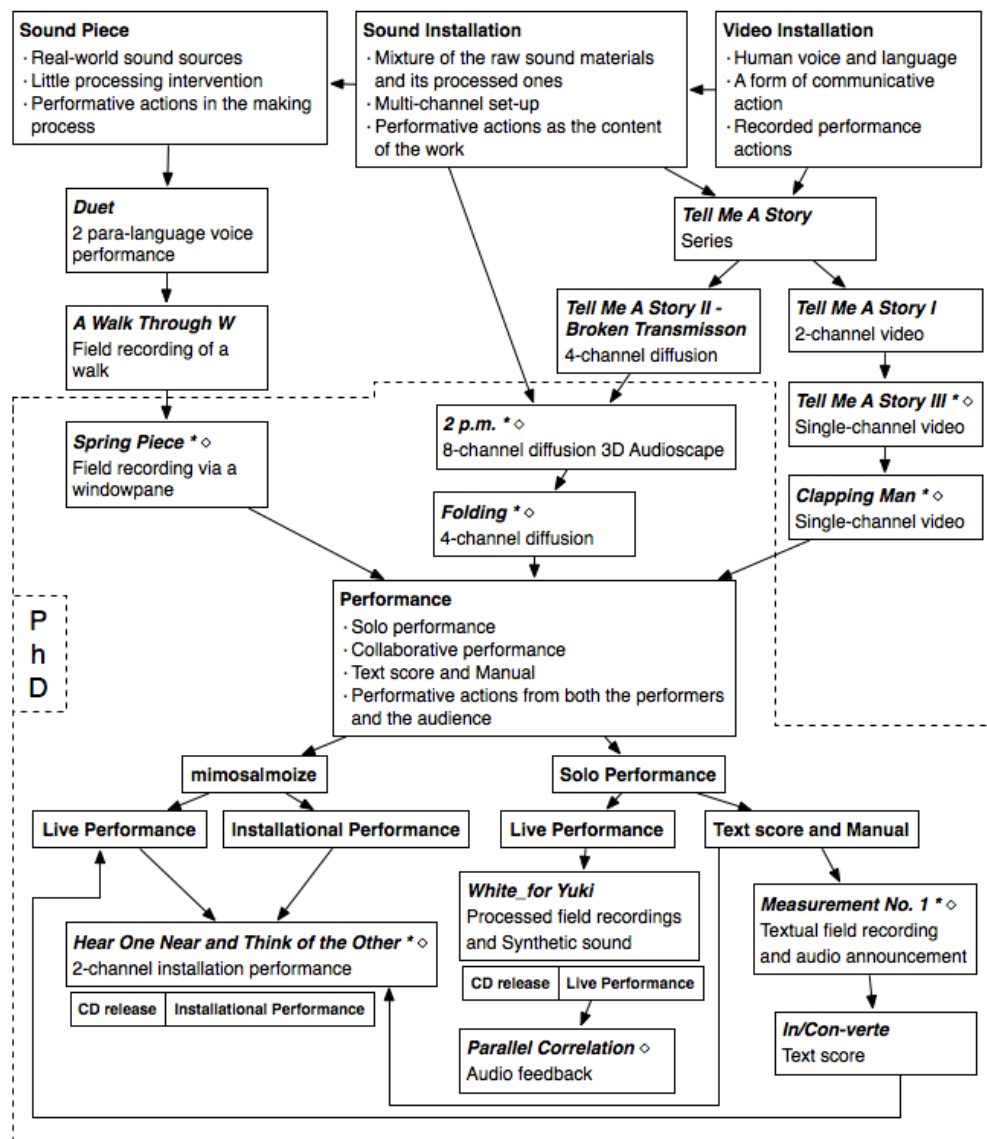
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Hsiang-Ying Chung - Sound Art Practice 2006-2012



* Included in this writing as case study.

◇ Included in the Portfolio.

Introduction

'The limits of my language mean the limits of my world.' -
Ludwig Wittgenstein¹

'One must remember that writing on art replaces presence by absence by substituting the abstraction of language for the real thing. ...now there is a friction between language and memory. A memory of reflections becomes an absence of absences.' - Robert Smithson²

The challenge in this writing is hence to describe a distant presence with a circumscribed double absence. If the presence is ultimately not attainable by the tool at hand, maybe we can still uncover some aspects of that presence by retracing the paths leading toward it. This writing is thus the result of such attempt of recollecting and looking back upon the different courses that I might have taken so to reach where I am standing in this practice-led research project. The language of this writing hence takes shape of a mixture of styles, such as documentation, critical analysis, commentary and personal journal and reflection.

Previous practice

My interest in sound as an artistic medium was discovered in the process of video editing, almost by chance. My practice at that time concerned with the notion of translation, or rather, the process of translation. As the prefix 'trans-' denotes a sense of carrying across and of going beyond, my particular interest in the 'process' of translation lies in the very act of that crossing and the very moment of becoming. As a result, my studio practice then involved various performance of repetitive actions or rituals that set up particularly for video recording rather than for public performance. Sitting in the editing studio and grappling with this particular troublesome video (the first video that required laborious editing),

¹ Ludwig Wittgenstein, "Proposition 5.6," in *Tractatus Logico-Philosophicus*, trans., D. F. Pears and B. F. McGuinness (London: Routledge, 2001), 68.

² Robert Smithson, "Incidents of Mirror-Travel in the Yucatan (1969)," *Robert Smithson: The Collected Writings*. ed., Jack Flam, (Berkeley: University of California Press, 1996), 129.

something happened in the process of collage and mishmash. In order to achieve the sort of effect that I had in mind, I decided to reverse snippets of video clips. The visual result for the reversed video came out almost as expected, but I was transfixed by the audio result of such process. For the very first time, I opened my ears to *sound*.

In the discussion on the mechanisms of translation through creative practice, Professor Sarat Maharaj expresses his thinking on the notion of the untranslatable,

‘... there emerged, it seemed to me, a notion of translation which activates both the visual and sonic. Beyond the *sense* of word and image are sounds which cannot be entirely drawn into the net of signification and cannot entirely be decoded and deciphered as meaning this, that or the other. These larger sonic pools - the penumbra of the untranslatable that shadow and smudge language and for which we have to venture beyond language...’³

Maharaj considers that sound presents an interesting position in the notion of translation as it seems to escape the established network of meanings when it is separated and isolated from its semantic or visual sign. In this sense, sound cannot to be translated as the purpose of translation is to render texts, expressions or turn of phrases from one language to an equivalent other. If sound itself is already outside of ‘the net of signification’, then it is *untranslatable* in a sense that it does not have an equivalent other.

This thinking to some degree is consonant with my encounter with the reversed sound in editing. The identity of the reversed sound becomes uncertain and ambiguous when its relationship to its visual carrier is altered. The sound does not attach to its visual indication and does not mean, for example, ‘the sound *of* footfall,’ any longer. In this sense, it is very curious to think about sound in the context of translation, or rather, the *untranslatable*.

³ Sarat Maharaj, “Modernity and Difference: A conversation between Stuart Hall and Sarat Maharaj,” in *Modernity and Difference (Annotation 6)*, eds., Sarah Campbell and Gilane Tawadros (London: Institute of International Visual Arts, 2001), 39-40.

Interestingly, Maharaj's thinking on the acoustic aspect of semantic and visual sign corresponds to what Walter Murch remarks on the 'metaphoric distance'⁴ between sound and image. In his foreword to Michel Chion's influential writing *Audio-Vision: Sound on Screen*, Murch discusses the role of the tape recorder being of assistance to the new association between sound and image on screen,

'... it was now not only possible but easy to change the original sequence of the recorded sounds, speed them up, slow them down, play them backward. ... we found ourselves able to not only listen to the sounds themselves, liberated from their original causal connection, and to layer them in new, formerly impossible recombinations... but also... to reassociate those sounds with images of objects or situations that were different, sometimes astonishingly different, than the objects or situations that gave birth to the sounds in the first place.'⁵

With the support of recording technology, the recorded sound is no longer transient but tangible and pliable. It can be isolated, detached and re-aligned with different visual signifiers so to create new meanings. This new association between recorded sound and image on screen creates an epistemic fissure and tension, which is the metaphoric distance. The greater the difference between the sound and its new visual associate, the greater the metaphoric distance.

It is interesting to think about sound as a creative material through Maharaj's discussion on sound as key to the untranslatable and Murch's remark on the metaphoric distance between recorded sound and image. Sound, the 'penumbra' that 'shadows and smudges'⁶ the meaning of its sign, when recorded, 'lifted away from the object' and attached 'mischievously to the unlikeliest things,'⁷ becomes 'double-crossing' and 'treacherous'⁸ in its identity and fidelity.

⁴ Walter Murch, foreword to *Audio-Vision: Sound on Screen*, by Michel Chion, trans. Claudia Gorbman (New York: Columbia University Press, 1994), xx-xxii.

⁵ Murch, foreword to *Audio-Vision*, xvi.

⁶ Maharaj, "Modernity and Difference," 39.

⁷ Murch, foreword to *Audio-Vision*, xvi.

⁸ Sarat Maharaj, "Perfidious Fidelity," in *Modernity and Difference (Annotation 6)*, eds., Sarah Campbell and Gilane Tawadros (London: Institute of International Visual Arts, 2001), 31.

Both Maharaj's and Murch's discussion provide unique and invaluable insight into the application of sound as a creative medium in the further development of my studio practice. More importantly, my own 'discovery' of the reversed sound on video tape has a definite impact on my subsequent work as I start to see recorded sound as a malleable material that can be shaped and sculpted, which provides an essential entry point for me, a trained sculptor who has been working with tangible materials. With these thoughts in mind, my subsequent video works were produced with particular attention to the audio element and its relation to the image.

The first example of such intention is a single-channel video work *Tell Me a Story III* (2008)⁹, which consists of the mixing of two separate video footages filmed in different languages. Being interviewed twice with the same set of questions asked in different orders, the protagonist (in this case myself) in the video was asked to answer the questions in English for the first time, and then in his/her native language for the second round. The speech part was then removed in the editing process. The video thus comprised of no intelligible verbal signs but only of the involuntary sounds and exclamations, and of the sounds the inhalation and exhalation in the very beginning and the end of the sentences. Struck by the frequent comment of 'you sound like a totally different person when you speak in your own language,' I was intrigued by the idea of *sounding* differently when speaking different languages, which consequently portray and define different identities through different *voices*. Steven Connor comments on the power of the voice concerning one's identity,

'My voice defines me because it draws me into coincidence with myself, accomplishes me in a way which goes beyond mere belonging, association, or instrumental use. And yet my voice is also most essentially itself and my own in the ways in which it parts from me. Nothing else about me defines me so intimately as my voice, precisely because there is no other feature of my self whose nature it is thus to move from me to the world, and to move me into the world.'¹⁰

⁹ See Practice Chart on p. 7 and Portfolio Disc.

¹⁰ Steven Connor, "What I Say Goes," in *Dumbstruck: A cultural history of ventriloquism* (New York: Oxford University Press, 2000), 7.

We are heard and recognised by others through our sounded voice, which projects us into the world, and in turn, defines our identities and presences. If to follow Connor's thinking on voice, how does one define oneself if the voice is removed? And, is one defined differently through different voices in different languages? If so, can one be united by removing one's different *voices*? Through removing the voice, *Tell Me a Story III* sets to explore these questions in the fissure of the verbal communication in its visual and sonic/auditory aspects.

The second example is the work *Clapping Man* (2008).¹¹ Also a single-channel video work, *Clapping Man* depicted a man clapping his hands with unknown reason or intention after a long gaze directly at the camera/the viewer. The action of the protagonist in the video was peculiar and open to interpretation. Most importantly, there was no sound in the video as the audio was removed intentionally. Yet, interestingly, the viewer experienced an impression of hearing the sound of clapping.

The questions raised by the work *Clapping Man* are: *why do people hear sound when there is no sound to hear? What is it to cause the impression of something that is not present?* In this particular case, it is a question of what it is to cause the impression of perceiving sound while there is no such element in the work. There is probably a very straightforward answer to this puzzle that the image of clapping serves as a visual index of the sound of clapping; however, what really interests me in this instance is the very reciprocal experience of something that is not there, the impression of a presence through its very absence, an encounter of sound *en creux*.

In his book *Audio-Vision: Sound on Screen*, French composer Michel Chion uses the phrase 'en creux' to describe 'the territory of transference from one sensory channel to another, which sometimes produces psychological "presences" in the face of perceptual "absences."' ¹² According to Claudia Gorbman, the translator of Chion's book, en creux 'properly refers to negative space - the shape of the space in a sculptor's mold, defined by the mold.' ¹³ Whereas Walter Murch translates and uses the phrase as 'in the gap' ¹⁴ in the introduction to the book. I find the variant meanings in the translation of the phrase 'en creux' fascinating and informing as

¹¹ See Practice Chart on p. 7 and Portfolio Disc.

¹² Claudia Gorbman, Endnote to *Audio-Vision*, 218.

¹³ Gorbman, Endnote to *Audio-Vision*, 218.

¹⁴ Murch, foreword to *Audio-Vision*, xix.

it does not only confirm my interest in the process of translation but also the role of sound emerged as a creative medium in my practice.

In *Tell Me a Story III*, the remainder of the audio element in the video operates closely to the idea of sound en creux. Sonorous fragments of the articulation, inhalation and exhalation, and gestural movements are sounds that exist 'in the gap', and can not 'entirely be decoded and deciphered as meaning this, that or the other.'¹⁵ The removal of the vocal parts in *Tell Me a Story III* also implies an idea of absence, as Mladen Dolar writes about voice as 'an inherent link to presence, to what there is, to the point of endorsing the very notion of presence.'¹⁶ In *Clapping Man*, the notion of en creux is embodied through its very 'perceptual absence' of the audio track and through the very 'psychological presence'¹⁷ in the viewer's experience of the work.

An Encounter of En Creux

While contemplating on the notion of en creux through sound in the work, I encountered American artist Roni Horn's work, again by chance. Without any prior knowledge of the artist's practice, I visited the exhibition 'Roni Horn aka Roni Horn' at the Tate Modern in 2009. In the first instance, I was taken by the artist's sheer concentration and insistence on the theme and the strategy of repetition embodied through different media in different forms such as sculpture, drawing, photography and text. Time and time again, I encountered 'similar things' but 'in different forms.'¹⁸ Yet, this feeling of affirmation and verification through the viewing of seemingly repetitive experience with similar work soon was replaced by a sense of uncertainty and doubt. I realised that Horn's language is very precise as the parlance of her repetition takes the form of doubling. For Horn, the aesthetic strategy of doubling is to create a paradoxical circumstance so to raise a sense of doubt. Doubt does not occur when an image or object is repeated over and over, but arises when it is duplicated and paired. As Horn comments on her paired photographic work *Dead Owl* (1998),

¹⁵ Maharaj, "Modernity and Difference," 40.

¹⁶ Mladen Dolar, "The 'Physics' of the Voice," in *A Voice and Nothing More* (Massachusetts: the MIT Press, 2006), 60.

¹⁷ Claudia Gorbman, Endnote to *Audio-Vision*, 218.

¹⁸ Roni Horn interviewed by Jan Howard, *Inner Geography* (Maryland: The Baltimore Museum of Art, 1994), 29.

‘You search for the differences, no matter if the pair is identical - and interestingly enough you find them. It’s like standing at the edge of infinity where things begin but have no end.’¹⁹

Horn believes that this sense of doubt creates a particular mental space for the viewer to engage her work, and this space is created through doubling. This space is not only a metaphorical one, but also a physical one. In *Things that happen again* (1986)²⁰, Horn places two identical truncated copper cones in two separated rooms. The particular arrangement of the sculpture in relation to each room aims to evoke a sense of re-encounter, in which the viewer’s experience becomes the narrative of the work. Horn explains in length,

‘Narrative has no interest for me except in terms of how an experience unfolds for the viewer. That is the narrative of the experience of the work itself. ... in *Piece for Two Rooms* you go into a space and see a simple disk. It doesn’t look like much: it isn’t, until you walk in and see that it is a three-dimensional cone-shaped object which is familiar but has certain subtle formal qualities which makes it different, which takes away from it being familiar. It becomes memorable. Then you go into the next room and enact exactly the same experience, but of course it’s unexpected and it’s so many minutes later; it’s a slightly younger experience in your life. Whereas when you walked into the first room. you had the experience of something unique, you can’t have that a second time. That’s it. It’s a one-shot deal: it’s not a reversible thing. When the viewer is going through this experience, that becomes the narrative: it’s literally a piece of your life and it’s the narrative of the work.’²¹

I would consider that the physical space existing in her paired objects is one of the important factors in Horn’s strategy of doubling. Furthermore, the temporal

¹⁹ Roni Horn, “Deal Owl,” in *Roni Horn aka Roni Horn* (volume: subject index), (New York: Whitney Museum of American Art, 2009), 35.

²⁰ I am referring to the arrangement in the exhibition at the Tate Modern in 2009 as the arrangement of the work is dependent on the given space and circumstances.

²¹ Roni Horn interviewed by Lynne Cooke, *Roni Horn*, eds., Louise Neri, Lynne Cooke and Thierry de Duve, (London: Phaidon, 2000), 20.

delay between the first experience and the second one does not only heighten the awareness of time but also emphasises the essential presence of the viewer. The narrative of Horn's practice lies in an interval of time and space and in an interplay between the presence and the absence, a narrative found in the experience of *en creux*.

Horn's practice, particularly her strategy of doubling, provides prominent insights into my own practice and issues that I have been mediating upon. Firstly, the notion of doubling, in its most literal sense, two identical entities, draws forth a reconsideration of my concern with the notion of translation. The essence of translation lies in the search of a perfect rendering from one system of language to another. The most ideal outcome of translation is a perfect rendition from one to another, two identical sets of signification in different languages. In this sense, my particular interest in the process of translation runs parallel to the space drawn by Horn's paired objects. Secondly, Horn's emphasis on the presence of the viewer, which in turn becomes the narrative of her work, is comparable to what I wish to achieve in my own practice, which is to comment on the process of translation as one that is constantly being and becoming dependent on the individual circumstance and situation. Finally, to my surprise, I 'hear' sound in Horn's work when there is no sound presented in her work. Different from my work *Clapping Man*, in which the gesture of clapping implies sound, there is no intentional implication in Horn's work. Interestingly, my experience of 'hearing' sound or 'feeling' a sense of musical composition is not accidental. In the artist's talk held at the Tate Modern in 2009, the curator Mark Godfrey asked Horn to comment on the influence of Jazz improvisation on the artist's approach to her own practice. Although the artist jokingly gave the answer 'no' to the question, Horn later admitted the notion of leitmotif is apparent in the practice, and the role of music as a time-based medium contributes to the structuring of her work.²² This impression of something present when it is actually not, once again stimulates my interest in this idea of an encounter of *en creux*, particularly in the aspect of sound (or no sound). To sum up, I consider that Horn's practice and strategy of doubling lends a particular aesthetic vocabulary and approach to investigate the interplay between the presence and the absence in my practice.

²² Roni Horn, "Roni Horn in Conversation," *Tate Channel*, 1:33'28", 25th February, 2009, <http://www.tate.org.uk/context-comment/video/roni-horn-conversation>. Accessed 20th January, 2014.

The Range of Convergence

Another important artist whose practice and thinking I identify with in my practice-led research is Robert Smithson, particularly his dialectic of Site and Nonsite.²³ The significance of Smithson's work²⁴ emerges along with the reflection and contextualisation process of my studio practice as I come to realise that Smithson's dialectic of Site and Nonsite provides an invaluable insight into the investigation of sound as a creative medium, and the correspondence between art practice and writing.

First of all, I would suggest Smithson's dialectic of Site and Nonsite offers an interesting perspective and framework to outline a particular kind of sound art practice that pays particular attention to the interplay between sound and its recorded counterparts. Since 1966, Smithson's artistic interests and focuses had shifted from indoor sculpture to outdoor earthwork through his experience as artist consultant for the Dallas-Fort Worth Airport project.²⁵ Through such experience of negotiating between unmarked natural environment and its corresponding map 'made of grids, latitudes, and longitudes',²⁶ Smithson formulated his thinking on the dialectic of Site and Nonsite, which subsequently led to a series of Nonsite work and his most renowned earthwork, *The Spiral Jetty* (1970). Two years after the creation of the work, in the writing of 'The Spiral Jetty' (1972), an essay sharing the same title with the earthwork, Smithson consolidated his thinking on the dialectic of Site and Nonsite²⁷ by listing out the qualities of Site and Nonsite respectively. What I find particularly of interest in Smithson's dialectic of Site and Nonsite is the idea of a 'space of metaphoric significance'²⁸ that exists between the actual remote site and the 'indoor

²³ There are various spelling of the word 'Nonsite' in Smithson's writing, such as 'Nonsite', 'non-site' and 'nonsite'. I will use the spelling 'Nonsite' throughout in this writing as it is used in Smithson's definitive essay "The Spiral Jetty" in 1972. The capitalised 'Site' is therefore used in order to differentiate a more general use from Smithson's dialectic of Site and Nonsite.

²⁴ the term 'work' refers to both Smithson's art practice and writings.

²⁵ Robert Smithson, "Towards the Development of an Air Terminal Site," in *Robert Smithson: The Collected Writings*, ed., Jack Flam (Los Angeles: University of California Press, 1996), 52-60. Also see Thesis Chapter One, 60.

²⁶ Robert Smithson, "Interview with Robert Smithson," in *Robert Smithson: The Collected Writings*, 234.

²⁷ Robert Smithson, "The Spiral Jetty," in *Robert Smithson: The Collected Writings*, ed., Jack Flam (Los Angeles: University of California Press, 1996), 152. More detailed discussion see Thesis Chapter One, 60-64.

²⁸ Robert Smithson, "A Provisional Theory of Non-Sites," in *Robert Smithson: The Collected Writings*, ed., Jack Flam (Los Angeles: University of California Press, 1996), 364.

earthwork²⁹ in the gallery space. To reach this space of ‘metaphoric significance’ is through the convergence of the Site and Nonsite, as Smithson notes,

‘The range of convergence between Site and Nonsite consists of a course of hazards, a double path made up of signs, photographs and maps that belong to both sides of the dialectic at once. Both sides are present and absent at the same time. ... Two-dimensional and three-dimensional things trade places with each other in the range of convergence. ...Is this Site a reflection of the Nonsite..., or is it the other way around?’³⁰

I would hence consider the notion and the interrelation between Smithson’s Site and Nonsite corresponds to the notion of *en creux*, in which meanings spring and emerge in the gap between the presence and the absence. Furthermore, the inscribed qualities of Smithson’s Site and Nonsite³¹ provides an interesting perspective in investigating the interplay between sound and its recorded and processed counterpart, which will be explored, investigated and discussed in detail throughout the thesis.

Secondly, Smithson’s dialectic of Site and Nonsite does not only provide a guideline in thinking about sound as a creative medium in this practice-led research project, but also offers an underlying perspective and framework in the correspondence between the studio practice and the written element. For Smithson, language can be seen as material that is ‘as primary as steel’³² and can be considered as ‘matters and not ideas.’³³ The notion of writing is hence ‘like any other material, is not an ideal substance any more than rocks or paint are. It is the same kind of concern in a different context,’³⁴ as the artist once explicates. I would suggest that this materialist thinking on the role of language later contributes to the positioning of the textual production in the dialectic of Site and Nonsite.

²⁹ Smithson, “A Provisional Theory of Non-Sites,” *The Collected Writings*, 364.

³⁰ Smithson, “The Spiral Jetty,” *The Collected Writings*, 153. More detailed discussion see Thesis Chapter One, 60-64.

³¹ For the listed qualities of Site and Nonsite, see Thesis Chapter One, 64.

³² Smithson, “Four conversations between Dennis Wheeler and Robert Smithson,” *The Collection Writings*, 214.

³³ Smithson, “Language to be Looked at and/or Things to be Read,” *The Collected Writings*, 61. More detailed discussion see Thesis Chapter Three, 116-118.

³⁴ Smithson, *The Collected Writings*, 235.

The earthwork, *The Spiral Jetty*, a muddy coil in the Great Salt Lake submerged underneath the brine most of the time,³⁵ is widely accessed and experienced through the writing and the photographs of 'The Spiral Jetty'. Art critic Craig Owens comments explicitly on the importance of Smithson's essay as transformation of an aesthetic experience from the visual field to the textual one. Owens notes,

'Like the non-site, the *Jetty* is not a discrete work, but one link in a chain of signifiers which summon and refer to one another in a dizzying spiral... the *Jetty* exist(s)... in the film which Smithson made, the narrative he published, the photographs which accompany that narrative, and the various maps, diagrams, drawings, etc. ... the spiral form of the *Jetty* is completely intuitable only from a distance, and that distance is most often achieved by imposing a *text* between viewer and work.'³⁶

According to Owens, various Nonsites constitute the existence and the aesthetic experience of the *Spiral Jetty* for the viewer, or more precisely, the reader. In Smithson's practice, the textual production does not operate as a secondary documentation of the Site but as the Nonsite, 'which in a physical way contains the disruption of the site.'³⁷ Text, for Smithson, is considered as raw material to be used to construct a container to hold a fragment of the Site.

I would consider Smithson's writing as the Nonsite, which is in a dialectical relation to the Site, provides an interesting position when contemplating the role of the written element in the artistic research, which will be discussed in detail in the later part of this introduction.

Sonic Casting of A Room

The third influential work that I identify with in this research is American composer Alvin Lucier's well-known piece *I am sitting in a room* (1969), which is

³⁵ More detailed discussion on the work see Thesis Chapter One, 63-64.

³⁶ Craig Owens, "Earthwords," in *October 10* (1979): 128.

³⁷ Robert Smithson, "A Sedimentation of the Mind: Earth Projects," in *The Collected Writings*, 111.

created through a laborious repeating process of recording, playback and re-recording of a fragment of spoken text in a chosen room. In the forty-five minutes long recording of the work, we can hear Lucier's reading voice that carries clear semantic meanings slowly dissolving and disintegrating into a collection of long, continuous and fluctuating tones whose frequency contents are determined by the physical dimension of the room. What I find particularly interesting in Lucier's *I am sitting in a room* is the making process of the work, which I consider parallel to the 'process' of translation, and to the technique of casting in the sculpture practice.

First of all, the repetitive recording process of *I am sitting in a room* provides a perfect example and demonstration of treating recorded sound as a physical material for further manipulation. Utilising two reel-to-reel tape recorders and one microphone set up in a room, Lucier turns the recorded sound as a palpable 'object' that can be further played, handled and altered through the simple mechanism of recording, playback and re-recording, which offers an entry point for me to understand how to manipulate sound on its own without its visual counterpart. Furthermore, as discussed previously, I am interested in the denotation of the prefix 'trans-' in translation, that is a process of carrying over and going beyond. The slow transformation from recorded voice to a collection of extended tones through repetitive recording process in *I am sitting in a room* evokes my particular interest in the idea of 'process' in translation, the very moment of changing and becoming.

Secondly, I consider there is an interesting parallel between the materialisation of Lucier's voice in the space through audio recording and the technique of casting in sculpture. A particular example comes to mind is British sculptor Rachel Whiteread's work, *Ghost* (1990). The traditional casting process is to make a mould that is a hollow cavity containing the outline of an object, a molten material is poured into the mould, and then an annealing process takes place to allow the material to cool down and to solidify accordingly. After annealing, the solidified object, also called the 'casting', is then ejected by the removal of the mould. In Whiteread's practice, however, the roles of mould and casting are reversed as the artist uses the very objects themselves as moulds to cast the space insides, around and in-between them.

In Whiteread's 1990 work *Ghost*, the interior of a living room was cast and pulled from an old Victorian house that awaited demolition. Whiteread covered the surface of the living room with mould releases, and then applied layers upon

layers of plaster and hessian on to the surfaces of the room. When the plaster became thoroughly dried and solidified, the casting process was then completed by pulling out different sections of the plaster cast. These multiple parts of the plaster casting of the living room were then reassembled on to a steel frame to form the work *Ghost*.

Reflecting upon the conception of *Ghost*, Whiteread described her casting of the room interior comes from an intention of ‘mummifying the sense of silence in the room.’³⁸ The work inverts the invisible part of a living space into tangible and palpable object, which bears the traces of the once visible interior. In *Ghost*, the inversion of the positive and negative takes place from the very beginning of the casting process and continuously complicates the notion of the inward and the outward all the way to the final viewing process. Through the once dents now bumps and once impressed now raised surfaces³⁹ of the plaster sculpture, the visual experience and perception for the viewer is constantly oscillating between the positive and the negative, and between the presence and the absence.

Alvin Lucier’s recording process in *I am sitting in a room* is, in a sense, consonant with the casting process in Rachel Whiteread’s *Ghost* as both pieces evoke the notion of space that is negative and unsounded. Through the repeating process of recording, playback and re-recording, the resonant frequencies of the room are articulated and reinforced, which in turn, moulding the ‘form’ of the final result. Lucier’s voice can be seen as the plaster poured into the room, moulded and shaped by the particular frequency information of the room determined by its spatial structure, and finally formed according to its own materiality of the voice and the spatiality of the room.

The analogy between Whiteread’s casting and Lucier’s recording process assists my understanding of the recording technique and its conceptual application, which in turn, becomes a principal approach and a point of departure for the subsequent work in my practice.

As previously discussed, Roni Horn’s aesthetic strategy of doubling lends a particular vocabulary to my conceptual thinking on the notion of *en creux*, while Smithson’s dialectic of Site and Nonsite offers a framework to investigate the

³⁸ Rolf-E Breuer, forward to *Rachel Whiteread: Transient Spaces*, eds., Lisa Dennison & Craig Houser, (New York: The Solomon R. Guggenheim Foundation, 2001), 21.

³⁹ Analisa Violich Goodin, “The Sight of Trauma: Loss, Memory, and Rachel Whiteread’s Reversals,” in *Sightlines* (2008): 36-57.

constituent elements in the work. And lastly, Alvin Lucier's practice provides an access to the manipulation of sound, voice and space. My creative practice is thus modulating between these three artists' practice, and the critical reflection and analysis of my practice is triangulated by their conceptual and aesthetic thinking.

Methods: Handling and Doubling

As initially trained as a sculptor who discovers sound through manipulating video footage, it is natural for me to see sound as a malleable medium that has its generality and specificity in the artistic production. Not being musically trained and with no pre-existing practical knowledge about sound, this position permits me to start this practice-led research from listening and 'playing' with recorded sound without any preconception. This 'hands-on' approach shapes the nature of my research as practice-led model, in which the production of artwork leads to research insights that later inform further artistic production, and vice versa .

In the discussion of the definition of practice-led research, Barbara Bolt identifies Martin Heidegger's thinking on the idea of 'handling' as an approach to discover 'a very specific sort of knowing, a knowing that arises through handling materials in practice.'⁴⁰ Bolt proposes that it is not possible to predict or identify this kind of knowing in advance as a new knowledge can only emerge through a physical 'handling' of materials, methods, tools and ideas so to uncover or create an anew and unique relationship between the 'handler' and his/her material. Bolt explains that the new knowledge obtained through such materialist approach is called 'praxical knowledge.' Bolt further explains through Heidegger's example of handling a hammer,

‘The less we just stare at the thing called hammer, the more actively we use it, the more original our relation to it becomes and the more undisguisedly it is encountered as what it is, as a useful thing. The act of hammering itself discovers the specific ‘handiness’ of the hammer. ...No matter how keenly we just *look at* the “outward appearance” of things constituted in one way or another, we cannot discover handiness. When we just look at things

⁴⁰ Barbara Bolt, “The Magic is in Handling,” in *Practice as Research: Approaches to Creative Arts Enquiry*, eds., Estella Barrett and Barbara Bolt (London: T. B. Tauris, 2007), 29.

“theoretically,” we lack an understanding of handiness. But association which makes use of things is not blind, it has its own way of seeing which guides our operations and gives them their specific thingly quality...’⁴¹

Through this passage, Heidegger suggests that to understand the handiness of a hammer is to deal with it practically rather than only theoretically. The practical knowledge gained from handling with materials and tools reveals ‘the limits of conceptual thinking’⁴² and generates a kind of ‘seeing’, which in turn becomes a theoretical understanding that will guide us for the further engagement of handling.

Bolt’s proposition of the application of Heidegger’s handling to practice-led research corresponds to my training as a sculptor. The frequent advice from my tutors at both undergraduate and graduate level is ‘make it bigger/smaller’ or ‘make more (as in quantity) of it.’ I later come to realise that such advice aims to encourage various physical involvements with the materials and the objects so to gain unique experiences through different making processes. This idea of handling thus becomes the crucial guideline and strategy in my practice. By ‘throwing’⁴³ myself into the world of sound, I build my own original relationship with it through dealing with it as an artistic material. This thinking results in the production of a body of work varying from composition, installation, performance and text-oriented work in this practice-led research project.

However, initiating my research from the physical handling of the material is not to discount the importance of the engagement with existing theoretical thinking and the written element in the practice. Bolt further explains that there does not only emerge a kind of ‘seeing’ through handling, but also creates a ‘shift in

⁴¹ Martin Heidegger, *Being and Time*, trans. J. Stambaugh (New York: State University of New York Press, 1996), 65. Quoted in Barbara Bolt, *Heidegger Reframed* (London: T. B. Tauris, 2011), 92.

⁴² Bolt, “The Magic is in Handling,” 32.

⁴³ I borrow the term from Heidegger’s concept of ‘throwness’ (*Geworfenheit*). Bolt explains, ‘Throwness is momentum, the flux or process of life. In being thrown into the world we get caught up and carried along by the forces of chance and randomness. We never get control of it or step aside from it. This is the base of our anxiety. We are always already in it. We are thrown from the past into the present and from this present we project into the future.’ Bolt, *Heidegger Reframed*, 183.

thought,⁴⁴ which can only be further identified through the 'exegesis.'⁴⁵ As Bolt notes,

'The task of the exegesis is not just to explain or contextualise practice, but rather is to produce movement in thought itself. ... Such movement cannot be gained through contemplative knowledge alone, but takes the form of concrete understandings which arise in our dealings with ideas, tools and materials of practice. It is not the job of the artwork to articulate these... Rather, the exegesis provides a vehicle through which the work of art can find a discursive form. ...the exegesis provides an opportunity and a forum to reconfigure theoretical positions.'⁴⁶

According to Bolt, the exegesis, in a sense, provides a specific type of 'handling' of the praxical knowledge obtained from the handling of the creative materials through writing. While handling produces an unique and concrete understanding of the practice, the exegesis extends such understanding and knowledge, and positions it in the domain of practical and theoretical paradigms. Interestingly, I find Bolt's thinking on the locus of practice-led research that consists of a particular reflexivity between handling and the exegesis coincides with the unique position of the writing to its corresponding artwork in Robert Smithson's practice.

As discussed previously, Smithson's writing is posited between the role of documentation and reflection of the work and one of the many Nonsites to its Site. Through his writing about the *Spiral Jetty*, Smithson reflects his material handling in the process of making both the Site (the spiraling jetty) and the Nonsites (the films, the photography, and the writing itself) that, in turn, produces a 'movement in conceptual thought'⁴⁷ resulting in the formulation and detailed description of the dialectic of Site and Nonsite.

I would hence consider that Smithson's dialectic of Site and Nonsite does not only offer an aesthetic discourse on the notion of *en creux*,⁴⁸ but also an exemplary

⁴⁴ Bolt, "The Magic is in Handling," 29.

⁴⁵ *Ibid.*, 31.

⁴⁶ *Ibid.*, 33.

⁴⁷ *Ibid.*, 33.

⁴⁸ see p. 12-13 in this chapter.

handling of the practical and theoretical elements in this research project. I thus adapt Bolt's notion of handling as my approach to the materials and ideas emerged in the practice, and deploy Smithson's writing in the light of the dialectic of Site and Nonsite as my approach to the interplay between the practice and written element in my research. In a sense, I identify my writing as doubling to Smithson's approach and attitude to his textual production.

Outline of Chapters

The writing consists of three chapters that are structured chronologically according to the work I have developed and produced during the course of this research project. Five pieces of work are selected as case studies, which are discussed and analysed alongside with the study of other artists' aesthetic thinking and practice. As aforementioned notion of praxical knowledge through the method of 'handling,' I approach this research project by positioning myself as a maker and an observer at the same time. Through the role of an observer, I report and analyse my personal experience of other artists' work in detail so to uncover or discover a new and unique knowledge of their practice, which in turn, to apply to my own practice for further reflection. The writing records this to-and-fro process of observing, making and reflecting. Each chapter returns to the important event that shapes the development of this practice-led research project, which is the exhibition 'Roni Horn aka Roni Horn' at the Tate Modern in 2009, and discusses a particular piece of work that unfolds the further discussion and analysis on the relevant aesthetic thinking and issues.

