Red Lake / Black Mine:
Affective Bodies and Material Complicity in Sound Art Practice.

By

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i. Abstract

This practice-research operates at the intersection of field recording, electroacoustic composition and sound art. It investigates how material—often considered inert—possesses agency, drawing the body of the artist to other affective bodies (sounds, objects, and actions) that exert influence on the creative process.

The key methods include exploring the potential sound of objects in the field and investigating the capacity of sound to influence other materials. For example, the sonic properties of field recordings (onsets, partials, noisiness, centroid, etc.) are used to process sounds, images, and text from the same sites.

The methodology is informed by the practice-research ideas of Nelson (2013) and Wesseling (2016), with a particular focus on iterative discovery and experience. The work emerged through cycles of making, reflecting, and remaking, often guided by the resistances and affordances of material. An interest in the recursive influence of material is inspired by Taussig (2011) and also Lange-Berndt's description of materials as "wilful actors and agents within artistic processes" (2015: 18). Drawing from the new materialist ideas of Bennett (2010) and Massumi (2011), the research has significant implications for authorship; positioning material as a complicit agent, acting on the artist from the moment of encounter and shaping every phase of the work's development.

The multidisciplinary thesis is informed by productive collisions with archaeology, anthropology, poetry, land art, and music computing, pushing the boundaries of sound practice and exploring sound in relation to other disciplines, media and sensory registers. The multimodal practice portfolio, comprising sound and video pieces and a printed book of text and images, contributes to a growing body of work dedicated to expanding field recording practice as well as a pluralistic set of concepts and methods that situate sound practice within a wider context.

ii. Acknowledgements

This kind of long-term research project is only possible with the generous support of many people. My family has made the largest contribution to my studies. My wife Josie and daughter Mila have encouraged me throughout, even though I have been less available in return.

I would like to thank Dr. David Prior, who has mentored me in research (and teaching) for the last 10 years, and Dr. Johny Lamb and Dr. Neil Chapman for helping me find new paths when the research had stalled; without their joining my supervision team midway through my studies, I would almost certainly not have completed this thesis. Their ability to see something unformed and to help tease out exciting ideas has been incredibly valuable. I would also like to thank Adam Russell, who introduced me to Massumi, which sparked the overall direction of the thesis.

Thank you to the community of experimental musicians, labels and grassroots venues, particularly DAAM (Difficult Art and Music), Means Magazine, and the Fish Factory in Penryn for helping me to get my practice into the world.

Finally, it is difficult to acknowledge every piece of work that made *this* work come into existence. All I can say is that the emergence of an idea is beholden to many others and throughout this project I have been drawn to, and transformed by, different ideas, developing a sensitivity to the agencies and forces that shape how I navigate the world.

Will Parker
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1 Introduction

1.1 Aims and Objectives

The main aim of this thesis is to explore the agency of material in field recording and site-based composition, examining how material forces act on the artist from the moment of encounter and shape every phase of the work's development.

In the service of the main aim, there are four objectives:

i. To investigate the 'agency' and 'complicity' of material in sound and multimodal practice, with an emphasis on the following underlying material forces:
    - 'Physical resistance and constraint': where the physical properties of material define interaction and pull the body into action. Material creates haptic feedback through touch and agency operates through tactility. The thesis fosters a sensitivity to the contours and affordances of material.
    - 'Vibrational and sonic properties': how materials reflect and alter energy, and mediate perception. Engaging with descriptors (onsets, partials, centroid, flux etc.) develops a method where the unique vibration of materials exerts influence on other materials as well as on processing and compositional decision-making.
    - 'Decay, weathering and temporal change': how agency changes over time and materials carry the marks of their history – remembering and replaying events. The thesis draws on 'excavation' as both a literal and metaphorical model inspired by Benjamin's notion of 'turning the soil' (Benjamin, 1927-1934: 576).

- ‘Invisible forces, contamination and exchange’: materials transferring substances and affecting surrounding bodies, or how materials radiate influence beyond the seemingly static physical form.
- ‘Fragmentation and assemblage’: how fragments of material can combine to create new forms. Broken and scattered material refuse singular meaning, and agency operates in recomposition i.e., how fragmented objects form a “contingent tableau” (Bennett, 2010: 5) and forge new structures and dynamic assemblages. The thesis engages with fragments (text, images, sounds), treating them as a dynamic assemblage rather than static materials.

ii. To explore sound in and through other mediums and sensory registers, including investigating how the sonic properties of field recordings can influence text and images from the same sites.

iii. To visit disciplines such as archaeology, anthropology, poetry, and land art to enhance and expand sound practice.

iv. To develop a body of compositional, performative and text-based work that demonstrates and embodies the theoretical research, contributing new insights into “the joint agency of person place and thing” (Bennett, 2011a).

1.2 Historical, Contemporary and Theoretical Contexts

The historical context of this research is derived from the defining figures of site-related sound practice, R. Murray Schafer, Pierre Schaeffer etc. and builds from the different discourses of acoustic ecology, musique concrète and anecdotal music. In addition, the thesis draws on contemporary work that explores multimodal site-related sound practice such as: Signe Lidén's installation ‘Stratigrafi’ (2013) which isolates and displaces the field making, “[r]epresentations, imitations, recordings […] processes reproduced…” (Lidén, 2013); and Mark Peter Wright’s work on site and subjectivity, particularly, ‘Unsit(e)ing Sound or, Interventions and Publics’ (2014), also his sound, image, text and data work ‘Tasked to Hear’ (2013); Patrick Farmer's collection of textual field recording 'Listening and Its Not’ (2020a), where various sound artists, writers, musicians and field recordists are instructed to travel “10 miles due North” of their homes and to “try and write about listening in a way that does not point directly to, or at it”, inviting “readers to rethink the act of listening as an internal, imaginative, discursive, dialogic and political terrain” (Farmer, 2020b).

The thesis is informed by the various artists investigating field recording and fabulation i.e., Patrick Farmer (2018), Kate Carr (2015), Salomé Voegelin and the ‘YNK’ podcast, created by Nicolas Perret

and Silvia Ploner who, according to Salomé Voegelin, “orchestrate the uncertainty of the heard, frame perception as doubt and invite participation in the unknown” (2017).

In relation to performance and site activation the practice draws from John Grzinich's 'Portrait of a Sounding Object' (2015), in which he bows and activates the resonant metal structure of an industrial water tower; Tansy Spinks’s site-based performances and her formulation of “the actual, the associated and the activated” (Spinks, 2014: 3); Dallas Simpson's binaural recordings, such as 'Field of Stones' (2014), which involves improvisations with stones, plants and trees; Yannick Dauby's 'Echoes as Messengers' (2015) in which he combines phonographic recordings and modular synthesis.

The practice is also informed by work that highlights the process of transduction and investigates material as a transformative tool, such as Toshiya Tsunoda’s investigations into contact microphones and resonances, 'Pieces of Air' (2002); or the microscopic details and close proximity of Hiroki Sasajima's recordings of sound through material, particularly 'Melting Snow' (2011) recorded through a thick metal sheet.

The composed and or tonal aspects of the portfolio are inspired by Richard Skelton's 'Landings' (2009) where objects from the landscape are used as devices to activate musical instruments; Simon Scott's multidisciplinary study—music, phonography and photography—of the “desolate and controversial environment of the Fens in East Anglia” (Scott, 2012b); 'Below Sea Level' (2012a); Abinadi Meza’s ‘Sea Cutting Sky’ (2017) an improvised piece featuring found materials such as seaweed, shells, stones, and feathers; Justin Barton and Mark Fisher's 'On Vanishing Land' (2019) provides a model for the multidisciplinary combination of music composition, field recording, film, literature, and philosophy. In addition, the incorporation of tones was inspired by the work of prominent Japanese neo-minimalists Sachiko M, Otomo Yoshihide and Ryoji Ikeda. Ikeda’s work, in particular, has a strong material dimension—his use of sine waves and noise sources acquires a physical character, especially when experienced through headphones. The conclusion of the CD programme note for his album ‘+/‘ (Touch, 1996) outlines Ikeda’s use of “barely audible” (Demers, 2010: 87) sounds that feature “the faintest gossamer sound grains” (*ibid.*) "that the listener becomes aware of only upon its disappearance" (Ikeda, 1996).

The use of photographs and text joins a growing body of work that centres around sound, site and photography. Works such as Jez riley French's 'Scores for Listening' (2007-present); Brian Lavelle and

Murdo Eason's 'Language of Objects' (2017) and the multiple outputs of Corbel Stone Press, particularly Autumn Richardson and Richard Skelton's 'Memorious Earth' (2015), which includes artefacts, music and film.

The theoretical underpinning of the thesis is constructed from multiple disciplines. From a sound art perspective, the research draws from Salomé Voegelin's 'Listening to Noise and Silence' (2010), specifically her work on phenomenology and productive listening; Christoph Cox's 'Beyond Representation and Signification: Toward a Sonic Materialism' (2011) is used to interface between a materialist reading of objects i.e., between Jane Bennett's 'Vibrant Matter' (2010) and sound practices.

The research is further contextualised with the theories of site-specificity, considering texts such as, Marion Shoard's 'Edgelands' (2002), in order to assess the aesthetics of site selection in field recording practices; Miwon Kwon's 'One Place after Another' (2004) as a guide to the established terminology of site-specificity. Nick Kaye's 'Site-Specific Art: Performance, Place and Documentation' (2000), and Mike Pearson's 'Site-Specific Performance' (2010) are used as informative overviews of site-specificity in a variety of contexts.

Although this thesis makes occasional reference to psychogeography and place writing, they are not its primary focus. Extensive scholarship already exists in these fields (Augé, 2008; Bachelard, 1964; Coverley, 2010; Debord, 1955; de Certeau, 1984; Lefebvre, 1991; Solnit, 2010, among others). Instead, this research project presented an opportunity to focus on the discourses of site, which have a more material centred nature than place. The most productive source through which to explore site has been Robert Smithson's Nonsite theory and his problematisation and exploration of the tension between site and work have been invaluable.

The thesis uses philosophical ideas and frameworks in order to productively reconceive objects observed and collected in the field. Brian Massumi's "abstract potential" in 'Semblance and Event' (2011: 42) and Bennett's "vitalities" as described in 'Vibrant Matter' (2010: 5) are called upon to describe the lively nature of objects that appear superficially inert. Walter Benjamin and Michel Foucault's readings of 'excavation' are drawn upon in order to understand and contextualise objects found in the field and the process of sifting material, which also has resonances with Deleuze's description in 'Foucault' (2018) of rejecting vertical and horizontal hierarchies and instead

"…skimming along in a kind of diagonal line" in order to "read what could not be apprehended before" (Deleuze, 2018: 3).

1.3 Overview of Chapters

The documentation is divided into two sections. Part One is the contextual review which makes the case for the necessity for the research—identifying research gaps and issues with current thinking. Part Two is an exegesis of the practice portfolio and a curation of methods and experiments.

Chapter Two, 'Site, Field and Sound', examines the defining and often contradictory discourses of field recording and phonographic practice. It unpicks the term 'field recording' by tracing it back to pre-audio-recording ornithology, where it concerned transcribing birdsong in the 'field site' (Bruyninckx, 2012: 127-150). The chapter lays the ground for an expanded, plural history of 'field recording', which has long-standing multimodal and multidisciplinary associations, exploring both field recording and electroacoustic practice through wider disciplinary readings of site and field.

Chapter Three: 'Site, Nonsite and the Space of Metaphoric Significance', outlines and analyses the relevance of Robert Smithson's Nonsite theory to site-related sound practices. Smithson's Nonsite and particularly his "space of metaphoric significance" (1996: 364) between site and work is compared with R. Murray Schafer's 'schizophonia' (1977: 88). The chapter draws on the work of Susan Kandel, Craig Owens, Hsiang-Ying Chung and Brian Kane to assess the possibility of Nonsite operating outside of its original context (i.e., whether it can exist outside of its original ideological and aesthetic framing which is indebted to modernist and minimalist principles) asking whether a Nonsite can function as a book, for example:

Chapter Four: 'New Materialism, Material and Nonsite'. explores new materialist philosophy and adopts some of the principles and provocations of new materialist thought in order to reimagine a materially complicit practice. It explores the vitalist new materialism of Bennett and Massumi and outlines the implications for site practices.

Chapter Five is an overview of the 'Red Lake / Black Mine' project and where I examine different readings of 'fiction' e.g., the anthropological fiction of Geertz and Taussig, alongside different approaches to fabulation. In addition, 'excavation' is considered as both a literal archaeological method and as a metaphor with readings by Benjamin and Foucault analysed. Massumi's "abstract

potential" (2011: 42) and Bennett's "vitality" (2010: 5) are employed to describe how objects perform, or 'sound' even when superficially inert. In addition, I formulated an approach to 'recursive listening'—a response to Taussig's 'recursive' note taking (2011: 50). A compositional technique in which phonographic recordings are used as a score, or initial provocation to perform, improvise and compose but do not necessarily appear in the final work. This process also involves the use of the analytical methods of music computing i.e., the analysis of FFT data in the form of onsets and descriptor outputs (loudness, noisiness, centroid etc.) of phonographic recordings, which are subsequently used to affect parameter changes of synthesisers and audio and visual effects. This process of exploring potential strategies represents the main body of research, is central to the methodology and provides new insights that form the thesis's contribution.

Chapter Six is a detailed portfolio commentary where the multidisciplinary research and new materialist provocations are explicated through practice. It looks at specific strategies for a materially complicit approach to work. The seven sound pieces, video, performance, and printed book are analysed in detail making explicit the research embodied in practice. It looks specifically at 'performing' found objects; audio-visual work featuring photographs, text, audio and synthesis. It also explores a contemporary reading of Nonsite as multimodal assemblage art rendered with Max/MSP/Jitter and Adobe Premiere.

1.4 Methodology

The methodology for the project emerged over time and has a strong experiential dimension, where each action opens the possibility for others. This was a chain reaction of events that, although ending in a particular result, had preceding chains at least as important as the outcome. The collisions with different disciplines and artworks may not always be explicit in the submitted practice, but the outcome of the project rests on each of those collisions. For example, the project began as a field recording investigation, but over time my field notebook became just as important as the audio recordings and gradually field recording shifted to being one part of a larger methodology. The field notebook and documentary photographs developed into creative materials in their own right as a result of encountering the sites and also encountering Smithson and Taussig, whose work I did not previously know. I subjected these new materials (I have never previously included photographs or text as part of my work) to the same types of fragmentation and processing as I might to audio material and as a result new ways of working and new aesthetic possibilities emerged. As I became more invested in relationships between materials, I used techniques from

music computing, employing Max/MSP/Jitter to facilitate different forms of connectivity. Slowly over time, by encountering material with the capacity to exert influence (inspired by Bennett and Massumi) the book and video emerged. Each of these developments is a type of collision between bodies (see 1.4.6 for explanation of this term) a discovery made by 'turning the soil' (Benjamin, 1927-1934: 576) and gradually, slowly, an entirely new practice emerged.

1.4.1 Experience and Narrative

As previously mentioned, this cycle of doing allowed new ideas to emerge by encountering and interacting with material. Sometimes the process of 'turning the soil' (Benjamin, 1927-1934: 576) was literal, for example, when I dug up a religious text, and sometimes more

Figure 1: Buried Book Near Baldhu

oblique i.e., processing the same text again and again to allow different configurations of material to emerge. As I was drawn to and collided with this material I was compelled to sift and move and process in order to reveal new relationships. Each stage of this process can be seen in 'Part Two: Exegesis' where the chain reaction of material influence can be observed and material is profoundly complicit in the formation of the work.

1.4.2 Material Complicity

I have adopted the methodological term 'material complicity'. Outlined by Petra Lange-Berndt in the introduction to 'Materiality' (2015) it is a model through which she asks the question, "[w]hat does it mean to give agency to the material, to follow the material and act with the material?" (2015: 13). She positions materials as "wilful actors and agents within artistic processes" which, "enmesh their audience in a network of connections" (2015: 18). Lange-Berndt, like Bennett, argues against any sense of materials being inert or fixed and indeed her writing has much in common with Bennett's, particularly when Bennett writes, "I have experimented with narrating events (encounters, with litter, electricity, food, metal) in ways that present non-human materiality is as bona fide participants, rather than as recalcitrant objects…" (Bennett, 2010: 62).

Bennett describes the agency of material as "[t]hing-power: the curious ability of inanimate things to animate, to act, to produce effects dramatic and subtle" (2010: 6). Bennett further describes thing-power as "sensual emanations and obscure insistences" (Bennett, 2011a). Material complicity is the deliberate cultivation of thing-power and the influence that material has on the artistic process—i.e., keeping the material encountered on site at the forefront of the creative process, whether that is using the properties of material to guide compositional decisions, using the material of site to trigger sonic experiences or speculations, or to fold the experiences and narratives of site into the work. There is a detailed overview of how material complicity has affected the practice portfolio in Part Two: Exegesis.

Ideas centred around material agency and complicity predate Lange-Berndt and the new materialists. For example, in his essay 'The Origin of the Work of Art' (1935-37, but not published until 1950). Heidegger introduces the concepts of 'earth' and 'world'. 'Earth' can be thought of as material, non-human forces; 'world' can be crudely summarised as the world of human representation and meaning. Heidegger, stresses that 'earth' and 'world' are not totally separate domains but rather in constant "strife" (1950a: 32) writing, "[t]he world grounds itself on the earth, and the earth juts through the world. World and earth are essentially different from one another and yet are never separated" (1950a: 33). As precursor to ideas around material complicity and agency, Heidegger describes earth as having its own force and agency, describing it as "self-occluding" (1950a: 31) and resistant to human manipulation, writing that

> earth lets every intrusion into her shatter upon herself. She lets every purely calculating importunity transform itself into destruction. This destruction may carry before itself the

> semblance of mastery and progress in the Gestalt of the technical-scientific objectification of nature, but this mastery remains nevertheless an impotence of the will. (1950a: 30-31).

This 'impotence of the will' is key to understanding earth's resistance to human mastery. He goes onto write "[o]f course, the sculptor uses stone just as the mason handles it in his own way. However, he does not use up the stone." (1950a: 32). Heidegger describes how the "stone weighs down and announces its heaviness" (1950a: 30) and how the "heaviness presses upon us" (*ibid.*). This suggests that the material has agency in revealing the artwork – outside of human manipulation. Heidegger also argues that,

> The Ereignis of its being-created *(seines Geschaffenseins)* does not simply vibrate in the work, rather the work throws its character as Ereignis *(das Ereignis-hafte),* that the work is as this work, forward before itself, and has it constantly thrown about itself.
> (Heidegger, 1950a: 48-49)

'Ereignis' has resonances with Massumi's ideas around 'events', suggesting that the work of art is not passive or inert but acts on the artist and audience and that there is a vital nature that "towers forth out of the work" (1950a: 48) so that we are able to "experience also this being-created (das Geschaffensein) properly in the work". (*ibid.*)

1.4.3 New Materialism

The vitalist new materialist ideas of Bennett and Massumi are a key methodological driver for the project which comes with several implications for an arts practice. Every research act, encounter, recording and interaction can be considered as an assemblage. As well as "the physical spaces and establishments where research takes place; the frameworks and […] the human researchers themselves" (Fox and Alldred, 2019: 12). The field recordings, field notebook, conversations, compositions, processes, book, sound pieces and video work are all part of a dynamic assemblage through which the work has emerged.

Adopting a new materialist approach has been key to dissolving unproductive binaries such as site/work or practice/writing and it helps to think more holistically about the influence that different bodies exert on one another. Robin Nelson's writing on practice as research also has similar implications - he discusses new materialisms' influence on his ideas and positions the different

registers of the thesis as inseparable. “In the widespread challenge to Cartesian binaries of mind/body and theory/practice, it is crucial to recognize that drawing attention to the body in practical inquiry does not preclude, but embraces, thinking” (Nelson, 2013: 20).

> To repeat, in the use of my preferred term “praxis” (being-doing-thinking), I refuse the binary distinction between “theory” and “practice” as traditionally made in the academy. Indeed, in a core intra-relation of onto-epistemology, I hold that all thinking is embodied, and embodiment is, to greater or lesser extents mindful.
> (Nelson, 2013: 20)

Nelson writes compellingly (as does Taussig) about avoiding scientific truth claims, rejecting the “assumed objectivity of the classical scientific method, calling, in Leavy’s summary, for the ‘dismantling of the dualisms on which positivism hinges: subject-object, rational-emotional, and concrete-abstract’ [Leavy, 2009: 15]– and, we might add, theory-practice" (Nelson, 2013: 52).

1.4.4 Style, Experimentation and Truth Claims

This thesis then can be best thought of as an experiment, a set of possibilities that emerged through encounters with material. The style of writing and experimentation is informed by Bennett’s writing in ‘Vibrant Matter’ (2010) and also the style of her talks, (2011a, 2011b) where she thinks aloud and asks the audience questions, inviting them to add to her work. She rarely adopts an authoritative voice, and her book is not written in the register of certainty, nor does it make scientific or empirical truth claims, rather, it is an open invitation to think aloud, to suspend certainty, arguing that there is “something to be said for moments of methodological naivete” (Bennett, 2010: 70).

I find a similar spirit in the writing of Michael Taussig. In his book, ’I Swear I Saw This: Drawings in Field Notebooks Namely My Own’ (2011) Taussig contests the assumption that anthropological fieldwork should be considered a de facto branch of the sciences. He describes the two phases of science as “the imaginative logic of discovery, followed by the harsh discipline of proof”. “The imaginative logic of discovery” (Taussig, 2011: xi) is a key methodological statement for this thesis. The process of questioning and discovery should be evident, particularly in the chapters of part one and the portfolio commentary. The open questioning style of Bennett and Taussig is also evident in ‘Practice as Research in the Arts’ (2013) by Robin Nelson, when he writes, “in the twenty-first century no methodology or epistemology can be taken to yield an unmediated, self-evidence truth.”

(Nelson, 2013: 2). The experiments in this thesis are not perfectly repeatable, but rather highly contingent on the specific conditions they were undertaken in. An example of this is my approach to material relationships i.e., using the sonic properties of field recordings to affect other audio software, and also to fragment, process and arrange text and images (see 5.0 for full description). The relationships between materials are not 'natural' or 'true' in any scientific sense, but rather the cultivation of these relationships is generative, allowing configurations to emerge and processes to take place that I would not have consciously made as a composer.

The experimental approach of the thesis is not the same as rational experimentation i.e., the process of conducting experiments in a systematic, logical and structured manner, guided by reason to test hypotheses or solve problems. In rational experimentation, the experimenter designs experiments that will yield reliable and repeatable results. In contrast the work in the practice portfolio has emerged through highly contingent conditions and material possibilities.
For this reason, I have not included the work of Karen Barad. In not choosing to foreground Barad's work, in no way do I mean to sideline her importance. However, this thesis leans towards the speculative and affective rather than the empirically grounded. Bennett and Massumi's approaches resonate more directly with themes of potentiality and experience that I have pursued. Their theories enable a vocabulary of openness, uncertainty and more-than-rational facets of material encounters; in contrast, Barad's rigorous ontological empiricism calls for an engagement with quantum physics and a level of scientific rigour that falls outside the scope of this thesis.

1.4.5 Fixity and Dynamism

The thesis aims to move beyond simple binaries and any sense of fixity, in favour of dynamic relationships between bodies and materials. This dynamism is at the heart of vitalist new materialism, and also Wesseling's reading of experience, which (drawing from Massumi) argues that "[a]rtistic research is a radically speculative discipline, just as art is a radically speculative mode of practice. Speculative thinking does not approach the world as 'a grab-bag of things', but as a dynamic unity, which is constantly changing" (Wesseling, 2016: 23) Further arguing that

> Speculative research is alert to this constant change and dynamism. Therefore, it does not have a set goal, nor does it presuppose any fixed outcomes or results. Rather, it seeks to open up to multiple perspectives. This openness is a condition for conducting research in art and through art". (Wesseling, 2016: 34)

Openness is key here; it feeds into a materially complicit methodology where I cultivate a sensitivity to the influences on the artistic process. Nelson is also useful in this regard advocating for "approaches to documentation […] that keeps a sense of 'what might be' 'rather than a fixity of what was'". (Nelson, 2013: 6). The relationship between the sound pieces and book is not fixed, it is a constant *what might be* with the potential to be navigated in different ways and to connect and reconnect. This thesis deals, in the main, with material complicity and agency in the artistic process, but it stands to reason that the reader, viewer and listener could also enter the dynamic assemblage of material forces. This relationship exists outside of the findings of this thesis, but the dynamic relationship between disparate elements is a powerful part of the final work.