Chapter One: Sound and Its Resound records my first 'handling' experience with sound without a visual element alongside with my encountering with Roni Horn's work at the Tate Modern. Through the work *Spring Piece* (2009), I learn and explore the concept and production process of acoustic resonance through a repeating process of recording, playback and re-recording. The first-hand experience of such recording process leads me to investigate American composer Alvin Lucier's work, *I am sitting in a room* (1969). Meanwhile, through reflecting upon Horn's creative strategy of doubling, I contemplate its correspondence and comparability to the notion of resonance, which consequently influences both my technical and conceptual approach to the following work *2 p.m.* (2009), a piece of large-scale outdoor sound installation. The juxtaposition of the processed audio and its real-world sound source in the work *2 p.m.* prompts questions and discussion of its position in practical and theoretical discourses. Thus, the

principle of soundscape composition is investigated alongside the practice of Earthworks, an expanded practice of sculpture, particularly Robert Smithson's renowned work *The Spiral Jetty* (1970), through which the artist develops the dialectic of Site and Nonsite. The study of Smithson's Site and Nonsite leads me to consider the interplay between sound and its counterparts, also the connection between Smithson's dialectic and Horn's doubling.

Chapter Two: Hearing One's Own Absence begins by identifying the specific kind of doubling in Horn's work in comparison with Smithson's dialectic of Site and Nonsite so to further investigate the possible application to my creative practice in sound. The discussion returns to Alvin Lucier's *I am sitting in a room* to discuss the technicality of the work and the conceptual expansion of such. The discussion and analysis of foregoing practice and work informs the production of *Folding* (2009/2010), and *Hear One Near and Think of the Other* (2011), in which both explore the notion of doubling in the temporal situation.

Chapter Three: The Textual Recording of Sound discusses the notion of doubling in combination with that of Site and Nonsite in its broadest aspect through the medium of sound. Through analysing the unique example of doubling in Horn's *Still Water (The River Thames, For Example)* (1999), and later its doubling to the River Thames, I discuss the significant role of text in both Horn's and Smithson's practice. I, once again, return to Lucier's *I am sitting in a room* to further investigate the role of text in this work in relation to voice in the formation of the piece. The analysis and investigation of these work are summarised in the work *Measurement No. 1 - NAB* (2011), which involves the idea of measuring and recording sound via coded text, and the voice announcement of such textual recording.

The Conclusion summarises the key concerns that have been explored and investigated through aforementioned case studies in the light of the practice of Horn's, Smithson's and Lucier's. It also reflects on the progress of this practice-led research, the concerns and findings raised from such process and my position of being in-between an artist and an observer.

Chapter One: Sound and Its Resound

Listening to the Sound on the Window

Spring Piece

Listening by placing your ear on the window.

Spring 2009⁴⁹

In the Spring of 2009, I had just relocated to a new place in London from Winchester, Hampshire. It was a cosy and quirky little flat on the top floor of a terraced building on New Cross Road, about 40 seconds walk from New Cross Rail Station. Contrary to the well-balanced ambience of a medieval town, the sound of London is an amalgamation of dark matter carried by an overpowering lower frequency. Depending on the traffic in the different times of the day, the single-glazed windowpanes vibrate accordingly. It may be gentle taps or ferocious rattles on the windowpanes.

Struck by such slight unpleasant recurrent events at home, I start to think about how we are closely effected by the space we inhabit. Moreover, the man-made boundary between the inside and the outside demarcated by the architecture seems elusive in this particular incident. The inside and the outside exist simultaneously on the either sides of a single medium, the panes of glass in the window. The sound of the outside pushes the air molecules forward and vibrates through the window. The sound is filtered by the mass of the glass, and then heard as a combination of the conductions through the air and the object.

I placed my ear on the window to hear the vibration, to feel the sound. I wondered if I could listen to both the sound of the inside and the outside simultaneously through putting my ear on the window. I thought about the different tapping and rattling at the different hours in the day. The experience of

⁴⁹ Manual that I have written for the piece. More detail see *Spring Piece* on Portfolio Disc.

trying to understand this invisible event at home reminds me of Yoko Ono's *Tape Piece II* in 1963,

TAPE PIECE II

Room Piece

Take the sound of the room breathing

- 1) at dawn
- 2) in the morning
- 3) in the afternoon
- 4) in the evening
- 5) before dawn

Bottle the smell of the room of that particular hour as well.

1963 autumn⁵⁰

In the text instruction, Ono talks about collecting the sound of the room breathing at different hours in a day. What interests me in this piece is the notion of the sound of a room breathing. The term breathing denotes a process of drawing air in and out of a body. The notion of bottling the smell also evokes an idea of trapping a small amount of air inside a body. The actual subject (or object) of interest in Ono's text instruction is air, rather than sound. Or, to put it in another way, the object of particular interest here is air manifested in the form of sound.

In the discussion of the connotation of air as an art object (more so, an objectless art), Steven Connor identifies Marcel Duchamp's work, *Air de Paris* (1919), as the first instance of air becoming an art object. Created for the artist's friend Walter Arensberg, *Air de Paris* is comprised of a glass phial bought by Duchamp from a chemist's shop. Upon purchasing the phial, the artist instructs the chemist to pour away of the original content of the phial so that the phial contains only air. At the first glance, the work conforms to Duchamp's particular interest in the notion of ready-made as the glass phial and its particular content of air are both non-art objects. Yet, as Connor points out that the contradictory nature of its title 'Paris Air' that gives the distinctive emphasis on the place of origin, and hence the

⁵⁰ Yoko Ono, "Tape Piece II," in *Grapefruit: A Book of Instruction and Drawings by Yoko Ono* (U.S.A.: Simon & Schuster, 2000), no pagination.

particular value of the content, the air of Paris. In this sense, the air 'is not so much a ready-made as a ready-to-hand emblem of unmaking.'⁵¹ The air in Duchamp's *Air de Paris* thus brings forward not simply the identity of the art object, but one step further, the physical condition of the art object as 'not-all-there', as 'next-to-nothing.'⁵² Connor further elaborates on this next-to-nothing condition of air,

'Air is neither on the side of the subject nor of the object. It has neither objecthood nor essence. It has no objecthood because it has no single form of being, manifesting itself in a multitude, and never less than a multitude, of trace and effects - the hiss of a tyre, the breath of a zephyr, the buffet of a gale, the vortex of leaves on a street-corner. But these appearances are not the secondary expression of an essence any more than they are the properties of an object. The air is impression without presence.'⁵³

In Ono's text instruction, we can clearly see the examples of the multiple manifestations of air, the sounded air and the scented air. When the air appears in the form of sound, it is though not simply an impression on our eardrums, it also has a physical presence, such as the vibrations on the windowpanes.

What I am interested in the incident recurring in the flat is not only the sounded air on the either side of the glass, but also the meeting point of the two, the windowpanes, and the act of listening and enquiry. Am I listening to two sounds at the same time? Are this side and the other side essentially the same (London air)? Or are they very different from each other, even if the difference could be undetectable by the ears? How may the glass change the property of the sound perceived? How can I find out what I am actually hearing? This thinking focuses my attention on the following: the meeting point of the two, the windowpane, and the method of getting the sounds 'off' the windowpane. This curious thinking motivates me to record the windowpane, where the sounds from both the inside and the outside meet.

⁵¹ Steven Connor, "Next to Nothing", in *Tate Etc.* issue 12 (2008): no pagination. Accessed 12th January, 2014. <http://www.tate.org.uk/context-comment/articles/next-nothing>

⁵² Connor, "Next to Nothing," n.p.

⁵³ *Ibid.*, n.p.

In order to record the sounds, I placed a home-made contact microphone on the central point of the single-glazed windowpane with a measurement of 85 cm wide and 120 cm long. The first recording was a slight disappointment and largely consisted of a low rumble of the traffic, and only a few distinctive sound events that happened during the ten-minute recording period. Upon listening back to the recording, I was grasped by the idea of reiterating the recorded sound onto the current sound so as to double sound back onto itself. This led me to the decision of playing the recording back onto the windowpane while recording at the same time. As a result, the signal received by the contact microphone from the surface of the windowpane was split into two signals that were played back on to the glass via two small speaker cones attached to the surface of the window.

Through the repeating process of recording-playback-re-recording, the essence of sound doubling and folding onto itself finally took shape after twelve generations. The elapse of time for the entire process was compressed into a condensed period of ten-minute long sound recording. The final outcome of this reiteration, the sonic amalgamation of the inside and the outside, came into being in the form of resonance. The piece was titled *Spring Piece*.

The Sound of the Room Breathing⁵⁴ and Singing

The generative process of *Spring Piece* comes from a direct influence of Danish artist Jacob Kirkegaard's work, *4 Rooms* (2006)⁵⁵, which consists of four recordings of deserted public spaces in Chernobyl, Ukraine.

Two decades after the initial catastrophic incidents of the nuclear reactor explosion, artist Jacob Kirkegaard was granted to enter the 'Zone of Alienation'⁵⁶ in Chernobyl in 2005. For this project, Kirkegaard particularly selected four public spaces, church, auditorium, swimming pool and gymnasium, once meeting points for people but now deserted. The sound of each space was stimulated and evoked by an elaborate process: Kirkegaard first made a ten-minute recording of the selected room, then played the recording back to the room and recorded it again. Such process was repeated up to ten generations until the resonance frequencies of the space eventually emerged and came forth.

⁵⁴ Ono, "Tape Piece II," *Grapefruit*, n.p.

⁵⁵ Jacob Kirkegaard, *4 Rooms*, © 2006 by Touch Music [MCPS], Touch Tone 26, Compact disc.

⁵⁶ Kirkegaard, CD sleeve note, *4 Rooms*, no pagination.

Prior to the work *4 Rooms*, Kirkegaard had explored similar idea of recording 'hidden sound' by using accelerometers to uncover the sonic current that is normally unreachable with our naked ears. For instance, in *Eldfjall* (2005), Kirkegaard travelled to Iceland and recorded the subtle volcanic vibration just below the surface of the earth that is ever present but hardly inaudible. In *EISEWIND* (2006), the resonance space within the iron fences stretching along by the Rhine was uncovered via the artist's equipment and recordings. 'Everywhere is the cosmos there are such things as sound cells, with their own interior lives,' Kirkegaard explained his desire to access these hidden 'cells',

'They are independent, autopoietic organisms without any direct relation to us, but nevertheless indirectly formed by our existence. If I can put my ear to their membrane, to the vibrating skin of such a cell, in order to record what is going on there - then I am very happy.'⁵⁷

Kirkegaard approaches the work *4 Rooms* with a similar attitude. In order to uncover and access to the almost inaudible 'sound cells' of the deserted spaces in Chernobyl, the artist recorded the ambience of the room, and projected the almost 'silence' back onto itself until 'the room [had] started to sing.'⁵⁸

Kirkegaard's approach to sound with particular attention to the idea of space, especially the inaccessible, hidden and remote ones, fascinates me as, to some extent, it presents a physical interpretation of a mental image portrayed in Ono's *Tape Piece II*, a form of documentation of a room breathing, a sonic bottle of the Chernobyl air. Also, I am moved by the aspect of Kirkegaard's idea of sound cells as 'indirectly formed by our existence,' in which it expresses a sense of individual experience and perception of sound, and how our presence may actually make an 'impression'⁵⁹ on the structuring and formation of sound. Such thinking has subsequently indirectly influenced my approach to the final presentation of most of my work, which will become evident in the later part of the discussion. Most importantly, Kirkegaard's *4 Rooms* acknowledges its technical influence from Alvin Lucier's work *I am sitting in a room* (1969), which has lent me an entry

⁵⁷ Sarah Schulze, "Tracking Down the Sound Cells." *Stadt Revue*, March 2005. Accessed 13th January, 2014. <http://fonik.dk/pressarticles-english.html>

⁵⁸ Roger Batty, "The Sound of Silence," *Musique Machine*. July 2006. Accessed 13th January, 2014. http://www.musiquemachine.com/articles/articles_template.php?id=80

⁵⁹ Connor, "Next to Nothing," n.p.

point to the process of audio recording and its technical and conceptual application and hence become the sonic reference and the point of departure in the critical analysis and discussion in this practice-led research project.

Voice in/of A Room

Jacob Kirkegaard refers his 'sonic time layering'⁶⁰ approach back to American composer Alvin Lucier's renowned work, *I am sitting in a room* (1969), which is created through the repeated playbacks and re-recording of a fragment of spoken text in a chosen room. Prior to the making of *I am sitting in a room* in 1969, Lucier had already developed a particular interest in the idea of the 'voice' of a space. In the work *Chambers* (1968), the composer explored the idea of 'resonance environments' of various objects in different scales, and the methods to bring out sounds in these resonance environments.⁶¹ In *Vespers* (1969), the concept of echolocation was explored and utilised in the conception and execution of the work. The performers were given Sondols (sonar-dolphin)⁶² or electronic toys that also produced clicking sound to slowly map the space where the performance took place. The primary guidance for the performers was to listen to the echo produced by the space and the situation arose, rather than the consideration of improvisation or composition. In an interview on *Vespers*, the composer noted,

'I am satisfied not to compose terribly much but let the space and the situation take over. In other words, I don't intrude my personality on a space, I don't bring an idea of mine about composition into a space and superimpose on that space...'⁶³

Following such threads of thinking, Lucier set to let the space take control of the working process in the work of *I am sitting in a room*. Recorded in the composer's

⁶⁰ Kirkegaard, CD sleeve note, *4 Rooms*. n.p.

⁶¹ See text score of *Chambers*. Alvin Lucier, *Reflections: Interviews, Scores, Writings* (Köln: MusikTexte, 1995), 298-302.

⁶² 'Sondols - battery-operated, hand-held pulse wave oscillators that emitted short clicks whose repetition rate could be manually varied and were optimal for creating echoes off reflective surfaces' Alvin Lucier, "Origins of a Form: Acoustical Exploration, Science and Incessancy," *Leonardo Music Journal* 8 (1998): 6.

⁶³ Lucier, *Reflections: Interviews, Scores, Writings*, 80.

apartment in Middletown, Connecticut,⁶⁴ Lucier used his own voice to activate and excite the room by reading out the following text to a microphone set up in the room,

'I am sitting in a room different from 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 and 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.'⁶⁵

The text was articulated and projected into the room, which was then captured on the reel-to-reel tape recorder placed in the room. The recording was played back into the same room via a loudspeaker while a second tape recorder was recording simultaneously. This playback and re-recording process was repeated for several times until the text became incomprehensible and the vocal register was transformed to a collection of sustained tones carrying the sonic characteristics of the room. The process was linear and straightforward as Lucier noted,

'...the form is linear and cumulative; it changes from generation to generation until it reaches the point of diminishing returns. ...I was interested in the process, the step-by-step; slow process of disintegration of the speech and the reinforcement of the resonance frequencies.'⁶⁶

⁶⁴ The first recording was made at the Electronic Music Studio at Brandeis University in 1969. The version I am referring here was made at the composer's own apartment in 1980, which has been released by Lovely Music ([New York], 1990)

⁶⁵ Alvin Lucier, "I am sitting in a room (1969)," *Chambers: Scores by Alvin Lucier* (New York: Columbia University Press, 1980), 31

⁶⁶ Lucier, *Chambers: Scores by Alvin Lucier*, 33-34.

Resonant with Lucier's observation, the slow process of transformation of sound *in* a space into sound *of* a space interests me greatly. Kirkegaard's idea of extracting the 'sound cells'⁶⁷ in the work *4 Rooms* and Lucier's notion of amplifying the 'resonance environments'⁶⁸ in *I am sitting in a room* both explore and investigate such sonic transformation in the form of resonance. In *Spring Piece*, akin to Kirkegaard's and Lucier's work, the sonic transformation evolves from the sounds from both sides of the window, and takes on the characteristic of the glass, particularly the resonance frequencies of the glass.

Upon reflecting on the making of *Spring Piece*, I find the notion of resonance particularly interesting as it is an innate quality of an object, yet it is invisible and can only be excited by the outside factors under certain conditions and circumstances. It is an elementary sonic effect defined as,

'The resonance effect refers to the vibration, in air or through solids, of a solid element. The production of resonance requires a relatively high acoustic level and a concordance between the exciting frequency and the object put into vibration.'⁶⁹

In another words, resonance, a natural vibrating frequency residing within the natural environments and objects, occurs when a periodic movement or energy oscillates air or solid elements in a concordance with the innate frequencies of that environment or the objects. 'For the phenomenon of resonance to manifest itself,'⁷⁰ a sound is in a repeated operation of returning to and folding back onto itself until a part of itself is reinforced into being.

If, to dissect this particular operation of such iteration further, I find the concept of resonance engaging yet puzzling. Resonance, as a phenomenon, seems to carry multiple identities within one entity. Its role in sound seems paradoxical. As an acoustic phenomenon, resonance does not occur unless it is excited by outside factors, as in Augoyard and Torgue's words, "For the phenomenon of resonance to manifest *itself*,"⁷¹ it needs something other than *itself* in order to come into being.

⁶⁷ Schulze, "Tracking Down the Sound Cells," n.p.

⁶⁸ Lucier, *Chambers*, 301.

⁶⁹ Jean-François Augoyard and Henry Torgue, *Sonic Experience: A Guide to Everyday Sounds* (Canada: McGill-Queen's University Press, 2005), 99.

⁷⁰ Augoyard and Torgue, *Sonic Experience*, 99.

⁷¹ *Ibid.*, 99. My emphasis.

In the example of Lucier's *I am sitting in a room*, the resonant frequencies of the room are excited by the composer's reading voice. The spectral contents of the voice, and the delivery of the text⁷² are both essential factors that influence the final outcome of the piece. Lucier's voice hence does not only excite the resonance of the room, but also becomes part and parcel of the resonant frequencies of the room *itself*. As Jean-Luc Nancy touches upon such multiplicity of referral between the subject and object of listening through the notion of resonance,

'...it is perhaps in the sonorous register that this reflected structure is most obviously manifest, and in any case offers itself as open structure, spaced and spacing (resonance chamber, acoustic space, the distancing of a repeat [*renvoi*]), at the same time as an intersection, mixture, covering up in the referral [*renvoi*] of the perceptible with the perceived...'⁷³

Nancy suggests that the notion of listening involves an idea of 'listening-oneself-listen' that is analogous to the idea of resonance, in which the sound 'remit itself while still actually "sounding," which is already "re-sounding."' ⁷⁴ Between the sounding and re-sounding, there is a space of 'intersection, mixing and covering up,' a space of concordance between the sounding and the sounded. In this sense, resonance, as a concept, circumscribes the interaction and interplay between the sounding and the sounded, between which both identities undergo transformation.

In the work *Spring Piece*, the identities of the sounds from the inside and the outside undergo a sonorous transformation through the materiality of the windowpanes. An anew identity and meaning emerges and mutates in the process of folding the recorded sound back onto itself and the object of its own generation. As I have mentioned previously, I find then notion of resonance engaging and puzzling as it evokes a sense of multiplicity in one entity and that of inner generation through repeating itself onto itself.

While contemplating upon the notion of resonance, and my interest in the 'makeup' of it, I encountered American sculptor Roni Horn's work, which

⁷² See Thesis Chapter Three for more discussion on the role of the text and the way in which the text is delivered in Alvin Lucier's *I am sitting in a room* (1969).

⁷³ Jean-Luc Nancy, *Listening*, trans., Charlotte Mandell (Ohio: Fordham University Press, 2007), 8.

⁷⁴ Nancy, *Listening*, 8.

consequently lends the vocabulary and the framework in my research project and practice.

Roni Horn aka Roni Horn

‘With (just) one object, its presence is emanating out into the world with it as the center. With two objects that are one object, you have an integral use of the world. You have the necessary inclusion of circumstance.’ - Roni Horn⁷⁵

Sometime in May of 2009, without any prior knowledge of American sculptor Roni Horn’s practice, I visited the exhibition ‘Roni Horn aka Roni Horn’ at the Tate Modern. The main themes of identity and mutability of the exhibition were very quickly realised through the recurring motif of doubling. Doubling as one of Horn’s most essential aesthetic and creative strategy since 1980 presents itself in several appearances. First of all, the most straightforward presentation of Horn’s doubling is sets of paired identical objects and photographs, such as *Things That Happen Again: For Two Rooms* (1986),⁷⁶ which consists of two identical truncated copper cones in separate rooms, and *Dead Owl* (1998), a pair of photographs of a taxidermic owl placed side by side, which were taken with a fraction of a second apart. In both works, the doubling of identical or very similar objects brings forward the question of identity and our experience with these objects. Two identical objects does not induce a sense of certainty, instead, a sense of doubt, as Horn points out,

‘You search got the differences, no matter if the pair is identical - and interestingly enough you find them. It’s like standing at the edge of infinity where things begin but have no end.’⁷⁷

Identical objects make you doubt yet one single object does not guarantee any assurance either. *Asphere* (1988-2005), a series of sculptural work, consists of a solid machined metal ball, measuring diameter of 30.5 - 32.4 cm, sitting directly

⁷⁵ Mimi Thompson, “Roni Horn,” in *Bomb* no. 28 (summer 1989), no pagination. <http://bombsite.com/issues/28/articles/1210>. Accessed 24th October, 2013.

⁷⁶ Detailed discussion see Thesis Chapter Two, 67-68.

⁷⁷ Roni Horn, “Dead Owl,” *Roni Horn aka Roni Horn* (volume: subject index), (New York: Whitney Museum of American Art, 2009), 35.

on the floor. The object is almost imperceptibly aspherical so as to evoke a sense of doubt that prompts a double-take. *Asphere* de-familiarises our understanding of an object that we initially think we have known very well, and in turn, urges a reassessment of the seemingly familiar. As Horn notes,

‘*Asphere* is...an homage to androgyny. It gives the experience of something initially familiar, but the more time spent with it, the less familiar it becomes. I think of it as a self-portrait.’⁷⁸

The term of androgyny denotes ‘union of sexes in one individual,’⁷⁹ which indicates a sense of double identities within one entity. Such uncertainty and ambiguity is represented aptly in the work *Asphere*, a single object whose identity is mutable due to its physical almost imperceptible aberration so that the challenge of identification presented lies in the fissure between the perception and the concept. The work *Asphere* also implicates the importance of the presence of the viewer as the question of its identity can only arise in the process of viewing, as Horn states in an interview, ‘Things don’t exist unless you experience them. ...These objects exist in very literal relationship to human presence...’⁸⁰

The third kind of Horn’s doubling appears in the frequent materialisation of Emily Dickinson’s poems. As shown in the exhibition at the Tate Modern in 2009, Horn integrates texts from three of Dickinson’s poems into three aluminium columns. Each column quotes one line in capitals: they are ‘TO MAKE A PRAIRE IT TAKES A CLOVER AND ONE BEE,’ ‘I GIVE YOU A PEAR THAT WAS GIVEN ME - WOULD THAT IT WERE A PAIR, BUT NATURE IS PENURIOUS,’ and ‘THE MIND IS SUCH A NEW PLACE, LAST NIGHT FEELS OBSOLETE.’ The letters are made of solid plastic embedded into the aluminium column. The length of each sentence determines the height of each column. The columns are propped against the walls.

These three columns, once again, propose a sense of doubling as they are both Horn’s sculpture and Dickinson’s poems at the same time. They are both objects

⁷⁸ Horn, “Asphere,” *Roni Horn aka Roni Horn*, 17.

⁷⁹ *Oxford English Dictionary Online*, s.v. “androgyny,” <http://www.oed.com/view/entry/7332?redirectedFrom=Androgyny#eid>. Accessed on 28th December, 2013.

⁸⁰ Mimi Thompson, “Roni Horn,” n.p.

of viewing and of reading,⁸¹ and we become both the viewer and the reader at once. Two perceptual experiences collapse into one. This doubling strategy of Horn's again conforms to her emphasis on the presence of the viewer, as with poetry that requires the presence of the reader. Moreover, through such doubling strategy, two-dimensional text becomes three-dimensional sculptural objects. The content of the text remains while its form takes on different physical shapes.

The fourth type of doubling, which I consider a unique instance in the exhibition at the Tate Modern, is the doubling of the subject and its representation. The work *Still Water (The River Thames, For Example)* (1999)⁸² comprises of a series of fifteen photographs with annotations depicting different water surfaces. Upon close viewing and reading, it is soon realised that each of the images depicts different sections of the river Thames, which can be seen through the windows from where the work is on display.

I was struck by the latent correspondence between the notion of Horn's doubling and that of resonance. The notion of doubling indicates an idea of a repeat (*renvoi* as in Nancy's term) with the exact identical objects or images or with the very similar ones. The viewers encounter with the second paired object, which functions not only as the referral (*renvoi*) to the first object, but also as the referral to the previous encounter. Horn's doubling creates a kind of circumstance that, in Nancy's word, 'offers itself as open structure, spaced and spacing,... the distancing of a repeat [*renvoi*], at the same time as an intersection, mixture, covering up in the referral [*renvoi*] of the perceptible with the perceived...'⁸³ Both Horn's strategy of doubling and Nancy's concept of resonance suggests the notion of identity is attained through repetition, a quotation of itself, as literary theorist Susan Stewart writes on literary quotation,

'To posit a repetition is to enter the abstract and perfect world of art, a world where the text can appear and reappear despite the ongoingness of the 'real world'. And yet, without this repetition, without this two-in-the-place-

⁸¹ For detailed discussion on Horn's doubling of reading and viewing, see Thesis Chapter Three, 107-110.

⁸² Detailed discussion see Thesis Chapter Three.

⁸³ Nancy, *Listening*, 8.

of-one, the one cannot come to be, for it is only by means of difference that identity can be articulated.⁸⁴

With my thoughts over the comparability between the notion of doubling and that of resonance, I had an opportunity to explore and investigate the connection between the two through the work *2 p.m.* (2009).

Sound of A Field

2 p.m. (2009) is a piece of sound work specifically produced for the 3D AudioScape software system⁸⁵ technically supported by the Duran Audio Intellivox DSP⁸⁶ controlled beam steering loudspeakers. This impressive system was to be a large-scale immersive audio experiment⁸⁷ taking place on the outdoor green at Goldsmiths, University of London late October in 2009.

There are two notable factors in this large-scale audio experiment project that influences my creative approach to *2 p.m.* The first important factor is the site, where essentially serves as a general outdoor communal area for the students and the staff at the university. Secondly, the specifications of the system used in the audio immersive experiment proposes a certain challenge both technically and conceptually.

In first considering the outdoor location of the College Green, it poses a question of how to manage the pre-existing environmental sound that may evidently be present throughout the installation of the work? How should this 'extra' environmental sound, which I have no control over, be dealt with or incorporated in the work? If to incorporate the environmental sound in the work, then how may a meaningful engagement between the work and the environmental sounds occur?

⁸⁴ Susan Stewart, *On Longing: Narratives of the Miniature, the Gigantic, the Souvenir, the Collection* (Durham: Duke University Press, 1993), 20.

⁸⁵ More details see <http://www.3daudioscape.org/index.htm>. Accessed on 28th July, 2013.

⁸⁶ DSP stands for Digital Signal Processor/Processing. More details see <http://www.duran-audio.com/index.php?page=intellivox> Accessed on 28th July, 2013.

⁸⁷ <http://www.gold.ac.uk/calendar/?id=3240> and <http://illustriouscompany.co.uk/projects/london>. Accessed on 28th July, 2013.



Plate 1.1: Aerial view of the College Green, Goldsmiths, 2009.

Upon attending an introductory meeting held by the spokesman and fellow technician of 3D AudioScape and Duran Audio, a question was raised by the spokesman in regards to whether a sonic demarcation might be drawn between the 'inside' and 'outside' of the 3D virtual sound space? In consideration to this surprising uncertainty in how the system might behave technically, this probed me to consider an approach to specifically incorporate this uncertainty in finding a way to use the natural environmental sounds present at the college green along with my own sound, rather than to merely ignore and exclude it, or even to block it.

Upon surveying the site of the College Green, an outdoor field measuring approximately 50 by 70 meters, surrounded by several academic buildings, it was evident that there were several different types of sonic occurrence that could be easily heard during the normal academic working hours, a combination of more irregular foreground sounds and a perhaps more typical background ambience. There were also attenuating sounds such as the traffic and the sirens at the nearby roads, the occasional attention demanding conversation found in that of the passerby, and the ringing of the office telephones along with the expected addition of the mobile phone around the green. This collection of different sounds created a distinct foreground texture that can be said to be associated to the green. The background ambience comprised of more constant yet less distinct sounds, which consisted of the general hum of the capital city and the doppler effect of the frequent aircrafts. Furthermore, during this specific time of late October in 2009, the construction of the New Academic Building⁸⁸ was taking

⁸⁸ Building no. 40 in Plate 1.2 on p. 42 in this chapter.

place, and hence a sound of heavy machinery would perhaps be the most distinct foreground texture of all. I considered this abrupt and irregular sound event, which could be easily considered as causing potential interruption and disturbance to the final presentation of the work, as then to be the most specific and temporal soundmark⁸⁹ of the green and to be particularly incorporated in the creating process of the piece.

The second important factor influencing my creative approach is the specifications of the 3D AudioScape system and the Duran Audio Intellivox DSP controlled Beam Steering loudspeakers deployed for the outdoor audio experiment. The AudioScape software system seeks to create a virtual three-dimensional sound space within a physical space. Within such space, up to sixteen separate sound sources can be positioned at will, and moved in any direction, both horizontally and vertically in real-time. The Duran Audio system utilises a vertical array of loudspeakers using the principle of wave field synthesis⁹⁰ to achieve highly concentrated sound beams and an evenly SPL⁹¹ distribution over large distance. In other words, the vertical array of loudspeakers offers a powerful control over the spatial dispersion and directivity of a sound wave according to its frequency content through a complex algorithm for the number of loudspeakers and the spacing between each of them in the array. With the application of wave field synthesis, an artificial wave front can be produced that will enable movement through a space accordingly with less loss of certain frequency content. In this case, the listening experience will not be subject to the idea of a 'sweet spot'⁹² within this specifically created sound field.

⁸⁹ R. Murray Schafer defines the term 'soundmark' as 'derived from *landmark* to refer to a community sound which is unique or possess qualities which make it specially regarded or noticed by the people in that community.' I borrow this term for the purpose to indicate the idea of the sound of the construction marking the particular period in time at the green. See R. Murray Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World* (Vermont: Destiny Books, 1994), 274.

⁹⁰ 'Wave field synthesis (WFS) is a spatial sound field reproduction technique that utilizes a high number of loudspeakers to create a virtual auditory scene over a large listening area. It overcomes some of the limitation of stereophonic reproduction technique, like e.g. the sweet-spot'. See Sascha Spors et al. "The Theory of Wave Field Synthesis Revisited," (paper presented at the 124th Convention of the Audio Engineering Society, Amsterdam, 17th-20th May 2008), 1.

⁹¹ SPL stands for Sound Pressure Level.

⁹² 'The spatial reproduction of sound in a conventional stereo system works only in a small area located on the symmetry axis between the loudspeakers. This small area is generally called the 'sweet spot,' where the stereo perception is balanced. The farther away the listener is located from this area, the less balanced stereophonic experience it will be.' See Sebastian Merchel and Stephan Groth, "Analysis and implementation of a stereophonic play back system for adjusting the 'sweet spot' to the listener's position," in *Journal of the Audio Engineering Society* vol. 58 no.10 (2010): 810.

Furthermore, the amplitude of sound will not be as subjected to decreased amounts due to the distance it travels. Within this virtual sound space, the volume of sound maintains a more constant output and evenner spread.

Based on the observation of the site and the consideration of the technology provided, I decided to take a similar approach to the making process of *Spring Piece* (2009) but expanded it accordingly to suit the given conditions. The first step in the development of the work was to access the site in situ, to which I was to take some audio recordings. Compared to the general household windowpanes, the size of the College Green posed a certain level of challenge to 'find a way in.' I started the process of mapping the site by walking around the green in all directions and listening with my naked ears rather than taking recordings straightaway. While surveying the site I noticed a team appeared to be setting up the metal framework for the installation of the loudspeakers. After briefly consulting with the team manager to determine the exact installation points for the Duran Audio system, I decided to take field recordings on different points that coordinated with the positions of each loudspeakers which were yet to be installed.

As illustrated in Plate 1.2, numbers 1 to 8 show all the points where source recordings were taken. Point 1 to 4 at the speaker installation positions and point 5 at the approximate centre, all of which were stationary recordings. Point 6, 7, and 8 showed recordings taken while in motion and of roughly equal length, all created while walking in a smaller circle to that of the perimeter demarcated by the positions of the loudspeakers.

The field recordings of the College Green provided not only an initial understanding of the site, but also the guidelines for the decision-making in the studio in terms of the processing methods. Listening back to the recordings, I noticed all of them shared similar sonic attributes that constituted the general atmosphere of the College Green. The sounds of aircraft, birds, distant voices, traffic and the construction machinery all present in all of the recordings with more specific sound events particular to each different point. Upon considering the processing method in the studio, I thought to maintain a similar approach to that taken in the creative process of *Spring Piece*, in which to let the sounds take forms based on the frequency contents. I thus decided to approach the materials by means of a process called convolution, a type of fundamental operation in digital audio signal processing.

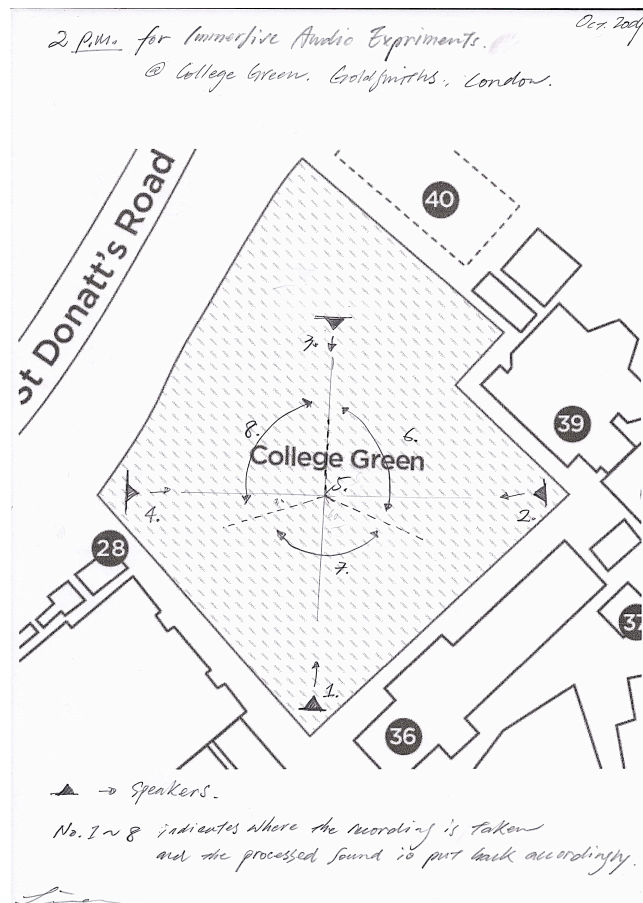


Plate 1.2: Artist's sketch for 2 p.m. at the College Green, 2009.

The operation of convolution in principle is to multiply⁹³ a given signal with an arbitrary chosen impulse response (IR), which can result in a great variety of musical effects.⁹⁴ The concept of reverberation is one type of convolution processing. We can convolute any given audio signal with the IR of a given space, then through this convolution process, a result occurs such as to create the effect of that audio signal being played in that given space. In this regard, the field recordings of the green can be transformed to a set of audio signals through convoluting with the IR of the site, and the results will still maintain the sonic

⁹³ 'Convolution involves multiplication, but the convolution of two signals is different from multiplication of two signals. The multiplication of one signal **a** by another signal **b** means that each sample of **a** is multiplied by the corresponding sample in **b**. Thus:

$$\begin{aligned} \text{output}[1] &= a[1] \times b[1] \\ \text{output}[2] &= a[2] \times b[2] \end{aligned}$$

etc.

Convolution, on the other hand, means that each sample of **a** is multiplied by every sample of **b**, creating an array of samples of length **b** for every sample of **a**. The convolution is the sum of these arrays.' See Roads, *The Computer Music Tutorial*, 423.

⁹⁴ *Ibid.*, 419.

attributes of the site.

I find the concept and principles of convolution fascinating. As discussed above, it is possible to emulate all kinds of effects through the process of convolution if one has required audio information and data at hand. In a sense, I can alter the sonic characteristics of the College Green by convoluting the raw recording with any given IR. Following this line of thinking, it is also possible to extract the spatial information from the College Green by analysing frequency contents of the field recordings.

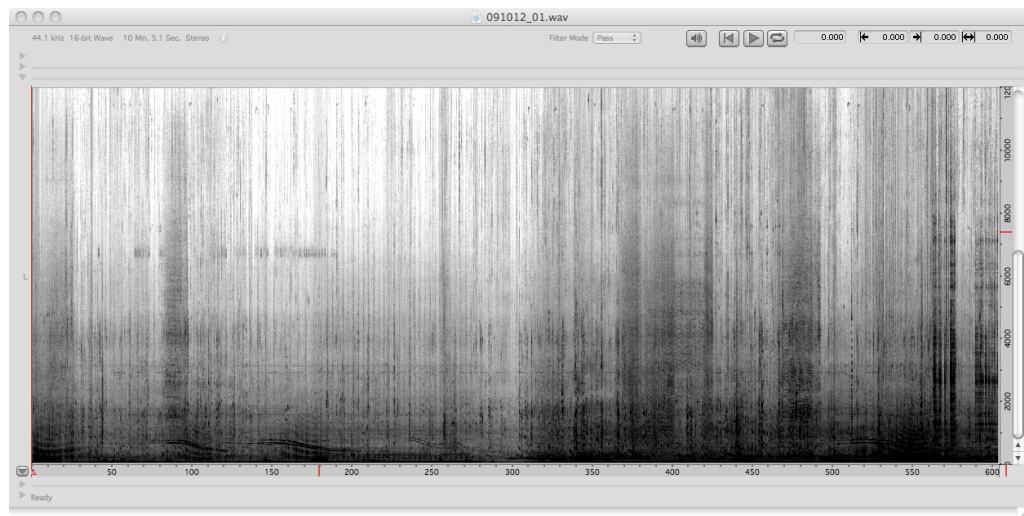


Plate 1.3: Sonogram analysis from the source recording no. 1.

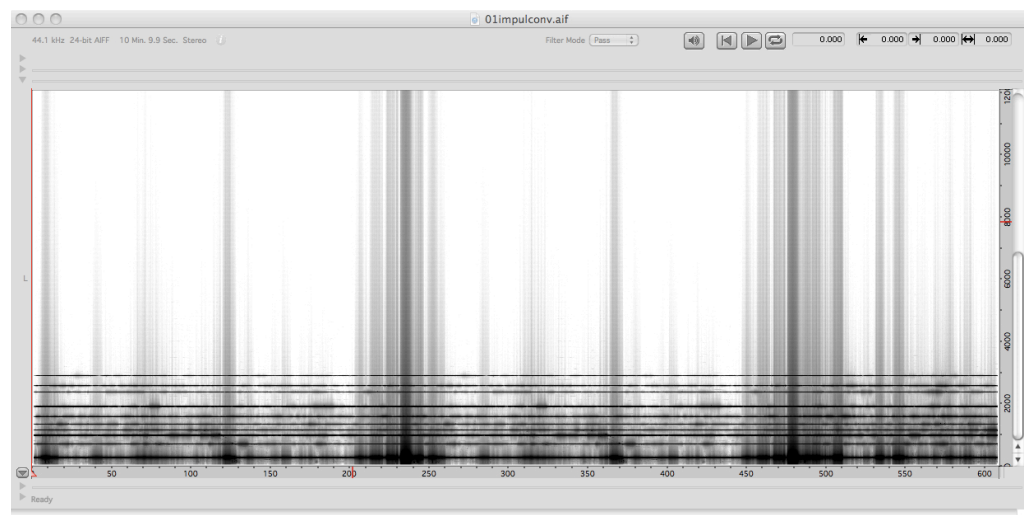


Plate 1.4: Sonogram analysis from the convolution result of recording no. 1.

In order to obtain relevant frequency information that could be used as IR, a

sonogram analysis⁹⁵ of the raw recording was carried out on AudioSculpt⁹⁶ in order to determine the spectrum contents of each individual recording. From the information shown in the sonogram analysis, eight to ten prominent frequencies were selected depending on their amplitude. An impulse response for each of the original recordings was thus produced from this collections of frequencies in coordination with the information of amplitude, and then went through the convolution process with the original recording, from which the IR was extracted from. In other words, the prominent sonic characteristics of each raw recording is emphasised and drawn out through the multiplication of these frequencies with themselves. All the field recordings of the College Green undertook the same treatment, a process of sonogram analysis and convolution with each of its unique IR. As a result, a collection of eight distinct yet similar tones was created for the final presentation.

In the final rendition in the 3D AudioScape system, these eight processed audio signals were positioned and controlled according to where and how the original recordings were initially taken. Thus sound file No. 1 to 4 were positioned stationary back into the four corners of the College Green where the loudspeakers were installed, No. 5 at the centre point, and No. 6 to 8 were programmed to pan slowly, emulating my movement when the recordings were taken in the first place.⁹⁷

The piece, *2 p.m.*, only came to life when played back through the loudspeakers in situ. The processed signals forming a sonic blanket that encapsulated the site, yet the environmental sounds could still pierce through the blanket easily. The processed signals and the real-time sounds were in a process of simultaneous merging, contrasting, doubling and becoming. The constant or intermittent and abrupt real-time sounds intertwined and intermingled with the piece, neither heard over the top nor hidden beneath. The sonic blanket gently covered the green, and to a certain extent, drew attention to the general ambience of the green that was mostly ignored and disregarded. The continuous tone like signals allowed the listeners to move around within the perimeter of the loudspeakers

⁹⁵ Sonogram is a graph to 'visualize the structure of the audio signal, that is, how the energy is distributed in the sound spectrum, according to vibratory frequencies.' "Sonogram Analysis," IRCAM, accessed 23rd July, 2014, <http://support.ircam.fr/docs/AudioSculpt/3.0/co/Sonogram%20Analysis.html>

⁹⁶ A software developed by IRCAM (Institute de Recherche et Coordination Acoustique/Musique) that 'provides a visual and "sculptural" approach to sound manipulation.' "AudioSculpt," IRCAM, accessed 23rd July, 2014, <http://forumnet.ircam.fr/products-list-2/>

⁹⁷ See Plate 1.2 on p. 42.

and enabled them to observe the minute changes in the tonalities of the signals, and the morphing effects between the signals with the real-time environmental sounds. The listeners could also experience a sensation of the tones passing by them or of walking through them. Although demarcated physically by the positions of the loudspeakers, there seemed less distinction between the inside and the outside in terms of a perceptual boundary.



Plate 1.5: Listening to 2 *p.m.*, the College Green, Goldsmiths, London 2009.

Listening Diary

Location: The College Green, Goldsmiths, University of London.

Date: 21/10/2009

Time: around 20:00

I arrived at the College Green for the opening of the Large-Scale Immersive Audio Experiment, a collaborative project between The Screen School, Sound Practice Research at Goldsmiths, and Illustrious Company.

It was a typical evening in the late October, the day had started becoming shorter while the longer night brought the chill that sometimes stung your scalp.

I had never stayed around the college this late. Everything looked slightly different from the daytime as if even the buildings had gone through the change of the shift. The sound around the green sounded different too. Different from the crispiness and

fluidness that I remembered from last time when I was here, the sound around me today seemed murky and sluggish.

More and more people had turned up and started forming a several small groups scattering about the green. The breeze was moving and modulating the conversations with the sound of the traffic, airplanes and the sirens in the background. Suddenly, I heard an alien combination of tones slowly growing louder and starting to cut through the ambient drone. Before long, this collection of tones formed an invisible sonic blanket that covered the green and transformed sonic characteristics of the green. This continuous sound had a very slow movement and seemed to have a certain direction. While walking around the green, the sound was at times sitting right at your ears, and at times moving, lurking, passing by you. The presence of these tones seemed so dominating that they encapsulated the whole place; and yet, I could still hear the sound of the 'outside' world. The doppler effect created by the airplanes, the siren and even the ice cream van (in October??) were morphing with these alien tones as if they were part of each other.

My aural experience and perception of the environment had heightened through this interplay between the existing real-world sound and the imposed processed sound. I became tuned in to the minute sonic occurrence that was coming from all directions. Every step I made, the sound in my ears evolved to a new phrase. I wondered what other people around me who had faded into blackish outlines under the dim light were listening to. I assumed that each of us heard different things, and it would probably be impossible for me to find out.

Upon listening to the work 2 p.m. in action as a listener myself, two observations were made in regards to the site and its sounds. Firstly, the juxtaposition of the real-time environmental sound and its processed audio signal heightens the attention and awareness to the sonic surroundings of the College Green. There is an interesting interplay between the two sounds as the appearance of the audio signals seems to alter the perception of the real-time environmental sounds. Secondly, through such juxtaposition of the natural and the processed sounds, the everyday functionality of the green is temporally transformed from a communal area to a designated space to house an outdoor sound work that creates and imposes an artificial sound field on the site.

To investigate the perceptual change and the spatial transformation of the site through such twofold juxtaposition, I believe that it may provide some useful insight by discussing the work *2 p.m.* from the two distinct perspectives respectively, one from that of soundscape studies and the other Earthworks, both became active in the late 1960s. The main purpose of soundscape studies, a term coined by R. Murray Schafer, focuses on the studies of both collective and individual perception of environmental sounds within local communities, and on the influences and changes the modern world has brought upon the sound of our environment. On the other hand, the practice of Earthworks, a term coined by Robert Smithson, highlights the relationship between the work created with the natural elements in the remote locations and its representation in the gallery space. Both practices instigate from a particular interest in the natural environments, and in the human perception of such environments. Both practices produce artwork that utilises the raw materials collected from the rural environments to express practitioners' concerns and interests. Yet, the production of such common interests, which subsequently influence the aesthetic strategy of each practice, varies greatly from each other. It is my interest to place *2 p.m.* in the context of both soundscape studies and Earthworks so to position my research interest and practice.

Soundscape Studies and Soundscape Composition

In the early 1970s, World Soundscape Project (WSP, now known as the World Forum for Acoustic Ecology) was founded by R. Murray Schafer, alongside with his colleagues, such as Howard Broomfield, Barry Truax, Hildergard Westerkamp and others at the Simon Fraser University in Vancouver, Canada. The aim of WSP was to raise consciousness of the environmental sounds, to develop a methodology for such studies, and in turn, to understand the potential effects on the human condition, as Schafer noted, the paramount concern of the soundscape studies was to understand the relationship 'between man and the sound of his environment, and what happens when those sound change.'⁹⁸ The more explicit definition of the concept of soundscape can be found in Barry Truax's *Handbook for Acoustic Ecology* as the composer notes,

⁹⁸ R. Murray Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World* (Vermont: Destiny Books, 1994), 3-4.

‘An environment of sound (or sonic environment) which emphasis on the way it is perceived and understood by an individual, or by a society. It thus depends on the relationship between the individual and such environment. The term may refer to actual environments or to abstract constructions such as musical compositions and tape montages, particularly when considered as an artificial environment.’⁹⁹

One of the core practices of the World Soundscape Project is the employment of audio recordings. The aim of taking an audio recording of the environmental sounds, both locally and globally, is to collect, document, archive and preserve these sounds, including some important disappearing ‘soundmark,’¹⁰⁰ to highlight the regional accents and characteristics, and to gain insights into people’s understanding and awareness to their immediate acoustic environments. The essence of soundscape composition is one of the consequent outputs from such concerns and interests.

Hildegard Westerkamp suggests that the emergence of soundscape composition begins from an opportunity given by the Vancouver Co-operative Radio to broadcast the research projects carried out by the WSP in the 1970s. Westerkamp recalls,

‘It was from within this exciting context of ecological concern for the soundscape and the availability of an alternate media outlet that my compositional work - now often called soundscape composition - emerged.’¹⁰¹

Even with its deep connection to soundscape studies, the definition of soundscape composition is still open to dispute¹⁰² due to its varying compositional techniques, methodologies and presentations. Commenting on

⁹⁹ Barry Truax, *Handbook for Acoustic Ecology* (Canada: Cambridge Street Publishing, 1999), n.p. <http://www.sfu.ca/sonic-studio/handbook/Soundscape.html> Accessed 4th January, 2014.

¹⁰⁰ See footnote 89 in Thesis Chapter One, 40.

¹⁰¹ Hildegard Westerkamp, “Linking soundscape composition and acoustic ecology,” in *Organised Sound*, vol. 7 issue 1 (2002) : 51-56. <http://dx.doi.org/10.1017/S1355771802001085> Accessed 14th January, 2014.

¹⁰² For in-depth investigation on the subject, see “soundscape composition: the convergence of ethnography and acousmatic music,” by John L. Drever (2002), and “Sound, Listening and Place: the aesthetic dilemma,” by Barry Truax (2012).

such debate and situation, Westerkamp expresses, "Today the term soundscape composition *does* exist, but no-one really seems to know what is meant by it, myself included."¹⁰³ When invited to be on jury for a competition of soundscape composition in Amsterdam, Westerkamp is prompted to examine and articulate the essence of soundscape composition. The composer states,

"The essence of soundscape composition is the artistic, sonic transmission of meanings about place, time, environment and listening perception. ... A soundscape composition is *always* rooted in themes of the sound environment. It is never abstract. Recorded environmental sounds are its "instruments," and they may be heard both unprocessed and processed. ... A piece cannot called a soundscape composition if it uses environmental sound as material for abstract sound explorations only, without reference to the sonic environment."¹⁰⁴

Barry Truax, another leading figure in the genre, investigates the fundamentals and the characteristics of soundscape studies so to formulate the following four points to establish the principles of soundscape composition evolved from the former:

- (a) Listener recognizability of the source material is maintained, even if it subsequently undergoes transformation;
- (b) The listener's knowledge of the environmental and psychological context of the soundscape material is invoked and encouraged to complete the network of meanings ascribed to the music;
- (c) The composer's knowledge of the environmental and psychological context of the soundscape material is allowed to influence the shape of the composition at

¹⁰³ Westerkamp, "Linking soundscape composition and acoustic ecology," 51.

¹⁰⁴ Hildergard Westerkamp, "Soundscape Composition: Linking Inner and Outer Worlds" (paper presented at Soundscape before 2000, Amsterdam, 19-26 November, 1999), n.p. <http://www.sfu.ca/~westerka/writings%20page/articles%20pages/soundscapecomp.html> Accessed 14th January, 2014. Also quoted in John L. Drever, "Phonographies: Practical and Theoretical Explorations into Composing with Disembodied Sound" (PhD Thesis, University of Plymouth, 2001), 53.

every level, and ultimately the composition is
inseparable from some or all of those aspects of reality;
(d) The work enhanced our understanding of the world, and
its influence carries over into everyday perceptual
habits.¹⁰⁵

While Westerkamp comments on the importance of maintaining the integrity of the source sound materials in the composition, Truax highlights the significance of the composer and his/her aural experience and knowledge to the source materials as much as the listener's, and how such understanding shapes and influences the process of composition, the final outcome and its interpretation. From both perspectives of these two composers, we can conclude that the intention of the composer and his/her aesthetic approaches to the source materials becomes the most intricate part in the operation of soundscape composition.

Drawing upon his experiences of lecturing in the School of Communication at Simon Fraser University, Truax approaches the complex relationship between the composer, the sound materials and the listener in soundscape composition from the framework of information processing and communication. Truax states,

'The basic model of acoustic communication is grounded in the understanding that information and meaning arise through listening from both the inner structure and patterns of sound itself and also the listener's knowledge of context. ...Further, sound is not merely information exchange, but is capable of creating relationships between listeners and their environment in a dynamic process of embodied cognition.'¹⁰⁶

In his book *Acoustic Communication*, Truax proposes to approach soundscape composition with the criteria based on 'the analysis of positively functioning

¹⁰⁵ Barry Truax, "Soundscape Composition as Global Music: Electroacoustic music as soundscape," in *Organised Sound*, vol. 13 issue 2 (2008): 103-109. <http://dx.doi.org/10.1017/S1355771808000149>. Accessed 14th January, 2014. Also quoted in Drever, "Phonographies: Practical and Theoretical Explorations into Composing with Disembodied Sound," 54.

¹⁰⁶ Barry Truax, "Sound, Listening and Place: The aesthetic dilemma," in *Organised Sound* vol. 17 issue 3 (2012): 193-201. <http://dx.doi.org/10.1017/S1355771811000380> Accessed 14th January, 2014.

soundscapes'¹⁰⁷ in a shift 'away from artifacts, and causes and effects, towards process.'¹⁰⁸ Truax considers that one advantage of such focus is that the composer's interventions in the composition can be effective at any stage of the process and the effects will generate their own dynamics within the composition and also within the interpretation of the listener. He elaborates this process-centred approach further; 'change can begin with the sound itself, or the listener, or the context.'¹⁰⁹

Following upon this thinking, Truax develops two working models in which soundscape composition can be situated and investigated. The first spectrum is useful to define the characteristics of soundscape composition and to understand the composer's approach to the piece.

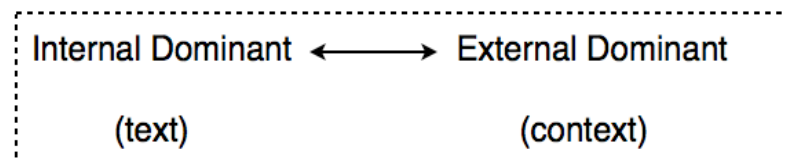


Figure 1.6: Barry Truax's first continua for the study of soundscape composition.

On the left side of the spectrum, it represents the inner musical structuring of the sounds that the composer focuses on in the compositional process. The 'text' stands for the musical inspiration that the composer refers to. This inspiration is bound to the composer's personal experience, which can be from the personal reading of art, music, literature and travel experiences. Truax points out that this internal dominant or 'text' can be understood by the listener through reading the programme notes, in which may hold great value to the composer but not necessarily offers the same influence on the listener's perception. At the other end of the spectrum, it shows that the composition is highly contextually dominated, which is often in the case of a more site-specific soundscape work. In most of the cases, as Truax believes, a soundscape composer is working within the range of this spectrum, and constantly balancing his/her personal inner inspiration and the sensitivity to the real-world sounds. Although Truax's discussion on this spectrum is concentrated on the composer's approach to the composition, I suggest that this spectrum can also be applied to the position and the interpretation process of a listener. The listener's perceptual experience and understanding of a piece of soundscape composition is also operating within such

¹⁰⁷ Barry Truax, *Acoustic Communication* (New Jersey: Ablex Publishing Corporation, 1984), 99.

¹⁰⁸ Truax, "Sound, Listening and Place: The aesthetic dilemma," 194.

¹⁰⁹ *Ibid.*, 194.

spectrum. The personal interests, education background, nationalities, gender, etc. also function as ‘internal dominant’ to influence individual’s approach to a piece of work. The listener’s interpretation is equally shaped by the context of a piece of work presented.

The second continuum that Truax postulates presents a spectrum that can be applied to define different types of sound works, and in turn, to define the nature and the operation of soundscape composition.

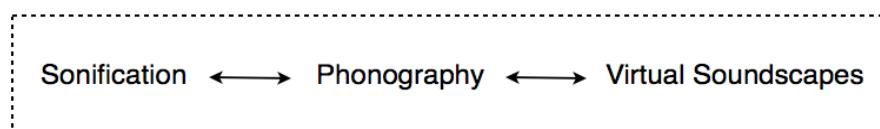


Figure 1.7: Barry Truax’s second continua for the study of soundscape composition.

On the left half of the spectrum represents the process of ‘sonification,’ in which the process of real-world information is mapped onto sonic parameters to create a particular form of auditory display.¹¹⁰ The practice of sonification is mostly explored and applied in the service of physics and science, which seeks to convey information or data by utilising sound in various pitch, amplitude and tempo. The practice of phonography (analogous to the notion of photography) is to map the real-world sounds onto audio recordings. The recorded sound materials are generally kept close to their veracity and not being manipulated other than a ‘transparent editing and mixing’¹¹¹ by the composer/recordist. Similar to the practice of photography,¹¹² the nature of field recording is never an objective one. From the recording equipment, the chosen locations to the practical decision, the recordist have to make a series of judgement and decisions in the process, which will inevitably influence the outcome of the recordings. All these factors present some sort of selected perspectives. The right half of the spectrum indicates the practice of mapping and representing the real-world soundscape. This is the part of the spectrum where most of the composers influenced by the World Soundscape Project will generally situate their works¹¹³. Different from the

¹¹⁰ *Ibid.*, 194-5.

¹¹¹ John L. Drever, “Soundscape composition: the convergence of ethnography and acousmatic music,” in *Organised Sound* vol. 7 issue 1 (2002): 21-27. <http://dx.doi.org/10.1017/S1355771802001048>. Accessed 14th January, 2014.

¹¹² ‘To record sounds is to put a frame around them. Just as a photograph frames a visual environment,...’ R. Murray Schafer, Sleeve note for *The Vancouver Soundscape*. © 1973 by Cambridge Street Records, CSR-2CD.

¹¹³ Truax, “Sound, Listening and Place: The aesthetic dilemma,” 195.

practice of 'phonography' indicated in the spectrum, the work of 'virtual soundscapes' tends to be more abstract and aesthetically interpreted by its creators. The notion of 'virtual soundscapes' is intended to evoke the latent dimensions of soundscape perception, which is, as Truax notes, 'the inner world of memory, metaphor and symbolism.'¹¹⁴ In order to create and simulate such imaginary and yet realistic virtual soundscape, Truax employs compositional techniques, such as convolution process and granular synthesis, so to create a sense of space within the composition structure. Also, in order to create a three-dimensional sense of space and volume, a multi-channel system is developed to provide the listener an immersive sonic experience since the early 2000s.¹¹⁵

Returning to the work *2 p.m.*, the audio signals generated from convolution process of the field recordings of the green seem to situate in the right half of the second continuum that Truax postulates. Although these processed sounds seem very abstract and bear no reference to the original materials, they still contain a collection of approximate spectrum contents of the original environmental sounds. The processing approach to the source material is hugely externally dominated (as in Truax's first spectrum), as my aesthetic concern is to be faithful to the given context, in the case of *2 p.m.*, that is the site and the working mechanism of the audio system, rather than only to fulfill my own personal expression and inspiration. With the assistance of 3D AudioScape system and Duran Audio Intellivox DSP controlled beam steering loudspeakers, I am able to create a three-dimensional virtual soundscape to provide the listener an immersive sonic environment. Considering the aforementioned factors, I would suggest that the work *2 p.m.* can be easily considered close to the practice of soundscape composition. However, to make such a claim seems to neglect one important factor that the work *2 p.m.* differs from the operation of soundscape composition - that is the doubling of the real-world environmental sounds and the composition abstracted and derived from the former.

Despite the aim to create a virtual soundscape, the final presentation of soundscape composition is mostly taking place in the purposeful designed venues, such as auditoriums and concert halls, away from the actual locations where the source materials are recorded. The work of soundscape composition has, in many cases, elevated to its own unique entity, even with the initial aim of maintaining the recognisable features of the source materials so to reference

¹¹⁴ *Ibid.*, 195.

¹¹⁵ *Ibid.*, 196.

back to its origins. For instance, when listening to a piece of soundscape composition that depicts the aura of Chalice Well¹¹⁶ in Glastonbury in southwest England, for listener who has never been to the place (myself, for example) it is hard to imagine the context so to compare his/her own aural knowledge and experience to that of the composer. This is when the 'internal dominant' or 'text' that Truax has suggested as not as essential to the listener becomes important when the spectrum is applied to the role of the listener.

In the final presentation of the work *2 p.m.*, the listener is given the opportunity to compare their own aural experience of the green alongside the processed sounds. The listener is, to some extent, composing his/her own piece when negotiating his/her own interpretation and relationship to the work and its environment. How, then, do we approach and interpret sound work like *2 p.m.*, which bears certain characteristics of the practice of soundscape composition yet operates in different structure and context, and still hugely depends on the real-time environments and locations? Moreover, what kind of relationship do the real-world sounds have to their representations when the two are placed alongside each other? What effect does such juxtaposition have on our experience of the work? In seeking to more insights to such questions, I turn my investigation to the practice of Earthworks emerging in the late 1960s, which shares parallel interests with that of soundscape studies and becomes active around the similar time in the history

An Expanded Field

'The field provides both for an expanded but finite set of related positions for a given artist to occupy and explore, and for an organization of work that is not dictated by the conditions of a particular medium.' - Rosalind Krauss¹¹⁷

In her 1979 essay 'Sculpture in the Expanded Field,' Rosalind Krauss addresses the inadequacy of the aesthetics and the terminology that had developed by the modernist sculpture when considering new types of work, which has since moved away from the pedestal and gone on occupying the entire gallery, and

¹¹⁶ I am here referring to the work *Chalice Well*, a piece of 8-channel soundscape composition by Barry Truax in 2009.

¹¹⁷ Rosalind Krauss, "Sculpture in the Expanded Field," 42, in *October* 8 (1979): 30-44. <http://www.jstor.org/stable/778224> Accessed 15th January, 2014.

even, out on the street or in the wild. When viewing this new kind of ‘sculpture’ by artists such as Alice Aycock, Mary Miss, Robert Morris and Robert Smithson etc., Krauss argues that an expanded physical and mental terrain is needed to understand this type of new work. She notes that this kind of new sculpture has ‘entered the full condition of its inverse logic and had become pure negativity: the combination of exclusions.’¹¹⁸ Krauss further describes this condition as entering into a category that ‘resulted from the addition of the not-landscape to the not-architecture.’¹¹⁹

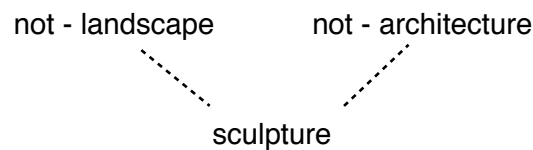


Figure 1.8: Rosalind Krauss’s first binary of the sculpture category.

Krauss proposes to reconsider this new type of ‘sculpture’ work by adopting a technique called the Piaget group,¹²⁰ which expands a set of binaries into a quaternary field that both mirrors the original opposition and extends from it, to expand the field of sculpture practice. Starting from the basic binary of sculpture as ‘not-landscape’ and ‘not-architecture’, Krauss continues to expand the model to quaternary field so that each category within the chart is in the positive relation as well as the negative relation to each other. Within this chart, Krauss further identifies three new sculptural practices along with ‘sculpture’. They are respectively ‘axiomatic structures’, ‘site-construction’ and ‘marked sites.’¹²¹

¹¹⁸ Krauss, “Sculpture in the Expanded Field,” 34.

¹¹⁹ *Ibid.*, 36.

¹²⁰ Derived from the mathematical structure of the Klein group, the Piaget group is developed by the Swiss psychologist Jean Piaget as mapping devices to study children cognition and behaviour. See Krauss, “Sculpture in the Expanded Field,” 37.

¹²¹ *Ibid.*, 41.

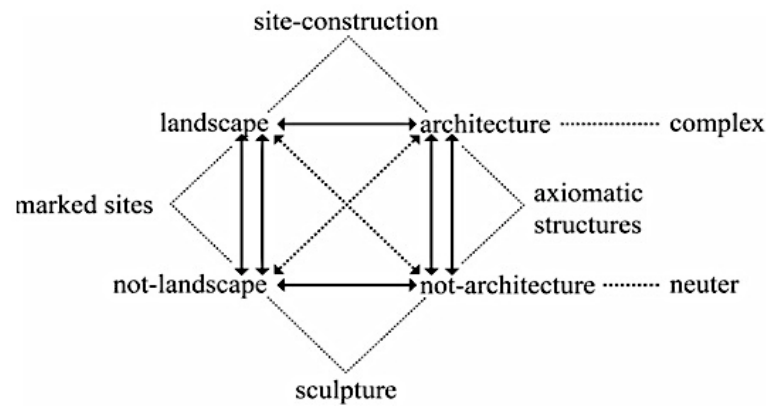


Figure 1.9: Krauss's expanded field of sculpture practice.

These three expanded sculptural practices that Krauss identifies in the diagram indicate the intervention of a work to either landscape or architecture on different levels. In the practice of 'axiomatic structures', there is some kind of intervention into the physical space of architecture via various methods and actions, such as drawing, partial reconstruction, or installation of mirrors. One of the notable contemporary examples of this practice is Doris Salcedo's work *Shibboleth*, created through the artist's physical intervention of 'cracking open' the concrete floor of the Turbine Hall at the Tate Modern in 2007.

The sculptural work that is considered to be in the category of 'site-construction' is a type of work that bears reference both to the notion of architecture and landscape. An exemplary work of this category is Robert Smithson's *Partially Buried Woodshed* (1970). Located within the campus of Kent State University in Ohio, an abandoned shed becomes the building site for the artist Robert Smithson, although the artist's idea of 'construction' is in fact consisting of pouring twenty cartloads of mud into the shed until the central column of the shed collapses. According to Krauss, Smithson erases the reference to the idea of architecture by interjecting the element of landscape into the former. Smithson's act of site-destruction (or de-construction) is considered as a gesture of intervention to both the landscape and the architecture.

The third new category 'marked sites', is used to identify work by artists working mostly in large-scale outdoor environments. One of the most notable works in this practice is Michael Heizer's work, *Double Negative* (1969), which consists of two trenches cut into the eastern edge of Mormon Mesa, Nevada. By removing 240,000 tons of rock, Heizer 'marks' the landscape with two trenches, together measured 1,500 feet long, 30 feet wide and 50 feet deep. Similar to Smithson's

work *Partially Buried Woodshed*, *Double Negative* poses a paradox between the notion of construction and destruction, and that of positive and negative.

Apart from identifying and creating new sculpture practice and new corresponding terminology, Krauss's expanded field also suggests sculpture practice has extended from an object-centred practice to a more spatial-oriented one, as Krauss observes,

‘...the modernist category *sculpture* is suspended. ...as we can see, *sculpture* is no longer the privileged middle term between two things that it isn't. *Sculpture* is rather only one term on the periphery of a field in which there are other, different structured possibilities. And one has thereby gained the “permission” to think those other forms.’¹²²

Such expansion also indicates that sculpture practice in the 1970s has gradually shifted away from the notion of medium-based to that of situation and site-oriented, as Krauss points out, ‘for an organization of work that is not dictated by the conditions of a particular medium.’¹²³

If, to situate the work *2 p.m.* in Krauss's expanded field, it is fair to say that the work is close to the practice of ‘marked sites’. The site, the College Green, is somewhere between the range of landscape and not-landscape. Although the work *2 p.m.* does not physically intervene or manipulate the green, it is in a sense sonically ‘marked’ by the audio signals projected on to the green via the 3D AudioScape system installed on site. Yet, to conclude that *2 p.m.* is sonically ‘marking’ the site seems only satisfactory in regards to its presentation as the work is constantly evolving according to various factors such as the listener's position and playing back at the different hours during the day. To some extent, *2 p.m.* does not only mark the site, but also actively influences the aural perception of the green, in which respect the work is perhaps situated somewhere between Krauss's categories of ‘marked sites’ and ‘site-construction’. Still, even if we could successfully position *2 p.m.* in Krauss's expanded field, it does not, however, provide useful insights to the interplay between the real-time sounds and the processed audio signals. In the work of Smithson's *Partially Buried Woodshed*, the concern of the work is not merely about the woodshed or the mud, rather it

¹²² *Ibid.*, 38.

¹²³ *Ibid.*, 42.

concerns with a process of decline and disintegration, a sense of entropy in slow action that can only be determined by the nature of time. What the viewer can really be partaking in such process is to be the witness of the moment of mud pouring and column collapsing, and perhaps through time-lapse photography to trace the process and the effect of entropy afterwards. I find this aspect of Smithson's work fascinating, and the underlying concerns of his practice seem to provide some insights into the ideas of an on-going process and the interplay between elements within the work. In order to investigate the interplay between the foregoing two sounds in the work of *2 p.m.*, I thus turn to investigate Robert Smithson's practice, particularly the notion of Site and Nonsite.

Robert Smithson's dialectic of Site and Nonsite

'I was sort of interested in the dialogue between the indoor and the outdoor and on my own, after getting involved in it this way, I developed a method or dialectic that involved what I call site and nonsite. ...so I decided that I would set limits in terms of this dialogue (it's a back and forth rhythm that move between indoors and outdoors.)' - Robert Smithson¹²⁴

In 1966, American sculptor Robert Smithson worked as an artist consultant to the architects and engineers firm for the design competition for the Dallas-Forth-Worth Airport. The project required various planning to incorporate elements like a large scale of land, architectural structures and the natural environment. Being involved in the project, Smithson came to realise the possibilities for art works to develop and flourish outside the domain of art institutions. The artist started to take interest in the prospects of exploring and examining the perceptual relationships between different types of boundaries implied by the landscape demarcated by the sky, the earth and the waters, and the perceptual aspects of horizontal and vertical perspectives. These interests became the important structuring and compositional components in his subsequent projects, the Nonsite series.

¹²⁴ Robert Smithson, "Earth" (1969) symposium at White Museum, Cornell University, 'in Jack Flam ed., *Robert Smithson: The Collected Writings* (Berkeley: University of California Press, 1996), 178.

A given Nonsite work consists of a selection of a topographical map or several aerial photographs of a particular site mounted on the wall in the galleries and museums, alongside with the natural materials such as earth, sand, rocks or gravel collected from the site placed in certain shaped containers on the floor. The configuration of the containers is coordinated with the graphic configuration of the map or the photographs. For example, the first Nonsite work, *A Nonsite, Pine Barrens, New Jersey* (1968) comprises of thirty-one trapezoidal containers of varying sizes arranged in the configuration of a hexagon, in which each bin contains sand taken from various locations around the site, and a marked hexagon-shaped topographic map of the site in New Jersey with a paragraph reading as follows,

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Plate 1.10: *A Nonsite, Pine Barrens, New Jersey* by Robert Smithson, 1968. Sculptural component: Aluminum bins, sand, painted wood. Size: 12 × 65½ × 65½ inch; Work on paper (aerial photograph, map): photostat. Size: 12½ × 10½ inch. Collection of the National Gallery of Art, Washington, D.C. Gift of Virginia Dwan. © Estate of Robert Smithson/ Licensed by DACS, London. Courtesy James Cohan Gallery, New York and Shanghai.

A Nonsite (an indoor earthwork)

31 sub-divisions based on a hexagonal “airfield” in the Woodmanise Quadrangle - New Jersey (Topographic) map. Each sub-division of the Nonsite contains sand from the site shown on the map. Tours between the Nonsite and the site are possible. The red dot on the map is the place where the sand was collected.¹²⁵

¹²⁵ See “A Nonsite, Pine Barrens, New Jersey,” in Robert Hobbs ed., *Robert Smithson: Sculpture* (New York: Cornell University Press, 1981), 104.

As demonstrated in *A Nonsite, Pine Barrens, New Jersey*, the sand collected from the Site presents a kind of 'physical, raw reality', while the topographical and typographical elements, the Nonsite, functions as 'an abstract container,'¹²⁶ which accommodates the raw reality. I would propose that the artist's statement raises an interesting paradox as in the position of a viewer when encountering Smithson's Nonsite work in the gallery, the notion of Site becomes an abstract reality, which can only be grasped through the viewing of topographical, typographical and photographic elements; whereas, paradoxically, the notion of Nonsite becomes a constructed reality that is physically presented to the viewer. Gary Shapiro notes this paradox,

"The nonsite is both nonplace (it is not the place from which the material was taken) and a "non-sight", because in seeing it one is not seeing the site/sight to which it refers. We are not there and we are not seeing it; we are reconstructing "the inability to see."¹²⁷

The relationship between Site and Nonsite is hence in a precarious and ambiguous state. The Nonsite indicates an idea of non-place, an implication of non-existence. Even the artist claims that 'Tours between the Nonsite and the site are possible'¹²⁸, the idea of Site remains 'unseeable' behind all the representational elements in the Nonsite.

Smithson's thinking on the relationship between Site and Nonsite comes to its maturity through his most celebrated work *The Spiral Jetty* (1970). Using 6,650 tons of black basalt rocks and earth taken directly from the area, Smithson created a 1,500 feet long and approximately 15 feet wide coil stretching out counter-clockwise from the shore into the red and purple coloured water of the Great Salt Lake in Utah. A public viewing of *The Spiral Jetty* can be troublesome and problematic not only because its remote location but also its visibility as the jetty has been submerged by the water since 1972 and only surfaced again in the early 2000s. As a result, *The Spiral Jetty* is accessed and experienced mostly through its Nonsites, which share the same title, including an essay and a thirty-two minute long 16mm film.

¹²⁶ Smithson, "Earth," *Robert Smithson: The Collected Writings*, 178.

¹²⁷ Gary Shapiro, *Earthwards: Robert Smithson and Art After Babel* (Berkeley: University of California Press, 1995), 72.

¹²⁸ Hobbs, "A Nonsite, Pine Barrens, New Jersey," *Robert Smithson: Sculpture*, 104.

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Plate 1.11: *Spiral Jetty* by Robert Smithson, 1970. Great Salt Lake, Utah. Mud, salt crystals, rocks, water. Size: 1500 feet long and 15 feet wide. Photo credit: Gianfranco Gorgoni. Collection: Dia Center of the Arts, New York. © Estate of Robert Smithson/ Licensed by DACS, London. Courtesy James Cohan Gallery, New York and Shanghai.

The writing style of Smithson's 'The Spiral Jetty' (1972) is a mixture of documentary, commentary, critical reflection, film making and description, geology and even mythology. The writing itself is not simply a collection of linguistic significations but also a constructed work itself. Smithson sees language not only as a collection of signs that convey meanings, but matters that build things: 'I thought of writing more as material to sort of be put together than as a kind of analytic searchlight. I am interested in language as a material entity.'¹²⁹ In this sense, the writing 'The Spiral Jetty' functions as the Nonsite to *The Spiral Jetty*. It is also in this writing that Smithson fully formulates and finalises the notion of the dialectic of Site and Nonsite.