1.4.6 Affect Theory and Bodies

Affect theory also informs the methodology. Developed from key texts by Spinoza, James, Massumi, Deleuze, Guattari, Tomkins et al. affect theory offers an expansive view of material and relationships. Affect theory explores the dynamic bodily responses that influence behaviour, thought and interactions; the visceral reactions individuals have to stimuli. Affect theory is related to vitalist new materialism (see 3.0 for overview) and has a shared Spinozian intellectual root.

Throughout the thesis I refer to bodies. This relates to my corporeal self but also more generally to 'bodies' as articulated by Spinoza in 'Ethics' (1677) (first edition published posthumously in 1677 as part of his collected works, Opera Posthuma).

> Contemporary manifestations of affect theory have required a reconfiguration of how we understand the relationships between the body (as subject), bodies (in their broadest, Spinozist sense) and their (technological, political, economic, social, biological) milieux. (Thompson, 2017: 8).

In Spinoza's philosophy, a 'body' is defined not by its physical substance, but by its 'capacity to act, affect and be affected' (Bennett 2010: 34; Förster 2021: 76), For example, in 'Ethics' (1677) Spinoza argues that bodies "are reciprocally distinguished with respect to motion or rest, quickness or slowness, and not with respect to substance" (1910: 48). This means that a body can be understood by its capacity to interact with the world, how it influences other bodies and how it is influenced in return, writing,

> All modes in which any body is affected follow from the nature of the body affected, and at the same time from the nature of the affecting body […] the idea of each mode in which the human body is affected by an external body involves the nature of the human body and that of the external body (Spinoza, 1910: 54).

Spinoza also asserts that all bodies—human, animal, and non-living—are part of a single substance. He writes that "Whatever is, is in God, and nothing can exist or be conceived without God" (1910: 11). God in this context, however, might be more usefully described as nature, i.e., "[w]e can easily conceive that all nature is one individual whose parts, that is, all bodies, vary in infinite ways without any change of the individual as a whole." (1910: 52)

Spinoza's rejection of mind and matter as separate substances and his assertion of connectedness and relationality make his philosophy an important precursor to new materialist thinking. His description of bodies is useful to this thesis because it establishes a connection between the body of the artist and other influencing bodies. Spinoza is not my primary theoretical lens but has informed my primary lenses and also informed my thinking about how objects (or bodies) in the field exert influence on the artist.

> Although the external bodies by which the human body was once affected no longer exist, the mind nevertheless regards them as present as often as this action of the body is repeated (Spinoza, 1910: 54).

1.4.7 Text and Meaning

Text is a key part of the thesis, and a key part of the field recording methodology, but as Thompson identifies affect discourses often avoid signification and "move away from questions of representation, identity and signification and towards the material, the embodied, the sensuous and the networked" (Thompson, 2017: 8). However, she goes on to write that,

> [A]ffect theory is not a straightforward disavowal of these previous modes of understanding - a radical overthrowing of these 'wrong' approaches in favour of a new, 'correct' model. Rather, it extends beyond, while also drawing from and working alongside, these modes of analysis. Though functioning according to an alternative logic and requiring a different point

> of focus, affect remains implicated and entangled within the field of representation and signification (Thompson, 2017: 9).

Bennett, for example, does not pitch her philosophy in opposition to discourses of representation and meaning, in fact she writes, "[i]n this assemblage, objects appeared as things, that is as vivid entities not entirely reducible to the contexts in which (human) subjects set them, never entirely exhausted by their semiotics" (Bennett, 2010: 5). *Entirely* is key here, Bennett acknowledges that discourses around representation and meaning are still relevant, but do not represent the totality of objecthood i.e., "if one were to artificially extract all your childhood memories or your cultural meaning…there's something a little extra left over and I do think it's a physical quality" (Bennett, 2011a).

Christoph Cox argues that the function of a materialist position is to close the binaries assumed in representational modes of study.

> The materialist theory I propose here maintains that contemporary cultural theory's critiques of representation and humanism are not thorough enough. A rigorous critique of representation would altogether eliminate the dual planes of culture/nature, human/non-human, sign/world, text/matter
> (Cox, 2011: 148).

A focus on material functions to re-orient research away from human exceptionalism as the default position. This thesis approaches material and meaning not as a binary, but fused together, considering text as one material force among many others. Consider the found object 'relentless'. That word does not lose meaning because I have chosen a new materialist lens. The dynamic flux of signifiers exists, but it is one of many registers, bound to the material it is printed on and on the material it rests upon; it contains the material impact of being driven over and flattened, observed through the material of my sense organs; combined with a secondary playing through my perceptual schema, an involuntary speculation on the chain of events that led this object to this state. Meaning in this context, is not provided by language alone but

Figure 2: Relentless Energy Drink Found Near Baldhu

emerges in combination with all the other material forces at work. And likewise, an encounter with the word has affective dimensions.

The methodology is also informed by Smithson's statement that language is a material as "primary as steel" (Smithson, 1996: 214) and "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" (1996: 235).

1.4.8 The I Voice and the Author

While my research engages with aspects of new materialist ideas, the thesis is not entirely bound by new materialism or the Deleuzian ideas that underpin it. This is most noticeably evident in the use of the I voice in the portfolio commentary (5.0) and the tension between author and material. I do not seek to obfuscate my role as an author of the works in the portfolio. I *do* claim that material has agency, but I do *not* claim that all agencies or relationships are the same. (see 3.4 for Ian Buchanan's insights on this matter). The thesis explores the influence that material exerts over the author and authorship is always relational to material agency and is in a continual process of being undone and redone. Authorship cannot be erased but takes on different forms, where the author is drawn into an assemblage of different material influences, where material, memory, experience and speculation are colliding bodies. In this project my own body is fused into the call of surrounding objects and traditional notions of authorship and agency are compromised and in flux.

1.4.9 Multidisciplinary Methodology

The methodology has been developed by adopting ideas and provocations from other disciplines in order to discover new ways of making to expand the material possibilities for making work. As a result, I have ended up with a practice that does not easily sit with the practice I originally intended to problematise and is another example of why the experiential and narrative methodology is important. Nelson is useful here when he writes, "to identify parallel approaches helps us more accurately to mark those differences as well as to acknowledge a consonance which, in turn, promotes a sense of belonging to what Polanyi calls 'a society of explorers' rather than (self-) exclusion." (Nelson, 2013: 32). Also stating that,

> My sense of the process, as noted, is that intelligent contemporary work is likely to resonate with ideas circulating elsewhere in culture and perhaps more specifically within other academic disciplines. On some occasions, differences ignite the spark of defamiliarization, while, on others, consonances emerge. Indeed, inquiry related to arts PaR reveals similarities in approach in other disciplines such as anthropology, archaeology, architecture, education, ethnography, neuroscience and many more. (Nelson, 2013: 31)

This call to interdisciplinarity even if sound is the primary focus of the inquiry is mirrored by Christoph Cox in 'Beyond Representation and Signification: Toward a Sonic Materialism' (2011), wherein he argues,

> This materialist theory of sound, then, suggests a way of rethinking the arts in general. Sound is not a world apart, a unique domain of non-signification and non-representation. Rather, sound and the sonic arts are firmly rooted in the material world and the powers, forces, intensities, and becomings of which it is composed.
> (Cox, 2011: 157)

I have developed a way of working with site that has been informed by many different field and site related practices and disciplines. Particularly useful has been Wilkie's statement that:

> Layers of the site are revealed through reference to: historical documentation; site usage (past and present); found text, objects, actions, sounds etc; anecdotal guidance; personal association; half-truths and lies; site morphology (physical and vocal explorations of site" (Wilkie, 2002: 150).

It is these different bodies that collide with the artist, creating contingent and ad hoc assemblages. It is by developing a sensitivity to, and by trying to facilitate the conditions for, these different collisions and interactions that the practice has been made.

1.5 New Insights

This thesis contributes to field recording, field practices more broadly, and electroacoustic composition. It offers insights into the relationship between the body, objects, and events, and makes the following specific contributions:

- A new materialist reading of field recording and field practice that highlights the agency of material and the creative potential of 'material complicity'—where the artist is not the sole author, but rather a participant in a broader assemblage of forces—fostering sensitivities to "the joint agency of person place and thing" (Bennett, 2011a).
- An application of "abstract potential" (Massumi, 2011: 42) to field practices, where narratives emerge through encounter, speculation, memory and experience. This is explicated as a creative method, i.e., strategies for engaging with sites and is also demonstrated through the book of 'Red Lake / Black Mine' where seemingly static objects are reframed as dynamic events.
- An extension of field recording methodologies, drawing from Taussig, Farmer, Peter Wright, French et al. to develop a multimodal practice portfolio based on the principles of expanded recording. This approach treats field recording as an influencing force, shaping sound, image and text. When recordings are used for their onsets and spectral properties, it exposes how the research engages with new materialist thought and is an example of immaterial drive i.e., the 'desire' of the missing recording. This drive exerts influence through the work, revealing how different material registers influence each other without being necessarily the focal point or even feature in the final iteration of the work.
- The development of recursive listening methods based on Taussig's approach to field notebooks i.e., notebooks that are revisited, reworked, cut up and "unexpectedly open onto new worlds" (Taussig, 2011: 50). Additionally, the research conceives of recordings not as captured or fixed, but "something alive" and a "type of knowing" (Taussig, 2011: xii).
- The exploration of the creative possibilities of using audio analysis and descriptors to foster relationships between disparate materials i.e., using the properties of field recordings to affect other audio parameters, as well as fragmenting images and text. For example, the ZSA.Descriptors and the 'Fluid Corpus Manipulation Project' (FluCoMa) have been employed to map onsets, partials and parameters such as noisiness, flux (rate of change), centroid etc. (see 6.2 for full overview) to other material processes, e.g., fragmenting video or text, or controlling audio software such as granular and concatenative synthesis. This material complicity decentres the authority of the author fostering a sensitivity to the agency of material in the creative process. This has significant implications for electroacoustic composition and any practice based on organised sound.
- The development of broader insights in the relationships between sound, text and images and the creative potential of multimodal fieldwork. In addition, the multimodal presentation of the work represents an innovative aesthetic form. The research contributes to a vibrant

discourse and growing body of work dedicated to expanding field practice and to a pluralistic set of concepts and methods that situate sound practice within a wider context.

1.6 Description of the Final Thesis

The final submission comprises a 42,964-word bound document and a practice portfolio. The practice portfolio is a digital and printed book; a fixed media video, an album of seven music and sound pieces and documentation of the performances and the dissemination of the work through various channels.

Part One: Contextual Review

2 Field Recording / Recording the Field

Chapter Two describes the origins of this research and marks the beginning of the thesis. When the research began in late 2014, there was a debate happening in field recording discourse about the boundaries and nature of the practice, featuring Lane, Carlyle, Voegelin, Drever, French, Wright, Cascella, Farmer, Kelly, Cooke, de Seta et al. The debate featured several sub-debates that centred around topics such as the role of the other senses in field recording practice; the tension between field recording as a discipline and field recording as one component in a larger methodology; the tension between veridical and artistic approaches; and between virtuosity and immediacy. This early stage of the investigation was therefore an exploration of the field recording and experimental practices emerging from that debate. The early research question of the thesis was to ask what lies between the initial encounter with a site and the subsequent presentation of the work to an audience. It aims to explore the different agencies and tensions involved in work that emerges from a site context. Although the thesis changed focus over time, this interest in the agendas of field recording practice has significantly informed the practice portfolio.

The chapter begins with the defining discourses of field recording and musique concrète as its starting point, not to rehash debates that have long since moved on but to explore those defining ideas in relation to the move towards expansion and dissolution of disciplinary boundaries currently taking place.

2.1 Schizophonia

One of the most prominent tensions between site and work in audio practice is described by R. Murray Schafer's term, 'schizophonia' (1969: 43). "The Greek prefix schizo means split, separated; and phone is Greek for voice. Schizophonia refers to the split between an original sound and its electroacoustical transmission or reproduction. It is another twentieth-century development." (1977: 90). Or as described by Steven Feld (adopting the term from Gregory Bateson) "schismogenesis" (Bateson, 1958: 175) i.e., the "splitting of a sound from its source or the condition caused by this split" (Feld, 1994: 265).

Schafer claimed the radio caused "dissociation" (1969: 43) from the acoustic environment and described this alienation of the senses as 'schizophonic' (*ibid.*).

> We have split the sound from the maker of the sound. Sounds have been torn from their natural sockets and given an amplified and independent existence. Vocal sound, for instance, is no longer tied to a hole in the head but is free to issue from anywhere in the landscape.
> (Schafer, 1977: 90)

The schizophonic concept was of its time and has been robustly critiqued, most notably by Jonathan Sterne in 'The Audible Past' (2003) and again in 'R. Murray Schafer Pt. 2: Critiques and Contradictions' (2021), where he highlights Schafer's technophobia, ableism, and "stereotypes about mental illness and the denigration of mental illness as a metaphor for the fallenness of sound recording" (Sterne, 2021).

> When I originally coined the term schizophonia in "The New Soundscape" I said it was intended to be a nervous word. Related to schizophrenia, I intended it to convey the same sense of aberration and drama.
> (Schafer, 1973: 16)

Although some elements of Schafer's thinking are out of step with contemporary discourses, the idea of a split remains relevant. Schafer acknowledges that the recording is *not* the site, and that there is a "condition caused by [the] split" (Feld, 1994: 265) i.e., a tension between recordings and their site contexts. Salomé Voegelin in her 'Collateral Damage' article for The Wire is sceptical of

field recording practices whose work forgets the "tension of transformation", (Voegelin, 2014) and where an assumption of transparency means the "frame of reference" (*ibid.*) gets left behind. Transformation in this context does not mean electroacoustic processing, but rather the transformation of the "sensorial encounter" (*ibid.*) into the work. Although Voegelin is critical of field recordists whose lineage can be traced back to Schafer, both Voegelin and Schafer agree that the recording is *not* the site and that there is a tension between a site and its electroacoustic representation.

Voegelin is critical of field recordists trusting their "own multisensory memory of the field" (*ibid.*); arguing that when we hear those recordings "we hear not the field but its absence" (*ibid.*) and that the "frame of reference has been left behind" (*ibid.*). Both Voegelin and Schafer agree that recordings do not bring the site (or the frame of reference) with the recording, but rather something else. However, Schafer identifies the tension as an "aberration" (Schafer, 1973: 16) even going so far as claiming in David New's short film 'Listen' (2009) that recorded sounds are not 'real' sounds (Schafer, 2009). Whereas Voegelin calls for practice and theory to engage with the tension, writing,

> the future of field recording lies in the tension created by transforming the heard through participation, collaboration, expansion and play, through which we can try a humbler humanity of shared spaces, and renegotiate what is real
> (Voegelin, 2014).

This tension remains at the heart of any field recording practice and problematises any veridical practice that purports to bring the experience of site with the recording.

In 'Against Soundscape' (2007) and other writings, particularly 'Being Alive: Essays on Movement, Knowledge, and Description' (2011). Tim Ingold is critical of soundscape and the conceptual split at the heart of it. He advocates for an integrated understanding of sound, experienced dynamically through movement, participation and interaction. Arguing that the term soundscape implies a misleading sense of sound as a passive object that can be captured, rather than as something experienced through embodied engagement. For Ingold, sound should not be considered an object to be isolated but as part of a "meshwork" (2011: 63-71) that includes humans, materials and the environment in a continuous process of interaction. Ingold's position has some resonances with Caleb Kelly's critique of field recording, particularly when he questions "[relying] on one sense (hearing) to represent sensations that are embodied and multimodal" (Kelly, 2017).

During a roundtable discussion on Schafer with Hildegard Westerkamp and Mitchell Akiyama, Jonathan Sterne, says that "the other people that use the word 'soundscape', were radio theatre producers to describe the sort of the fictional auditory world. I mean, you could say it's sort of the sonic version of mise-en-scène or set design in theatre or film. So, it's the sonic world in which the action is happening" (Sterne, 2021). This idea of "the sonic world in which the action is happening" (*ibid.*) is much closer to the next generation of field recordists valorised by Voegelin, who seek to engage with, embody, experience and translate the field for an audience, who seek plurality and an expansion of the practice.

2.2 Recording in the Expanded Field

The expansion of field recording is possible and necessary in part because plurality and multidisciplinarity is hardwired into the term. Field recording is strongly associated with audio practices (as of 2024 the first fifty pages of Google search return links to microphonic recording), however, as Lane and Carlyle acknowledge in their book 'In the Field: The Art of Field Recording' (2013) the word has complex associations with other field practices and terms, for example, the 'fieldwork' of the social sciences. Further to this, Bruyninckx in 'Sound Sterile: Making Scientific Field Recordings in Ornithology' (2012) locates the term 'field recording' in (pre-audio recording) ornithology, where it concerned transcribing birdsong in the "field site" (Bruyninckx, 2012: 127-150), which again speaks to a plural, complex and multimodal history.

As identified by Voegelin, a "new generation of field recordists is challenging the myth of the invisible figure with a microphone in work that celebrates presence rather than absence". The recordists Voegelin highlights, (Lane, Lidén, Peter Wright, Alarcón, Wegener, Ford, Greie, and Farmer) work in different ways with the contingencies, agencies and processes involved in making work from site—moving away from veridical assumptions towards a "tension of transformation" (Voegelin, 2014).

At the commencement of my studies Voegelin's call for expansion was the driving force of the research, along with other influences such as French's statement that "field recording is an expanding term and for me it encompasses, importantly, a greater awareness of being in an

environment, awake to all our senses equally. Each such experience is a field recorded" (French, 2013: 15).

A key conceptual point of reference for this thesis is Mark Peter Wright. A recurring theme in Wright's writing and in the exhibition 'I, the Thing in the Margins' (2015) highlights the role and presence of the recordist in the recorded work. His 'post natural' reading of field recording is fundamental to this thesis, as is Gabriele de Seta's 'Against Sonic Naturalism' (2017), which identifies a tendency towards naturalism in field recording arguing that phonographic practices have avoided the kind of "representational critiques" (de Seta, 2017) that visual art has undergone. de Seta makes a comparison between the anthropologist embedded in the field and the field recordist who sets up microphones and then retreats listening far from the actual site and excluding themselves from the experience.

There has also been a turn towards performance and site activation. Key artists and works include John Grzinich's 'Portrait of a Sounding Object' (2015), in which he bows and activates the resonant metal parts of an industrial water tower; Tansy Spinks's site-based performances and her formulation of "the actual, the associated and the activated" (Spinks, 2014: 3); Abinadi Meza's 'Sea Cutting Sky' (2017) an improvised piece featuring found materials such as seaweed, shells, stones, and feathers. Dallas Simpson's binaural recordings, such as 'Field of Stones' (2014), which involve improvisations with stones, plants and trees. Simpson agitates and inhabits the site, emphasising the performative and interactive potential of the sites.

Another key direction has been "textual phonography" (Voegelin, 2014: 1), an approach advanced by Voegelin, Peter Wright, Farmer, Cascella et al., which acknowledges that audio recording does not necessarily bring the site to the audience and so it instead provokes the reader into a kind of speculative listening. Textual phonography may seem tautologous because phonography literally means "writing by sound" (Oxford English Dictionary, 2025). However, it taps into the older form of field recording identified by Bruyninckx (2012) that is more focused on listening and describing. A good example of this kind of textual phonography is Patrick Farmer's 'Listening and Its Not' (2020a), where some of the most "original voices to emerge in the field of writing in sound art practice over the last 10 years, including Daniela Cascella, Lawrence English, Sarah Hughes, Amelia Ishmael, Richard Pinnell, Salomé Voegelin and Mark Peter Wright" (Farmer, 2020b) are invited to travel "10 miles due North" of their homes and to "try and write about listening in a way that does not point

directly to, or at it", inviting "readers to rethink the act of listening as an internal, imaginative, discursive, dialogic and political terrain" (Farmer, 2020b).

2.3 Concrete and Abstract

Musique concrète also provides insights into the tension between a site and materials collected from that site. For example, Pierre Schaeffer's 'Étude aux chemins de fer' (1948) contains multiple recordings of trains. Schaeffer's aim, however, was not to represent the trains or their site-based context but rather, "to gather concrete sound, wherever it came from, and to abstract the musical values it potentially contained." (Schaeffer, 2017: 7). These 'concrete' sounds, taken from real sites, are in tension (and dialogue) with 'abstract' sounds, or by "means of various electroacoustic manipulations, these recorded sounds were transformed and assembled." (2017: 38) and through this process of editing and processing materials become "disassociated" (Schaeffer, 2017: 8) or "detached from their sound context" (Schaeffer, 2017: 7). The relationship between site context and material manipulation gives rise to a tension between recognisability and artistic abstraction.

> The work of Schaeffer: the concepts and processes of his explorations from the acousmatic into a concrete music, are in many ways misrepresented and stultified in a current discourse and practice of electroacoustic music that seeks authority in the boundaries of discipline, to harvest clarity, and a sense of "doing it right" when the acousmatic is about suspending habits of thought, and embracing the doubt that comes with such a deferment.
> (Voegelin, 2014: 38)

According to Voegelin, the split can generate a productive sense of questioning and doubt about the presence of the original site within the work. When approached in this way—rather than treating sound as inert material to be bent to the composer's will, the link to the site is preserved. This is fertile ground for exploring the tension of recognisability, teasing out experiential details, problematising the site/work relationship through audio processing and casting doubt on the veracity of the recording and listening experience. Luc Ferrari's 'Presque Rien' (1970) is emblematic of the tension between concrete and abstract. Ferrari coined the term 'anecdotal' music to describe an approach that integrates a narrative or an 'anecdotal' layer in the work, where everyday narratives form part of the musical material. There is a tension between recognisability and abstraction between the composer's documented experiences and sounds that trigger the listeners

to overwrite their own experiences onto the work. The subject is explored in more detail in 4.9 'Electroacoustic Music and Materiality'.

This chapter has explored the different tensions between site and work in operation in field-related sound practice as an initial survey of the stakes involved. As discussed at this stage the research was focused on the process of transformation between encounter and work emerging from the experience. The next stage was to explore other disciplines and other models that explore the site-work relationship, specifically site-specific discourses and Robert Smithson's Nonsite theory.

3 Site and Nonsite

This chapter critically examines the tension between site and work within the broader discourse of site-specificity, focusing on Robert Smithson's Nonsite theory as a potential framework for sound-based practices. Building on the site/work dynamics explored in Chapter Two, Chapter Three examines the displacement of material in Smithson's pieces and draws parallels between the gallery/site relationship his work problematises and the relationship between sound recording and site. Smithson's focus on displacement evokes a similar tension between concrete and abstract sound and provides fertile ground for sound practices. The practical work, showcased in Part Two, is examined as part of a broader inquiry into how material from specific sites can be presented to audiences across different sensory modalities and is profoundly inspired by Smithson's work and ideas.

3.1 Site

In his book, 'Site-Specific Art: Performance, Place and Documentation' (2000) Nick Kaye draws attention to the difference between the 'substantive' and 'transitive' definitions of the word site: "The place or position occupied by some specific thing", and "to locate, to place" (Kaye, 2000: 1). Highlighting the split idea at the heart of the word 'site', he identifies an interesting conflict when discussing notions of site: that it is both the location and the search within the location. This definition chimes with many of the site-based tensions highlighted in Chapter Two.

Site in the context of Nonsite is linked to the site-specific art movements of the 1960s and 1970s of which Robert Smithson was a major figure. However, those site-specific practices are identified by

Kwon in, 'One Place after Another: Site-Specific Art and Locational Identity as having emerged from minimalism's "dominant positivist formations" and have now, "reached a point of aesthetic and political exhaustion" (2004: 3).

> [T]he current efforts to redefine the art-site relationship are also inspired by a recognition that if site-specific art seems no longer viable—because its critical edges have been dulled, its pressures been absorbed—this is partly due to the conceptual limitations of existing models of site-specificity itself.
> (Kwon, 2004: 2)

To illustrate this point Kwon provides a list of "alternative formulations" (2004: 2) of site-specific terms that demonstrate the "conceptual limitations" (*ibid.*) of the "uncritically adopted" (2004: 1) 'site-specific' label. She offers, "[s]ite-determined, site-oriented, site referenced, site-conscious, site-responsive, site-related." (*ibid.*) and then "context-specific, debate-specific, audience-specific, community-specific, project based" (2004: 3) as, "efforts to redefine the art-site relationship" (2004: 2) and as evidence of a collective desire, "to forge more complex and fluid possibilities for the art-site relationship, while simultaneously registering the extent to which the very concept of site has become destabilised in the past three decades or more" (*ibid.*). This destabilisation is evidence, Kwon suggests, that site-specific art is "no longer viable" (*ibid.*)

> The site can now be as various as a billboard, an artistic genre, a disenfranchised community, an institutional framework, a magazine page, a social cause or a political debate. It can be literal, like a street corner, or virtual, like a theoretical concept. (Kwon, 2004: 3)

According to Kwon site-specific art has outgrown its borders and original discourses. Kwon's plurality of thinking, inspired the direction of the thesis, not just my examination of Smithson's work, but that the borders and definitions of site-specificity were open to negotiation. Similarly, the conceptual questioning of Smithson's Nonsite has been vital in examining the site/work relationship as a "problem-idea" (Kwon, 2004: 2). Indeed, Nonsite functions as a method of questioning existing boundaries and definitions.