¹²⁹ Smithson in "interview with Robert Smithson for the Archive of American Art/Smithsonian Institute", interview conducted by Paul Cummings (July 14 and 19, 1972). Quoted in Shapiro, *Earthwards: Robert Smithson and Art After Babel*, 212. More discussion on Smithson's materialist view of language see Thesis Chapter Three.

Dialectic of Site and Nonsite¹³⁰

<i>Site</i>	<i>Nonsite</i>
1. Open Limits	Closed Limits
2. A series of Points	An Array of Matter
3. Outer Coordinates	Inner Coordinates
4. Subtraction	Addition
5. Indeterminate Certainty	Determinate Uncertainty
6. Scattered Information	Contained Information
7. Reflection	Mirror
8. Edge	Center
9. Some Place (physical)	No Place (abstract)
10. Many	One

For Smithson, the notion of Nonsite is not a mere synonym for the representation of the Site. There exists a dialectical relationship between Site and Nonsite. They are two sides of a coin and in constant reference to each other. As Smithson describes in his first Nonsite work, *A Nonsite, Pine Barrens, New Jersey*, that 'between the *actual site* in the Pine Barrens and *The Nonsite* itself exist a space of metaphoric significance.'¹³¹ To reach this space of 'metaphoric significance' is through the convergence of the Site and Nonsite, as Smithson further explains,

'The range of convergence between Site and Nonsite consists of a course of hazards, a double path made up of signs, photographs and maps that belong to both sides of the dialectic at once. Both sides are present and absent at the same time. ... Two-dimensional and three-dimensional things trade places with each other in the range of convergence. ...Is this Site a reflection of the Nonsite (mirror)¹³², or is it the other way around?'¹³³

¹³⁰ Smithson, Notes in "The Spiral Jetty (1972)," *Robert Smithson: The Collected Writings*, 152-3.

¹³¹ Smithson, "A Provisional Theory of Non-Sites," *The Collected Writings*, 364.

¹³² For further discussion on the dialectic of Site and Nonsite as Reflection and Mirror see Thesis Chapter Two.

¹³³ Smithson, "The Spiral Jetty (1972)," *The Collected Writings*, 153.

I would suggest that Smithson's dialectic of Site and Nonsite sheds light on certain types of sound art practice with particular concern and interest in the interplay between the recorded and processed sounds and its origins, in which may exist a path of convergence and a space of 'metaphoric significance.' If to consider and analyse the work *2 p.m.* following Smithson's dialectic of Site and Nonsite, the College Green is the Site that is a physical place consisting of the characteristics of Open Limits, Scattered Information, Outer Coordinates, and Indeterminate Certainty; whereas, the processed audio signal that originates from the field recording of the College Green is the Nonsite that creates an abstract space with attributes such as Closed Limits, Contained Information, Inner Coordinates, and Determinate Uncertainty.¹³⁴ The juxtaposition, or rather, the doubling and pairing of the Site and Nonsite in the work *2 p.m.* creates a particular circumstance, in which the convergence of the two takes place.

A Situated Double

'Recorded sound thus always carries some record of the recording process. ...Every sound I hear is this double, marked both by the specific circumstances of recording and by the particularities of the reproduction situation.' - Rick Altman¹³⁵

'That is, the pair form, by virtue of the condition of being double, actively refuses the possibility of being experienced as a thing in itself. The simple state of doubleness includes, as integral, the space or interval between. So twice over, the work insists on a recognition of circumstance.' - Roni Horn¹³⁶

The notion of doubling can be found in the work *2 p.m.* in both aesthetic and structural aspects of the piece. First of all, through the process of convolution,¹³⁷ each field recording of the green is multiplied with its unique IR, which is generated from the prominent frequencies taken from the sonogram analysis of

¹³⁴ See this chapter, 61-62.

¹³⁵ Rick Altman, "Material Heterogeneity of Recorded Sound," in *Sound Theory, Sound Practice*, ed., Rick Altman (New York: Routledge, 1992), 26-27.

¹³⁶ Mimi Thompson, "Roni Horn," n.p.

¹³⁷ See this chapter, 42-43.

its coordinated source recording. In a sense, the processed audio signal is a self-multiplication of the source recording with a fraction of itself, a quotation of itself.¹³⁸

Secondly, the notion of doubling emerges through the juxtaposition of the real-world environment sound and its processed audio signal. The real-time sound becomes the Smithsonian Site, which is paired with its processed audio signal, the Nonsite. The point of convergence between the two sounds creates 'a space of metaphoric significance.'¹³⁹ I would suggest that such space is found in the presence of the listener and in the act of listening, as it only 'exists in very literal relationship to human presence.'¹⁴⁰

Finally, the notion of doubling takes place in the presence of the listener. As Horn expresses, the notion of doubling implies the importance of the human presence. Without the presence of the listener, the doubling that exists within the structure of *2 p.m.* cannot be realised. While in the process of listening to the work, the listener also becomes the maker of the work as the 'mixing' of the real-world sound and the processed audio signal can only occur inside the listener's ears. Each listener is situated in the centre of his/her own aural sphere and all the micro sonic actions and interactions take place around that centre.

Through handling,¹⁴¹ analysing and experiencing the work *2 p.m.*, it becomes apparent to me that there exists a latent connection between Robert Smithson's notion of Site and Nonsite, and Roni Horn's strategy of doubling. In the meanwhile, the recording technique and its conceptual application in Alvin Lucier's *I am sitting in a room* influences my artistic approach to sound as creative medium. The area and territory of interest and subject matter in this practice-led research project is thus mapped and triangulated by the practice and critical thinking of Horn, Smithson, and Lucier.

¹³⁸ See this chapter, 37.

¹³⁹ See this chapter, 62.

¹⁴⁰ See this chapter, 37.

¹⁴¹ See Thesis Introduction, 21-23.

Chapter Two - Hearing One's Own Absence

The Experience of Identical Things

'In *Dead Owl* (1998) an infinity... is created in the presence of three, which is the two images and you who forms a triangle with these identical and different images. And in the act of realizing this, the content of the work is also realized. It is similar to *Piece for Two Rooms* from 1986 where two duplicate objects are placed in separate rooms. Someone experiencing the work experiences the cumulative nature of such a form (which is also a brief history)' - Roni Horn.¹⁴²

The listening experience of the work 2 p.m. brings to mind the viewing experience of Roni Horn's work, particularly in the process of encountering *Things That Happen Again: For Two Rooms* (1986), a pair of identical objects placed in adjacent rooms in the exhibition at the Tate Modern in 2009.

When encountering the first object, it didn't make too much of an impression on me more than a disk at first, then later revealed itself as a truncated cone made in copper lying on its side on the floor. My attention was more drawn to the peculiar drawings on the walls in the same room that apparently had been produced through an elaborate and repetitive process of cutting and re/assembling.

When I proceeded to the next room, the shock came when I saw a very similar copper disk on the floor. Without doubt, it also revealed itself as a truncated cone lying on its side after I stepped sideways to alter my perspective. Are they identical? Could they be really just identical to each other? My mind immediately was filled with the questions regarding the identities of these two objects. Feelings of confusion and excitement were soon taken over by that of frustration as I realised that there was no possible way to compare one cone against the

¹⁴² Horn, "interview with Laurence Bossé," *Events of Relation* (Paris: Musée d'Art Moderne de la Ville de Paris, 1999), quoted in Roni Horn, *Roni Horn aka Roni Horn, vol. 2, Subject Index*, (New York: Whitney Museum of American Art, 2009), 35.

other as the pair had been placed in such a way that there was no convergence point in any given perspective.

The only judgement you can rely on is the memory created by the encounter of the first copper cone, a cone which is absent in the present moment, even though it is simply right on the other side of the wall. The identity of the second copper cone was now ambiguous and dependent on the previous encounter. The beautifully forged copper cone had now disappeared in front of my eye as my attention was directed to its absent double while skimming through my memory of the first one. The presence in the now became absent while the presence in the past vividly occupied the current moment. What is more, the viewing process became a cyclical progression rather a linear sequence through the repeating re/viewing of the two identical objects in the sequential spaces. Through the act of returning to the first object, the second one became anterior to it. The one at present (or absent) always pointed to the other. The presence was here, and also elsewhere.

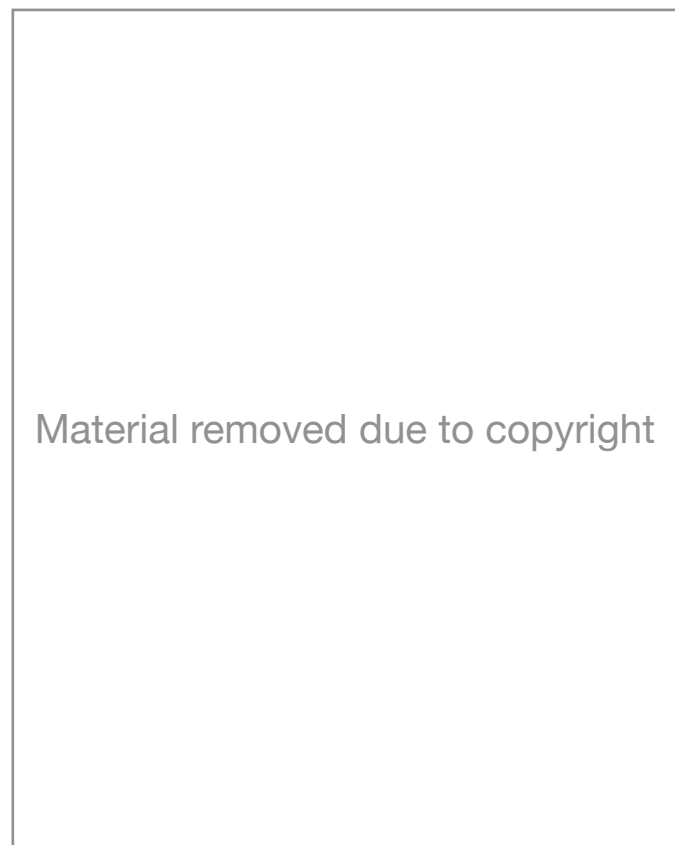


Plate 2.1. *Things that happen again* (1986) by Roni Horn.
Installation view at the Tate Modern, 2009. © Tate, London 2014.

A Doubt Through Double

Horn's aesthetic strategy of doubling opens up a suspended interval in time and space that allows a particular kind of engagement that the artist seeks for her viewer. This interval, in many cases of her work, is literal physical spaces between the two identical or similar objects, which leads to a sequence of cumulative narrative that unfolds in time. With just one single object, it would not have created this opening in her work. Only through presenting one object twice, a circumstance can be forged. 'With two objects that are one object', Horn has noted, 'you have an integral use of the world. You have the necessary inclusion of circumstance.'¹⁴³

In the case of *Things That Happen Again* (1986), the circumstance that Horn creates to position her viewer lies within an idea of doubt. The pair of identical copper objects placed in the neighbouring rooms induce a sense of doubt over time, followed by the initial reaction of 'déjà vu' from the viewer, as Horn explains in an interview,

'Questions gather around moments of doubt - that's how you enter the work. Often nuances and subtle differences that verge on the imperceptible are enough to cast you in doubt, to catch you in a moment of hesitation; this infinitesimal pause is the place where engagement occurs.'¹⁴⁴

The sense of doubt evoked through encountering the identical pairs inevitably echoes with the image of Tweedledum and Tweedledee or with the encounter with one's own Doppelgänger in the garden.¹⁴⁵ Doubt emerges from the uncertainty of the identity of the matching pair. Yet, paradoxically, through doubting the ghostly double image in front of one's eye, the identity of the double

¹⁴³ Mimi Thompson, "Roni Horn," in *Bomb* no. 28 (Summer 1989), no pagination. Accessed 24th October, 2013. <http://bombsite.com/issues/28/articles/1210>

¹⁴⁴ Horn, *Roni Horn aka Roni Horn*, 44.

¹⁴⁵ 'The Magus Zoroaster, my dead child, / Met his own image walking in the garden', in Percy Bysshe Shelley, *Prometheus Unbound*, quoted by J. Hillis Miller, Forward to *The Critical Double: Figurative meaning in aesthetic discourse*, by Paul Gordon, (Alabama: The university of Alabama Press, 1995) xiii.

is in a loop of continuous undermining and re-establishing, and so is the circumstance and the perception for that identity.¹⁴⁶

Rather than kindling a sense of the uncanny, Horn insists on her viewer's engagement with the circumstance oscillated between the separated objects and the experience in relation to each of the pair. This emphasis on the particular viewing circumstance, the viewer's bodily relation to the sculpture and the space seems akin to the aesthetics of Minimalism. Similar to the formal appearance of *Things That Happen Again*, Horn's sculptural objects bear the aesthetic vocabulary of Minimalism - factory-fabricated¹⁴⁷ geometric-shaped objects with seamless and ungluing surfaces that reject any expressions, and the attention to the bodily perception and perspective. What differentiates from Horn's aesthetics concern from that of Minimalism's is, once again, her deployment of doubling.

One of the main aesthetic concern of Minimalism is the non-referentiality of the object that is achieved through the reduced form and the unexpressive content. There is no a priori to the work, and there is no outer reality other than the material and the form of the work. As the painter Frank Stella famously comments on his *Shaped Canvases* (1960-62), 'What you see is what you see'¹⁴⁸. Stella's comment can be used to describe Horn's *Things That Happen Again*, a machined truncated copper cone lying on its side. This simple geometric-shaped object does not point to any thing in the world other than itself, until you encounter its double. The copper object is, then, no longer a thing-in-itself or self-referential, but pointing to its identical half. The moment you encounter the second object, the first one becomes a priori, which is always in the absence. As art critic Jeremy Gilbert-Rolfe aptly observes Horn's work,

'...the absent unit must then be encountered as an absence, something once present, which becomes actively absent only as we consider the part of the sculpture we find ourselves looking at: the absent component is then always brought into focus as something which, from the beginning, is there by being elsewhere.'¹⁴⁹

¹⁴⁶ Miller, Forward to *The Critical Double: Figurative meaning in aesthetic discourse*, xiii.

¹⁴⁷ Horn, '...sculpture...is like Chinese food, I always order out, I don't produce anything in the studio...' "Roni Horn in Conversation," *Tate Channel* video, 1:33:28, 25th February, 2009, <http://www.tate.org.uk/context-comment/video/roni-horn-conversation>

¹⁴⁸ Daniel Marzona, *Minimal Art* (London: Taschen, 2004), 10.

¹⁴⁹ Jeremy Gilbert-Rolfe, *Roni Horn: Pair Objects I, II, III* (Paris: Galerie Lelong, 1988), 9.

Gilbert-Rolfe further identifies two underlying principles in Horn's doubling - simultaneous and anteriority¹⁵⁰ - which reinforces each other in the process of viewing. In this sense, Horn's sculpture becomes a production of process, a process initiated through the viewer moving in-between two identical objects in neighbouring rooms, a process unfolded in-between our 'immediate sensory experience and the cumulative associations of memory.'¹⁵¹

I would consider that the notion of elsewhere induced through Horn's doubling is closely consonant with Smithson's dialectic of Site and Nonsite, in particular his thinking of Site and Nonsite as Mirror and Reflection, and as Edge and Centre.¹⁵² At the same time, I would suggest that Smithson's deployment of mirror in his work plays an important role in further problematising the Site/Nonsite dialectic and heightening the dimension of time in the work.

The Center is Elsewhere

As discussed in the previous chapter, Nonsite, the exhibit in the art gallery, contains raw materials and documentations collected from its Site located in remote landscape. Upon encountering, Nonsite firstly acts as a collection of indexes and signs (sand, rocks, photographs and maps) that points to its Site; however, if we look closer, Nonsite does not only provide physical and representational artifact that refers to Site, but paradoxically also becomes an anteriority to Site as we study through the presented components in the gallery. Site becomes the reflection in the mirror of Nonsite. As Smithson notes in an interview,

'There's this dialectic between the inner and outer, closed and open, central and peripheral. It just goes on, constantly permuting itself into this endless doubling so that you have the nonsite functioning as a mirror and the site functioning as a reflection, so that existence becomes a doubtful thing to

¹⁵⁰ *Ibid.*, 9

¹⁵¹ Linda Norden, "Roni Horn," in *Similia/Dissimilia: Modes of Abstractions in Painting, Sculpture and Photography Today*, ed., Rainer Crone (Düsseldorf: Städt. Kunsthalle, 1987), 122

¹⁵² See Thesis Chapter One, 61-62.

capture, so that you're presented with a nonworld - or what
I called the nonsite.'¹⁵³

This convergence between Site and Nonsite is then caught in an endless loop of feeding back on to itself, which is closely corresponding to the important attributes of simultaneity and anteriority in Horn's doubling. This oscillation between the points of mirror and reflection leads to a sense of displaced centre, which is always here and there at the same time, as Smithson further explains,

'In other words, you're really going from someplace to no place and back to no place to someplace. And then to locate between those two points gives you a position of elsewhere, so that there's no focus. This outer edge and this center constantly subvert each other, cancel each other out, so that you really have no destinations. There's a suspension of destination.'¹⁵⁴

It is interesting to note that Smithson's notion of elsewhere springs from the notion of Subtraction and Addition¹⁵⁵ between Site and Nonsite, while Horn's elsewhere emerges from the perceptual cumulation of a pair of objects. Gilbert-Rolfe observes these strategic differences between the two artists: Horn has taken the notion of Smithson's Site/Nonsite and doubled it up through the emphasis on the notion of 'two' while Smithson's work remains on the perceptual privilege of the 'one' version of the dialectic.¹⁵⁶ This may seem to be true when it comes to Smithson's work, which tends to have many version of Nonsites pointing to one particular site. I would suggest that there is a sense of temporal doubling, particularly when the artist introduces the mirror as a creative medium in his work, which subsequently develops into one of the qualities in the Site/Nonsite dialectic. I would argue that this introduction of the mirror subverts the 'privileged' perceptual one and creates a dialogue of doubling in Smithson's dialectic of Site and Nonsite.

¹⁵³ Patricia Norvell, "An Interview with Robert Smithson," in *Modern Sculpture Reader*, eds., Jon Wood et al. (Leeds: Henry Moore Institute, 2007), 288

¹⁵⁴ Norvell, "An Interview with Robert Smithson," 289.

¹⁵⁵ See Thesis Chapter One, 61-62.

¹⁵⁶ Gilbert-Rolfe, *Roni Horn: Pair Objects I, II, III*, 11

Mirror Displacements

In 1969, Robert Smithson produced a series of nine photographs, *Yucatan Mirror Displacement*, whilst travelling across the Yucatan peninsula, Mexico. A collection of nine to thirteen¹⁵⁷ square mirrors were arranged accordingly on the surface of the site at each location. Smithson photographed the mirror arrangement in colour slides, dismantled the construct, moved to the next location, and then reconfigured a new mirror formation accordingly. The work made its first appearance and distributed as photographs reprinted in the *Artforum* magazine, alongside with an essay titled 'Incidents of Mirror-Travel in the Yucatan,'¹⁵⁸ a piece of writing that is a fusion of documentary-fiction-travelogue written by the artist.

Prior to 'Mirror-Travel' in 1969, Smithson had used mirrors in several pieces of his wall sculptural work, which were concerned with our visual perception and comprehension through the stereoscopic view and the simulated perspective (vanishing point). When the series of Nonsite work starts to emerge in the practice, Smithson turned his attention to photography and cartography, in which both fundamentally present an idea of containing a three-dimensional space within a two-dimensional format. In 1968, Smithson produced a group of six single-photo displacements, *Photo-Markers*, as a further development from the nonsite project *Six Stops on a Section* (1968) that marked six locations stretching from New York to Philadelphia.

In the making process of *Photo-Markers*, six 30-by-30-inch black and white photographs taken at each location were placed back to their original sites respectively, and then were individually rephotographed once again. These black and white photographs were the solidified past moments that had returned to the scene, and once again, 'became part of the ongoing continuum.'¹⁵⁹ In a

¹⁵⁷ In both the article of 'Incidents of Mirror-Travel in the Yucatan' and the interview with P. A. Norvell, Smithson claimed he used twelve mirrors on site, while the images of the final published article showed otherwise. Here, I will use the information of the final published images on account of it being one of the Nonsites as it is meant for. For the article, see Holt 1979, 94-103, Hobbs 1981, 154-160, Flam 1996, 119-133. For the interview, see Flam 1996, 192-195, Lippard 1997, 87-90, Wood et al. 2007, 285-296.

¹⁵⁸ *Artforum*, vol. 8, no. 1 (September 1969), 28-33

¹⁵⁹ Robert A. Sobieszek, *Robert Smithson: photo works*, (Los Angeles : County Museum of Art, 1993), 37

conversation with art critic John Perreault, Smithson explained the significance of these photographs,

‘My Nonsites take the outdoors and bring it inside in containers. This starts a dialectic. These photo-markers do the reverse: I am using the environment to frame something artificial. In the gallery, History frames Time. Here the reverse happens.’¹⁶⁰

As Smithson has noted, the dialogue of framing and being framed through photography runs parallel to that of the container and the contained in the dialectic of Site/Nonsite. In the previous Nonsites work, the notion of containing/contained is presented through raw materials in geometric-shaped containers made of steel, whose shapes coordinates with that of the cartographical components. The introduction of the double photographing does not only connote the idea of containing/contained, but also introduces the dimension of time in the dialectic of Site and Nonsite.

Later in 1968, after *Six Stops on a Section* and *Photo-Markers*, Smithson was set to further develop this strategy of re-photographing the re-placement of the photographs of the Site in *Cayuga Salt Mine Project* (1968-9) as indicated in the original proposal for the exhibition at the Cornell University. The interior of the salt mine was to be photographed, and the developed images were to be placed back to their original sites so to be re-framed and re-photographed again. In the finalised version, Smithson substituted mirrors with the process of photographing and re-photographing, which subsequently opened up to the following other mirror displacements, including ‘Incidents of Mirror-Travel in the Yucatan (1969)’.

¹⁶⁰ Robert Hobbs, in *Robert Smithson: Sculpture* (London: Cornell University Press, 1981), 120.

Material removed due to copyright

Plate 2.2 *Open Mirror Square* by Robert Smithson, 1969. Mirrors, rock salt and fossilised rock. Dimension unknown. Installation view, “Earth Art” at the Andrew Dickson White Museum of Art, Cornell University, Ithaca. Collection of the Tehran Museum of Contemporary Art. © Estate of Robert Smithson/ Licensed by DACS, London. Courtesy James Cohan Gallery, New York and Shanghai.

Different from the previous Nonsites, of which raw materials contained in steel bins, the Nonsite for *Cayuga Salt Mine Project* consists of a series of mirrors propped by piles of salt rocks that Smithson has collected from the Site. This substitution of mirrors for photographs in the work, significantly changed the presentation of Nonsite, and in turn, its dialectical relationship to the Sites. Robert Hobbs observed this signification of mirror,

“The gallery piece (*Cayuga Salt Mine Project*) differed significantly from other Nonsites: here the bin/rock relationship is reversed so that the rock salt serves as “container” for the mirrors. The artist was playing in this piece with differences between appearances and reality: salt appears amorphous but has a regular molecular structure while the glass looks regular but is actually amorphous.”¹⁶¹

The raw material for Nonsite, in this case rock salt, instead of being contained, becomes the container through ‘shoring and supporting’¹⁶² the mirrors in the gallery. On the other hand, paradoxically, salt can also be seen as contained by (in) the mirror for it is being reflected at the same time. In conversation with William

¹⁶¹ Hobbs, *Robert Smithson: Sculpture*, 132

¹⁶² Smithson in conversation with William C. Lipke, *Robert Smithson: Sculpture*, 134

C. Lipke, Smithson noted this destabilised notion of the containment through the deployment of mirror in the piece,

‘I’m using a mirror because the mirror in a sense is both the physical mirror and the reflection: the mirror as a concept and abstraction; then the mirror as a fact within the mirror of the concept. So that’s a departure from the other kind of contained, scattering idea. But still the bi-polar unity between the two places is kept. Here the site/nonsite becomes encompassed by mirror as a concept - mirroring, the mirror being a dialectic.’¹⁶³

Smithson further problematised this blurring notion of containment between the dialectic of Site/Nonsite by taking the mirrors out to the fields and taking a snap shot of the arrangements in ‘Incidents of Mirror-Travel in the Yucatan.’

A Fleeting Moment of Abstraction and Reflection

In the work ‘Incidents of Mirror-Travel in the Yucatan’ (1969), there are several levels of ‘reflection’ or ‘mirroring’ that are closely interconnected to each other. Firstly, Smithson’s journey to the Yucatan peninsula echoes the one of John Lloyd Stephens’ from 1839 to 1842 by loosely following Stephens’ routes in the Yucatan. As a well-known travel writer in the 19th century, Stephens travelled to different countries in different continents and produced a series of travel books shared a collective title as ‘Incidents of Travel in...’¹⁶⁴. Based on Stephens’ expedition to the Yucatan, Smithson names the essay of his own journey to the Yucatan by inserting the word mirror in the title, which serves a double function: reflecting the past (Stephens’ journey) and registering the present (his own journey with mirrors).

Another level of reflection in the ‘Mirror-Travel’ is one on his own previous practice. The borrowing of the word ‘incidents’ from Stephens’ title reflects Smithson’s creative deployment of mirror. In Physics, the phrase ‘ray of incidence’ denotes ‘an incident ray, a ray which falls upon a reflecting or refracting

¹⁶³ Smithson, *Robert Smithson: Sculpture*, 134

¹⁶⁴ Ann Reynolds, *Robert Smithson: Learning from New Jersey and Elsewhere*, (Massachusetts: The MIT Press, 2003), 176.

surface,'¹⁶⁵ which seems to be the most fitting description for his earlier sculptural work that consists of multiple mirrored surfaces. Three pieces of untitled wall sculpture produced from 1963 to 1965 are the result of Smithson's interests in crystallography and visual perception. Each piece simulates crystalline structure fabricated with steel frames with its multifaceted surface covered by coloured mirrors.¹⁶⁶ Set at oblique angles to each other, the mirrored surfaces of the piece reflect not only its surroundings and circumstances, but also its own multi-refracted self. In 1965, Smithson further disrupts the 'incident angle' of light by creating a paired wall piece that reflects nothing but its own reflections.

Material removed due to copyright

Plate 2.3. *Yucatan Mirror Displacements (1-9)*, Robert Smithson, 1969. Nine original 126 format chromogenic-development transparencies. Collection of the Solomon R. Guggenheim Museum, New York. © Estate of Robert Smithson/ Licensed by DACS, London. Courtesy James Cohan Gallery, New York and Shanghai.

¹⁶⁵ *Oxford English Dictionary Online*, s.v. "Incidence". Accessed 3rd January, 2014, <http://0-www.oed.com.catalogue.urls.lon.ac.uk/view/Entry/93461?redirectedFrom=incidence#eid>

¹⁶⁶ Sculpture with mirrored or reflective surface is a rather popular idea in the mid-sixties, especially in the practice of Minimalism. Artists who also use mirror in their work around the same time as Smithson are Donald Judd, Robert Morris, Robert Rauschenberg, etc.

Enantiomorphic Chambers (1965)¹⁶⁷ consists of two steel chambers each holding mirrors at oblique angles. When standing in front of the paired chambers, the viewer sees nothing but only the 'reflections of reflections' because 'the mirrors only reflect mirror images, vision becomes dispersed.'¹⁶⁸ In the prose 'Pointless Vanishing Point (1967),' Smithson explains that *Enantiomorphic Chambers* is a result of his 'first physiological awareness of perspective' and his intention to explore and to question this physiological 'fact' of our vision. He has noted,

"The two separate "pictures" that are usually placed in a stereoscope have been replaced by two separate mirrors in my *Enantiomorphic Chambers* - thus excluding any fused image. This negates any central vanishing point, and takes one physically to the other side of the double mirrors. It is as though one were being imprisoned by the actual structure of two alien eyes. It is an illusion without an illusion.'¹⁶⁹

Smithson's three untitled mirror-surfaced wall sculpture and *Enantiomorphic Chambers* question the long-established tradition of perspective through breaking down the function of mirror, 'whose outside (its reflecting properties) has become interchangeable with its inside (its meaning or essence).'¹⁷⁰ This breakdown lends his works in a kind of 'suspended condition' as Smithson mediates through Donald Judd's work in 1965,

"It is impossible to tell what is hanging from what or what is supporting what. Ups are downs and downs are ups. An uncanny materiality inherent in the surface engulfs the basic structure. Both surface and structure exist simultaneously in a suspended condition. What is outside vanishes to meet the inside, while what is inside vanishes to meet the outside.'¹⁷¹

¹⁶⁷ 'The term "enantiomorph" refers to either of a pair of crystalline chemical compounds whose molecular structures have a mirror-image relationship to each other', in Hobbs *Sculpture*, 59-60

¹⁶⁸ *Ibid.*, 60.

¹⁶⁹ Smithson, "Pointless Vanishing Points (1967)," in *Robert Smithson: The Collected Writings*, ed., Jack Flam, (California: University of California Press, 1996), 359.

¹⁷⁰ Gary Shapiro "Uncanny Materiality: Decentering Art and Vision," in *Earthwards: Robert Smithson and Art after Babel*, (Berkeley: University of California Press, 1995), 62

¹⁷¹ Smithson, "Donald Judd," *Robert Smithson: The Collected Writings*, 6.

I think that it is exactly this breakdown between the function and the meaning of mirror that informs the third level of reflection (or rather non-reflection), which teases out a further breakdown of the container and the contained, and also a particular concern with the notion of time, in the work of 'Mirror-Travel.'

As aforementioned, the placement of mirror and rock salt in the Nonsite of *Cayuga Salt Mine Project* (1968-9) indicates the collapse between the identity of the container and the contained. In the 'Mirror-Travel,' such placement is continued out on to the landscape in the Yucatan. The individual formation for the nine mirror displacements, are varied according to the contour of the locations. As described in the essay of 'Mirror-Travel,' Smithson explains,

'(the first mirror displacement)...twelve mirrors were cantilevered into low mounds of red soil. ...and supported from above and below by the scorched earth alone. The distribution of the squares (mirrors) followed the irregular contours on the ground. ...Bit of earth spilled onto the surfaces, thus sabotaging the perfect reflections of the sky. Dirt hung in the sultry sky. Bits of blazing cloud mixed with the ashy mass. The displacement was in the ground, not on it.'¹⁷²

The ground becomes the container for the mirrors while the mirrors contain the reflection of the sky, and a small part of the ground. The double containing does not stop there. To further destabilise the distinction of the containment, Smithson 'entombs'¹⁷³ the mirror displacements with his instamatic camera. The photographs of the displacements become 'reflections of reflections.'¹⁷⁴ This notion of double reflection is again incidental to his previous mirror-surfaced sculpture as Smithson noted in the center of the sketch for the piece, 'double vanishing point exists as a solid reversal for traditional illusionistic perspective. Infinity without space.'¹⁷⁵ Double vanishing point confuses the perception of space, which in turn collapses into a two-dimensional rectangular frame.

If the sense of space has collapsed, then what about time?

¹⁷² Smithson, "Incidents of Mirror Travel in the Yucatan," *The Collected Writings*, 120-121.

¹⁷³ Smithson, 'That camera is a portable tomb..', *The Collected Writings*, 121.

¹⁷⁴ Hobbs, *Sculpture*, 60.

¹⁷⁵ Hobbs, *Sculpture*, 58. For illustration, see Eugenie Tsai, *Robert Smithson Unearthed: Drawings, Collages, Writings* (New York: Columbia University Press, 1991), 152

In the short essay for his 1964 work, *The Eliminator*, the first sculptural piece that incorporates mirror, Smithson describes the surface of mirror provides no visual fixation point for the viewer and hence it challenges the idea of the perceptual reality through vision. Consisting of encased mirror and red neon lights, *The Eliminator* questions the idea of reality and actuality through visual perception as Smithson notes, 'Light, mirror reflection, and shadow fabricate the perceptual intake of the eyes. Unreality becomes actual and solid.'¹⁷⁶ The unseeable becomes the foreground of the perception and the foundation of the new reality, which also lies in the ungraspable lacuna of time, as Smithson further states,

'The intervals between flashes of neon are "void intervals" or what what George Kubler calls, "the rupture between past and future". The Eliminator orders negative time as it avoids historical space.'¹⁷⁷

Smithson's thinking on time is clearly influenced by the writing of the Mesoamericanist and architectural historian George Kubler, especially his influential book *The Shape of Time: Remarks on the History of Things*, first published in 1962. The artist's thinking on reality that lies in-between the 'void intervals' of the neon flashes relies on the following passage in Kubler's discussion on the notion of actuality,

'Actuality is when the lighthouse is dark between flashes: it is the instant between the ticks of the watch: it is a void interval slipping forever through time: the rupture between past and future: the gap at the poles of the revolving magnetic field, infinitesimally small but ultimately real. It is the interchronic pause when nothing is happening. It is the void between events.'¹⁷⁸

Before going deeper into the discussion of Kubler's influence on Smithson's thinking on time, it may be beneficial to firstly have a quick overview of Kubler's notion of time promoted in the book *The Shape of Time*.

¹⁷⁶ Smithson, "The Eliminator," *The Collected Writings*, 327

¹⁷⁷ *Ibid.*, 327

¹⁷⁸ George Kubler, *The Shape of Time: Remarks on the History of Things* (New Haven: Yale University Press, 1962), 17

The Shape of Time

In *The Shape of Time*, instead of looking at art history as a linear organic development of style, Kubler promotes an alternative approach of treating art work including all the man-made objects made from desires and needs as a sort of action or solution in response to the continuum of problems that occur across time. Hence, every important artwork can be seen as a kind of solution to some problem in the history. One problem may have a several solutions so that there may have a series of related artifacts or individual ones to the same problem. Central to this thinking is the notion of form-class, which is presented by a series of artifacts that may act as different versions in relation to the same problem or actions. Kubler formulates the form-class as a prime object, and its subsequent incarnations as replication. Borrowing the vocabulary and the thinking of mathematics, the idea of a prime object is akin to that of the prime numbers of mathematics, which is an original entity, and can only be divided by themselves and unity. On the contrary, replication or replica-mass is one of reproductions, reductions, copies, transfers, variations and derivations of its prime object.¹⁷⁹ These two sequences of form-classes form a chain of linked solutions, with time acting as the chain that threads these classes. Kubler explains,

‘The history of art in this sense resembles a broken but much-repaired chain made of string and wire to connect the occasional jeweled links surviving as physical evidences of the invisible original sequence of prime objects.’¹⁸⁰

There are two types of linked solutions - open sequence and closed series.¹⁸¹ When a problem emerges at a particular moment in the history, it makes its ‘entrance’ into the chain of linked solutions, which may be a closed series or an open sequence from the previous historical circumstance. If the problem is resolved, then this chain of linked solutions will become a closed series. If not, then the chain becomes an open sequence that will require a longer time or even (re)activates other chains of linked solutions for the current problems.

¹⁷⁹ Kubler, *The Shape of Time*, 39-40.

¹⁸⁰ *Ibid.*, 40.

¹⁸¹ Kubler explains the differences between the term ‘series’ and ‘sequence’ via the mathematical language, in which ‘a series is the indicated sum of a set of terms, but a sequence is any ordered set of quantities like the positive integers. A series therefore implies a closed grouping and a sequence suggests an open-ended, expanding class’. *The Shape of Time*, 33-34

In Kubler's sense of history, art objects and 'things' exist as chains of solutions to revolving problems that occur in the different historical moments. The notion of time becomes both progressive and regressive at the same time. When a 'problem' occurs, we look back to the established sequences to look for already existing solutions or to update them to fit the present circumstance. Time, instead of being an absolute unbroken continuum, thus shall be understood and studies as multiple sequences and series in different durations and envelops that are simultaneously moving forward.