3.2 Nonsite

According to Mackey, Smithson described the quarried landscapes of New Jersey as equivalent to "the monuments of antiquity" (2011: Appendix J, 1). This interest developed into the series of artworks called 'Nonsites'. The term Nonsite is described by Smithson in, 'A Provisional Theory of Nonsites' (1968), to describe, "an indoor earthwork", which is "a three-dimensional logical picture that is abstract, yet it represents an actual site" (Smithson, 1996: 364). Nonsites feature excavated materials like rocks and gravel in "containers of painted or galvanized steel" (Jager, 1970). These "undifferentiated" (Smithson, 1996: 221) materials are displaced and separated from their original context and appeared alongside photographs, maps and text which create a dialogue between the site and the Nonsite, establishing that the work is "here while referring us elsewhere" (Kandel, 1995).

In order to explore Nonsite as a productive model for other field practices the chapter returns to R.Murray Schafer's 'schizophonic' split of a sound and its electroacoustic reproduction. The chapter also utilises the work of Hsiang-Ying Chung, Susan Kandel, Brian Kane and Craig Owens to evaluate Nonsite's potential as an arbiter between those two positions. This is to highlight areas of potential expansion and revision and to consider whether a more pluralistic version of Nonsite can function as a framework outside of Smithson's own practice. A version that points to the complex interrelationships between work and site without being bound to the aesthetic and ideological baggage of the era in which the ideas were formulated. Nonsite acknowledges the same tension between site and work as schizophonia, but rather than treating the split as an aberration Smithson proposes the space between site and work has "metaphoric significance" (Smithson, 1996: 364) i.e., the conceptual space between the site and the gallery is rich with potential.

3.3 The Absent Site

Smithson referred to Nonsite as "an absence of site" (1996: 193). This focus on reading a site "in terms of its absences" highlights "the elusiveness of the actual or 'real' site" (Kaye, 2000: 92). Furthermore, overwriting continuous, undifferentiated materials with discrete, mapped information, creates an "instability" (Mackey, 2011) of meaning in the work when "the site against which it claims definition is elsewhere". (Kaye, 2000: 92). As Smithson would later say: "[w]hat you are really confronted with [...] is the absence of the site [...] a very ponderous, weighty absence" (Smithson 1996: 193). Developing this idea further he remarked, "the site is a place where a piece should be but isn't" (Smithson, 1996: 249–50).

3.4 Non

The use of 'non' as a prefix is an established function of the English language, derived from the Latin 'none' it functions in multiple ways. According to the (Oxford English Dictionary, 2024) "Non appears as the first word in a large number of Latin phrases, chiefly legal,…" 'Non' can refer to an 'absence', or 'lack', which is particularly relevant to Nonsite, because Smithson refers to the Nonsite as an "an absence of site" (1996: 193). Non can refer to a prohibition, dissent or disapproval: the French 'non' represents refusal and negation, "b. The making of a statement involving the use of a negative word, as 'no', 'not', 'never', etc. (freq. in Linguistics); contradiction of a statement or allegation; denial, rebuttal, nullification". (Oxford English Dictionary, 2024). Nullification is important because Smithson repeatedly returns to the overwriting and erasure of site i.e., the site is overwritten by Nonsite, nullifying and destabilising it. However, the most relevant OED definition is, "c. Logic. assertion that a proposition, etc., is false; an instance of this, esp. a proposition whose assertion specifically denies the truth of another proposition" (*ibid.*). This relates to the writing and overwriting of site, the assertion that a proposition is false is that it denies the truth of another proposition. The work is not the site and as soon as materials are displaced from a site context a tension emerges. For Schafer this takes on a dark character; for Voegelin and Smithson, it creates a productive tension to be explored by the artist.

3.5 Site/Nonsite Dialectic

In an interview with Paul Cummings in 1972 (1996: 295) Smithson first introduced the idea that the tension between the Nonsite and the source site was a dialectical one. Maps and photographs were key to establishing this dialectic by "directing the viewer" (Kastner and Wallis, 1998: 31) from the gallery to the original site. This "relational" (Cartiere and Willis, 2008: 33) dimension of sites in dialogue, "destabilises" (Mackey, 2011: Appendix J, 1) the source site, constantly writing and overwriting it like a kind of "palimpsest". (Augé 1995: 79).

Originally published in 'Arts of the Environment' (1972: 222-32) by Gyorgy Kepes, and reprinted in Robert Smithson: The collected Writings, (1996: 143-152) Smithson delineates the defining features of site and Nonsite:

Dialectic of Site and Nonsite

Site	Non-site
Open Limits	Closed Limits

A Series of Points	An Array of Matter
Outer Coordinates	Inner Coordinates
Subtraction	Addition
Indeterminate Certainty	Determinate Uncertainty
Scattered Information	Contained Information
Reflection	Mirror
Edge	Center
Some Place (physical)	No Place (abstract)
Many	One

In the site/Nonsite dialectic, the site is characterised by 'continuous', scattered' information, "a place you can visit, experience, travel-to", whereas Nonsite is discrete, measured information, or "a container, an abstract work about contained information" (Lucarelli, 2014).

In a 1969 Cornell University Symposium, Smithson described the dialectic between site and Nonsite as a "back and forth rhythm that goes between indoors and outdoors". (1996: 178). The source site is characterised by "scattered" (1996: 152) material, whereas the Nonsites "clean, minimalist "(Kaye, 2000: 92) containers, "gather in the fragments" (Smithson, 1996: 104). Fragmentation is key here, for Smithson the fragments include "undifferentiated" (Kaye, 2000: 93) materials, photographs and maps. In Smithson's words the "back and forth rhythm" (1996: 178) between the limitless and the limited, the scattered and the contained is what Robert Hobbs termed Smithson's, "unresolvable dialectics" (1981). The dialectic is irresolvable because the hierarchy between the source site and work made from it is unstable. This instability speaks to the site/work tension outlined in Chapter Two.

3.6 Encounter

Smithson further explicates the distinction between site and Nonsite, between encountering a site and then subsequently making work that points back to that original site. He describes this initial encounter with a site as the "suspension of boundaries" and "de-architecturing" that "takes place before the artist sets his limits" (Smithson, 1996: 104). Nick Kaye in 'Site-Specific Art: Performance, Place and Documentation' (2000), describes this encounter as, "a perceptual exposure", (93) and highlights Smithson's interest in Anton Ehrenzweig's concept, "dedifferentiation" (1967: 19), or, in Smithson's words, "the state of mind in the primary process of making contact with matter" (1996:

102–3). Smithson also describes the artist encountering a site being “physically engulfed” (1996: 104) and later trying to “give evidence of this experience through a limited (mapped) revision of the original unbounded state” (*ibid.*)

These statements by Smithson offer significant insight into the nature of the artist in the field. As soon as a site is encountered, the perceptual exposure begins: every new piece of information, object in the field, conversation or recording acts on the artist. Additionally, when material from a site is placed in a gallery, its agency does not dissolve into symbolic meaning; rather, it remains an active force that conditions perception, foreshadowing later new materialist thinking. As Smithson says in his essay ‘The Sedimentation of the Mind’
“[t]he earth, materials, photographs, and text can all serve as strata—layers that sediment perception.” (Smithson, 1996: 100–101)

3.7 Metaphoric Significance

Smithson refers to the “space of metaphoric significance” (Smithson, 1996: 364) between the site (the original location) and the Nonsite (an artwork in a gallery that points back to the site). It describes the space “between the *actual* site in the Pine Barrens” (*ibid.*), and the subsequent Nonsite constructed from it as a “vast metaphor” (*ibid.*). Susan Kandel, in, ‘The Non-Site of Theory’ (1995) describes this phenomenon as “something beyond, intertwining the here with that which is there - or at least elsewhere”. Smithson describes the space as “an abyss between the abstraction and the site, a kind of oblivion. Oblivion to me is a state when you're not conscious of the time or space you are in. You're oblivious to its limitations” (Smithson, 2003: 106)

3.8 Displacement

A key conceptual device that underpins Smithson’s Nonsite theory is displacement, or “how the meaning of an object is changed by its removal to another site”. (Jager, 1970). The Nonsite destabilises the source site, highlighting the tension between sites. Smithson frequently incorporated mirrors in order to displace material and create “endless doubling” (Smithson, 1996: 193). The mirror exists as a mechanism within the Nonsite sculpture and also within the “space of metaphoric significance” (1996: 364) between site and Nonsite, “so that you have the nonsite functioning as a mirror and the site functioning as a reflection. Existence becomes a doubtful thing’

(Lippard and Smithson 1996: 193). The mirror, says Smithson, “is both the physical mirror and the reflection…concept and abstraction” (1996: 364).

> The mirror functions as a heterotopia in the respect that it renders this place that I occupy at the moment when I look at myself in the looking glass at once absolutely real, connected with all the space that surrounds it, and absolutely unreal, since, in order to be perceived, it has to pass through this virtual point, which is over there. (Foucault, 1967: 17)

Smithson's Nonsite series has multiple forms of displacement in operation. Initially there is the collection and removal of material from one place to another, then there is the visual manipulation and disruption of those materials by mirrors, and then finally there is the displacement and abstraction of data from the material itself. Smithson used the discipline of crystallography to structure his “ethics of containment” (Graziani, 2004: 78) i.e., abstracting the crystalline inner structure of the materials and employing it as the geometric shape for the container, Smithson creates a container that holds material with its own inner materiality. This relationship between micro and macro form has significant potential for use within field recording work, between processing and materiality. For example, field recordings as both the sonic output and as an influencing force on other material i.e., extracting analysis data (onsets, partials, noisiness, rate of change, centroid etc) and using that data to control audio processes and to fragment and arrange text and photographs.

3.9 Nonsite Criticisms

When considering Nonsite as a model for field recording practice, it is important to separate, if possible, the theoretical underpinning, with the dominant, aesthetic tropes from the time it was conceived. One of the main objectives of this chapter is to establish Nonsite’s suitability for use outside of Smithson’s practice. Central to this argument is Smithson’s ambivalence towards the Nonsite theory, stating, “[t]his little theory is tentative and could be abandoned at any time. Theories like things are also abandoned. That theories are eternal is doubtful. Vanished theories compose the strata of many forgotten books” (1996: 364). In addition, Smithson’s death in a helicopter crash in 1973, aged 35, means that the theory was not developed over time; it did not respond to changing cultural movements and nor did he have the chance to alter, change, reflect on or abandon the theory.

The sculptural, material product of the Nonsite series is responding primarily, while not exclusively, to the tropes of minimalism, one of the dominant art movements of the 1960s and 70s and the dominant movement of sculpture. Although Smithson was never purely a minimalist, many of the aesthetic choices within his work can be viewed within the parameters of the movement. Smithson did express concern with the "reductionist aesthetic" (Stevens, 2005) of minimalism, but conversely his aversion to "expressive art" (1996: 364) can be seen in relation to minimalism's aesthetic and ideological priorities.

It should be noted that while Nonsite carries many of the hallmarks of minimalism (utilising industrial processes and products to create elements within the work) Smithson did not consider himself to be central to the movement, in fact he is described by Mark Stevens in the 'New York Magazine' review of the Whitney Museum of American Art's showcase of Smithson's work in 2005 as minimalism's, "greatest critic—the anti-Judd". Stevens cites Smithson's, "fierce attack upon art's pristine white room" and the, "clean-as-a-machine" (*ibid.*) theories of minimalism as evidence of Smithson's status as outsider to the dominant aesthetic ideologies of the time. His ambivalence to rigid ideologies and genre purity led Smithson to adopt geology as his model for artistic production:

> Truth was plural, messy, impure, changing. It was found in the complex sediment of thought. It accreted over time: The geological became his presiding symbol. ("I'm not a reductive artist," he said. "I'm a generative artist.") This perspective led to thinking outside the box—literally. His art erupted from the gallery and museum into the landscape. (Stevens, 2005)

Smithson then, rather than being part of the first wave of modernist European site-specific artists, is a precursor to the later wave that Kwon identifies as trying to "redefine the art-site relationship". (2004: 2). Nonsite does not sit comfortably alongside site-specific works such as Richard Serra's 'Tilted Arc' (1981). In fact, Nonsite was a removal from modernism's tendency towards universalism to a more doubt inspired questioning of limits and boundaries more common to postmodern or conceptual art works.

3.10 Expressivity

In 'A Provisional Theory of Nonsites' (1968) Smithson points to expressivity in art as undesirable, a hindrance to logical abstraction, stating that, "expressive art avoids the problem of logic; therefore, it is not truly abstract". (1996: 364). This statement is relevant because prior to the Nonsite series,

Smithson was involved in the abstract expressionism movement. In his 2005 article 'The Maximalist' a review of Smithson at the Whitney Gallery Mark Stevens describes Smithson's "expressionist sensibility" as, "one colored by religious feeling and the vast scale of religious space". He goes onto describe the "fruitful" tension in trying to resolve this interest with "[coming] of age in the cool, rarefied, milieu of minimalism". (Stevens, 2005). Furthermore, in turning against expressivity, Smithson conforms to an artistic cliché of critiquing a movement that he himself had only just moved on from. Expressivity doesn't need be reinstated into the Nonsite theory to make it relevant outside of Smithson's work, but that doesn't discount 'expressive' work from drawing on Smithson's ideas.

The image of 'A Nonsite (Franklin, New Jersey)' (1968) provides a good example of the arrangement of 'Nonsites'. The work demonstrates a highly stylised, poetic and expressive arrangement of materials. Their arrangements are not expressly scientific or logical and a distinction between human (and psychology-invested) work and different readings of 'expressive' is useful, particularly as the thesis builds towards an engagement with contemporary materialisms.

Figure 3: A Nonsite Franklin, New Jersey (1968) Holt/Smithson Foundation

3.11 The Wider Relevance of Nonsite

In the 'Non Site of Theory' (1995) Susan Kandel makes the case for traces of Nonsite being evident in the work of the artists Peter Halley, Sherrie Levine, Mark Tansey, Stephen Prina and Meyer Vaisman. Additionally, the artist Signe Lidén could be added to this list, particularly her installation 'Stratigrafi' (2013) a work concerning mining and material which also features field recordings - both as audio recordings and also of mining processes recorded from the field. Her practice, like Smithson's, isolates and "displaces the field" (Voegelin, 2014), making "[r]epresentations, imitations, recordings […] processes reproduced…" (Lidén, 2013).

Kandel links the previously mentioned artists' work to Smithson's, not by the sculptural output exhibited in the gallery, but by the "notion of the work as text", to be read and interpreted, asserting theory as "inherent" in the work, stating, "Despite divergent approaches, these artists all treat words as inherently material, and objects as linguistic entities which are scripted and can be read" (Kandel, 1995). Kandel identifies those artists' work as sympathetic to Smithson's "notion of art as a space in which distinct categories, genres and media are frustrated" (1995). She also describes the work of the aforementioned artists as "phantom texts", and "lacunae, haunted by those missing bodies (of theory) which can only be conjured second-hand", and as art objects operating as sites "where different discourses meet, as well as sites where yet more discourse is produced" (*ibid.*). The assertion that Nonsite can be read as a text or contains the "absent register of language" (*ibid.*) does not necessarily denote "the literal presence of language in the work of art". (*ibid.*) It refers rather to the "complex interchange between presence and absence, and between the implicit and explicit" (*ibid.*).

It should be noted that at this point in the research project, my theoretical frame was centred around Derrida, Barthes and ideas of absence and presence. I had not yet found the final focus on material and new materialism. However, it was through Smithson's description of writing and his focus on material that I eventually made that connection.

Hsiang-Ying Chung in her doctoral thesis, 'A Sound Encounter' (2014) points to Smithson's statement that language is a material as "primary as steel" (Smithson, 1996: 214) and "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" (Smithson, 1996: 235). She later compares Chion's 'en creux' and Roni Horn's 'doubling' as informative models for sound arts practices, stating, "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"

(Chung, 2014: 17). Chung points to Claudia Gorbman's, endnote to 'Audio-Vision: Sound on Screen' (1994) by Michel Chion, where en creux is described as a "phantom" and, "the territory of transference from one sensory channel to another, which sometimes produces psychological "presences" in the face of perceptual "absences."" (1994: 218). Gorbman goes on to describe en creux as referring to, "negative space - the shape of the space in a sculptor's mold, defined by the mold." (*ibid.*). Walter Murch (sound designer of 'Apocalypse Now' and 'The Conversation' and who wrote the foreward to 'Audio-Vision'), translates en creux as sound "in the gap" referring to it as "a purposeful and fruitful tension between what is on the screen and what is kindled in the mind of the audience - what Chion calls sound en creux (sound 'in the gap')". (Murch, 1994: xix). It is this tension between absence and presence, the negative space that lies between two sites—in this case the screen and the mind—that links en creux and Nonsite. However, Nonsite is not entirely analogous to en creux, because it provides an informative model for abstraction, representation, encounter, reception, mapping and translation of site that en creux is not designed to span.

3.12 Schizophonia

It's useful to return to schizophonia at this point to consider its relationship with Nonsite i.e., the relationship between absence and presence and between the site and a "limited (mapped) revision" (Smithson, 1996: 104) describing material collected from specific locations and re-presented in a different context.

In 'Background Noise: Perspectives on Sound Art.' Brandon LaBelle makes a connection between Schafer, environmental composition, and land art, stating that, "[a]coustic ecology can be situated historically in relation to the development of Land art of the early 1970s". (2006: 198). He goes on to compare Schafer's concept of soundscape and Nonsite saying, "[t]he distinctions of "site" and "non-site" find resonance in acoustic ecology's artistic and musical works, in so far as sounds are removed from their indigenous environment and composed into a music work" (2006: 198). LaBelle identifies the transformation of the continuous information of site into "cultural objects" (*ibid.*) as the defining link between Acoustic Ecology and Nonsite. He develops this further referring to the Nonsite as a "cultural platform" and, like Kandel, and Chung, argues that "[t]he "non-site" is thus a space of discourse whereby artistic reflection and criticality takes shape…" (LaBelle, 2006: 198)

Nonsite is unique in its ability to frame multiple, and sometimes opposing, forces within a single framework. While there are broadly analogous theories for each of the constituent parts of the Nonsite theory, there is nothing that unifies them in the same manner as Nonsite. A Nonsite is the

acknowledgement of the dynamic tension between the recorded (contained) and the infinite (scattered) information of the site. Schizophonia draws attention to the split and asserts that all decoupling from a sounds' original context takes on a negative form. Nonsite identifies the split but does not make pronouncements about its nature, it instead seeks to investigate the "metaphoric" (1996: 364) space between the two halves of the split. Nonsite is a mechanism for questioning, for contesting boundaries i.e., a back-and-forth dialogue. It acknowledges the same split as schizophonia, but goes further, creating productive material by excavating the tension between the site and the work.

Nonsite offers a potential model where representative, abstracted, and logical information can reside in the same work, and that work can be both the 'cultural object' and the platform for discourse whilst also engaging with the phenomenology of encounter. Nonsite provides a framework where these opposing forces are part of a creative dialogue rather than an unproductive dichotomy.

Nonsite points to the complexity of the site/work relationship; rather than being weighed down by the conceptual baggage of schizophonia, it points precisely at the baggage, referring to the instability of the site-work relationship. Nonsite is *not* the site, and neither, as Smithson points out, is the site where the work belongs. This dialectical tension between spaces in dialogue and between a site and work derived from it gives the Nonsite its power as a conceptual framework, making it relevant to all contemporary site-based practices. Those practices, however, do not necessarily need to adopt the term Nonsite. The value of Nonsite resides in the dialogue between site and work, and as a model for the conceptualisation and organisation of disparate material fragments, for example, sound, text, photos in the same artwork. Nonsite is also highly instructive about the nature of material i.e., when material from a site is placed in a gallery, (as discussed in 3.6) it does not simply become symbolic, but rather it remains an active force that conditions perception.

At this stage Nonsite was employed for what it could teach me about sound practice, but the model became more interesting to explore multimodal fragments recorded on site and to present them to an audience. I took the decision to explore a multidisciplinary version of my practice and for field recording to become one part of a much larger methodology. I also decided to leave Nonsite behind and instead focus on materiality rather than discourses of representation, absence and presence. My interest in Nonsite and the methods through which Smithson theorised and presented material relationships developed into a broader research interest in material and materiality, which led, in turn, to new materialist philosophy.

4 New Materialism, Material and Nonsite

This chapter explores ideas developed in new materialist philosophy and adopts some of the principles and provocations of new materialist thought to reimagine a material-oriented compositional practice. Providing a rigorous overview of new materialism presents a challenge because of the divergent set of philosophical perspectives across different disciplines. As identified by Fox and Alldred in 'New Materialism' (2019) and Gamble, Hanan and Nail in 'What is New Materialism' (2019), "there is currently no single definition of new materialism but at least three distinct and partially incompatible trajectories" (Gamble, Hanan and Nail, 2019: 111). Gamble, Hanan and Nail define the three trajectories as negative, performative and vitalist new materialism. A common theme across the new materialist schools of thought is 'de-centring' the human or embracing a "non-anthropocentric realism grounded in a shift from epistemology to ontology and the recognition of matter's intrinsic activity" (Gamble, Hanan and Nail, 2019: 118). New materialists "regard the world and its contents not as fixed, stable entities, but as relational and uneven, emerging in unpredictable ways around actions and events" (Fox and Alldred, 2019: 3) and "a chaotic network of habitual and non-habitual connections, always in flux, always reassembling in different ways" (Potts, 2004: 19).

New materialism then offers a useful provocation to re-consider the relationship between "human bodies; other animate organisms; material things; spaces, places and the natural and built environment these contain" (Fox and Alldred, 2019: 1). In the context of sound practice that involves aesthetic intervention there is a complex relationship to consider between materials and artist, and adopting a new materialist perspective would problematise the top-down hierarchy of composer as architect, who shapes material according to their aesthetic impulse.

4.1 New Materialism and Electroacoustic Music

It should be noted that, narratives around control and mastery in later electroacoustic music, for example, when Risset writes that the electroacoustic composer can "experience the control of sound and music both sensually and intellectually" (Risset, 1996: 176) are somewhat at odds with the original spirit of musique concrète. Destabilising the hierarchical relationship of composer as architect was an explicit part of the defining movement, and the fundamental distinction between

musique concrète and Elektronische Musik, which was heavily invested in control through compositional systems. The architectonic nature of Elektronische Musik reflects a methodical, structured and controlled approach to composition, similar to architecture, wherein the composer meticulously constructs music from basic sonic components.

Musique concrète composers such as Schaeffer, Henry, Chion, Ferrari, and Parmegiani et al., were in dialogue with the recordings they made rather than in full control of them. For Schaeffer, play or "jeu" (Dack, 2002: 8) refers to the creative and exploratory process of manipulating sound. Viewing the act of composing as a form of play, where the composer engages with the material in an experimental manner. Rather than adhering to strict rules of composition, and in direct opposition to serialism and Elektronische Musik, 'jeu' describes an improvisatory approach to discovery, where material guides the form of the work. Although there is less of a sense of hierarchy and control in musique concrète than Elektronische Musik, and a more pronounced interaction with the properties of material, the agency of material is not fully explicated and so presents an interesting area for further research. As expressed in the introduction, the thesis does not seek to obfuscate the role of the author, however, focusing on material agency affords new insights into the emergence of composed pieces and how material shapes and guides any work of art.

4.2 Vitalist New Materialism

Owing to the divergent and at times incompatible set of perspectives, any body of work informed by new materialist thought needs to bracket out a generic reading of the field in favour of specific theories. This thesis is most closely aligned with vitalist new materialism and owes a significant debt to the thinking of Bennett and Massumi.