Kubler's *The Shape of Time* has apparent influence on Smithson's writing. In his 1966 article 'Quasi-Infinities and the Waning of Space,'¹⁸² Smithson discusses Kubler's rejection of biological view of art history through sculpture of Alberto Giacometti and Ruth Vollmer to Eva Hesse and Lucas Samaras. A year later, in 'Ultramoderne,'¹⁸³ Smithson incorporates Kubler's thoughts on 'prime objects' and 'replication' in the discussion on the art of the 1930s' ultraist/modernist architecture in New York. Moreover, in 'The Artist as Site-Seer; or, a Dintorphic essay (1966-67),'¹⁸⁴ Smithson reconsiders Kubler's distinction of 'prime objects' and 'replication' via the discussion on the comparison between Robert Morris's circular earthworks and Stonehenge, and between Sol LeWitt's modular sculpture and Alexander Graham Bell's lattice structure.¹⁸⁵

What I find most relevant to my interest here is the way Smithson takes on Kubler's notion of prime objects and replication in the discussion of the practice of his contemporaries. As previously mentioned, Smithson reviews and alters Kubler's distinction between prime objects and replication in his previously unpublished essay 'The Artist as Site-Seer; or, a Dintorphic essay'. By suggesting that there is a sense of a "equality" between the "prime" and the "replication" ¹⁸⁶, Smithson levels the values of prime objects and replication and their roles in the historical development. Smithson does not explain or elaborate further on this idea of equality between Kubler's form-classes, instead, he continues the

¹⁸² *Arts Magazine*, November 1966, reprinted in *The Collected Writings*, 34-37

¹⁸³ *Arts Magazine*, September-October 1967, reprinted in *The Collected Writings*, 62-64

¹⁸⁴ Previously unpublished writings, printed in *The Collected Writings*, 340-345

¹⁸⁵ Reynolds, *Robert Smithson: Learning from New Jersey and Elsewhere*, 146

¹⁸⁶ Smithson, "The Artist as Site-Seer; or, a Dintorphic essay," *The Collected Writings*, 340

discussion on to the comparison between Stonehenge and the work of Robert Morris inspired by the trilithon formation.¹⁸⁷ Smithson writes,

‘Very few primes survive, so it seems only logical for Morris to want to build the edge-ring of one of the world’s most completely manifest prime objects - Stonehenge. One manifestation of Morris’s art is a tendency to confined amorphousness’.¹⁸⁸

Is Morris’s work a replica belonging to the replica-mass? Or is it a new prime object making its entrance to the formal sequence in the history? Smithson does not clarify it either. Perhaps Smithson is exploring the idea of Morris’s interest in recreating or replicating the edge-ring of Stonehenge rather than the actual trilithon structure as a ‘mutation’ of a prime object rather than mere replication. In a sense, Morris’s artistic tendency to a kind of ‘confined amorphousness’ can be seen as to take on Kubler’s idea of a ‘prime trait’¹⁸⁹ - a minute fragment or portion of the prime object - and to render this less noticed aspect to branch to a new formal sequence.

This downplay of the distinction between the notion of prime objects and replication can be found once again in Smithson’s ‘Ultramoderne’ when the artist explores the combination of ultraism and modernism via the architecture in New York in the 1930s. Under the influences of modernist and ultraist within the boundaries of the 1930s, Smithson notes that the sense of time has multi-faceted segments, ‘premonitions, labyrinths, cycles, and repetitions that lead us to a concrete idea of the infinite.’¹⁹⁰ Smithson considers that it is incidental to such atmosphere then that the mirror has become one of the more widely used materials of the 1930s. Mirror promotes an idea of infinite multiplications of time and imagery. It contains everything, and yet nothing at the same time. Mirror becomes the prime object in the formal sequence of the era. Smithson writes,

‘A prime could be a mirror while a replica could be a reflection. The “shape of time”, when it comes to the

¹⁸⁷ Robert Morris ‘Model for Project in Earth and Sod’ (1966), see Lucy Lippard, *Six Years: The Dematerialization of the Art Object from 1966 to 1972*, (California: University of California Press, 1973), 12

¹⁸⁸ Smithson, *The Collected Writings*, 341

¹⁸⁹ Kubler, *The Shape of Time*, 40.

¹⁹⁰ Smithson, “Ultramodern,” *The Collected Writings*, 63

Ultramoderne, is circular and unending - a circle of circles that is made of "linear incalculables" and "interior distances".¹⁹¹

The sense of time is both progressive (linear) and regressive (circular) at the same time. The mirror and the reflection exist simultaneously and heavily dependent on each other in an unending loop of feeding back onto itself. The boundaries of the two become blur, and time oscillates in this circumscribed intervals.

I think Smithson's downplay of the distinction between Kubler's prime object and replication, is significant in terms of the later development of his dialectic of Site/Nonsite. As aforementioned, Nonsite is assumed to be the replication of its Site. To know the replication (Nonsite) is to know its prime (Site) as there are traits and fragments in the replication that point to the prime. Replication, in this sense, is no less important than its prime for it bears resemblance and connection to its prime that otherwise remains unknown to us. Yet, the introduction of mirror unsettles the logic of this seemingly well-balanced dialectic between Site and Nonsite. In the Nonsite of *Cayuga Salt Mine Project* (1968-69), the identity of mirror becomes ambiguous as it is both the container and the contained at once. In 'The Mirror-Travel in The Yucatan (1969)', the role of mirror in further problematised. Mirror (Nonsite) is physically 'contained' by the Site; however, at the same time, the reflection (Site) becomes the replication of its prime (Mirror/Nonsite).¹⁹²

This subversion of Site/Nonsite through playing on the idea of mirror and reflection and the idea of prime object and replication seems analogue to Horn's strategy of doubling a pair of identical objects. If we look at Horn's *Things That Happen Again* (1986) through Kubler's and Smithson's thinking, we find ourselves in a sticky situation if we are to identify the identity of prime object/replication and Mirror/Reflection¹⁹³ in her objects. The sense of time evoked in Horn's work is also akin to that of progression and regression, that of cumulation and reflection.

¹⁹¹ *Ibid.*, 65.

¹⁹² See Thesis Chapter One, 61-62.

¹⁹³ See Thesis Chapter One, 61-62.

What I find fascinating in both Smithson's and Horn's work is that they both evoke a kind of 'interval', which is found in-between the presence and the absence, and in-between progression and regression in their work. While Horn's sense of interval is created through doubling the number of her objects whose perception is interrupted via physical distance, Smithson's sense of interval is fabricated through an amorphous relation between Site and Nonsite by his usage of mirror in both physical and conceptual manners.

These two aesthetic approaches and thinkings lead me to contemplate about sound as a medium. In both Smithson's and Horn's work, there are physical objects to draw a kind of circumstance to place the viewer amidst, and even more, to engage the viewer in a particular manner (a sense of doubt). Is it possible to apply Smithson's and Horn's aesthetic approaches to sound? If so, how to create this 'interval' in question via the medium of sound? To seek for the feasible approach to sound, I turn to, once again, Alvin Lucier's *I am sitting in a room* (1969) for the further investigation.

I Am (Not) Sitting in a Room

As mentioned in the previous chapter, Alvin Lucier's 1969 work, *I am sitting in a room*, develops from an elaborate process of recording, playback and re-recording. In the beginning of the work, presented as a piece of stereo recording, Lucier announces his intention and the making process for the work by stating 'I am sitting in a room different from the one you are in now...'¹⁹⁴ At this instance, arguably listening to a piece of recording, we can, perhaps, believe that the composer was sitting in a room and speaking to the microphone, softly but clearly. It is not until the second generation when Lucier is removed from the room and replaced by the recording of his own voice playing out from a tape recorder. Then, even we are still hearing the voice stating 'I am sitting in a room...' with the filtration of the room acoustics, paradoxically, 'Lucier' may not be in the room any longer.

What is interesting to me about this particular process of *I am sitting in a room* is that it echoes the idea of progression and regression in both conceptual and practical aspects, in both which the recording technology plays an imperative

¹⁹⁴ Alvin Lucier, "I Am Sitting in a Room," in *Chambers: Scores by Alvin Lucier*, (New York: Columbia University Press, 1980), 31

role. Firstly, in the practical aspect, to make the work *I am sitting in a room* happen, it is necessary to rely on the recording technology at hand. In this particular case, it is the reel-to-reel tape recorder. Lucier has once noted in an interview that he is not particular enthusiastic about the idea of composing music with recorded materials as he considers performing live as a more inspiring and interesting experience. Recounting the creating process of *Music for solo performer* (1965), the composer comments:

‘...most of my colleagues at Brandeis said, “Oh, that’s a wonderful idea. You ought to tape record it, speed the sounds of the brain waves up, slow them down, reverberate them, filter them”; they all wanted me to make a conventional tape piece with this idea. To realize that the electronics comes from your brain, from inside every person, that every person has a little electronic studio inside his or her brain, then ask you to make a classical tape collage piece that’s cut and spliced just...well, they all urged me to do that.’¹⁹⁵

However, the composer does acknowledge that essential role that tape recording played in the making of *I am sitting in a room*.

‘Now in “I am sitting in a room”, I didn’t choose to use tape, I had to, because in order to recycle sounds into a space, I had to have them accessible in some form. Tape, then, wasn’t a medium in which to compose sounds, it was a conveyor, a means to record them and play them back one after another in chronological order. Without tape I wouldn’t have been able to do the piece.’¹⁹⁶

Despite of his unfavorable view on the role of tape recording as a creative medium, it is undeniable that the technology at hand, a microphone and two reel-to-reel tape recorders, provides the structural possibility for Lucier to create *I am sitting in a room*. The technology of recording provides the way to capture and recycle the sound in the real-time manner. The transient becomes a solid presence, even when the ‘source’ of the sound is no longer at present. Moreover,

¹⁹⁵ Lucier, *Chambers: Scores by Alvin Lucier*, 71.

¹⁹⁶ *Ibid.*, 33.

the recorded past renews the presence through each generation of layering, in which the past becomes the foundation of the present.

The practical approach of *I am sitting in a room* can be considered close to a kind of electroacoustic feedback system. Derived from electronic feedback,¹⁹⁷ electroacoustic feedback consists of both electronic and acoustic components, as the artist David Lee Meyer elaborates, ‘...the sound coming from the amplification finds its way back into the microphones... The component elements are electronic and acoustic, the latter involving air movement and vibration of physical objects.’¹⁹⁸

Different from electronic feedback that occurs solely within the circuitry of electronic equipment, electroacoustic feedback occurs in the interaction between the electronic components such as microphones and loudspeakers, and the enclosed acoustic space.¹⁹⁹ In *I am sitting in a room*, Lucier uses his own voice as the initial input to excite the air molecular movement in the room. The resonant frequencies of the room are gradually crystallised through interaction between the colouration of the acoustic space and the filtration of the microphone-recorder-loudspeaker system. This making process evokes a sense of time that is circular and unending as Meyer aptly describes, ‘The phenomenon is perfectly represented by the image of the “Ourobouros”, a circular antiquity, portraying a snake swallowing its own tail.’²⁰⁰

This image of ‘Ourobouros’, a tail-devouring snake or dragon, symbolises an idea of infinite returning, a sense of time that is in a constant renewing onto itself, which is interestingly incidental to the sense of time that is both progressive and regressive at the same time. As a listener to the work, it is loud and clear that each generation is created through the doubling of the past on top of the present. The sound of the disintegrated voice is both the container and the contained at the same time. The fluctuating tone, as well as time, is continuously rolling on and transforming while continuously retracing back to its previous form.

¹⁹⁷ A piece of live performance *Parallel Correlation* is inspired by the notion of electronic feedback. More see Appendix 1.

¹⁹⁸ David Lee Meyer, “A Personal Journey Through the Ourobouros,” in *Resonance*, vol. 9 no. 2 (2002), 12

¹⁹⁹ Notable examples that utilises the system of electroacoustic feedback are Steve Reich’s *Pendulum Music* (1968), Nicolas Collins’ *Pea Soup* (1974-76), Alvin Lucier’s *Small Waves* (1997)

²⁰⁰ Meyer, “A Personal Journey Through the Ourobouros”, 12

Lucier's *I am sitting in a room*, however, does not evoke the sense of interval that I find interested in Smithson's and Horn's work. Although it is created through an electroacoustic feedback process of sorts invoking a sense of circular time, the engagement for the listener of *I am sitting in a room* is still one of a [linear and](#) passive listening. The process of the tonal transformation is presented chronologically that delimits the way the listener accesses the work. There is no sense of 'interval' in question, with its suspension in time and space being through a kind of active engagement of the listener.

Upon reading the score of *I am sitting in a room*, I notice it ends with the sentence: 'Make versions that can be performed in real time,'²⁰¹ which inspires me to deploy Lucier's setup (microphone, recording device, loudspeaker and acoustic space) to explore the possibility of permitting an active engagement for the listener, and in turn, to seek for the interval in question that may occur amidst this active engagement of the listener.

Folding (2009/2010)

During the making of the work of *2 p.m.* in 2009, I received an invitation to partake in a small exhibition with a particular focus on the medium of sound. Reflecting upon the work of *2 p.m.*, I was interested in exploring several aspects that I had learnt from the making of the work and my own listening experience of it. Firstly, I wanted to continue exploring the notion of doubling through the dimension of time, particularly a sense of a circular time that I have experienced through Horn's doubling strategy. Secondly, I was interested in exploring the idea of a self-contained system that records and responds to the happenings in the environments around it. And lastly, I wanted to explore the possibility of using no pre-determined sound in the work.

Firstly, as its title indicates, one of the underlying concerns of *2 p.m.* is about the specificity of time in a day. Although the work can be seen containing the information of the sonic characteristics of the site, the most ideal presentation for *2 p.m.* is to be played back to the site between 1 p.m. to 2 p.m. for that is the time when the source material is originally recorded. Being part of a larger pre-programmed and looped presentation, a set playback time for *2 p.m.* is not possible. Even if the specific playback time can be arranged, the period of the

²⁰¹ Alvin Lucier, 'I Am Sitting in a Room', *Chambers: Scores by Alvin Lucier*, 30

juxtaposition for the real-time sound and the work is limited to the length of the work (15 minutes). Considering the limitations imposed by the formation of the presentation for 2 p.m., I want to create a system that does not only respond to the sonic events, but also to the passing of time in the chosen space.

The considerations of responding to both the listener's movement and the time passing lead to the making of *Folding* (2009/10). Rather than a piece of work with definite content and duration, *Folding* is more a system that provides a framework that can run indefinitely.

The basic structure of *Folding* is not particularly technically complicated. The system is based on the primary principle of quadraphonic formation, which means four discrete audio channels fed to four loudspeakers. The sound played into the space by the system is from the unedited real-time recording of the sound events in the space. There are four different recording time brackets following the ratio of 2 to 1, with the longest duration of 90 seconds to 180 seconds to the shortest one of 1 second to 22.5 seconds.

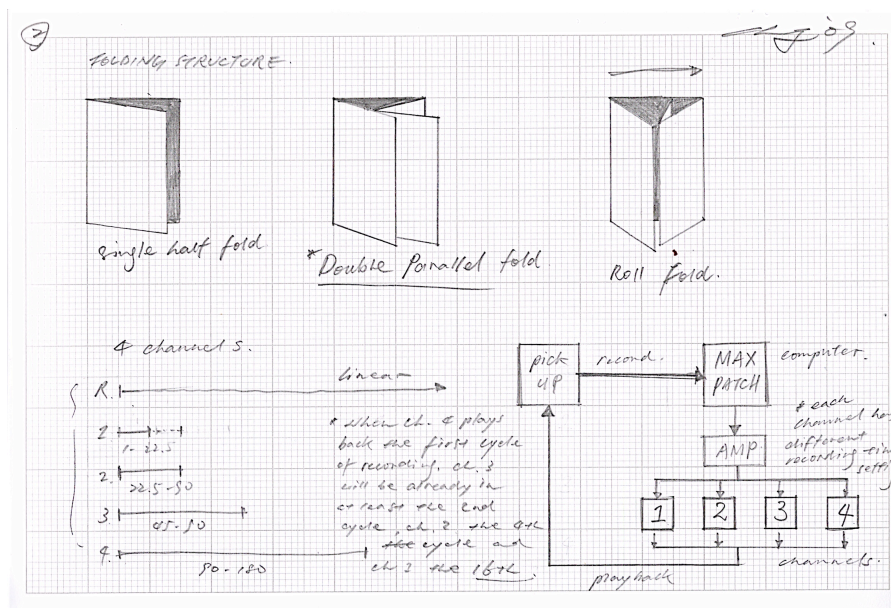


Figure 2.4. Sketch for the conception of *Folding* (2009).

The actual recording time within each time bracket is randomised. That is to say, the recording time could be any length between 1 second to 22.5 seconds in the 1-22.5 second time bracket, and the same applied to other time brackets. The four channels are recording and playing back following their respective cycles. The channel with the time bracket of 90-180 seconds is likely to capture different generations of playback from the other three channels with the real-time sound

as the backdrop. With such a mechanism, the repetition of the recorded sound events becomes less predictable as there are four different cycles of 'time-folding' in operation simultaneously.

As *Folding* utilises a principle of re-injection of the audio signal to create sonic loops in the space, the gradual building of specific frequencies that will eventually lead to signal overload and distortion is anticipated. To decrease over-intensified signal and distortion, the volume of the playback is reduced each time according to the particularities of the space, which also contributes to the unpredictability of the repeated sound events.

The Installation at University of Debrecen 2009

The first version of *Folding* is installed in the main building of the University of Debrecen in 2009. Considering its significance of being the oldest higher education establishment in Hungary since the 16th century, I feel that it seems an appropriate place to explore the idea of the passing of time in the form of sound.

The main building of the university, completed in 1932, is majestic architecture in neo-baroque style, its interior mostly clad in marble with a glass-domed roof over the central atrium. The space assigned to the exhibition shared by all the participating artists is located on the top floor of the building. With an atrium in the centre of the architecture, all the sound occurrences are in a constant flux of interaction and interference. There are lots of limitations in terms of installing the work in such historical building. With it not being possible to affix the speaker cones and the audio cables on the wall. It was also not possible to conceal the cones and the microphone around the interior. As a result, I decide to place the speaker cones on the floor according to the squared ebony marble pattern. The omnidirectional microphone is set on the stand in the centre of the square and pointing upwards.

Seen from the distance, the dark-coloured speaker cones become concealed and integrated into the floor pattern. With the almost-invisible speaker cones on the floor, the pointing-upwards microphone gives a strange appearance as it does not seem to indicate any public announcement or performance.

During the first few hours of public viewing, the speaker cones were accidentally kicked around a lot due to their invisibility. To prevent the cones from being

damaged, the curator put three long benches following the square formation of the work in hope of drawing out a physical parameter for the work so as to draw the attention to the work. The placement of the benches dramatically changes the presentation of the work for it visually centralises the position of the microphone. People start to sit down on the bench, spend time comprehending the situation, and interact with the system.

No Time Like the Present

‘...a section of time was spinning round in a circle, with myself in the centre’ - ‘Escapement,’ J. G. Ballard.²⁰²

‘...I was in the room, or rather I was not yet in the room since she was not aware of my presence. ... Of myself - thanks to the privilege which does not last but which gives one, during the brief moment of return, the faculty of being suddenly the spectator of one’s own absence...’ - *In Search of Lost Time*, Marcel Proust.²⁰³

Folding reflects my interest and thinking on Smithson’s and Horn’s work through Lucier’s creating process of *I am sitting in a room*. The work *Folding* is configured to actively respond to the sonic events of its surroundings. The installation at University of Debrecen works in the manner that I have envisaged. The work itself is the container and the contained simultaneously. It records the sonic events in its surroundings, and at the same time, the subsequent structure and content of the work is influenced and altered by these events that it has recorded previously. The present moment is constructed through the re-digestion of the past. If I may boldly suggest, the time renews and becomes its own prime object each time around.

The sense of time in *Folding* is an overlapping of ‘a portion of arrested happening’ and ‘an emanation of past time.’²⁰⁴ It occurs to me that the kind of time that

²⁰² J. G. Ballard, “Escapement,” in *The Complete Short Stories of J. G. Ballard: volume 1*, (London: Harper perennial, 2012), 24

²⁰³ Marcel Proust, *In Search of Lost Time*, vol. 3, trans., C.K. Scott Moncrieff and T. Kilmartin, (London: Everyman, 2001), 425

²⁰⁴ Kubler, *The Shape of Time*, 19

Folding has compiled is akin to George Kubler's thinking of history as a sort of signals. Kubler compares history with astronomical bodies. The events in history 'occur long before they appear'²⁰⁵ like the light from the stars which finally reaches us long after the initial emission. The moment we recognise as 'now' is a then-emitted signal relayed to us. The 'now' is at the same time 'there and then'. As Kubler surmises "The perception of a signal happens "now", but its impulse and its transmission happened "then."²⁰⁶

This thinking of time as a sort of replayed signal calls to mind my own experience of encountering a piece of sound installation that explores the notion of time through the propagation of sound. The work is Bill Fontana's *Speeds of Time* exhibited at the Tate Britain in 2008.

Sounds of Real Time

'lasting
Sounds leaving from
different places and forming
Sounding
a sculpture which lasts'
-Marcel Duchamp.²⁰⁷

Fontana's *Speeds of Time* (2008) is a re-conceptualisation of a multi-channel composition that shares the same title. *Speeds of Time* (2004) is an eight-channel, twelve hour cycle sound work compiled and composed from the recordings of the chimes of Big Ben and the sounds of the mechanism of the clock tower. Through mixing multiple tracks of different sounds that are captured by the accelerometers and microphones mounted on the clock tower, Fontana recreates a spatial-acoustic portrait of the tower, firstly exhibited at the Palace of Westminster and later at the Haunch of Venison gallery. The work is created with

²⁰⁵ Kubler, *The Shape of Time*, 19. Original emphasis.

²⁰⁶ Kubler, *The Shape of Time*, 17.

²⁰⁷ Marcel Duchamp, "The Bride Stripped Bare by Her Bachelors Even: A Typographic Version of the Green Box," trans., Richard Hamilton (New York: Jaap Rietman, 1976). Quoted in Bill Fontana, "The Relocation of Ambient Sound: Urban Sound Sculpture," accessed 5th November, 2013, <http://resoundings.org/Pages/Urban%20Sound%20Sculpture.html>

the aim to be accurate to real time, thus, the exhibition of the work runs simultaneously with the real-time sound from ten o'clock in the morning for twelve hours to ten o'clock in the evening on 18th March 2004.

The newer version of *Speeds of Time* (2008) focuses particularly on the chimes of Big Ben and takes an approach of real-time transmission rather than pre-recorded composition. For capturing the chimes and their propagations, a network of microphones is set up using the clock tower as the central point and spreading to the surrounding areas in Millbank, such as the Treasury building and the Horse Guards Parade in the east, and Westminster Abbey and the Arts Council of England in the west. The multiple audio signals captured are relayed to and mixed at BBC Millbank, and then transmitted to the speakers installed at the Millbank entrance at the Tate Britain. The real-time sound transmission is not only limited to the domain of the gallery, but also is streamed live on the BBC website and broadcast on BBC Radio 4 on occasion.

Encountering Time within Time

Without any prior knowledge of the operational details of the work, I travelled to London to see the work in 2008. Unfamiliar to the network of the Underground connection, I decided to take the tube to Westminster station²⁰⁸ and then walked to the Tate Britain along the A3212. I came out from the Bridge street exit and saw the clock tower. The time happened to be 1 o'clock in the afternoon so I just caught the chime. I started to walk down the busy A3212 away from the clock tower. Not before long, I regretted my decision on the plan of walking to the Tate Britain as the sound of the traffic was simply deafening.

It took me about 35 minutes to reach the Tate Britain. It felt that the gallery seemed unusually busy and noisy. After failing to find where Fontana's work was, I asked the reception and was told that it could be heard right at the Millbank entrance. Returning to the entrance, I happened to catch the sounds of the chimes of Big Ben signaling 2 o'clock. The chimes sounded distant and disjointed. After the chimes dissipated, what came forth was the sound of the traffic. I then realised that the reason for my feeling of slight unease was due to the hum of the traffic being also transmitted into the gallery space.

²⁰⁸ Rather than going to Pimlico station, which is the nearest station to the Tate Britain.

The reason to use the chimes of Big Ben for *Speeds of Time* (2008) lies in its popularity as one of the icons of England and its representation of the notion of time. Fontana explains, 'Everyone knows the familiar sound of the Westminster Chimes, a symbol of time itself, and one of the most famous sounds in the world'²⁰⁹. Capturing the sound of Big Ben's chime denotes the idea of capturing time, and in turn, emphasising the propagation of the chimes denotes the passing of time.

Upon listening to *Speeds of Time* (2008)²¹⁰, the initial attack of the bell chimes can be clearly identified, then, after milliseconds, a very similar but less pronounced sound tails, which is soon overpowered by another pronounced chime followed by its own delay. Fontana brings attention to the idea of simultaneity by cleverly mixing each single chime with its very own propagation in the work. The chimes of Big Ben, a symbol of time, is then 'cascading and echoing with itself.'²¹¹

What I find interesting in the experience of Fontana's work is the walking journey from the House of Parliament to the Tate Britain. The walk, for me, is very much integrated in the experience of viewing/listening to Fontana's installation. The journey starts at my perception of the 'raw material' of the chimes of Big Ben, the walking away from the visual representation of the chimes (the clock tower), through to the entrance of the Tate Britain where there is no visual association with Big Ben, and then ends with my finding of the 'location' of the transmitted signal of the chimes. What is heightened in this encounter is the sense of a displacement of time and space through the simultaneous single sonic event at multiple locations. The supposed absence, in this case, the sound of Big Ben chimes inside the Tate Britain, becomes very present. The idea of 'one cannot be at two places at once' is somehow subverted. Upon hearing the chimes in the gallery, the image of Big Ben is vividly visualised in my mind.

Reflecting upon my encounter with Fontana's *Speeds of Time* (2008) and its comparison to *Folding* (2009), I feel eager to reconfigure *Folding* for two separated spaces, which leads to the second installation of *Folding* at the Shunt in London the following year.

²⁰⁹ Bill Fontana, *Speeds of Time*, ed., Bob Riley, brochure of an exhibition at the Tate Britain, London, 5th September through 3rd October, 2008, no pagination.

²¹⁰ For audio example of the piece: http://echosounddesign.com/media/Speeds_of_Time_at_Noon.mp3

²¹¹ Bill Fontana, *Speeds of Time*, n.p.

***Folding* (2010), The Shunt, London**

'...it reminds me of the experience of walking into an empty lift and finding peculiar smell left by the previous users. It could be smell of seductive perfume or greasy takeaways. In any case, it's like someone's left their olfactory trace in the lift, and it's the sonic trace in your work...' - anonymous visitor, London 2010

Folding (2010) is a reconfiguration of the previous installation at the University of Debrecen in Hungary in 2009. The basic principle of the system of *Folding* remains similar. The new version of *Folding* is configured based on the desire to explore different spatial considerations. The installation at the University of Debrecen was constructed in response to the strict rules over the use of the space; hence, the microphone, the loudspeakers and the controlling system are placed in a close proximity. With the showcase at the Shunt, a London-based artists collective, the artists are encouraged to explore the spaces that they have been provided.

The location for the showcase was at London Bridge Vault, where the Shunt was then based. In visiting prior to the installation, I was excited about the prospect of expanding the work spatially so to explore the concept of *Folding* in both aspects of time and space. As a result of negotiation between all the participating artists, I settled on a vault with a built-in mezzanine.

One omnidirectional microphone was then installed on the upper level of the mezzanine. Hanging two meters above the floor and close to the wall, the microphone was positioned in the centre of the arch of the vault. Pointing downwards and concealed from view, four pairs of speaker cones in various sizes were installed on the ceiling of the ground level. There was almost no visual indication of the installation, apart from a chair on the upper level and a bench on the ground level, both against the wall and with a spot-light projected onto them from the floor.

The decision to use chairs was influenced by the incident at the University of Debrecen, where the curator placed three benches to frame my installation. I was bemused when finding out the placement of these benches in the first instance.

Then, after observing the change of the viewer's behaviour and interaction with the work, I embraced and learnt from this serendipity. It also occurred to me that the chair seemed to suggest an idea of the presence and the absence, especially of the human body.

Throughout the period of the installation, I had observed people walking in and out, up and down the work. The listener generally would tend to sit on the chair and bench provided, and look around the mezzanine structure, puzzled. For the viewer visiting the upper level, it is more of a confusing situation as there is no sound playing back to them but the real-time raw environmental sound. Once they have noticed that there are loudspeakers on the ground level and realised that the sound (normally the conversation) they have just created when walking around the upper level, the interaction with the work becomes greater, which involves several rounds of walking up and down between the two levels.

From the observation of the viewer's interaction with *Folding* at the Shunt, I become interested in the way of how the viewer interacts and reacts to the work. There is a certain degree of participation in the process of the viewing, which is analogous to my own experience and interaction with both Roni Horn's *Things That Happen Again* (1986) and Bill Fontana's *Speeds of Time* (2008). I realise that the sense of interval that I am interested in may also lie within the presence and the absence of the viewer through their movement and involvement. 'A brief history'²¹² occurs between the viewer and the work, as Horn comments on the relationship between her paired objects and the viewer.

***Hear One Near and Think of the Other* (2011)**

'A moment remembered is a moment anew. A collection of selected moments becoming the foundation and building of a new moment. A present moment rolling into and inspiring the next. A moment existing in-between the passing and the approaching, linked yet unique' - MK Gallery Press Release.²¹³

²¹² Horn, "interview with Laurence Bossé," in *Events of Relation* (Paris: Musée d'Art Moderne de la Ville de Paris, 1999), quoted in *Roni Horn aka Roni Horn, vol. 2, Subject Index*, (New York: Whitney Museum of American Art, 2009), 35.

²¹³ The full content can be accessed at http://www.mkgallery.org/events/2011_03_24/sound_art/, assessed 23rd September, 2013.

‘In *Piece for Two Rooms* (1986) identical objects are placed in separate rooms. The viewer goes from one room to the next, in the first room a unique object, in the second, a familiar one. Being identical carries the paradox of being here and there, this and that, now and then’ - Roni Horn.²¹⁴

Hear One Near and Think of the Other (2011) is realised as a ninety-minute long performance piece at the MK Gallery in Milton Keynes, England. Created to depend on the spatial structure of the MK Gallery, the piece consists of two performers working with the same set of sounds in a live situation and playing them back into two separated spaces. Different from a conventional situation of a music concert, the audience is encouraged to move around and between the different spaces rather than remain stationary in a designated listening area.

When asked to consider performing for the ongoing series of Scratch Nights at the MK Gallery, the immediate concern for me was to request to view the gallery space before making any further decisions. Simon Wright, the gallery manager, suggested the visit should be made during the change-over in between the exhibitions, for it would provide an opportunity to see the ‘hidden spaces’ in the gallery.

On 6th January 2011, I made my first visit to the MK Gallery. The gallery is a two-story building with reception, bookstore and the main exhibition spaces on the ground floor, and offices and meeting rooms on the first floor. Upon entering the gallery, you see the reception desk and the bookstore on the left-hand side, an opening to a smaller space on the right-hand side and a clear opening to the main exhibition space at the far end. When entering the smaller space on the right-hand side, you will find it as a small square-sized space with an opening on the right that connects to another space of equal shape and size, while another opening on the left to a small walkway that links to the main exhibition space.

On the day of my visit, there were three groups of gallery workers mending and repainting walls, and constructing temporary structures for the forthcoming exhibition in these spaces respectively. After surveying the gallery building, I decided to take two sets of recordings in various spaces on the ground floor at two different periods of time, one during the working hour and the other after the

²¹⁴ Horn, “undated note,” in *Roni Horn aka Roni Horn*, 137.

hour, so to understand how sound may travel in-between these spaces, and the level differences between the busy and not-so-busy situations.

According to the curatorial plan of the forthcoming exhibition,²¹⁵ both of the two smaller spaces were set to be used. Smaller Space A would be prepared as a dark room for video projection, while Smaller Space B would hold a piece of sculpture in the middle of the room and a series of photographs on the walls. The walkway (Space C) functions as a connecting or transitional space between Smaller Space B to the Large Space (Space D).

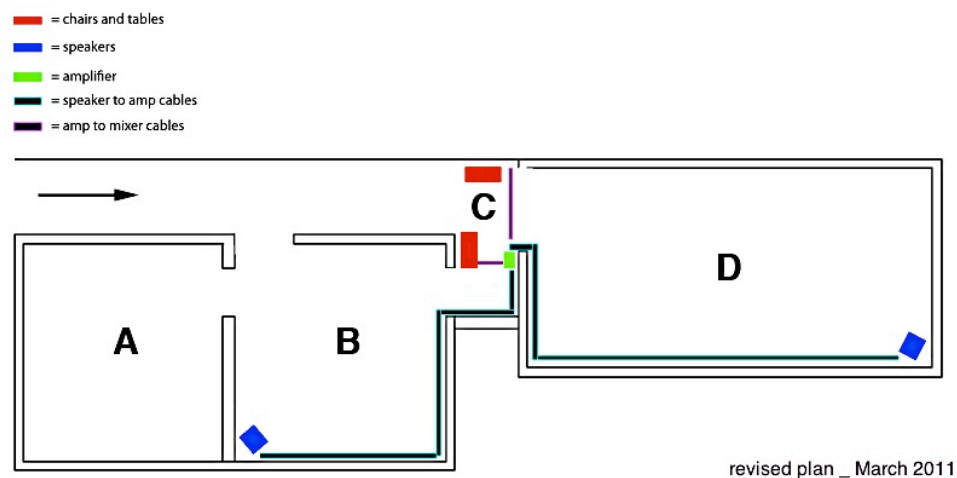


Figure 2.5 Floor plan for *Hear One Near and Think of the Other* (2011) at the MK Gallery.

Upon considering the possible movements of the gallery visitors, the behaviour of the sound in the spaces and the concept of the work *Hear One Near*, I felt that it would be important to utilise the walkway (Space C), the transitional space, as the centre point, both visually and sonically, for the structural formation of the performance piece. While two performers would be placed at the centre point, the sounds would be placed on the periphery and to be projected toward the centre point.

There are several aspects in the work *Hear One Near* that foregrounds and reiterates the notion of two, or one and the other. Firstly, the output of the performance piece consists of two mono channels with each channel located in

²¹⁵ Solo exhibition *Case Study: Loch Ness (Some possibilities and problems)*, 2001-2011 by artist Gerard Byrne. The exhibition started on 14th January 2011 and ended on 3rd April 2011. Accessed 23rd September, 2013, http://www.mkgallery.org/exhibitions/gerard_byrne/

Smaller Space B and the Large Space. A single loudspeaker on its stand is placed in each space so to be experienced as singular and also indicative of one of a pair. Secondly, the sounds being played back in one space are very similar or even identical to that in the other space as the same set of sound samples are given to the two performers prior to the performance. Each sound may have been respectively looped in a slightly different manner by the performers, following the basic principle of keeping a close resemblance.²¹⁶

Finally, the sounds in the two spaces are mirroring each other, either simultaneously or posteriorly. During the performance, the performers can determine where, when and how to position one sound in regards to the other. It is essential for the two performers to treat the two spaces as the architectural extension of their ears, and work with each other's sound and its positioning, and most importantly, to mirror the sonic events of one space in the other.²¹⁷

The Moments

The concept of 'moment' is an interesting one for me. The word 'moment' denotes 'a very short period of time' and 'a point in time'²¹⁸. The definition seems to give a perfect explanation of the meaning of the word. Yet, if we are to think about the meaning of the word 'moment' again, it seems to propose an underlying paradox between the idea of 'a period of' and 'a point'. The actual length of a moment seems to be indefinable, and to which exact point is dependent on the context. The notion of 'moment' also connotes a sense of the present as described in the common phrase we mostly use, such as 'at the (this) moment', or in other cases, a sense of a very near future, like 'in a moment'.

German composer Karlheinz Stockhausen first articulates the notion of 'Moment form' in his 1960 article 'Momentform', which is an explication of compositional procedures in his *Kontakte*, composed in 1959-60. Unaware of this particular essay during the conception of *Hear One Near and Think of the Other*, I find the following passage from Stockhausen particularly fascinating as it seems to verge closely on what I have in mind when producing the work. Stockhausen writes,

²¹⁶ See Appendix 2.

²¹⁷ See Appendix 2.

²¹⁸ *Oxford English Dictionary Online*, s.v. "Moment," accessed 3rd January, 2014, <http://0-www.oed.com.catalogue.ulrls.lon.ac.uk/view/Entry/120997?rskey=nAHE6o&result=1&isAdvanced=false#eid>

‘Every present moment counts, as well as no moment at all; a given moment is not merely regarded as the consequence of the previous one and the prelude to the coming one, but as something individual, independent and centered in itself, capable of existing on its own. An instant does not need to be just a particle of measured duration. This concentration on the present moment - on every present moment - can make a vertical cut, as it were, across horizontal time perception, extending out to be a timelessness I call eternity. This is not an eternity that begins at the end of time, but an eternity that is present in every moment.’²¹⁹

Stockhausen’s moment forms cut through the continuum of the horizontal time and render every moment a present moment, which does not need to be in relation to what comes before or after. Moments, with indefinable lengths, are verticalised and concentrated in to one perceptual time-less *now*, an exact point in time.

If every moment form is rendered into a time-less *now* rather than that with lengths, then where does it begin and end? Stockhausen stresses on the difference between the concepts of ‘beginning’ and ‘starting’, and ‘ending’ and ‘stopping’. According to the composer, the concepts of ‘beginning’ and ‘ending’ imply a kind of development process that rises from zero, merges and changes in progression, and then ceases to exist; whereas the notions of ‘starting’ and ‘stopping’ are inscribed with the symbol of caesurae that delineates ‘a duration, as a section, out of continuum.’²²⁰ Stockhausen further explains,

“Thus, “beginning” and “ending” are appropriate to closed development forms which I have also referred to as dramatic forms, and “starting” and “stopping” are suitable for open moment forms. This is why I can speak about an infinite form even though a performance is limited in its duration because of practical reasons.’²²¹

²¹⁹ Karlheinz Stockhausen, “Momentform,” the passage is quoted in Johathan Kramer “Moment Form in Twentieth Century Music,” in *The Musical Quarterly*, vol. 64 no. 2, (April 1978), 179.