In 'Vibrant Matter' (2010), Bennett articulates a form of vital materialism in which all matter possesses a degree of agency or "vitality" (Bennett, 2010: 5). Bennett, however, distances herself from older traditions of vitalism, rejecting the "life/matter binary informing classical vitalism" (Bennett, 2010: xviii), encouraging an ethical awareness of the agency of non-human forces she attributes a dynamic force or energy to all matter, rejecting the notion that life and agency are

exclusive to human beings or living organisms. A vitalist perspective presupposes that matter has agency and a vital force that gives material the 'capacity to affect and be affected' (Bennett 2010: 34; Förster 2021: 76). Vitalist new materialism emerged from the philosophies of Deleuze and Guattari, (1987) and (1988), Bergson (1907) and Spinoza (1677) who emphasise 'immanence' (the idea that all existence is interconnected and embedded in a material reality) rather than 'transcendence' (spiritual or divine forces beyond the material world). The term 'immanence' has a long and complex history but can be best described (in the context of Bennett's philosophy) by Spinoza's statement in 'Ethics' (1677) that "God is the indwelling and not the transient cause of all things" (1910: 18) i.e., that God, or nature, is not outside the phenomenal world, but within it. Immanent, not transcendent.

Vitalism is sometimes used pejoratively, for example, by Peter Hallward (see 4.5 for full overview) because the vital force or agency is not sufficiently explained, and so in Hallward's view vitalism represents a quasi-theological transcendence rather than immanence. Bennett and Massumi do put forward models for understanding the agency of material, i.e., 'desire', 'élan vital, 'shi' and 'inorganic sympathy', (fully examined in this chapter), however, the nature of Bennett and Massumi's speculation does not make a definitive and empirical assertion possible and for the purposes of this thesis the new insights do not rest on the provability of Bennett and Massumi's philosophies. The value in those positions lies in the questions and provocations rather than definitive answers. This thesis does put forward several forms of material agency i.e., physical resistance and constraint; vibrational and sonic properties; decay, weathering and temporal change; invisible forces, contamination and exchange; fragmentation and assemblage. These categories are fully outlined in 1.0 aims and objectives.

4.3 Vibrant Matter

At the beginning of 'Vibrant Matter', Bennett describes an epiphanic experience in which she encounters a number of seemingly unrelated objects. "Glove, pollen, rat, cap, stick. As I encountered these items, they shimmied back and forth between debris and thing." (Bennett, 2010: 4). She describes a powerful sensation where the objects began to "shimmer and spark" (2010: 5) and she became aware of the capacity of those objects to form into a "contingent tableau" (*ibid.*), with each other and also with the street, the weather and with her own body. It is this phenomenon that the thesis draws from most strongly i.e., that material forms a "contingent tableau" (*ibid.*) in which the

artist is drawn into an assemblage of affective bodies and material interactions with human and non-human objects.

An example of this is when I encountered a fly-tipping site near Baldhu. There were numerous abandoned, buried and burnt objects. Bottles, books, chopped trees, a mannequin head, shotgun cartridges and many other plastic objects. I was drawn to the "contingent tableau" (*ibid.*) of those objects. The implication of Bennett's ideas in this context is that humans do not scan according to a fixed sensibility but rather are drawn to, and influenced by, affective bodies. This affective process was also evident when I began to select objects, images and text to be included in the final book. I laid out hundreds of different potential combinations of materials and allowed myself to become magnetised and affected by certain configurations of material. See Part 2 for a detailed practice overview.

Figure 4: Pages of Red Lake / Black Mine

Later in 'Vibrant Matter' Bennett goes on to say, "I caught a glimpse of an energetic vitality inside each of these things, things that I generally conceived as inert" and "[i]n this assemblage, objects appeared as things, that is as vivid entities" (Bennett, 2010: 5). She calls this "Thing-power: the curious ability of inanimate things to animate, to act, to produce effects dramatic and subtle" (2010: 6). Bennett further explicates thing-power as "sensual emanations and obscure insistences" (Bennett, 2011a)—describing the call of things (2011a) to humans.

Figure 5: Buried Book Found Near Baldhu

Bennett's ideas on "thing-power" (2010: 6) have profoundly affected the thesis. A concrete example is evident in Figure 5. The seemingly static object is overwritten by its sonic history. The actions, quasi-narrative and associated sounds of burning and then burying the book are an inseparable part of the encounter. The sound of digging and pages ripping is audible as is an internal register 'subvocalization' (Carver, 1990) as I scanned the visible words. The book is illustrative of how seemingly passive objects can become "vivid entities" (Bennett, 2010: 5).

In 'Vibrant Matter' (2010) and subsequent talks Bennett pays particular attention to hoarders, i.e., people who accumulate things; people who have a relationship with thingness that is not typical. To explicate thing-power she draws on Roland Barthes "advenience" (2000: 23-24) which she describes as a "[s]trange attraction, neither useful nor aesthetic" (Bennett: 2011a). Bennett applies this to hoarders i.e., people who collect things that are neither traditionally beautiful, nor kept for their potential use value; yet they are still drawn to them because, according to Bennett, they see more of the vibrancy of things. Where most humans see objects, hoarders see things. They see beyond the inert, or at least, they are sensitive to the magnetic power of things. What's seen by the hoarder, according to Bennett, is the potential the thing possesses for diverse connectivities, its place in many assemblages.

In her talk, "Powers of the Hoard: Artistry and Agency in a World of Vibrant Matter" Bennett posits that hoarders and artists have shared traits, seeing more than a static object alone and unentangled with other objects, she describes hoarders as "artistic in their exquisite sensitivity to the somatic effectivity of objects". (2011a) The use of the word somatic is interesting here "[o]f or relating to the (or a) body; bodily, corporeal, physical […] affecting the body" (Oxford English Dictionary, 2024). Thing-power is a material relationship with other bodies, describing a heightened sensitivity to the vibrancy of matter. Humans who are drawn into dynamic relationships with things and compelled to

conjoin “their sensuous excitable bodies” (2011a) with the “hoard” (2011a). Bennett develops this idea further, saying “hoarders and artists hear more of the aesthetic call of things—to conjoin with them, play with them, respond to them”. (Bennett, 2011a).

Bennett’s theory is open for reimagination and application to different disciplines, for example, she highlights archaeology as one potential area, saying “much could also be learned about thing power […] from archaeological digs where exquisite attention is paid to the smallest material shard” (Bennett, 2011a). Attention to material shards is one of the defining themes of the thesis, which also shares an interest in the methods of archaeology i.e., excavation and the surface study. However, this interest can also be extended to compositional disciplines such as electroacoustic composition, which is suitable for a new materialist interrogation. The process of an electroacoustic piece emerging involves the thing-power of material shards, a “field of forces” (Massumi, 2002: 9) that have a form of agency and energy that enables them to join other shards in a process of becoming. This process is not controlled exclusively by the composer who shapes material according to will, but rather the composer is affected by thing-power, drawn to shapes, contours and relationships between sound fragments; drawn to a “confederacy” (Bennett, 2010: 31) of affective bodies. See 4.9 for an expansion of this discussion in relation to electroacoustic music and new materialism.

More broadly, Bennett identifies the arts as a site of potential for new materialist research, inviting collaborative extensions of her ideas saying, “maybe a less verbose practice like performance art, photography, painting, music…dance is better suited for the task of acknowledging and translating the call of things” (2011a). She acknowledges the problem of language and human exceptionalism in new materialist ideas and says we should focus on becoming more sensitive “to the frequencies of the material agencies inside and around us. So the goal: to use words to make whatever communications are already at work between vibrant bodies, more audible, more detectable more sensible.” (2011a).

Bennett’s goal translates well into field recording and site-based practice i.e., to encounter objects in the field is to encounter a set of dynamic possibilities, where speculation, experience and memory overwrites the seemingly static object, “a contingent tableau” (Bennett, 2010: 5) from which the work of art emerges. To adopt Bennett’s philosophy is to become sensitive to activity beyond the here and now and to allow the vitality of objects to guide and inform the process of making art.

4.4 Bennett: Criticisms

Bennett's work has been an invaluable source of inspiration for this thesis, particularly its open and collaborative invitation to reorient and reconsider established disciplines, providing a strong foundation to reimagine the role of material in electroacoustic composition. That said this thesis adopts Bennett's ideas for their generative and creative potential and is not fully aligned with all elements of her work. There are a number of intellectual diversions from my own work to outline and also prominent critiques to acknowledge.

In Assemblage Theory and Method (2021), Ian Buchanan takes issue with Bennett's use of the word 'assemblage'. The critique rests, in the main, on what he perceives to be a misunderstanding of Deleuze and Guattari and a lack of rigour surrounding her model of assemblage. "Accordingly, any, and every, 'thing', or more precisely, any and every kind of collection of things has in recent times, been called assemblage, and even more problematically, the coming together of every kind of collection of things is now referred to as assembling" (2021: 3). He develops this point further, writing, "If any apparent random 'heap of fragments', to use Jameson's [1991: 25] suggestive phrase for the 'randomly heterogeneous and fragmentary and the aleatory'" (*ibid.*) is to be called an assemblage, then there are two possible outcomes to Bennett's line of thinking that either the "heap of fragments" has a secret order we don't see, or the apparently ordered is simply a "heap of fragments" (*ibid.*).

Buchanan makes a rigorous case for the lack of adherence to Deleuzian principles, an accusation which is also aimed at Latour, De Landa, Morton, Ingold and Connolly. This criticism is given additional validity by Bennett's heavy leaning on Deleuzian concepts (including assemblage) in 'Vibrant Matter' where thirty-two pages are listed in the index as mentioning Deleuze. For Buchanan the translation of assemblage from Deleuze to Bennett represents a lost conceptual 'vitality'. The loss is particularly keen when Bennett and others articulate a version of assemblage without sufficiently addressing 'desire'. Without desire, Buchanan argues, assemblages are simply systems of things.

> [W]hy adopt a concept like the assemblage and gut it of the very thing that animates it and turn it into something less interesting? The assemblage-as-system-of-things approach

> apparently forgets that the starting point for the invention of the concept of the assemblage is desire understood as the basis of all behaviour, animal, human and more than human". (Buchanan, 2021: 56)

When Buchanan says that desire is the "starting point for the invention of the concept of the assemblage" (2021: 56) he is talking about assemblage as articulated by Deleuze and Guattari, however, he neglects to acknowledge the etymology or long-standing (first recorded in 1690), (Oxford English Dictionary, 2024) use of assemblage in carpentry, engineering and surrealism. He does acknowledge that a reasonable use of the word would include "miscellaneous things" (Buchanan, 2021: 113) and calls for a return to the original French 'agencement' used by Deleuze and Guattari to avoid ambiguity of meaning in philosophical debates. However, those acknowledgements notwithstanding, for Buchanan, the inalienable force of assemblages is desire, which is lacking in Bennett's model, i.e., that it, "assumes that the properties exhibited by a given assemblage are generated by the materials in the assemblage, but for Deleuze and Guattari, the opposite is the case, desire is primary; it is desire that selects materials and gives them the properties that they have in the assemblage" (Buchanan, 2021: 56). Buchanan asserts that the force that drives Bennett's assemblage theory is inadequately defined and somewhat mystical; it's identified as present but rendered always beyond understanding. This critique is also related to the pejorative sense in which the term 'vitalism' is used by Hallward (2006).

Bennett's model of assemblage, contends Buchanan, reduces "humans to the status of bit players in the theatre of life" (2021: 114) and "makes no place for the specificities of human desire" (2021: 115). Bennett does not account for desire in 'Vibrant Matter', but she does address it in her previous book, 'The Enchantment of Modern Life: Attachments, Crossings, and Ethics' in which she states that desire might not be the best vehicle "through which to think about assemblages" (2001: 180n37). And indeed, Buchanan's critique presents a particular challenge to a new materialist project seeking to close binaries between human and non-human forces and to understand the agency of materials outside of a purely anthropocentric world view, indeed "the specificities of human desire" (Buchanan, 2021: 115) are in direct conflict with the new materialist project writ large.

> By rejecting a distinction between the physical world and the social constructs of human thoughts, meanings and desires, new materialism opens up the possibility to explore how each affects the other and how things other than humans (for instance, a tool, a technology or a building) can be social 'agents'"

(Fox and Alldred, 2019: 3).

Many of the examples Bennett provides in 'Vibrant Matter', for example, storms, omega fatty acids acting on the human body; landfill generating chemicals et al., are not necessarily best understood through desire, but rather, the critical value in Bennett's position resides in inverting the analytical lens. Additionally, although Bennett does not directly address desire in her book she does outline in detail the forces, energies and agencies of the assemblage and it is not right to say that her articulation of the assemblage, or "contingent tableau" (Bennett, 2010: 5) is nothing more than an inert "heap of fragments" (2021: 3).