²²⁰ Stockhausen, ‘Momentform’, in Kramer “Moment Form in Twentieth Century Music,” 180

²²¹ *Ibid.*, 180

Different from a closed development form, a proper moment form gives an impression of starting amidst an open continuum and stopping without reaching particular compositional or structural cadence, 'as if the music goes on, inaudibly, in some other space or time after the close of the performance.'²²²

I find Stockhausen's concepts of 'moment form' and the 'starting' and 'stopping', eloquently articulate some fundamental concerns in both *Folding* and *Hear One Near and Think of the Other*. In *Folding*, an open system that can essentially run infinite if allowed, each sonic event is verticalised from the horizontal continuum, which is seen not only in a consequence of its anteriority and posteriority but also a singular time-less *now*. In *Hear One Near*, there is constant interplay between the notions of 'starting' and 'stopping', and 'beginning' and 'ending'. Yet, it is also important to note that Stockhausen's thinking suggests a sense of centralised time-lessness and endless-ness, while the sense of time I am exploring is one of 'circular and unending', like the image of a spiral, which is 'at once unique in (its specific) situation and identical in relation to all points on the same axis.'²²³ The time that is progressive and yet regressive at once.

One + One = Three

'I discover quite early on that ... a single object would not give me the kind of relationship I was interested in having with the viewer. Because its singularity leads more toward a separation from the viewer. So I arrived at the idea of the paired object, which diffused that possibility. The idea was to create a space in which the viewer would inhabit the work, or at least be a part of it' - Roni Horn.²²⁴

Before I consciously encountered the pair of copper truncated cones, I was looking at the peculiar drawing hung on the wall next to the freestanding floor sculpture. The drawing is titled *Distant Double 2.21* (1989). The object depicted in the drawing seemed to correspond to the truncated cone in the same exhibition room. The object on paper was standing upright, or, rather floating, as there was

²²² Jonathan Kramer, "Moment Form in Twentieth Century Music", 180.

²²³ Linda Norden, "Roni Horn" in *Similia/Dissimilia: Modes of Abstractions in Painting, Sculpture and Photography Today*, ed., Rainer Crone (Düsseldorf: Städt. Kunsthalle, 1988), 122-123.

²²⁴ Roni Horn, interview with James Lingwood, *Some Thames: Háskólinn á Akureyri* (Göttingen, Germany: Steidl, 2003), quoted in *Roni Horn aka Roni Horn*, 111.

no obvious ground line in the background, not even a suggestive one, just blank paper with some minute smudges here and there. The colour was peculiar too, dirty red on one end while dark brownish red on the other. Raw pigment and turpentine created an uneven surface texture. It looked like it had been burnt. Is it depicting the copper cone in the stage of being forged? Is that why it is called *Distant Double*? The 'then' and 'now' in the different media and forms placed side by side in the same room?

When looking closer, I noticed that there was a vertical line on the left part of the drawing. The cut was very exact and certain. The smudges along the line gave a clear indication that the left part was a different piece of paper. It felt like part of the drawing had been cut off and replaced so to make it complete again. With questions in my mind, I proceeded to the next room, in which I found a duplicated situation, a familiar truncated copper cone lying on its side with a familiar red pigment drawing on the near wall, *Things That Happen Again* and *Distant Double* as the titles delineated.

When examining the second *Distant Double* drawing, I noticed the exact cut on the left part of the paper. Horn must have had made exact cuts on the paired drawings and swapped them. Or not? Again, the only clue you can rely on is your last experience with the previous drawing. You know they are very similar but you will not know for sure whether one cut part comes from the other. The same rules applied to the other much bigger drawings with much more complex cuts in the exhibition, you will never be certain about whether they come from one drawing or two, whether they are part of each other, or not.

Horn's work places the viewer at the end of an equation of her doubling. We are the one to discover and answer the questions evoked through such creative strategy. The spatial and temporal interval does not exist without the presence of the viewer, as Briony Fer describes, 'the viewer is brought into the work as the missing body that connects the two, ...the body as an invisible link between its material parts.'²²⁵ One plus one does not equal to two, but three.

Horn's strategy to position her work in relation to her viewer through doubling has a huge impact on the creative approach to my practice. In both *Folding* and *Hear One Near and Think of the Other*, I have created situations so to position the

²²⁵ Briony Fer, "The pigment drawings," in *Roni Horn: 153 drawings*, ed. Amy Wilkins (Zurich: JPR Ringer, 2012), 11.

viewer in the centre of the work, while the 'objects' of the work are somehow elsewhere through the repeating interplay between the presence and the absence. While Horn's aesthetic concern is about the question of identity in her paired objects, I find Smithson's dialectic of Site/Nonsite closer to my interest in the interrelation between the 'things' produced through the process in my work. I have noticed that, sound, arguably, has disappeared in the aforementioned two works. Or to put it in other words, I have focused more on creating a situation through sound rather than an object in sound. The medium of sound, in my work, seems to have taken the role of the mirror in Smithson's practice, which, rather than being a structural medium in the work, is to de-create, de-naturalise, de-differentiate and de-compose itself.²²⁶

²²⁶ Smithson, 'Fragments of an interview with P. A. [Patsy] Norvell' (1969), in Flam *The Collected Writings*, 192

Chapter Three - The Textual Recording of Sound

Still Water (The River Thames, for Example), 1999

After the viewing of *Distant Double 2.21* (1989) and *Things That Happen Again* (1986), I then proceeded to the other rooms of the Roni Horn exhibition and came to a larger room with windows looking out to the river Thames, the Millennium Bridge and the dome of St. Paul's Cathedral. There were a series of large framed photographic images of water hung across the walls and a lone translucent sculptural cube tinted pink placed on the floor near the window. Drawn to the peculiar pinkish-coloured sculpture, I walked toward the cube to have a closer view. Looking very much like a giant sweet of turkish delight, the 48-inch cube, *Pink Tons* (2008), is made of solid cast glass, whose top surface maintains transparent and liquid-like while the sides carry the rough texture of the mould. Standing on my toes to have a better look of the 'inside' of the glass cube, I found giant cracks reflecting and refracting the light coming from the window. The colour pink seemed to change according to my viewing position and in relation to the light coming from the window.

After examining *Pink Tons*, I casually walked to one of the framed photographs on the walls. There were in total fifteen photographs hung across the room in one size and frame. There seemed no particular order or sequence determining the starting or the end point for the viewing. I immersed myself in one still image of water. Upon close inspection, the green-brownish surface of the water became abstract and uncertain, and the ripples seemed to be still gently shaping and deforming at the corner of my eye. Amongst the folds and curves of the ripples, rather than common river flotsam and jetsam, a scatter of numbers in typeface could be found floating on the watery surface. I soon realised that these numbers corresponded to the footnotes printed across the lower margin of the photograph. These footnotes, although numbered and in order, seemed to construct no certain narrative but a wide collection of accounts ranging from literature, poetry, lyrics and personal diaristic reflection to the weather report, geographical and geological survey of the river, and the police report on the suicidal incidents connected to the river.

Reading through the footnotes, I found my mind meandering, from the scenery of the Victorian London to the melody and the lyrics of the Beatles, from the incalculable hazard of chemical pollutions to philosophical reflections on the notion of identity.

I was directly addressed by Roni Horn:

*'268 Do you remember the young Parisian woman I mentioned earlier?'*²²⁷

At times, I was quizzed by the artist:

'24 When you say water, what do you mean?'

'25 When you say water, are you talking about the weather or yourself?'

*'26 When you see your reflection in water, do you recognize the water in you?'*²²⁸

Or, on occasion, I was listening in to Horn's private conversation with herself:

'232 My gaze alights on the water - on some spot (this spot) on the river; I feel time stop. It isn't a moment of indecision. I don't want to jump. I just want to watch.'

'233 My gaze alights on the water - on some spot (this spot) on the river; I feel time stop. It isn't a moment of indecision. I don't want to jump. I just want to watch. I want to slow down, I want to speed up. I want to be in the time with the flow of the water. I want to see everything (I know the river's too fast for me.) But I still want to see it. I want to see beyond the slur of it, I want to keep looking until I do. I want to keep looking.'

*'234 My gaze alights on the water - on some spot (this spot)...'*²²⁹

After reading tens, or even near a hundred of footnotes, I felt confused and disoriented. The distinction between the pronoun 'I' and 'You' became blurred. Horn's words turned into my own thoughts, and her voice became mine. Maybe there were never 'I' and 'You'. Maybe it was, all along, *I* speaking to *myself*.

I wandered through different still images of water, then came upon a little white label on the wall, *Still Water (The River Thames, for Example)* (1999), the title of the work. The light in the room seemed darkened. I glanced out the window and saw the river Thames outside.

²²⁷ Roni Horn, "The master chameleon," *Tate Etc.* issue 10, (Summer 2007). Accessed November 18, 2013, <http://www.tate.org.uk/context-comment/articles/master-chameleon>.

²²⁸ Horn, "The master chameleon," n.p.

²²⁹ Roni Horn, *Roni Horn aka Roni Horn: subject index* (New York: Whitney Museum of American Art, 2009), 132.

The Confluence of the River Thames

‘22 This footnote (and all the others) gives confluence to this spot on the paper ... to this undulation in the water, to this greenish color of ink deployed to image of the water, to the idea of water, all water, to the sensual surface of this paper, to the moment when you happened upon this number, and to you in that moment.’ - Roni Horn²³⁰

The conception of *Still Water (The River Thames, for Example)* (1999)²³¹ comes from a series of commissions by the Public Arts Development Trust in London and Minetta Brook in New York to produce works that is connected to the Thames and Hudson waterfronts. For this commission, Horn produces three projects that are all connected to the Thames. *Still Water* (1999) consists of fifteen photographs of the river with extensive footnotes in each print. *Another Water (The River Thames, for Example)* (2000), which can be seen as an extended version of *Still Water*, is presented as an artist’s book that consists of fifty full-colour photographs of the Thames with more than eight hundred annotations running in an unbroken band in the lower margin of each page. And *Some Thames* (2000), a piece of permanent installation at the University of Akureyri in Iceland, comprises of eighty photographic prints of the Thames with individual prints dispersed throughout a building at the university.

I am particularly interested in the work *Still Water* as I consider it is another prime example of the artist’s doubling strategy. Different from the ostensive pair objects in *Distant Double 2.21* (1989) and *Things That Happen Again* (1986), the doubling in *Still Water* is more figurative and complex in both its concept and presentation. First of all, the formation of fifteen framed photo-lithographs running across the walls of the exhibition space reflects the flow of the river through landscape. On this particular occasion at the Tate Modern, *Still Water* has the opportunity to run side by side along the river Thames. This striking juxtaposition does not only again conform to Horn’s oeuvre of doubling, but also closely evokes Robert Smithson’s dialectical relationship of Site and Nonsite.

²³⁰ Horn, *Roni Horn aka Roni Horn: subject index*, 58-59.

²³¹ As Horn’s title suggests, the subject in *Still Water (The River Thames, for Example)* is not necessarily limited to be the Thames even though it is the subject in her photographs; however, considering the specific location and circumstance in which I encounter the work, I will focus the discussion with the river Thames in mind.

Secondly, the decision of placing the sculpture work *Pink Tons* (2008) in the same space with *Still Water* is an interesting one. Horn's choice of use glass as her sculptural material is significant. Glass, as the curator Ann Temkin notes, 'In the language of physics, glass is not a solid but rather a supercooled liquid.'²³² The paradoxical nature of glass - an amorphous solid form - runs analogous to the idea of photographing water. Can, if we use Smithsonian term, the 'entombed'²³³ water still be considered 'water'? Is *Still Water* a waterless water? As Horn also contemplates its identity, '...waterless water, the opposite of water. The form remains liquid, but the substance is altered - replaced with another identity.'²³⁴

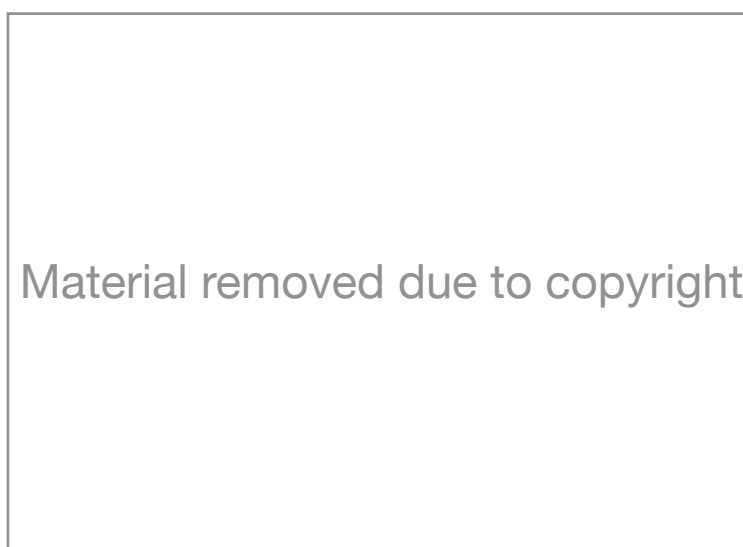


Plate 3.1 Roni Horn, installation view of *Pink Tons* (foreground) and *Still Water* (*The River Thames, For Example*) at the Tate Modern, 2009.
© Tate, London 2014.

Pink Tons is also a reminder of our physical relationship to the river Thames. The way you have to stand on your toe to look into *Pink Tons* brings to mind the way we mostly look at the Thames. Be it from the bridges, on the riverbanks, on the river cruises or higher up in the buildings, we look at the river vertically rather than horizontally. Our common bodily experience is somehow conflicting with our conceptual perception of the river. Such viewpoint is encapsulated in Horn's images of the Thames that are taken from directly above the water with no

²³² Ann Temkin, "Aretha," in *Roni Horn aka Roni Horn: subject index*, 16.

²³³ See Thesis Chapter Two, 77.

²³⁴ Horn, *Roni Horn aka Roni Horn: subject index*, 11-12.

riverbanks, no backgrounds, and no visual assurance offered by a horizon.²³⁵ Without horizon, the scale ceases its influence on our perception. Without horizon, all we have left with is the surface.

Depending on the incidents of light and the angle of view, the top surface of *Pink Tons* is 'either razor sharpness or infinite depth.'²³⁶ The viewing experience is precarious as the glass surface offers either pure transparency or full reflectiveness. As Briony Fer observes, 'You can see into it and then suddenly the light changes, and it has no inside at all - only a surface and a shine that reflects outward.'²³⁷ In this case, the visual penetration of the surface oscillates between zero to full scale. The necessity of continuous shifting for viewing position brings the attention to perceptual relation, which is comparable to the experience with the river encountered under different circumstances. As Horn elaborates,

'...a slight slipping back and forth as a way of focusing and finding yourself in a relationship to something. ... this idea of water as a form of perceptual relation, not so much a substance but a thing whose identity was based on its relation to other things. Most of what you're looking at when you look at water is light reflection. ... Rather than an object, water becomes a metaphor for consciousness - of time, of physicality, of the human condition.'²³⁸

Horn's *Still Water*, the images of the watery surface, thus acts as a mirror reflecting back our gaze and bouncing back our thoughts. While we are rejected by the impenetrable surface of the water, we are, at the same time, drawn in by the 'sprinkle of little numbers'²³⁹ in typeface floating on the surface of the photographs. These scattered 'little numbers' correspond to footnotes running across the lower margin of the prints. Although organised in numerical order, the annotations are fragmented and resistant to form some sort of narrative. Compiled from various sources, the footnotes take us through different stages of comprehension and perception - memory, observation, imagination, association,

²³⁵ Horn notes this particular choice of photographic perspective, 'I wanted the vantage point of a person watching the water from the bank of the river. So we rented tugboat and built scaffolding on it and fixed the cameras to the scaffolding at angles that would mimic this point of view.' See "The master chameleon," n.p.

²³⁶ Briony Fer, "Complete with missing parts," in *Roni Horn aka Roni Horn: catalogue*, 35.

²³⁷ Fer, "Complete with missing parts," 35.

²³⁸ Roni Horn, 'Still Water' in *Roni Horn aka Roni Horn: subject index*, 135.

²³⁹ Roni Horn, "Footnotes" in *Roni Horn aka Roni Horn: subject index*, 58.

analysis, monologue. Quoting from authors like Raymond Carver, Flannery O'Connor, Joseph Conrad, Emily Dickinson, Charles Dickens and Wallace Stevens,²⁴⁰ the text furcates into different branches and diverges the flow of thoughts. The mind goes to different places through the repeating movements between reading the footnotes and looking at the images, as Horn writes in a footnote, 'This litter of numbers on the photograph is a constellation composing the view.'²⁴¹

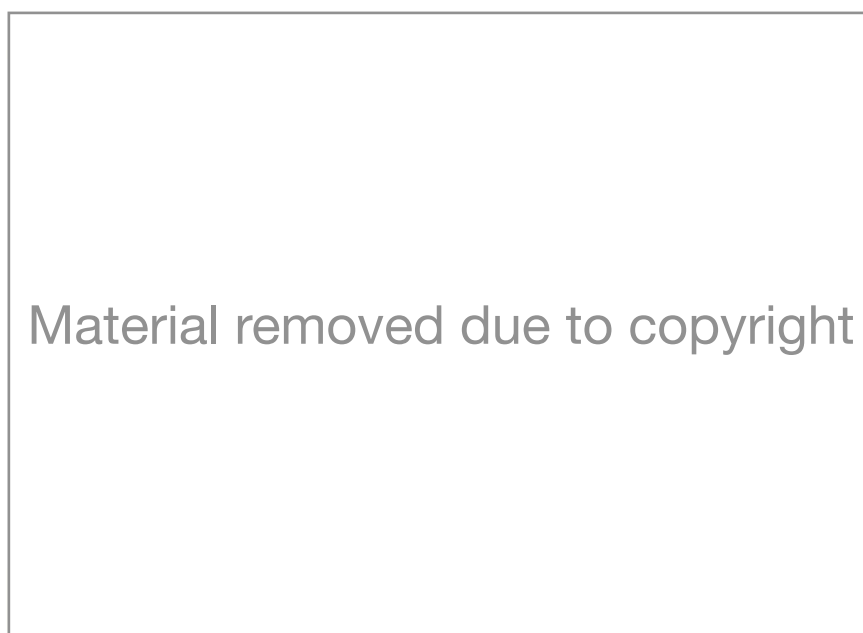


Plate 3.2 Roni Horn, one of the fifteen photo-lithographs from *Still Water (The River Thames, For Example)* at the Tate Modern, 2009. © Tate, London 2014.

The constellation of numbers does not only compose the view, but also composes the reading. Reading is considered an essential part in Horn's *Still Water* as the artist comments in an interview on the role of the footnotes, '...text that included or sought out an audience, to create a triangular relationship between the image of the water, the viewer, and my voice.'²⁴² Again, Horn speaks of the doubling strategy here. The doubling of the photographic images of the Thames and the accompanying annotations provides two types of reading: one as visual reading and the other verbal.

²⁴⁰ Iwona Blazwick, "Another Water," in *Roni Horn aka Roni Horn: subject index*, 12.

²⁴¹ Roni Horn, "Footnotes," in *Roni Horn aka Roni Horn: subject index*, 59.

²⁴² Roni Horn, in *interviews volume 1*, ed., Hans Ulrich Obrist (Milan: Edizioni Charta, 2003), 435.

The reason I consider Horn's footnotes as verbal rather than textual is that Horn describes the footnotes as 'my voice', rather than 'my word'. For Horn, the annotation in *Still Water* is not silent but full of sound, as the artist explains, '...that writing is really aural. It was written aurally, by which I mean speaking out loud and developing the cadence of the text.'²⁴³ In this sense, Horn's footnotes are close to a collection of lyric poems, rather than one of 'additional information'²⁴⁴ to the image.

Lyric poetry is a form of poetry that typically expresses personal feelings and emotions. John Stuart Mill, in the essay of 'Thoughts on Poetry and Its Varieties', describes the effect of lyric poetry is analogous to overhearing a person talking to him/herself:

'Eloquence is *heard*, poetry is *overheard*. Eloquence supposes an audience; the peculiarity of poetry appears to us to lie in the poet's utter unconsciousness of a listener. Poetry is feeling confessing itself to itself, in moments of solitude.'²⁴⁵

For Mill, the nature of eloquence lies in one pouring out emotions and expressions to the others in public, while that of poetry lies in the form of soliloquy, a private conversation with oneself. Thus, the important characteristic of lyric poetry is that the subject is always being addressed in the pronoun of 'I' and 'you' in the present tense. The reader of lyric poem, upon reading, then, steps into the role of the 'I' and the 'you'. As Helen Vendler notes, 'a lyric is meant to be spoken by its reader as if the reader were the one uttering the words.'²⁴⁶ Susan Stewart further expresses this precarious interchange between the 'I' and 'you' in the reading of lyric poems,

²⁴³ Horn, *Interviews volume 1*, 435. It is interesting to note that this verbal approach to the annotations and footnotes for *Still Water* subsequently leads Horn to create *Saying Water* (2001), a piece of audio recording of Horn reading the footnotes.

²⁴⁴ *Oxford English Dictionary Online*, s.v. "Footnote," accessed December 8, 2013, <http://O-www.oed.com.catalogue.urls.lon.ac.uk/view/Entry/72724#eid3981204>

²⁴⁵ John Stuart Mill, 'Thoughts on Poetry and Its Varieties,' *The Crayon*, vol. 7, no.4 (1860): 93-97. Accessed on 28/11/2013. <http://www.jstor.org/stable/25528035>. Original emphasis.

²⁴⁶ Helen Vendler, *Poems, Poets, Poetry: An Introduction and Anthology* (Boston: Bedford and St. Martin's, 2002), xlii, quoted in Eva Heisler, "Reading as Sculpture: Roni Horn and Emily Dickinson," (PhD thesis, The Ohio State University, 2005), 139.

'First-person expression in lyric is related existentially to the context of the poem as a whole; it is the poem that makes first-person expression emerge in its individuality as it engages the reader in the eidetic task of appearance of the "you." The doubled "I" (authorial intention, the expression of the first-person voice in the text) encounters a doubled "you" (the reader's intention toward reception, the implied address in the text).'²⁴⁷

This doubling and shifting between the pronoun of 'I' and 'You' is evidence in Horn's footnotes in *Still Water*. Using water as a 'metaphor of consciousness,'²⁴⁸ Horn places her reader (or listener) midst a temporal perceptual relation of 'slight slipping back and forth'²⁴⁹ between the doubled voice, or as Helen Vendler puts it, the 'twinship'²⁵⁰ between the narrator and the addressee.

I would suggest that this interplay of 'I' and 'you' does not only take place in the reading of the footnotes, but also occurs in the process of looking at the photographic images of the river in Horn's *Still Water*. Or, to be more precise, the 'viewpoint' of 'I' and 'you' undergoes a constant shifting during the process of both reading (the footnotes) and viewing (the photographs). In the argument of lyric photography to be considered as an important photography sub-genre, Marnie McInnes uses Canadian poet Margaret Atwood's poem, 'This Is a Photograph of Me' (1966), as a point of departure to discuss the reciprocity between lyric poetry and photography, and to reflect on experiences that are 'neither verbal nor visual, exactly.'²⁵¹

***This Is a Photograph of Me* (1966)**

It was taken some time ago.
At first it seems to be
a smeared
print; blurred lines and grey flecks

²⁴⁷ Susan Stewart, *Poetry and the Fate of the Senses* (Chicago: The University of Chicago Press, 2002), 47, quoted in Eva Heisler, "Reading as Sculpture: Roni Horn and Emily Dickinson," (PhD Thesis, The Ohio State University, 2005), 139-140.

²⁴⁸ Fer, "Complete with missing parts," 35.

²⁴⁹ *Ibid.*, 35.

²⁵⁰ Helen Vendler, *Poems, Poets, Poetry*, xliii, quoted in Evan Heisler, *Reading as Sculpture*, 139.

²⁵¹ Marnie McInnes, "A Meditation on Poetry and Photography," *Photographies*, 5:1 (2012): 19.

blended with the paper;

then, as you scan
it, you see in the left-hand corner
a thing that is like a branch: part of a tree
(balsam or spruce) emerging
and, to the right, halfway up
what ought to be a gentle
slope, a small frame house.

In the background there is a lake,
and beyond that, some low hills.

(The photograph was taken
the day after I drowned.

I am in the lake, in the center
of the picture, just under the surface.

It is difficult to say where
precisely, or to say
how large or small I am:
the effect of water
on light is a distortion

but if you look long enough,
eventually
you will be able to see me.)²⁵²

Atwood begins her poem at describing a photograph of its indistinct surface, and its depiction of an ordinary landscape of trees, hills, a lake, and a small frame house. The reader of the poem is guided and directed to visualise this eidetic image by a speaking voice. Halfway through the poem, the speaking subject turns into the viewing object as we are told that the owner of the voice was drowned in the lake that we are now 'looking at'. The voice speaks to us from underneath the

²⁵² Margaret Atwood, "This Is a Photograph of Me," in *Selected Poems 1965-1975* (Boston: Houghton Mifflin, 1976), 8.

surface of the water. We are, now, exhorted to look further into (beyond) the surface, and, 'eventually, / you will be able to see me.'²⁵³

There are several aspects in Atwood's poem that are of interest here. Firstly, in a more literal reading of 'This is a Photograph of Me', the poem concerns with 'the act of seeing what cannot be seen.'²⁵⁴ From the very beginning of the poem, we are greeted by an elusive sense of looking through reading, rather than actually looking at a photograph. As the poem progresses, we are, then, granted a vivid mental image of a landscape. As yet again, to the very end, we are shut out by the semitransparent surface of the water, even though there maintains some sort of promises. Yet, the sense of seeing remains eluded. What we have 'seen' at the end is a mental image of an ordinary landscape unique to individual's imagination through the text.

Secondly, Atwood's poem depicts landscape rather than portrait even though the title tells us that it is a photograph of a person. Following the 'view' of the landscape (both the surface of the photograph and of the depicted scenery), we discover our narrator is 'under the surface', merged within the landscape. McInnes suggests that Atwood exploits the capacity of poetic language to portray and convey one set of meanings by way of another: 'to convey both a surface and a subtext'²⁵⁵. Through focusing on the description of a visual surface, being it the indistinct surface of the photograph or the translucent surface of the lake, Atwood's central concern is to uncover the interior lurking underneath the surface(s), a subtext, in this case, 'the speaking voice in the poem creates for the "you" who listens and sees.'²⁵⁶

Let's return to Horn's *Still Water*. First of all, Atwood's poem incidentally reflects Horn's initial motivation of photographing the river Thames. Horn has once says, 'The river is mesmerising and I felt deeply drawn to it. At the same time, I had just ended a long love relationship and was extremely sad. So the two things came together in what I now see was a kind of vicarious suicide.'²⁵⁷ Contemplating

²⁵³ Atwood, "This Is a Photograph of Me," 8.

²⁵⁴ McInnes, "A Meditation on Poetry and Photography," 20.

²⁵⁵ *Ibid.*, 21.

²⁵⁶ *Ibid.*, 21.

²⁵⁷ Horn, "The master chameleon," n.p.

dissolving herself²⁵⁸ in the river through an act of ‘vicarious suicide’, Horn alights her camera on the water surface in a very particular way: a flat overview with an equal focus across the surface.²⁵⁹ Thus, as aforementioned, there is no background and no horizon in Horn’s photographic images of the river. There is only the surface of the water occupying ‘the center / of the picture’.²⁶⁰ If we look at Horn’s *Still Water* with Atwood’s poem in mind, the photographs of the water serves as the surface while the footnotes as the subtext,²⁶¹ as McInnes aptly puts, ‘...that the two-dimensional surface of a photograph may be best understood as having a interior, a kind of subtext, and that its flat surface is in effect pockmarked with footnotes that we are invited to read.’²⁶² It will be, however, superficial to state that the relationship between the surface and the subtext in Horn’s work only goes one direction. As the footnotes constantly guide us back to the photographs, the subtext always refers back to its surface, and vice versa. I would suggest that this interplay of the surface and the subtext in Horn’s work is another dimension of the artist’s doubling strategy.

So far, I have discussed the different aspects of doubling in the work of *Still Water*, from the spatial juxtaposition and the material particularity of *Pink Tons* in relation to *Still Water*, to the interplay between the photographic images and the footnotes of *Still Water*. It now leads me (back) to the most notable pairing in Horn’s *Still Water* : the doubling of *Still Water* and the river Thames.

²⁵⁸ ‘2 Disappearance: that’s why suicides are attracted to it, ... It’s a soft entrance to simply not being here. When I imagine the river, it’s something I can enter, something that will surround me, take me away from here. ...’ See Roni Horn, *Another Water* (Zurich: Scalo, 2000), cover. It is also interesting to note the Atwood’s poem addresses the point of women’s invisibility (under the surface) in the patriarchal society. The poem stands at the wake of feminist energy in the U.S and Canada in the late 1960s, which involves the rediscovery of the contribution and the achievement of female scientist, thinkers and artists whom were previously disregarded. I consider that such concern in Atwood’s poem parallels to Horn’s concern of identity, particularly the artist’s own sexual and gender identity, as Horn once notes, ‘I think of water as the ultimate form of androgyny.’ See Horn, “The master chameleon,” n.p.

²⁵⁹ Blazwick, “Another Water,” 12.

²⁶⁰ Atwood, “This Is a Photograph of Me,” 8.

²⁶¹ It is interesting to note that the word ‘subtext’ denotes ‘text or a text appearing below other text on a page’, now a rare usage. The modern usage of ‘subtext’ often indicates ‘an underlying and often distinct theme in a conversation, piece of writing, etc.’ see *Oxford English Dictionary Online*, s.v. “Subtext,” accessed December 8, 2013, <http://0-www.oed.com.catalogue.urls.lon.ac.uk/view/Entry/193161?redirectedFrom=subtext#eid>

²⁶² McInnes, “A Meditation on Poetry and Photography,” 30.

A Printed Matter, in Three-Dimensionality

‘This water exists in monolithic, indivisible continuity with all other water. No water is separate from any other water. In the River Thames, in an arctic iceberg, in your drinking glass, in that drop of rain, on that frosty window pane, in your eyes and in every other microcosmic part of you, and me, all waters converge.’ - Roni Horn²⁶³

‘Language becomes an infinite museum whose center is everywhere and whose limits are nowhere.’ - Robert Smithson²⁶⁴

All water converge, even the photographic and the typographic ones. Horn’s *Still Water*, exhibiting at the Tate Modern, flows alongside the river Thames, the source of its images and annotations. It is undoubtable that Horn has made a conscious decision to double her *Still Water* up with the river Thames, as the artist has said, ‘I think of my images of the Thames as a mirror.’²⁶⁵ This thinking of mirroring reflects Robert Smithson’s dialectic of Site and Nonsite,²⁶⁶ which comprises of a selection of topographic and photographic components alongside with raw materials collected from the corresponding Site. Similar to Smithson’s approach in creating his Nonsite, Horn compiles a collection of photographs of the Thames taken from different parts of the stream and a collection of footnotes from different written sources. If we accept Smithson’s thinking on Nonsite as ‘different kinds of mental and physical abstraction’²⁶⁷ and there exists ‘a space of metaphoric significance’²⁶⁸ between Site and Nonsite, then we can perhaps say that the same ‘metaphoric significance’ presents in Horn’s *Still Water* that points to the specifics of ‘the Thames’, and the generality of ‘water’ at the same time. Lawrence Alloway particular emphasises this linguistic aspect of Smithson’s Nonsite as he states, ‘the relation of Nonsite to Site is also that of language to the

²⁶³ Roni Horn, *Still Water* (Santa Fe, New Mexico: SITE Santa Fe and Lannan Foundation, 2000) n.p. plate 7, footnote no. 24.

²⁶⁴ Robert Smithson, “A Museum of Language in the Vicinity of Art,” in *Robert Smithson: The Collected Writings*, ed., Jack Flam (Berkeley, University of California Press, 1996), 78.

²⁶⁵ Horn, “The master chameleon,” n.p.

²⁶⁶ See Thesis Chapter One, 61-62.

²⁶⁷ Peter Osborne, “Transcategoriality: postconceptual art,” in *Anywhere or not at all: Philosophy of contemporary art* (London: Verso, 2013), 112.

²⁶⁸ Robert Smithson, “A Provisional Theory of Non-Sites,” *The Collected Writings*, 364

world: it is a signifier and the Site is that which is signified. It is not the referent but the language system which is in the foreground.²⁶⁹

The role of language plays an important role in both Smithson's and Horn's work. While Horn uses language to create space (a textual space in *Still Water*) to position the viewer, Smithson considers language as material as he states in his famous short press release, 'Language to be Looked at and/or Things to be Read', written for a 1967 exhibition at Dwan Gallery in New York, that 'My sense of language is that it is matter and not ideas - i.e. "printed matter."²⁷⁰ Smithson uses his pencil drawing *A Heap of Language* (1966)²⁷¹ to accompany the writing to illustrate such viewpoint. Consisting of in total 152 words in twenty-one lines, *A Heap of Language* is literally a pyramid shape of handwritten words on graph paper: 'Language / phraseology speech / tongue lingo vernacular / mother tongue, King's English / dialect brogue patois idiom slang/ a confusion of tongues, Babel universal language / ...' and so on.²⁷² The words, as Smithson notes, 'Here language is built, not written', have become building blocks and 'Literal usage becomes incantatory when all metaphors are suppressed.'²⁷³ Through the work *A Heap of Language*, Smithson demonstrates his attempt to disrupt or overturn 'the relation between literal meaning and the metaphoric properties of language.'²⁷⁴

Another fine example of such materialist thinking is *Strata: A Geophotographic Fiction* (1970), firstly appeared in *Aspen Magazine*.²⁷⁵ Similar to *A Heap of Language*, the role of *Strata* as a piece of writing or visual work is uncertain and ambiguous. Consisting of three pages in the publication, it alternates horizontal layers of texts and photographs of fossils and earth from different geological eras.

²⁶⁹ Lawrence Alloway, "Sites/Nonsites," in *Robert Smithson: Sculpture*, ed., Robert Hobbs (Ithaca: Cornell University Press, 1981), 42.

²⁷⁰ Smithson, "Language to be Looked at and/or Things to be Read," *The Collected Writings*, 61.

²⁷¹ It is interesting to note that *A Heap of Language* is reproduced as a piece of writing in the posthumous publication edited by his wife Nancy Holt in 1979. It is also included as a piece of work in Robert Hobbs book published in 1981. Further discussion see Gary Shapiro, *Earthwards: Robert Smithson and Art after Babel* (Berkeley: University of California Press, 1995), 157.

²⁷² Liz Kotz, *Words to Be Looked At: Language in 1960s Art* (Massachusetts: The MIT Press, 2010), 3.

²⁷³ Smithson, *Robert Smithson: The Collected Writings*, 61

²⁷⁴ Kotz, *Words to Be Looked At: Language in 1960s Art*, 3

²⁷⁵ Aspen No. 8, Fall-Winter 1970-1. Reproduced in Jack Flam, *Robert Smithson: The Collected Writings*, 75-77. Also available <http://www.ubu.com/aspen/aspen8/strata.html>

Starting from top layer, Cretaceous, to the bottom one, Precambrian, we are reading from the younger surface into a deeper and older seams of the earth. Language is caught, compacted and sedimented in-between different geological eras. Syntax is fragmented, elided or compressed as if squeezed and squashed by the overwhelming force of the geological formation, as it is the following from the Precambrian stratum:

HEAPS OF CARBONATE LIME. POURING TONS OF MINERAL
MATTER INTO A LAKE. IMITATION GRANITE. LAYERS OF
OUT-DATED MAPS. XENUSION. PETRI RED SCUM ON
DISPLAY. MAP OF THE MISSING SEA. EXTINCT SPONGE-
LIKE THINGS. STEAM. CHARTS SHOWING CLAY
FORMATIONS. THE PILING UP OF DEBRIS.... FUTILE AND
STUPID STAGNATION.. (HENRY ADAMS). STALE TIME. ONE-
CELLED NOTHING. ABSENCE OF OXYGEN.²⁷⁶

For Smithson, language can be considered as a kind of ‘abstract geology’²⁷⁷ analogous to the actual geological formation. The lines of words as a kind of substance on the printed pages constitute the linguistic strata over time. The strata are not divided but deposited upon each other so as in *A Heap of Language* that the linguistic pyramid requires structural accumulating layers. Words are rocks to be built upon so to become the architecture of language. Smithson writes,

‘The names of minerals and the minerals themselves do not differ from each other, because at the bottom of both the material and the print is the beginning of an abysmal number of fissures. Words and rocks contain a language that follows a syntax of splits and ruptures. Look at any *word* long enough and you will see it open up to a series of faults, into a terrain of particles each containing its own void.’²⁷⁸

This idea of ‘abstract geology’ is also explored in the draft for a previously unpublished essay, ‘Hidden Trails in Art’ (1969). Gary Shapiro suggests that it

²⁷⁶ Smithson, “Strata: A Geophotographic Fiction,” *The Collected Writings*, 77

²⁷⁷ Smithson, “A Sediment of the Mind: Earth Project (1968),” *The Collected Writings*, 100.

²⁷⁸ *Ibid.*, 107.

offers a view into the artist's later development of Site and Nonsite in the graphic structure.²⁷⁹ In the draft, Smithson notes,

'If you read this square magazine long enough, you will soon find a circularity that spreads into a map devoid of destinations, but with land masses of print (called criticism) and little oceans with right angles (called photographs). Its binding is an axis, and its covers paper hemispheres. Turn to any page between these hemispheres and you, like Gulliver and Ulysses, will be transported into a world of traps and marvels by being immediately lost. In this magazine is a series of pages that open into double terrains, because "we always see two pages at once" (Michel Butor). Writing drifts into strata, and becomes a buried language.'²⁸⁰

For Smithson, language printed on the page offers information parallel to that of a map. Following the lines of typographical markers, we 'travel' to places which are previously unfamiliar and unknown to us. Yet, at the same time, layers upon layers of sentences and paragraphs transform into strata of sediments close to the geological formation, only in reverse on pages, old thoughts upon new ones. Craig Owens calls Smithson's 'abstract geology' as 'earthwords',²⁸¹ where 'language is broken up, dispersed, in order to acquire a new and intensified meaning in its fragmentation.'²⁸² Owens considers Smithson's materialist view of language as an 'allegorical' practice. 'In allegorical structure,' Owens explains, 'one text is *read through* another, however fragmentary, intermittent, or chaotic their relationship may be.'²⁸³ In this sense, what Smithson has done in *A Heap of Language* and *Strata* is to overlay one text over another one, in which the surface and the subtext are intertwined and doubled. However, this formation of 'abstract geology' ruptures the syntax and opens up fissures in the language, which Owens sees as Smithson's intention towards a process of accumulation that again

²⁷⁹ Gary Shapiro, "Printed Matter," *Earthwards: Robert Smithson and Art after Babel*, 163

²⁸⁰ Smithson, "Hidden Trails in Art (1969)," *The Collected Writings*, 366.

²⁸¹ Owens borrows the term from Smithson's reflection on Edgar Allan Poe's *Narrative of A. Gordon Pym* in reference to his Site/Nonsite work. See "A Sediment of the Mind: Earth Projects," *The Collected Writings*, 108.

²⁸² Craig Owens, "Earthwords." *October* 10 (1979): 120-130, <http://www.jstor.org/stable/778632>

²⁸³ Craig Owens, "The Allegorical Impulse: Towards a Theory of Postmodernism." *October* 12 (1980): 67-86, <http://www.jstor.org/stable/778575>.

conforms to an allegorical impulse towards art making as it is an allegorist's approach to 'pile up fragments ceaselessly, without any strict idea of a goal.'²⁸⁴

How does the notion of allegory occur within the structure of a work of art which does not only consist of text but other components such like images and objects? Owens further elaborates on the this allegorical relationship that occurs within the structure of works of art (as allegory generally prescribes in the literature):

'Allegorical imagery is appropriated imagery; the allegorist does not invent images but confiscates them. He lays claim to the culturally significant, poses as its interpreter. And in his hands the image becomes something other (*allos* = other + *agoreuei* = to speak). He does not restore an original meaning that may have been lost or obscured; allegory is not hermeneutics. Rather, he adds another meaning to the image. If he adds, however, he does so only to replace: the allegorical meaning supplants an antecedent one; it is a supplement.'²⁸⁵

This allegorical practice in Smithson's work does not only occur on the printed page, according to Owens, it also takes place in his sculpture, especially his Nonsite work. Owens suggests that the proliferation of the use of language in the 1960s, particularly artists' writings, has clear connection to minimalism. Yet the critic particular credits Smithson's writing and work as a prominent force that drives language into its three-dimensionality as Owens notes,

'Painting and writing share a common origin in inscription; sculpture, however, involved as it is in the experience of three-dimensional space, could not seem more distant from language - linear, two-dimensional, located at the intersection of two axes ... which describe a plane. Yet Smithson regards language as something solid and obdurate, a three-dimensional projection.'²⁸⁶

²⁸⁴ Walter Benjamin, *The Origin of German Tragic Drama* (London:NLB, 1977),178, quoted in Owens, "Earthwords," 124.

²⁸⁵ Owens, "The Allegorical Impulse," 69.

²⁸⁶ Owens, "Earthwords," 123.

The most notable example of such three-dimensional projection lies in Smithson's *Spiral Jetty* (1970),²⁸⁷ in the interplay between its Site and Nonsite. As we have discussed in the previous chapters, the title 'Spiral Jetty' denotes three pieces of works, the earthwork, the text and the film, which are independent of and yet corresponding to each other. Given the remote location and the uncertain condition of the earthwork, and the less-populated film on VHS tape, the spiral is mostly known through the printed matter of the same title. Diffused with different writing styles such as documentation, art history, geology and mythopoeia, the text supposedly offers a two-dimensional reading of the sculpture. Yet, the role of the text does not simply provide a textual description of the jetty, it also dislocates the jetty and rescales it to a typographic object that can only be known via the text. As Smithson contemplates in the writing of 'The Spiral Jetty' (1972),

‘The scale of the *Spiral Jetty* tends to fluctuate depending on where the viewer happens to be. Size determines an object, but scale determines art. A crack in the wall if viewed in terms of scale, not size, could be called Grand Canyon. A room could be made to take on the immensity of the solar system. Scale depends on one’s capacity to be conscious of the actualities of perception. When one refuses to release scale from size, one is left with an object or language that *appears* to be certain. For me scale operates by uncertainty.’²⁸⁸

Although the passage primarily comments on the effects of different point-of views on the perception of the jetty, I find it meaningful when it comes to considering the relation and interplay between the two-dimensionality (Nonsite) and three-dimensionality (Site) of the work, which is also apparent in Horn's *Still Water*.²⁸⁹ The notion of scale is not concrete but contingent, particularly when it is translated into typographic or topographic inscription. Smithson further describes,

“The “curved” reality of sense perception operates in and out of the “straight” abstractions of the mind. The flowing

²⁸⁷ See Thesis Chapter One, 60-61.

²⁸⁸ Smithson, “The Spiral Jetty,” *The Collected Writings*, 147.

²⁸⁹ See this chapter, 104-110.

mass of a rock and earth of the *Spiral Jetty* could be trapped by a grid of segments, but the segments would exist only in the mind or on paper. Of course, it is also possible to translate the mental spiral into a three-dimensional succession of measured lengths that would involve areas, volumes, masses, moments, pressures, forces, stresses, and strains; but in the *Spiral Jetty* the surd takes over and leads one into a world that cannot be expressed by number or rationality. Ambiguities are admitted rather than rejected, contradictions are increased rather than decreased...'²⁹⁰

The perception of the spiral fluctuates depending on the reader's interpretation of the text, and the reader's capability to lose him/herself in the scale of a page, an 'abstract geology', rather than the common physical perception of the landscape. The printed matter thus, for Smithson, contains a kind of three-dimensionality within itself. In this sense, the *Spiral Jetty*, the muddy spiral in the Great Salt Lake, becomes both the surface and the subtext in the writing of 'the Spiral Jetty'.

I consider that such notions of allegorical practice and language in three-dimensional projection that Owens postulates in Smithson's work offer useful insights in the investigation of the notion of the surface and subtext in Horn's *Still Water*. In the work of *Still Water*, there is a text buried and sedimented underneath another (if we consider the footnotes as sediments settled at the bottom of the watery surface). The three-dimensional projection of language in *Still Water* lies in the doubling of the typographic and photographic elements of the river Thames, and its physical doubling with the actual river Thames. Coincidentally, the idea of language in a three-dimensional projection plays a latent role in Horn's creative strategy of doubling as the artist has once comments in an interview,

'When developing three-dimensional work, I've always thought in terms of language as opposed to thinking visually. So even in the case of the sculpture *Piece for Two Rooms*, the initial idea came when I was reading a book and started to think about how you could take an episode and repeat it a hundred pages later. I thought of this originally as a

²⁹⁰ *Ibid.*, 147.

publishing defect; then it became the same thing in two different places; then it became two different things ... I think in terms of syntax if not quite of grammar; of phrasing, leitmotif, chorus - the tools of language structures - which then take a visual form in the work.²⁹¹

Language, in Horn's view, thus functions as compositional structure and arrangement of the work, while Smithson treats language as not merely signifiers but also solid matters to build upon, and tools and methods to rescale three-dimensional masses on to the pages. More importantly, for both artists, there is always a certain kind of interplay between the surface and subtext within language.

What I find fascinating in Horn's *Still Water* is, firstly, the role of the footnotes, and the interplay between the annotations and the photographs, which I have established as the surface and the subtext. Secondly, the latent 'voice' evoked through the reading of the footnotes. And lastly, if to borrow Smithson's term, the doubling of Site and Nonsite of the river Thames. In the discussion of the comparison of Horn's doubling in *Still Water* with Smithson's work, I have paid particular attention on the typographic elements in both artists' work and have established the ideas of the printed matter as solid material and language in three-dimensional projection. Through looking into the aforementioned works and concepts, it stimulates my particular interest in exploring such notions through sound, and in turn, to explore the role of sound in my own practice. As discussed at the end of chapter two, the role of sound ceases to be a mere material, but more of a productional and structural support to create certain circumstances to place the viewer/listener amidst. To investigate this inclination further in the above-mentioned aspects, I will once again turn my attention to Alvin Lucier's *I am sitting in a room* (1969).

²⁹¹ Roni Horn, "Roni Horn and Lynne Cooke in conversation, April 1999, New York," in *Pressplay: contemporary artists in conversation*, eds., Juan Vicente Aliaga et al. (London: Phaidon, 2005), 343-4.

The voice reads, ‘I am sitting in a room different from the one you are in now...’

As previously discussed, Alvin Lucier’s 1969 work, *I am sitting in a room*, develops from an elaborate process of recording, playback and re-recording. In the beginning of the work, presented as a piece of stereo recording, Lucier announces his intention and the making process for the work by stating the following,

‘I am sitting in a room different from 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 and 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.’²⁹²

Lucier’s reading of the text above was captured by the microphone set up in the room and recorded on to the reel-to-reel tape recorder. The recorded reading was then played back into the space and captured by the second tape recorder. The process repeated until any semblance of Lucier’s utterance was no longer intelligible and transformed into a collection of purer extended tones of resonant frequencies unique to that space in the time of the recording process.²⁹³ As we have discussed *I am sitting in a room* on the notion of resonance (which I consider as an example of doubling in sound),²⁹⁴ and the notion of presence and absence through its technical process in the previous chapters, my particular

²⁹² Alvin Lucier, “I Am Sitting in a Room,” in *Chambers: Scores by Alvin Lucier*, (New York: Columbia University Press, 1980), 31.

²⁹³ In Lucier’s later version, *I Am Sitting in a Radio Studio*, revised for a radio broadcast on Resonance FM in London in 2005, the composer described his consideration for a particular circumstance for the 1969 recording of the piece: ‘I made this work in 1969 in a small apartment in Middletown, Connecticut. ... I unplugged the refrigerator and turned off the heat. I waited until the traffic subsided. It was snowing, making everything quiet.’ quoted in Seth Kim-Cohen, *In the blink of an ear: toward a non-cochlear sonic art*, (New York: Continuum, 2009), 190.

²⁹⁴ See Thesis Chapter One, 33-34.

interest here is the role of the text instruction, that of the voice in the formation of the piece, and most importantly, the interrelation between the two.

In the discussion on the interplay between voice and sound, Brandon LaBelle suggests that the deployment of voice introduces ‘mutation of identities’ in sound as voice primarily operates within the structure of language, ‘thereby bringing with it the codified markings of the symbolic while relying upon the acoustical dynamic of sound...’²⁹⁵ Following upon such threads of thought, then, in *I am sitting in a room*, through each cycle of playback and re-recording, the linguistic voice gradually disintegrates while the sonorous voice comes to being. As LaBelle notes,

‘...cuts across the domain of language, ...to engage the relation of sound and language where each undoes the other, unraveling the purely “liberated” sound by adding the linguistic voice and undoing the linguistic signified by adding the sonic, corporeal, and vocal signifier.’²⁹⁶

In this sense, we can perhaps say that Lucier’s voice (a disembodied voice) that delivers the linguistic signifier (the score) is being undone and slowly becoming the embodiment of the voiced, the singing voice of the room. Lucier’s voice thus goes through different stages of transformation in *I am sitting in a room*, from the linguistic signifier (text) delivered by the voice, which temporarily becomes a sort of ‘sounds-in-themselves’, and then eventually becomes the ‘natural resonant frequencies of the room,’²⁹⁷ the signified of the acoustics of the space.

If the voice in Lucier’s work mutates from an articulation of the score into that of the room, then what happens to the text? What is the role of the text?

In the discussion of *I am sitting in a room*, LaBelle pays particular attention to the role of the voice, especially Lucier’s stutter as the ‘acoustical driving force’²⁹⁸ in the work. LaBelle writes, ‘...the stutter *drives* the work, as original motivation, as lingering sonic, as auditory figure haunting the work... The stutter is the very

²⁹⁵ Brandon LaBelle, *Background noise: perspectives on sound art*, (New York: Continuum, 2006), 105.

²⁹⁶ *Ibid.*, 105.

²⁹⁷ Lucier, *Chambers: Scores by Alvin Lucier*, 31.

²⁹⁸ LaBelle, *Background noise*, 127.

heart of the work.’²⁹⁹ It is true that Lucier’s stammer is the prominent feature and one of the deciding factors in the formation of the piece. As it stands, the stutter does not only disrupt the continuity of the linguistic entity, but also unsettles the flow of the acoustical property of the voice. Yet, the stammer shall not be seen as the sole driving force of the piece as its occurrence is highly related to the specific wording in the text instruction.

The text of *I am sitting in a room* functions as both the instructions and the content of the work. The text does not only describe but also dictates the making process of the work. The form of the piece is subject to the text, and takes the text as its content. Different from the general notion of a musical score, the text score does not simply ‘precede the work’s realization’ but ‘is imbricated in the act of materialization.’³⁰⁰ In this sense, the text of *I am sitting in a room* shapes, determines and frames the structure and the content of the piece, which is built upon the contours of the human voice and articulation. In his argument regarding the stutter in the reading of *I am sitting in a room*, Seth Kim-Cohen considers that the stutter occurring in the piece to be seen as a specific realisation of the text, rather than ‘the very heart of the work’³⁰¹ as LaBelle states. Kim-Cohen questions, ‘Would a subsequent version of *I am sitting in a room*, in which Lucier does not stutter, be an unsuccessful interpretation of the piece?’³⁰²

On 17th September in 2005, Kim-Cohen invited Lucier to perform live on his radio programme, *Unst: Bespoke Sound*, a weekly broadcast on Resonance FM in London.³⁰³ For this particular occasion, Lucier revised the text of *I am sitting in a room*,

‘I am sitting in a radio studio. The sound of my voice is being picked up by a microphone and fed into a delay system which recycles my speech into the room again and again. As the process continues, those frequencies of my voice which match the physical dimensions of the room are reinforced. By the end of the process only the resonant frequencies of

²⁹⁹ *Ibid.*, 126.

³⁰⁰ Kim-Cohen, *In the blink of an ear*, 188. In this sense, I consider the text is both the container and the contained. For detailed discussion on the notion of the container and the contained, see Thesis Chapter Two, 74-76.

³⁰¹ LaBelle, *Background noise*, 126.

³⁰² Kim-Cohen, *In the blink of an ear*, 190.

³⁰³ *Ibid.*, 190.

the room remain. I made this work in 1969 in a small apartment in Middletown, Connecticut. The apartment had a green shag rug on the floor and large green drapes on the windows. I unplugged the refrigerator and turned off the heat. I waited until the traffic outside subsided. It was snowing, making everything quiet.’³⁰⁴

Similar to the 1969 text instruction, the reading of *I Am Sitting in a Radio Studio* (2005) announces the situation, describes the process, and subsequently becomes the content of the piece. As the process unfolds, the composer’s voice gradually disintegrates into a collection of hollow yet harsh tones, which emerge from the spatial particularities of the radio studio and the mechanism of the delay system. It is interesting to note that Lucier did not make any reference to any speech irregularities in the revised version. According to Kim-Cohen, Lucier’s performance is delivered without a stutter.

It is unknown to us whether the invitation of Lucier performing live on broadcast is meant for a re-enactment of the original version of *I am sitting in a room* or not, it is fascinating to note that Lucier decides to revise the score that specifies the circumstance and makes reference back to the original version at the same time. In the performance of the revised *I am sitting in a radio studio*, Lucier does not stutter in the delivery of the text. In some ways, the enquiry that Kim-Cohen set out to resolve did not happen in the end. Yet, the newly revised version of the score still to some extent demonstrates that the text is the primary content of the work, and the form of the work is highly subject to it. Kim-Cohen thus deduces that It would be misleading to inscribe the word ‘irregularities’ to Lucier’s stutter as ‘one-to-one correspondence.’ He concludes, ‘All speech is irregular. This is insured by the materiality of individual voice, accents, and cadences. ...it is also insured by the infidelity of speech to both its written counterpart and to any notion of a preceding referent.’³⁰⁵

So let’s return to the question, what happens to the text of *I am sitting in a room* when the work is performed through voice and recorded onto the tape? As LaBelle considers the voice, particularly the stutter, the heart of the work and Kim-Cohen proposes the text is the primary part of the structure and the content, I would like to consider the interrelation between the text and its delivery and

³⁰⁴ *Ibid.*, 190.

³⁰⁵ *Ibid.*, 191.

final form from the notion of a surface and a subtext. As established earlier in Margaret Atwood's poem and Roni Horn's work, the surface provides an entry point to uncover the interior underneath, the subtext, whose meanings conveyed by and through the surface. In Lucier's work, the text score operates as the surface. The articulation of the text projects the printed matter into three-dimensionality and initiates the iteration process of the piece. The final form emerged from such process becomes the subtext to the work. The recordings of *I am sitting in a room* and *I am sitting a radio studio* are the subtexts of the scores. The voice serves an unique purpose as the acoustical index to both the surface and the subtext as it is 'bringing with it the codified markings of the symbolic while relying upon the acoustical dynamic of sound.'³⁰⁶ The voice contributes to both the embodiment of the surface and the subtext.³⁰⁷

The Diary (05/07/2011)

It is just passed 11 a.m. in the morning. I am sitting in a small café in an academic building in the university. The building is newly built and has the characteristics of modern buildings, atrium, open spaces, colourful furnitures and huge floor-to-roof windows. From where I am sitting, I can see the entrance to the building. The double glass automatic doors make quiet acknowledgement to those going through, no matter in or out. Even the door itself is almost inaudible, you can still tell when it is open or closed as you can hear the sound from outside seeping in intermittently.

The space is filled with the typical hubbub of a café, a constant morphing and changing mixture of sounds: the footsteps, the slightly numbed scraping of the chairs against the Lino floor, the clinking of the crockery, the whooshing of the espresso machine pumping through the coffee grounds, the clanging of the cashier, and the chattering and the occasional laughter. Although there are a few sporadic dips in the overall volume, these intervals never intervene the sonic consistency of the typical soundscape of a café. This invisible mass seems to have a life of its own.

³⁰⁶ LaBelle, *Background noise*, 105.

³⁰⁷ It is interesting to note that subtext also denotes 'the subjective reality drawn on by a performer and underlying his and her interpretation of a role.' see *Oxford English Dictionary Online*, s.v. "Subtext," accessed 8th December, 2013, <http://0-www.oed.com.catalogue.ulrls.lon.ac.uk/view/Entry/193161?redirectedFrom=subtext#eid>

At exactly 11:20 a.m., an unfamiliar sound interrupts the continuum and projects itself into the existing sonic stream. Mingling with the sound mass, a female voice reads: 'IK2, 06072011, 1100, SE146NW, IIA1, 2, 57.6, Moderate, Intermittent ... IK2, 06072011, 1103, SE146NW, IIB4, 1, 71.3, Good, Intermittent ... IK2, 06072011, 1106 ...' Before the seemingly coded information is being comprehended, the voice fades and disappears into thin air. The familiar sonic mass of the café resumes and occupies the space once again.

Measurement No. 1 - NAB (2011)

Measurement No. 1 - NAB (2011) is realised as a performance work that aims to explore the notion of surface and subtext through the interplay between sound and text, and that of between listening and reading. The performance consists of two parts in terms of execution. The first part is to record the sound events that happen in the chosen space, in this particular performance, the low level of the New Academic Building (NAB) at Goldsmiths, University of London. Within a predetermined time frame, a certain number of sound events is perceived, selected, translated and transcribed into the provided data sheets in a coded language. A set of index cards is provided for the translation from each perceived sound into a line of code. The second part is to announce the coded data from the data sheets via the public address system installed in the same space where the data is collected. The two parts of the performance alternate following a predetermined schedule.

The documentation of *Measurement* performance also consists of two parts. One part is the data sheets, which presents the recorded sound events in the coded textual form. The same set of index cards provides reference to the recorded data and aids the process of translating from the coded data to a more commonly shared language, in this particular case, English. The other part of the documentation is the audio recording for the public announcement of the coded data from the data sheets.

There are several aspects in *Measurement* of interest here: the measurement of sound, the inscription and the transcription of sound, and the translation and transmission of sound, in which three are highly interrelated.

The Measurement of Sound

My work *Measurement No. 1 - NAB* owes its title and inspiration to American artist Mel Bochner's *Measurements* series, especially the work *Measurement: Room* (1969), a piece of wall drawing that consists of markings indicating measurement of the space. Using black tape and a lettraset, Bochner marks the dimensions of the walls and the door directly on the room itself. At the first glance, the work seems plain and straightforward. Yet, it soon becomes clear that there is no indication of certain units of measuring systems but numbers. To further obscure the possible meanings and our understanding of the numbers, Bochner consciously uses the less accustomed measurement units according to the countries where the work is exhibited. For Bochner, the *Measurements* work functions as the artist's approach to question the differences between our conception and experience of the world. Bochner notes in an interview,

'It was in the *Measurements* in 1969 that I found a vehicle to express some of the things I had been thinking about. That was the work in which conception and perception cut across each other. The *Measurements* were about occupying real space and yet seeing it as an idea. ...you experience the physical space of the room and you experience a conception of that space. ...That led to certain theoretical questions. ...How can the space, or how can the world, contain an idea about itself? How can the two things overlap? Where are the boundaries?'³⁰⁸

Through removing the supposedly objective system of measuring units, Bochner aims to scrutinise the role of language and to divide the linguistic meaning from our experience of the world. The recognition of such differences between the perceptual and linguistic reality raises from the process of reading and understanding the numbers marked on the walls.

The notion of a space becomes ostensive and yet obscure at the same time. The overlapping of the notion of two-dimensionality and three-dimensionality fluctuates in the process of 'comparative examination of the relations between

³⁰⁸ Elaine A. King, "Building a Language," in *Mel Bochner: 1973-1985* (Pittsburgh: Carnegie Mellon University Press, 1985), 12

natural circumstances' and the 'cultural manifestations.'³⁰⁹ In her discussion on the breakdown of the institutional frame provided by the art galleries and museums, Miwon Kwon points out that Bochner's *Measurements* series represents the artistic criticism on such notion by 'insisting on the material fact of the gallery walls as "framing" devices by notating the walls' dimensions directly on them.'³¹⁰ In another words, Bochner's work subverts the role of the gallery space into that of its own object by heightening our awareness of its constructed reality. The space hence does not remain neutral and independent but highly contextual and dependent on the reading of the individual viewer.

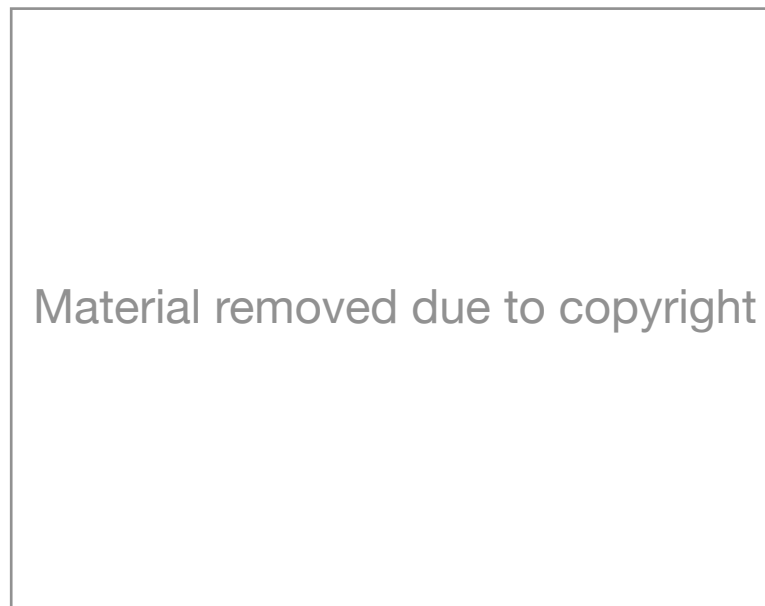


Plate 3.3 Mel Bochner, installation view of *Measurement: Room* at Galerie Heiner Friedrich, Munich, 1969.

Bochner's *Measurement* series provides the conceptual initiation to my *Measurement* work. The removal of any recognisable measuring system bring the general proposition of numbers forward, and yet at the same time, obscure such proposition. The familiar numerical numbers become a collection of 'determinate uncertainty.'³¹¹ Moreover, an abstract notion of space is materialised and quantified by the numbers marked on the walls. I find Bochner's attempt to question the division between conception and perception of the world via the quantification of numbers, which is though dissevered from any recognisable

³⁰⁹ Ulrich Wilmes, "Between Reading and Seeing," in *Mel Bochner: if the colour changes* (London: Whitechapel Gallery, 2012), 35

³¹⁰ Miwon Kwon, *One Place after Another: Site-Specific Art and Locational Identity* (Massachusetts: The MIT Press, 2002), 14

³¹¹ See Thesis Chapter One, 61-62.

constructive and structural systems, very insightful, particularly in consideration of a coding system that I wish to develop in my *Measurement* piece.

To establish the process of codification, first of all, a system of classification is needed to categorise information. In search for possible methods for categorising sound, I turn to R. Murray Schafer's writing on the notion of classification.

The Classification of Sound

In his renowned writing, *The Soundscape: Our Sonic Environment and the Tuning of the World*, R. Murray Schafer writes about the classification of environmental sounds, through which information can then be analysed, studied and compared so to contribute insights on ecological improvement and problem-solving, and even to 'provide us with inchoate thoughts and aesthetic moments.'³¹²

Reflecting on the idea of classifying sounds, Schafer considers the complex paradigm and system of sound categorisation devised by French composer Pierre Schaeffer falls short for the purposes that Schafer has in mind as Schaeffer's system 'only deals with single musical sound objects.'³¹³ For the idea of categorising sound in the context of soundscape studies, Schafer proposes to consider a perceived sound not only as a mere isolated object but also as an event³¹⁴ that contains informations about the place and time of its occurrence. With such particular concerns in mind, Schafer devises his own setting for the classification of sound events as following:

³¹² R. Murray Schafer, "Classification," *The Soundscape: Our Sonic Environment and the Tuning of the World* (Vermont: Destiny Books, 1994), 133.

³¹³ Schafer, "Classification," *The Soundscape*, 134. In *The Soundscape*, Schafer translates Pierre Schaeffer's *objet sonores* as 'sound object' rather than 'sonorous object'. Schafer defines 'sound object' as 'defined by the human ear as the smallest self-contained particle of a Soundscape.' see Schafer's "Glossary of Soundscape Terms," 274. For Pierre Schaeffer's definition of the term, see Pierre Schaeffer, "Acousmatics," in *Audio Culture: Readings in Modern Music*, eds., Christoph Cox and Daniel Warner (New York: Continuum, 2005), 76-81. Also Pierre Schaeffer, *In Search of a Concrete Music*, trans., John Dack and Christine North (California: University of California Press, 2012).

³¹⁴ According to Schafer, sound event is 'like the sound object, is defined by the human ear as the smallest self-contained particle of a soundscape. It differs from the sound object...an abstract acoustical object for study, while the sound event is a symbolic, semantic or structural object for study, ...a nonabstractable point of reference, related to whole of greater magnitude than itself.' Schafer, "Glossary," *The Soundscape*, 274.

1. Estimated distance from observer: ____ meters.
2. Estimated intensity of original sound: ____ decibels.
3. Heard distinctly (), moderately distinctly (), or distinctly (), over general ambience.
4. Texture of ambience: hi-fi (), lo-fi (), natural (), human (), technological ().
5. Isolated occurrence (), repeated (), or part of larger context or message ().
6. Environmental factors: no reverb. (), short reverb. (), long reverb. (), echo (), drift (), displacement ().³¹⁵

Schafer's setting provides a guideline to qualify and understand sound event upon perceiving by following these attributes: distance, intensity, distinction, quality of texture, occurrence, and latent spatial factors. Following the above setting, Schafer then gives a selection of examples of sound events recorded accordingly.³¹⁶

BARK OF A DOG

1. 20 meters
2. 85 dB
3. Heard distinctly
4. Hi-fi, human
5. Repeated, irregular
6. Short reverb.

SONG OF A BIRD

1. 10 meters
2. 60dB
3. Heard distinctly
4. Hi-fi, natural
5. Part of extended song
6. No reverb.

FOG HORN

1. 1,000 meters
2. 130 dB
3. Heard distinctly
4. Hi-fi, natural
5. Periodic repetition
6. Long reverb., displacement

CHURCH BELL

1. 500 meters
2. 95 dB
3. Moderately distinctly
4. Lo-fi, technological
5. Periodic repetition
6. Med. reverb., drift

³¹⁵ *Ibid.*, 135.

³¹⁶ *Ibid.*, 137.

TELEPHONE

1. 3 meters
2. 75 dB
3. Heard distinctly
4. Hi-fi, human
5. Repeated
6. No reverb.

MOTORCYCLE

- (*passing on highway*)
1. 100 meters-pass-100 meters
 2. 90 dB
 3. Indistinctly-distinctly-indistinctly
 4. Lo-fi, technological
 5. isolated
 6. No reverb.

From the examples recorded following Schafer's setting, we can gain some basic outlines about the perceived sound events through reading the recorded information. Along with this setting, Schafer also devises a chart that contains components such as, *attack*, *body*, and *decay* on the horizontal plan, and *duration*, *frequency/mass*, *fluctuations/grain*, and *dynamics* on the vertical plane to further dissect the recorded sound event into sound object in a forms that close to graphic notations.³¹⁷

If we follow the setting and the chart devised by Schafer to record (write it down on a piece of card or paper) the perceived sound event, we will then be able to slowly collect sound events that may occur both regularly and occasionally in our surroundings, and in turn, to study them as sound objects in details. As Schafer points out when he defines the term sound event that the dictionary definition of the term *event* stands for 'something that occurs in a certain place during a particular interval of time. This suggests that the event is not abstractable from the time-and-space continuum which gives its definition.'³¹⁸ Schafer suggests that most of sound events heard and perceived are generated by known objects in the environment, so the most useful way to categorise these sonic occurrences is to place them back to their referential framework.

To establish and develop this referential system to catalogue sound perceived is not without problems, as 'no sound has objective meaning, and the observer will have specific cultural attitudes toward the subject.'³¹⁹ The best way to approach the building of such referential system, as Schafer suggests, is to be as inclusive as

³¹⁷ *Ibid.*, 136 & 138-9.

³¹⁸ *Ibid.*, 274.

³¹⁹ *Ibid.*, 137.

‘the garage dump’ so as to ‘embrace all man’s undertakings with equal objectivity,’³²⁰ which also indicates that the system is under a process of constant renewing and ever-expanding. Gathering vocabulary and descriptions of sounds from different sources like literary, anthropological and historical documents, the system of Schafer’s referential framework starts with more general catalogue headings, such as Natural Sounds, Human Sounds, Mechanical Sounds, etc. Within each of these headings, there are numerous sub-headings to accommodate a more detailed descriptions of the characteristics of sounds, for example, the sub-headings of Natural Sounds are Sounds of Water, Sounds of Air, Sounds of Earth, etc. Then a further sub-divisions within each of the sub-headings to a further detailed description of sounds. An section of Schafer’s referential system as following,

I. Natural Sounds

A. Sounds of Creation

B. Sounds of Apocalypse

C. Sounds of Water

1. Oceans, Seas and Lakes
2. Rivers and Brooks
3. Rain
4. Ice and Snow
5. Steam
6. Fountains. Etc.

D. Sounds of Air

1. Wind
2. Storms and Hurricanes
3. Breezes
4. Thunder and Lightning. Etc.

(...)

H. Sounds of Animals

1. Horses
2. Cattle
3. Sheep
4. Dogs

³²⁰ *Ibid.*, 137.

5. Cats
6. Wolves
7. Gophers. Etc.³²¹

Schafer employs this cataloguing system in the sub-projects of the World Soundscape Project in the 1970s. Through cataloguing the sound events perceived in different locations, later combined with the foregoing setting and graphic notation chart, the sonic characters of different locations, or that of same locations but on different time periods can be identified, analysed and later compared to gain insights into the changes of different soundscapes in different times.

I find Schafer's system very intriguing as it involves certain degree of inscription and transcription of sound. Although the cataloguing system is utilised primarily for the purposes of documenting and categorising sound events for the further analysis and comparison, I am in particular drawn to the process of inscribing and transcribing sounds in the textual form. For instance, if we record and translate the sound of dog barking by combining Schafer's setting and catalogue system, we will have a piece of information about the sound event of a dog barking like this: Bark of a Dog (catalogue no. I.H.4), 20 meters, 85 dB, Heard distinctly, Hi-fi, human, Repeated, irregular, Short reverb. If we further simplify this information by taking away units of measuring systems and re-arranging the syntactical structure. We will then be left with a line of code similar to this:

I.H.4., 20, 85, distinctly, Hi-fi, Repeated, irregular, short reverb.

The first half of the line becomes somehow cryptic as we do not know what the combination of the alphabets and numbers stands for, while the second half gives us a sort of clues to a possible 'object' or 'event' as the term reverb, generally is used to describe the phenomena and the effect of sound with a latent spatial implication. In order to find out the 'full picture' behind this cryptic line of coded information, we will need to reverse the process of transcription by referring back to the catalogue.

I find this aspect of Schafer's catalogue system is particularly fascinating as it closely evokes a sense of surface and subtext that I have been investigating and

³²¹ *Ibid.*, 139-144.

exploring in Roni Horn's, Robert Smithson's and Alvin Lucier's work. Reflecting on the aesthetic strategy of stripping numbers from any culturally constructed system in Bochner's *Measurements* series, and borrowing Schafer's setting and cataloguing system for the perceived sound events, I thereby devise my own system of recording and documenting sound events. The documentation of a perceived sound event in text will be written down by following this order: season, date, time, location, type of sounds, distance, decibel, distinction, occurrence. For example,

IK2, 04072011, 1602, N154EG, II.B.4, 1.5, 38, Good, Repeated.

The codification of season and type of sound refers to Schafer's cataloguing system, while that of date, time and location depends on the customary system of the country. As seen in the foregoing example, the coded location N154EG is easily recognisable and identified as post code for the British citizens. That is to say that this section of the coded information is unique to the location where the data is recorded. Meanwhile, to increase the accessibility and the memorability of the adjectives for the descriptions of distinction and occurrence, I have simplified Schafer's vocabulary into three adjectives, such as good, moderate and poor for distinction, and terms like repeated, intermittent, isolated and partial for occurrence. Through simplifying and generalising the language, I am aiming to create a set of vocabulary that can be easily understood and used by the general public who may not have prior knowledge of soundscape studies.

The Moment of Measuring

The first experiment of my sound measurement is carried out by myself following 'the manual'³²² that has been devised to assist the process. The location for the experiment is the New Academic Building³²³ at Goldsmiths, University of London. The building in total has four open levels with central staircase connecting to different levels. One side of the building is glazed from the top level to the second level that is facing the College Green, creating a bright and airy atmosphere. The main entrance to the building locates on the second level, and so as the campus cafe. Most of the activities seems to occur around the cafe and the balcony in the middle on different levels, where seem to be busiest spots within the building.

³²² See Appendix 3.

³²³ Hence the title of the work *Measurement No. 1 - NAB*.



Plate 3.4 Interior of the New Academic Building, Goldsmiths, University of London

The recording station is set up on the lower level of the building with two loudspeakers positioned along the longer side of the room, facing roughly at each other diagonally. The staircase to the upper level locates in-between the loudspeakers. The recording desk is set up against the wall and roughly at equal distance to the two loudspeakers. The performer (in this case, myself) will be stationed at the desk to carry out the recording and the announcement. The performer can determine the duration of the recording and a set time for the announcement after accessing the circumstance and the situation of the environment. In *Measurement No. 1 - NAB*, I decide to start recording every three minutes, which will give me enough time to wait for a sound that comes to my attention, to refer it to the cataloguing system and to put it down on the date sheet in coded text. I start listening and recording at half passed the hour, repeat the recording/translating/transcribing process for thirty minutes to the hour. The announcement for the data collected for the past thirty minutes then takes place on the hour. This process is then repeated for an undetermined duration.

When testing the announcement system in the space for the first time, the voice does not seem to travel as expected. The central staircase seems to interrupt the travel of the sound projected to the space. In order to create a 'feel' of an announcement heard in the train stations or public squares, I decide to apply a digital delay on the announcement. I also slightly alter the facing direction of one loudspeaker so the projected sound would run parallel with the wall next to the loudspeaker.

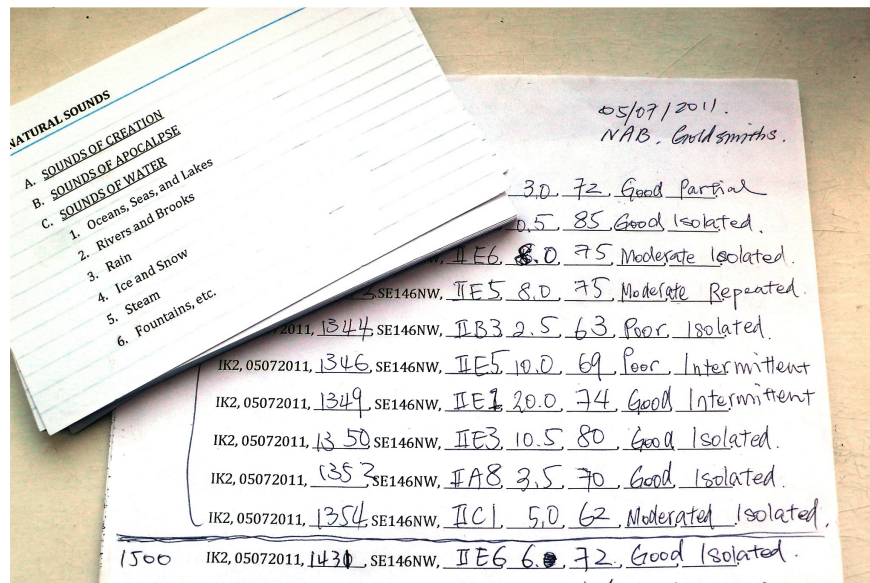


Plate 3.5 Data Sheets and index cards from Measurement No. 1 - NAB (2011)

The Convergence of Sound and its Nonsound

‘Writing gives us a device for inscribing space, for inscribing nature.... Writing serves to caption the world, defining and commenting upon the configurations we choose to textualize. If writing is an imitation of speech, it is so as a “script”, as a marking of speech taken up through time in varying contexts. The space between letters, the space between words, bears no relation to the stutters and pauses of speech. Writing has none of the hesitations of the body; it has only the hesitations of knowing.’ - Susan Stewart³²⁴

The primary concern of *Measurement No. 1 - NAB* is the interchange and interplay between the notion of surface and subtext in the form of sound through various process of inscription, transcription and translation. As we have discussed and developed earlier through Horn’s *Still Water*, the interplay between the photograph of the watery surface and the annotated text sedimented at the bottom of the image underlies the notion of surface and subtext.³²⁵ Through

³²⁴ Susan Stewart, *On Longing: Narratives of the Miniature, the Gigantic, the Souvenir, the Collection* (Durham: Duke University of Press, 1991), 31

³²⁵ See this chapter, 119-120.

photographing the river surface, Horn transfers the flow of constant 'reflection' into a piece of motionless visual information. What remains in flux is the reading of the footnotes, which takes its reader through different contexts in time and space. In *Measurement*, each line of code contains a fraction of information about the sound perceived by its recordist in particular time and space. The transformation between the surface and the subtext lies in the act of listening, translating and transcribing. A similar process also takes place when such textual recording meets its 'reader'. The reader³²⁶ of *Measurement* can translate the information back to an accessible common language following the manual provided. The translated sound event will provide the reader essential information that the recordist has transcribed such as the type of sounds, location, distance, distinction and occurrence,³²⁷ from which the reader can call upon his/her own understanding and experience of similar sound event.

Or if to place *Measurement* in comparison to Lucier's *I am sitting in a room*, the interplay between surface and subtext lies in the mutable identity between the written text and the voiced text, and that between the voiced text and the voiced space. The voice announcement in *Measurement* embodies this interplay between surface and subtext akin to that in Lucier's work. The announcement projects the recorded sound in the form of coded text back into its three-dimensionality, a returning to its spatial source but in different form. This returning becomes a new sound event that subsequently influences the perception and the expectation of the events in the space and creates new context for both the listener and the recordist.

If to place the elements in *Measurement* in Robert Smithson's dialect of Site and Nonsite,³²⁸ the interplay between different components within the work may become more apparent. The Non-sound (if I may boldly claim such term) in *Measurement*, such as the coded text, the cataloguing system, and the voice announcement, corresponds to the listed characteristics of Smithson's Nonsite: Closed Limits, An Array of Matter, Inner Coordinates, Addition, Contained information, No Place, and One. The convergence between Sound and Non-sound lies in a space where 'two-dimensional and three-dimensional things trades places. ...large scale becomes small. Small scale becomes large.' Similar to

³²⁶ The aim of *Measurement* work does not only lie in the process of listening/recording/transcribing of the recordist, but also also in the process of reading/translating of the reader. More see Manual for *Measurement* work in Appendix 3.

³²⁷ See this chapter, 134.

³²⁸ See Thesis Chapter One, 61-62.

Smithson's description of the path of convergence between Site and Nonsite as 'a course of hazards,'³²⁹ the interplay between Sound and Non-sound in *Measurement* is of 'uncertain trails both mental and physical'³³⁰ through the act of listening, recording, writing, and reading.

³²⁹ Smithson, "The Spiral Jetty," *The Collected Writings*, 153.

³³⁰ *Ibid.*, 153.

Conclusion

‘Iceland is a verb and its action is to center’³³¹

When talking about her ongoing series of publication, *To Place*, an artist’s encyclopedia of personal experience of Iceland, where the artist has been visiting annually since 1975, Roni Horn comments on the identity of the island as a verb, rather than a noun. Horn says,

‘Iceland taught me that each place is a unique location of change. No place is a fixed...thing. So I have discarded the noun form of place as meaningless. The verb to place, as an activity in itself as a condition of being present, ... the verb operates dialectically. The view is not separate from the viewer; Iceland viewed is something other than Iceland. Similarly, the identity of the viewer is not separate from the place viewed.’³³²

In this sense, each publication of *To Place* does not only record Horn’s visits to different parts of the island over the years, but also *to place* herself back into the dialogue and exchange between the island and herself. The identity of the island and that of the viewer (in this case, Horn herself) operates in a dialectical relationship, which is always centred at the renewing presence.

Upon revisiting and writing on this journey of practice-led research project, I have come to realise that the conversation between the work and myself is also renewed each time. Similar to Horn’s annual journey to Iceland, I find myself continuously returning to the initial starting point so to begin a new journey, which subsequently leads to a different direction and a different view each time.

³³¹ Roni Horn, “Island and Labyrinth,” *To Place: Pooling Waters*, (Cologne: Walther König, 1994) 23.

³³² Roni Horn, “*To Place*,” *Roni Horn aka Roni Horn* (volume: subject index) (New York: Whitney Museum of American Art, 2009), 148.

The Sounding of an Encounter

Initiated with a question of ‘what is it to cause the impression of something that is not present?’ emerged from my own practice and my chance encounter of Horn’s work, the aim of this writing intends to explore and adumbrate the notion of *en creux*³³³ evoked and circumscribed in and through sound as a creative medium in the light of Roni Horn, Robert Smithson and Alvin Lucier’s practice. Five pieces of artwork have been developed, analysed and discussed as case studies alongside with the foregoing artists’ work and aesthetic thinking. In order to tease out the constituents of an encounter of *en creux*, each case study focuses the examination and investigation on different aspects of Horn’s creative strategy of doubling, Smithson’s dialectic of Site and Nonsite and Lucier’s *I am sitting in a room*, and in turn, their aesthetic and critical influence on my approach to use sound in the pursuit of the subject in question. The primary concern of this practice-led research is not to develop and define sound as specific aesthetic object impinging on in its environment, but as specific aesthetic agent in which ‘each modifying the other as they alter our perception of the space they occupy,’³³⁴ and as an agent through which specific circumstance is created in time and space.

The term agent denotes ‘the doer of an action, typically expressed as the subject of an active verb or in a *by* phrase with a passive verb.’³³⁵ Sound as an agent indicates a sense of doing, generating and making something occur and happen. R. Murray Schafer once passionately expresses his thinking on sound as verb whose action is to pervade, to spread and to generate, as the composer says,

‘Seeing is analytical and reflective. It places things side by side and compares them. ...Sights are knowable. Sights are nouns. Sounds are actions; they move and change. Sounds are verbs. Sight separates and isolates. Sound fuses.’³³⁶

Schafer considers sound acts and reacts while sight passively receives and analyses. Schafer’s view is intriguingly parallel to Professor Sarat Maharaj’s

³³³ See Thesis Introduction, 12-13.

³³⁴ Linda Norden, “Roni Horn,” *Similia/Dissimilia*, 119.

³³⁵ *Oxford English Dictionary Online*, s.v. “agent.” Accessed 3rd August, 2014. <http://www.oed.com/view/Entry/3859?rskey=7CBrHe&result=1#eid8695222>.

³³⁶ R. Murray Schafer, “I Have Never Seen a Sound,” *Environmental & Architectural Phenomenology* 17(2) (2006):13.

thought of sound in terms of its role in the context of artistic research. Maharaj proposes the notion of 'sounding,' that is 'sending out impulses and receiving a topographical image of the surroundings as a reply - similar to sonar or ultrasound,' when 'approaching complex subjects in a communicative sphere that is riddled with incompatible ways of living and knowing and filled with cultural difference and intranslatables.'³³⁷ Instead of seeking for theoretical solutions and answers, Maharaj suggests the researchers in the creative arts to metaphorically send out signals and 'listen' to the responses so to gain understanding and relevant information of his or her subjects.

I would consider that Maharaj's notion of 'sounding' runs closely to my approach of 'handling'³³⁸ in this practice-led research project as I have come to realise that the role of sound is not only as creative medium which can be manipulated and sculpted as I initially assumed, but more importantly, as 'signal' and 'tool' to map, to scan, to frame, to contain, to place, to displace, to double, to mirror, to converge, and to carry across and go beyond.³³⁹

Sound-ing

In the work *Spring Piece*, sound vibrates and penetrates the architectural boundary of the inside and the outside. Through a repeating process of recording, playback and re-recording, the sound takes the material essence of windowpanes and manifests itself as a collection of resonant frequencies of glass. The inherent nature of resonant frequencies implicates the notion of doubling and self-referentiality. Horn's doubling strategy is thus considered and examined in the light of Jean-Luc Nancy's thinking on listening through the notion of resonance. Through dissecting the recording process of *Spring Piece* and Lucier's *I am sitting in a room*, I have found the latent connection between the notion of resonance and that of doubling. Sound, in *Spring Piece*, as a verb, is hence to activate a process of sounding, doubling, and re-sounding.

In *2 p.m.*, the site of College Green is marked³⁴⁰ and demarcated sonically by the processed audio signals of the field recordings taken from the site. The idea of re-

³³⁷ Roman Kirschner, "Sounding, Composition and Retransmission: Thoughts on Sarat Maharaj's notion of sounding in the context of art research," *Liquid Things*, 27th September 2012. Accessed 3rd August, 2014. <http://www.liquidthings.net/?cat=3>.

³³⁸ See Thesis Introduction, 21-24.

³³⁹ See Thesis Introduction, 8.

³⁴⁰ See Thesis Chapter One, 40-41.

sounding is once again alluded through the re-placement of the processed audio signals to their original locations. The doubling of the real-time sound and its processed one transforms and expands the communal green to a specific sonic field where the narrative unfolds in the act of listening and wandering. Through the comparison and discussion of soundscape composition and earthwork, I have suggested that *2 p.m.* locates in the practice close to that of earthwork, particularly Smithson's practice. I have identified that Smithson's dialectic of Site and Nonsite offers a different and refreshing perspective in regard to the interplay between real-time sound and its recorded or processed counterpart. Sound, in *2 p.m.*, is to map, to place and to converge.

Reflecting upon the emergent concern with the notion of time in the work *2 p.m.*, I focus the investigation on the temporal aspect of Horn's doubling and Smithson's Nonsite work. Through the in-depth discussion and examination of Horn's paired objects and Smithson's deployment of mirror, I have suggested that the notion of simultaneity and anteriority³⁴¹ can be identified in both artists' practice. While Horn produces such effect through utilising doubling in a spatial sequence, Smithson introduces mirror into his Site and Nonsite work as practical and conceptual strategy of 'double container',³⁴² which, I have argued, subsequently subverts the logic of the dialectic of Site and Nonsite. I have suggested that such latent notion of simultaneity and anteriority in both artists' work evokes a kind of 'interval' found in-between the presence and the absence through space, and in-between progression and regression in time. I have thus further identified such notion of interval in Lucier's work through analysing the conceptual implication in the making process of *I am sitting in a room*, through which I devise the particular recording and playback mechanism³⁴³ in *Folding*, and the performance structure³⁴⁴ in *Hear One Near and Think of the Other*. Sound, as verb in these two works, is to mirror and reflect, to contain and re-frame, to move and to displace in the gap of the presence and absence in time and space.

In *Measurement No. 1 - NAB*, the notion and the materiality of sound is explored in its broadest sense. Through reflecting on my encounter with Horn's *Still Water (The River Thames, for Example)*³⁴⁵ and *Pink Tons*,³⁴⁶ I have considered the latent

³⁴¹ See Thesis Chapter Two, 69-71.

³⁴² See Thesis Chapter Two, 82.

³⁴³ See Thesis Chapter Two, 87-88.

³⁴⁴ See Thesis Chapter Two, 95-97, and also Appendix 2.

³⁴⁵ See Thesis Chapter Three, 104-112.

³⁴⁶ See Thesis Chapter Three, 102-105.

interplay between the notion of surface and subtext³⁴⁷ in her sculptural, photographic and typographic components in the work. I have suggested that the most significant doubling in Horn's work lies in the juxtaposition of *Still Water* and its subject the river Thames, in which is closely resonant with the logic of Smithson's dialectic of Site and Nonsite. Horn's doubling of the river Thames with its photographic and typographic representation teases out a sense of confluence between different media and dimensionality, which also echoes Smithson's view on the the interplay between Site and Nonsite as 'different kinds of mental and physical abstraction.'³⁴⁸ In such comparison of Horn's and Smithson's practice, I have established the importance of textual production as concrete 'printed matter'³⁴⁹ and its three-dimensionality, which in turn, leads my investigation into the role of text in Lucier's *I am sitting a room*. Through revisiting Lucier's work once more and focusing the discussion on the role of text score, I conclude that the text of *I am sitting a room* shapes, determines and frames the structure and the content of the piece, which is built upon the contours of the human voice and articulation. The text score hence operates as the surface while the audio recording becomes the subtext of the scores. The aforementioned investigation and reflection feeds into the conception and creation of *Measurement No. 1-NAB*, in which the primary concern is to explore sound in its acoustical and textual production and the interplay between the two. In *Measurement No. 1 - NAB*, sound inscribes on various surfaces and converges different perceptual experiences. Sound, as a verb, is to circumscribe, to carry across and to go beyond.³⁵⁰

In-between Sound-ing

If, sound acts as an active agent that facilitates and promotes certain happening, then what sort of actions does it generate within the participation of its maker and its listener?

In an artist interview for an online podcast supported by Soundfjord Gallery in 2010,³⁵¹ I distinctively remember that I commented on my position as a sculptor,

³⁴⁷ See Thesis Chapter Three, 111-119.

³⁴⁸ See Thesis Chapter Three, 113.

³⁴⁹ See Thesis Chapter Three, 113-114.

³⁵⁰ See Thesis Introduction, 8.

³⁵¹ Mimosa Moize, "live performance and interview of Mimosa Moize," *Soundfjord Gallery*, July 2010. <http://www.mimosamoize.com/audio/MimosaMoize-Interview-Performance.mp3>

and sound as a creative medium, similar to others such as wood and stone, which all have their generality and specificity. I often reflect on that comment, and in contemplating the idea of sound as a sculptural medium, I would consider my position is close to that of Rosalind Krauss when she comments on modern sculpture,

‘...any form of being contains the latent experience of its opposite: simultaneity always containing an implicit experience of sequence. One of the striking aspects of modern sculpture is the way in which it manifests its makers’ growing awareness that sculpture in a medium peculiarly located at the juncture between stillness and motion, time arrested and time passing.’³⁵²

According to Krauss, the nature of modern sculpture is gradually shifted from medium-specific to a more time-based practice. The work functions as a ‘junction between stillness and motion,’ a demarcated place to provide relay between the viewer and the artwork. The concern of modern sculpture turns from static objects to fluid situations and circumstance. Krauss’s comments on the shift of sculpture confirms the nature of Horn’s and Smithson’s practice. The awareness of sculpture as a time-based practice is embodied through Horn’s strategy of doubling, which is in part inspired by the notion of leitmotif in music,³⁵³ and through Smithson’s dialectic of Site and Nonsite, which requires a kind of tracing and traversing, whether physically or metaphorically.

The work of sound art is undoubtedly a time-based practice as the work is mostly durational and the aural and sonic experience that it offers unfolds in time. Yet, through tracing Horn’s and Smithson’s practice, I have become aware of a particular kind of perceptual and experiential shift in me as the maker in the production process of the work, and as the listener in my encounter of the work. I would suggest that this is due to a latent doubling in my practice to their creative strategy and aesthetic thinking.

I would firstly consider that an idea of traversing or tracing is evoked in most of the case studies produced in this research project, particularly in the work *2 p.m.*, *Folding*, and *Hear One Near and Think of the Other*. For instance, as discussed in

³⁵² Rosalind Krauss, *Passages in Modern Sculpture* (Massachusetts: The MIT Press, 1990), 5.

³⁵³ See Thesis Introduction, 15.

Chapter One, my intuitive response to the installation site for *2 p.m.*, an approximately 50 by 70 meters outdoor green, was to ‘find a way in’ through walking with my naked ear. Through surveying the site via an activity close to soundwalk, field recordings were taken, which later became the source material for further treatment. The activity of soundwalk, as the composer Hildegard Westerkamp has discussed, is ‘any excursion whose main purpose is listening to the environment,’ and ‘a practice that wants to bring our existing position-inside-the-soundscape to full consciousness.’³⁵⁴ Through the act of walking through the sound-scape with unmediated ear, Westerkamp suggests an ‘inner space’³⁵⁵ is uncovered for the listener to ‘notice’ his/her own inner-scape, and the interplay between the inner and outer world through sound. I would consider my approach of listening while traversing the site close to that of soundwalk, through which I was able to place myself ‘inside the soundscape’ of the site and understand the generality and particularity of the location sonically. Yet, I would argue that the notion of soundwalk does not seem to completely describe my particular psyche as the maker when surveying the site. I would instead consider my approach to the various sites in the foregoing case studies close to Smithson’s approach to his Site and Nonsite work, which involves a process of low-level scanning akin to the way of animals moving through the terrain and leaving tracks. Smithson explains,

‘Actually if you think about tracks of any kind you’ll discover that you could use tracks as medium. You could even use animals as a medium. You could take a beetle, for example, and clear some sand and let it walk over that and then you would be surprised to see the furrow it leaves. ... these tracks relate, I think, somehow to the way the artist thinks — somewhat like a dog scanning over a site. You are sort of immersed in the site that you’re scanning. You are picking up the raw material.’³⁵⁶

Smithson’s idea of a low-level scanning suggests an active involvement of the maker walking over a site through perambulation and tracing the ‘tracks’ left by

³⁵⁴ Hildegard Westerkamp, “Soundwalking as Ecological Practice.” (paper presented at the International Conference on Acoustic Ecology, Hirosaki University, Hirosaki, Japan, 2-4 November, 2006). Accessed 5th August, 2014, <http://www.sfu.ca/~westerka/writings%20page/articles%20pages/soundasacology2.html>

³⁵⁵ Westerkamp, “Soundwalking as Ecological Practice.” n.p.

³⁵⁶ Robert Smithson, “Earth: symposium at White Museum, Cornell University,” *Robert Smithson: The Collected Writings*, ed. Jack Flam (Berkeley: University of California Press, 1996), 181.

the previous moving bodies traversing through the site. Anything perceived on the site can be a 'medium' used for the work. The 'raw material' collected does not only consist of physical materials such as rocks and sand, but also the 'feel' of the site such as light, colour, smell, sound, textures, etc., which in turn determined the form of the work. As Smithson explains further,

'There is no criteria; just how the material hit my psyche when I'm scanning it. But it's a kind of low level scanning, almost unconscious. When you select, it's fixed so that randomness is then determined. It's determined in uncertainty.'³⁵⁷

I would consider such determined uncertainty³⁵⁸ is one of the fundamental structuring elements in my work. The 'raw material' that I collect through scanning the sites determines the structure, the form, and the content of the case studies, such as the processed audio signal from field recording in *2 p.m.*, the recording mechanism and the interplay between the form and content in *Folding*, the performance structure in *Hear One Near and Think of the Other*, and the textual recording in *Measurement No. 1-NAB*.

I would further suggest that such quality of determined uncertainty in my work creates a particular situation and circumstance that offers different involvement and engagement for the listener. The acute presence of the listener shapes, structures and forms most of my work. Without the listener sound-walking through the site, the sonic spectra interfusion of the environment sound and its processed one will not occur. Without the listener interacting and tracing through the circumscribed space in *Folding* and *Hear One Near*, the interplay between the sonic presence and absence will not realise and eventuate. Without the listener chancing upon the voice announcement of textual recording and the possible reading and translating the coded text, the different perceptual convergence of the concept of sound will not take place and materialise. Without the presence of the listener, the narrative of the work will not unfold and the circumstance will not be recognised. Without the presence of the listener, the 'inner-scape' of these case studies will not be discovered and recognised.

³⁵⁷ Smithson, "Fragments of a Conversation," *The Collected Writings*, 189.

³⁵⁸ One of the qualities of Smithson's dialectic of Site and Nonsite, see Thesis Chapter One, 64.

In the discussion of Olafur Eliasson's work, Anja Novak suggests Helmuth Plessner's concept of eccentric positionality³⁵⁹ to discuss this particular type of spectatorship, which involves the viewer/listener's awareness and evaluation of his/her own position to and in the work. According to Novak, Plessner's notion of eccentric positionality aptly expresses the awareness of the viewer's double role in the work that requires him/her to carry out the task of being the performer as well as the spectator. Novak explains further, "This eccentric position does only enable but actually compel them to reflect on their own position, as if from the outside. They are characteristically "outside themselves" and see themselves standing in the world, as it were."³⁶⁰

I would consider this notion of eccentric positionality implies an idea of relationality, temporality and simultaneity of such position that one holds in the world. Such position is 'always shifting and unfixed, and in the process of becoming'³⁶¹ that resonates closely with Horn's strategy of doubling, through which not only her objects are paired but also the viewer with her objects. As Horn has noted on her work *Dead Owl* (1998), '...is created in the presence of three, which is the two images and you who forms a triangle with these identical and different images.'³⁶² This triangular affair expresses the relationality between the position of the viewer to and within the work. Through Horn's doubling, such position is always 'eccentric' as it is forever oscillating between the awareness of one's position to the presence and the absence of her paired objects. I would suggest that this eccentric positioning of the viewer is also embodied in the determined uncertain nature of my work in this practice-led research through tracing, reflecting and doubling Horn's, Smithson's and Lucier's practice and aesthetic thinking.

With this recognition in mind, I would propose that, sound, as an aesthetic agent, functions as preposition, rather than just verb. Sound, as a preposition, is expressing a relation between two elements. Without preposition, a clause will not form and a relation will not take place. Horn's doubling and Smithson's dialectic of Site and Nonsite provide such prepositional model to re-consider

³⁵⁹ Anja Novak, "Engaging Environments: The practice of Robert Smithson and Olafur Eliasson as an instance of environmental aesthetics," in *Robert Smithson: Art in continual movement*, eds. Ingrid Commandeur and Trudy van Riemsdijk-Zandee, (Amsterdam: Alanda, 2012), 29.

³⁶⁰ Novak, "Engaging Environments: The practice of Robert Smithson and Olafur Eliasson as an instance of environmental aesthetics," *Robert Smithson: Art in continual movement*, 29.

³⁶¹ Fer, "The Pigment Drawings," *Roni Horn: 153 drawings*, 9.

³⁶² See Thesis Chapter Two, 65.

sound as a creative agent. This is, however, not to claim that sound as preposition is a fixed position or identity as the preposition is also determined by the two elements that it connects, as in Richard Serra's word, 'a specific relay... that frames the one in terms of the other, and transforms both at once.'³⁶³

If sound is preposition that expresses a certain relation, then what kind of aesthetic experience does it offer its listener? I would consider that German philosopher Gernot Böhme's notion of atmosphere offers an insightful perspective to the work produced in my practice-led research. Böhme draws and develops his thinking on the aesthetics of atmosphere from the semantic use of the term in our daily experiences and expression, which shows a certain perceptual sensibility toward the environment. Atmosphere hence describes an 'in-between phenomenon', as Böhme explains, 'atmosphere constitutes the "In-between" between environmental qualities and human sensibilities' and 'the concern is not with the properties of the object, properties which encapsulate it and distinguish it from other objects, but rather with the qualities via which the object projects itself into a space.'³⁶⁴ Expanded from Böhme's thinking, Anja Novak proposes a kind of 'atmospheric perception'³⁶⁵ that implicates an awareness of one's presence and the qualities of his/her immediate environment. Through such awareness, Novak further expounds, 'inner and outer events fade into each other, the experience of a work ... amounts to a nonlinear experience of time, in which remote moments and places appear as (potentially) connected.'³⁶⁶ I would suggest that Böhme's notion of atmosphere and Novak's atmospheric perception amount closely to my thinking on the idea of an encounter of *en creux*,³⁶⁷ which I have investigated and examined through my practice alongside with Horn's, Smithson's and Luceir's work.

³⁶³ Hal Foster, "The Un/making of Sculpture," in *Richard Serra*, eds., Hal Foster and Gordon Hughes (Massachusetts: The MIT Press, 2000), 179.

³⁶⁴ Gernot Böhme, "Acoustic Atmosphere as an Aesthetic Concept," *Soundscape: The Journal of Acoustic Ecology* 1 (2000): 14-15.

³⁶⁵ Novak, "Engaging Environments," *Robert Smithson: Art in continual movement*, 26.

³⁶⁶ *Ibid.*, 29.

³⁶⁷ See Thesis Introduction, 12-13.

A Position of Elsewhere³⁶⁸

‘At its most basic the very act of writing about sound is an act of translation. Translation of an idea from one language to another is a difficult enough process, but to transcribe, recreate or describe the quality of a sound, or a delicate mix of sounds, poses a larger problem.’ - Micah Lexier³⁶⁹

‘This manner of quotation is a special form of repetition. ... it is a manner of appropriation, consumption, mirroring. It is also the transformation of one form into another, a shifting of the means of access. This alteration creates the possibility of new points of view.’ - Roni Horn³⁷⁰

Writing upon this point, it has become clearer to me that I have, perhaps, made a big circle and come back to where I had started at the beginning of this practice-led research project. The essence of this practice-led research project still concerns with the notion of translation. As I have discussed in the introduction, ‘the essence of translation lies in the search of a perfect rendering from one system of language to another. In the most ideal outcome of translation is a perfect rendition from one to another, two identical sets of signification in different languages.’³⁷¹ My particular interest in the *process* of translation lies in its *verbal* and *prepositional* property, an in-between space where the action of carrying across and going beyond takes place. This particular space, which I have found within Horn’s doubling, Smithson’s dialectic of Site and Nonsite, and transformation from voiced text to voiced space in Lucier’s *I am sitting in a room*, in the end, is still elsewhere. Perhaps, the merit of this practice-led research project does not rely upon seeking the definite answers to questions, but rather, upon edging toward the framing of the contingent circumstance through the artistic practice and critical enquiry. The narrative of the work and the written element in this research unfolds and develops through a constant ‘appropriation,

³⁶⁸ Lynne Cooke, “A Position of Elsewhere,” in *Robert Smithson Spiral Jetty: True fictions, false realities*, eds., Lynne Cooke et al (Los Angeles: University of California, 2005), 53.

³⁶⁹ Micah Lexier, Preface to *Sound by Artists*, eds., Dan Lander and Micah Lexier (Canada: Charivari Press, 2013), 9.

³⁷⁰ Horn, “Among Essential Furnishings,” *Earths Grow Thick*, 79.

³⁷¹ See Thesis Introduction, 8-9.

consumption, mirroring³⁷² between the forgoing artists' work and my own practice. They have become my company on this journey of searching for the space in-between, a lacuna, an encounter of en creux. It might have been incorrect to say that I have circled back to the beginning of this practice-led research. Rather, the route has been winding and evolving like a spiral, with a central point that is at times receding from or approaching toward where I am standing. Every single position on the spiral is always in relation to the central point as well as to the others in both time and space. In this sense, this re/search project is an ongoing process. The case studies and written element produced is to reflect and 'to arrest a moment in that peripheral circumference area, and relate it to a central point.'³⁷³

³⁷² Horn, "Among Essential Furnishings," *Earths Grow Thick*, 79.

³⁷³ Smithson, *The Collected Writings*, 236.

Afterword

How do you replicate a situation, a circumstance, an atmosphere or an experience, out of context, in words? How to name something that is almost unnamable? Even if it is achievable, how to be faithful to its contingent nature of fluidity?

It has been suggested to me that I should consider to add an afterword section to this thesis. The reason behind the suggestion comes from a story that I told my examiners in the viva voce. The story tells about a kind of awareness and recognition of particular circumstances that we might chance upon in our daily lives. I consider that this awareness comes from my heavy involvement in these forgoing artists' work in my research in the past few years.

After numerous attempts that consist of arhythmic typing and deleting, I then realised that it is not possible for me to reproduce the story, which was told in a specific moment in the viva voce. The condition at that moment was perfect for the story to be told, and which had since become a piece of history in my life, so as it was for the people presented in the room. No matter how hard I try to replicate *that* story told, it seems I will never be able to describe its perfect form in that crucial moment.

I think this *is* the acute recognition of one's position and the uniqueness of the circumstances (including the recognition of my current position to that past situation) that I cannot reproduce here in the afterword. And this *is* the acute recognition within which that an encounter of *en creux* can take place. Perhaps the story isn't important at all as it could be any 'slice of life' in anyone's daily experience. The most important part is whether we recognise it when we encounter one, and can be aware of one's unique position to it.

Appendix 1

Parallel Correlation (2011)

‘...if you make an analogy between two things, you’re not only saying that one of them resembles the other, you’re saying that the identity of one is concealed in the other. It’s as if all things are the same, but have different outward appearances, and the transformation from one to another is an active process in which truth is determined, but you’re at different values along the way’ - Alvin Lucier³⁷⁴

Parallel Correlation (2011) was perceived and realised as a live performance piece. The initial conception of the piece is to explore the temporal juxtaposition of two sounds, in which one triggers and influences the other within a recurrent process. This work can be seen as an extended exploration from the system of Folding that explores the temporal doubling of the real-time sound and its recorded one. Folding can be seen as an open system with undetermined duration, while *Parallel Correlation* is a closed system that lasts for a pre-determined time period.

The primary conception of *Parallel Correlation* is to experiment and explore how a predetermined sound source influences the current action in an audio mixing console, which is commonly known as a mixer feedback. The process of creating a suitable sound material starts from finding a set of sounds that have relatively stronger influence on the feedback effect in the mixer. After a series of tests with different sound sources, I find that the purer the sound source, the more effectively it influences on the current action in the mixer. This finding leads me to use sine tones with its harmonic and non-harmonic overtones as the foundation for the ‘primary composition’. This is in order to accommodate the consideration of its role in the final result and to achieve the maximum effect on the mixer feedback system. The ‘primary composition’ has the characteristic of repetition, slow progression and consisting of extreme frequency bands. The purpose of repetition is to emphasis its effect on the cycle of the feedback loop, while the slow progression provides the opportunity for the minute change to be observed/heard. The use of extreme frequency bands is to maximise the affect on

³⁷⁴ Lucier, *Reflections*, 132.

the feedback loops, and also to add dynamics on the overall structure of the performance. The final presentation of the piece is comprised of a combination of two sounds, one from the primary composition and the other from its effect on the feedback system.

I am drawn to the idea of the discrepancy and the varying results of the live processed composition as the unpredictability of the feedback system. I am also fascinated by the idea of a linear and cyclical sense of time occurring simultaneously in the performance, which again refers back to the work *Folding* (2009/11). The difference between *Parallel Correlation* and *Folding* is that the notion of doubling is not straightforward in *Parallel Correlation* for the listener.

Appendix 2

Manual for Hear One Near and Think of the Other (2011)

(live performance for two performers for undetermined duration)

Space:

Three adjacent spaces are required. Two of the spaces shall be connected by the third space which functions as the transitional space. The size of two main spaces shall be in a kind of proportional ratio, for example 1:1, 2:1, 3:2, etc. The openings of the two spaces shall not be in any kind of direct perspectival relation, i.e., one cannot directly see the other space when in the current space. In such case, the audience is encouraged to move in-between the spaces.

Sound:

The selection of sound materials to be performed shall be a mixture of recognisable and abstract sounds. Two performers are given the identical collection of sound materials, which shall be processed as little as possible and can be looped according to the preference of the individual performers.

Set-up:

Two loudspeakers are separately and respectively placed at the corners opposite the openings of the two main spaces. The performers set up their audio equipment in the transitional space. Both performers have control over the distribution of his/her part of the sound materials through both loudspeakers. Each of the performers shall select his/her spot where the playback from the two spaces can be heard clearly. There shall be sufficient space and distance between the two performers so that the audience feels comfortable moving through and in-between the performers.

Performance:

The performance shall start without any announcement. One performer shall play first and can decide whether sound is played back in only one space or both spaces at the same time. After a period of time, the other performer joins in by placing his/her sound in one of the two spaces. The first performer, then, shall

distribute his/her sound in the other space. Both of the performers can decide when and where to distribute the sound according to the 'feel' of the performance and the movement of the audience. When one performer is taking an active role of distributing the sound and deciding the pace of the performance, the other shall take a reactive role to support. The sound played in both spaces can be the same or different. The duration of the performance is determined by the performers.

Appendix 3

Manual for Measurement No. 1 - NAB (2011)

For the recordist:

- a. Familiarise with the setting and the vocabulary (refer to the Setting index card).
- b. Familiarise with the cataloguing system (refer to the Sound Catalogue³⁷⁵ index cards).
- c. Prepare the data sheets (refer to the Setting index card).
- d. Select a location to exercise the recording system by following these steps:
 1. Clear ears and mind by not talking to other people.
 2. Decide your approach of selecting sounds: passive hearing or active listening.
 3. Select a sound, find coordinate in Sound Catalogue index, write it down on the data sheet according to the setting.
 4. Repeat above steps for maximum 45 minutes.
- e. Announce the recorded information on a set time (preferably on the hour or at regular intervals) with or without a broadcasting system in place.

For the reader:

- a. Select any data from the collection.
- b. Refer to the Sound Catalogue index for the coded information you wish to decipher.
- c. Read out or write down the deciphered message.
- d. Imagine the sound.

³⁷⁵ Sound Catalogue is expandable if the sound perceived cannot be found in the current cataloguing system at hand. The recordist is encouraged to develop his/her own unique system.

Appendix 4

Guide to additional documentation

Portfolio Disc:

Disc contains all the case studies discussed in this writing and additional supporting materials. The portfolio is created and formatted as offline HTML pages, and optimised for the latest versions of internet browsers such as Chrome, Safari and Firefox.

How to use:

- Double click on the index page and it shall automatically be opened on your default browser.
- Select the work by clicking on the title of the piece or on the image.
- The images can be magnified by clicking on it, which will open a pop-up light-box displaying the image selected.
- Hover the cursor over the right-hand side of the image, a 'next' button will appear for going to the next image. Hover the cursor over the left-hand side for the previous image. To close the pop-up light-box, click the 'close' button on the lower right-hand side corner, or alternatively click outside the light-box window.
- When clicking on the ► (play) button, the file will be opened on a separate page with your default browser media player. (Note: video files may take longer to load and you may be asked to run Quick-time player on your browser).

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