> Each member and proto-member of the assemblage has a certain vital force, but there is also an effectivity proper to the group in as such: an agency of the assemblage. And precisely because each member actant maintains an energetic pulse slightly off from that of the assemblage, an assemblage is never a solid block, but an open-ended collective.
> (Bennett, 2010: 24)

In order to describe the distributed agencies involved in the assemblage, Bennett draws on a number of concepts, initially Spinoza's conative or affective bodies, which are "continuously affecting and being affected by other bodies" (2010: 21) "Spinoza's encounter-prone body arises in the context of an ontological vision according to which all things are "modes" of a common "substance"" (2010: 3) where "[a]ny specific thing […] a glove, a rat, a cap and the human narrator of their vitality […] is neither subject or object, but a mode". (2010: 21-22). Bennett posits that agency is "distributed across an ontologically heterogeneous field, rather than being a capacity localised in a human body, or in a collective produced (only) by human efforts" (2010: 23).

> from the confederate agency of many striving macro-, and microactants. From "my" memories, intentions, contentions, intestinal bacteria, eyeglasses, and blood sugar, as well as from the plastic computer keyboard, the birdsong from the open window or the air or particulates in the room to name only a few of the participants.
> (Bennett, 2010: 23)

Bennett also offers Henri Bergson's concept of 'élan vital' from Creative Evolution (1907). Élan vital shares some conceptual elements with desire i.e., the primary force of energy that propels the evolution and development of living creatures. The "tremendous internal push of life" and "the

primitive impulse of the whole" (Bennett, 2010: 78) where organisms are interconnected and interdependent. Added to this Bennett proffers the Chinese concept of 'Shi' as a means to describe assemblages. "Shi is the style, energy, propensity, trajectory, or élan inherent to a specific arrangement of things […] shi names the dynamic force emanating from a spatio-temporal configuration rather than from any particular element within it. (2010: 35).

Bennett implicitly addresses desire, albeit through a different conceptual lens. Her interest in trash and hoarders speaks to a deep interest in, and a problematisation of, human desires of consumption. In fact, 'Vibrant Matter' can reasonably be thought of as an attempt to think through, or re-read, desire in a way that does not begin and end with human action. A more deeply entangled desire that does not spring forth from human will.

The nature of human agency and the implications of the decentring project are key to the critiques of Bennett's work and new materialism as a whole. Another prominent critique comes from Katherine Hayles in 'Unthought: The Power of the Cognitive Unconsciousness'.

> Despite their considerable promises, the new materialisms also have significant limitations. Conspicuously absent from their considerations of consciousness and cognition, presumably, because of the concern that if they were introduced, it would be all too easy to slip into received ideas and lose the radical edge that the focus on materiality provides (Hayles, 2017: 65-66).

Hayles' critique is divergent from Buchanan in that it's broadly a critique of Deleuzian thinking, stating that the "non-conscious cognitive framework provides a countervailing narrative to the Deleuzian concepts and vocabulary that is pervasive in the new materialisms" arguing that "enthusiasm for all concepts, Deleuzian threatens to ensnare some of the more extreme instances of new materialism in a self-enclosed discourse that, although it makes sense in its own terms, fails to connect convincingly, with other knowledge" (2017: 67).

Hayles is critical of those new materialists who are indebted to Deleuze and treat the philosophers' work as unquestionable and, in contrast to Buchanan, it's the Deleuzian root of new materialist thought that is "a self-enclosed discourse that, although it makes sense in its own terms, fails to connect convincingly" (*ibid.*).

Although Hayles is sceptical of new materialism, she actually singles out Bennett as a more productive new materialist thinker because of her ideological distance from Deleuze, which again is in contrast with Buchanan. That said, Hayles is critical of the 'decentring' project that cuts across much new materialist thought, arguing that it often confuses decentring the human with its "total erasure" (2017: 66). She also takes issue with the lack of acknowledgement and dialogue around the different types of agencies, stating that, "[a]gencies exist all along [a] continuum, but the capacities and potentials of those agencies are not all the same and should not be treated as if they were interchangeable and equivalent." (2017: 67). Hayles' point is similar to the point Buchanan makes in different terms: that relations between 'things' in Bennett's writing tend to be presented as of the same kind, even while she acknowledges a necessary material diversity.

Bennett does discuss this subject in her book describing agencies as having "uneven topologies, because some of the points at which the various affects and bodies cross paths are more heavily trafficked that others, and so power is not distributed equally across its surface" (Bennett, 2010: 23-24). Hayles acknowledges that Bennett makes the argument "that human agency is always distributed, not only within the body, between consciousness and unconscious faculties, but also between the body and the environment." (Hayles, 2017: 83).

Hayles is correct that consciousness and cognition are largely absent from Bennett's work and although Bennett does obliquely mention memory and other faculties of consciousness, she does not explicitly take the subject on. Additionally, Bennett occasionally seems uninterested in the humans involved in assemblages, which has some unintended implications for compassion and human dignity. For example, Bennett is very interested in hoarders, but not necessarily in the human who accumulates things, but rather in what they can tell her about assemblages, saying,

> I'm not really primarily interested in the hoarder person, I'm primarily interested in what the hoarder person can tell about the objects in the horde since they're especially attached to them right so…and I don't think that the hoarder has an intentional project at all. I'm not so interested with the intentional project of the hoarder, what I'm interested in…is there a kind of activity a kind of agency that comes from the other end…so not what the hoarder does to the horde, but what the horde does to the hoarder". (Bennett, 2011a)

This inversion is useful as a thought experiment; however, applied as a universal truth or extended into psychology, it risks considerable harm. Putting the "things in the foreground and the people in the background" (2011a), has several implications.

> How would the world appear if we bracketed off the discourse of psychopathology? […] If I was interested in helping the suffering of the people who are hoarders, I would not do that right, but my project is how can we draw forward into the realm of perceivability aspects of material stuff that we usually screen off because of the categories we use to see them" (Bennett, 2011a).

Hayles acknowledges that agency in material processes is "an intriguing possibility" (2017: 83) but ultimately, she argues that,

> the largest transformative forces on the planet, today, undoubtedly, human agency and human interventions. The effects of which are being registered in climate change, the worldwide loss of habitat for non-human animals, the idea of the Anthropocene, and in the reality that human actions are unleashing forces far beyond our ability to control them (2017: 83).

This is an important point about the disproportionate effect of human agency, one which Bennett does touch upon saying "things have power and humans have power and things have bodies and humans have bodies and they're not equal, but neither is it like passive matter on the one hand an active stuff that's organic on the other" (2011a). However, the issue of human responsibility is an important subject and one that Buchanan also takes up.

> Putting it in the starkest of terms, her work constantly seeks to diminish the responsibility of humans (not just individual humans but humanity itself) for the circumstances we find ourselves in. She does this by reducing the status of bit players in the theatre of life (Buchanan, 2021: 114)

Framed in this way there are ethical implications for Bennett's project, however, although it's true that there are some uncomfortable corollaries to her arguments Bennett shows no sign whatsoever of a lack of compassion in her writing or talks. Indeed, both Buchanan and Hayles tend to forget the

ethical dimension of Bennett's project i.e., that decentring the human is a way to correct the extractive mindset and to critique over consumption.

Taken wholesale there are politically perilous consequences of denying human agency indeed, Bennett acknowledges that her theory could limit the way that responsibility is apportioned for example, during questions and answers at her talk on agency and artistry she discusses the 'Deepwater Horizon' disaster with a member of the audience saying that in her philosophy

> You would really have to suspend the urge to find someone to blame because you can't blame objects you can only blame humans…right, that part of politics would have to be extracted out and put in the background for a moment which our politics hardly ever does, put that aside so that she could see the operative human nonhuman assemblages actually at work … you would have to background the desire for legal punishment temporarily in order to get a better picture of if" (2011a)

Bennett leans on the word *temporarily* and for her, the whole project is a thought experiment and generative *what if?* Proposition that offers new philosophical insights but is not supposed to be applied holistically as a complete system of ethics. A member of the audience presses her on the political implications of her work and she responds by saying the following,

> Well the first thing I have to say is that I don't think it's an all-purpose [theory] ah - it's not useful for all political goals […] if you want to talk about economic inequality, I don't think this vital materiality thing - I haven't thought that through I don't think it's particularly useful there, there you might want to focus on the human…(Bennett, 2011a)

As highlighted 'temporarily' is a key word but so is 'bracketing'. "How would the world appear if we bracketed off the discourse of psychopathology?" (*ibid.*). Bracketing is key to Bennett's thought experiment.

Bracketing is most commonly associated with phenomenological philosophies. Pierre Schaeffer's reduced listening concept, inspired by Merleau-Ponty employs bracketing to screen out parts of experience in order to know more about one particular part. Screening out elements of the whole, however productive, cannot function universally, and indeed, Bennett's work is not written as unassailable truth, with Kantian-like claims for universality, but rather, it's written in a discursive,

personal and questioning voice; she frames the whole project very much as a thought experiment. Saying, “There is something to be said for moments of methodological naivete” (Bennett, 2010: 70). She uses terms like ‘draw attention to’ ‘advocate for’ ‘wish’ ‘hunch’ ‘perhaps’. ‘Vibrant Matter’ is written in a doubting voice, a subjective voice, a voice wishing to be drawn into an assemblage of further voices, saying, “I’m looking for places to develop my understanding of this hypothesis. I don’t know if it’s really true, this hypothesis, that things have power” (2011a). In addition, ‘Vibrant Matter’ represents an earlier form of new materialism, which is not written with the authoritative voice of one who has discovered an unassailable philosophical system, but rather is the beginning of a discussion.

During her Vera talk she acknowledges the limitations of her position and actively calls upon the audience, artists and philosophers to critique and add to her work. She acknowledges that the relationship to art is speculative and asks the audience to help her develop the ideas saying, “See if we can kind of get a better vocabulary for looking at the power of things, and then once we have the vocabulary, the conceptual framework, we might find more of it around us” and maybe you can help me think about that!” (Bennett, 2011a).

The philosophy described in ‘Vibrant Matter’ is specialised and temporarily brackets out human concerns. ‘Decentring’ and ‘bracketing’ are synonymous terms – and used inappropriately present some ethical challenges, giving rise to accusations of silencing and or neglect. However, applied to the arts, it’s an opportunity to invert the eyeglass and to reconsider assumptions about human control. This is particularly useful when she writes about artists who she explicitly addresses in her talk ‘Powers of the Hoard: Artistry and Agency in a World of ‘Vibrant Matter’. The criticism notwithstanding, Bennett’s generative and open thought experiments offer a productive opportunity to reimagine artistic practice. That provocation, however, should always come with a caveat and a caution that it cannot be upscaled or applied holistically as a universal system of ethics.

4.5 Abstract Potential

As well as Bennett I have drawn significantly from ‘Semblance and Event: Activist Philosophy and the Occurrent Arts’. Wherein Massumi positions semblance as a “lived abstraction” (2011: ix) which integrates the abstract and concrete and has significant implications for an electroacoustic practice that explores the tension between the two. Massumi positions abstraction not as merely theoretical

or detached from reality, but as deeply implicated in the potentialities, tendencies and virtual aspects of experience that shape interaction with the world. Every concrete action that originates in the real world is guided by an array of abstract influences, emotions, memories and expectations. The abstract and concrete are not separate realms. Building on work by James (1981), North Whitehead (1978) and Deleuze (1994), he problematises the binary between subject and object, instead suggesting that relationships between the two are events i.e., dynamic processes. The key to perceiving events is to recognise the interconnected relationship between what has occurred and what might occur – the relationship between perception, memory and speculation. Similarly to Bennett, this demands a shift in perception where objects are no longer static but involved in an ongoing process of emergence.

A central theme in the project is a critique of art forms that impose a static order on dynamic events in flux. He champions the 'occurrent arts' and calls for a more dynamic affective relationship to art, where the artist, artwork, audience and other influencing factors are integral to the work itself, making and remaking it in a dynamic and event-oriented process. "Abstract potential" (2011: 42) is also a central theme of the thesis. It refers to the latent capacities and possibilities within objects. Massumi's work, like Bennett's, seeks to describe the dynamic nature of objects commonly perceived as inert. In 'Semblance and Event' (2011) Massumi describes observing an object of which, naturally, one side is obscured from view. However, he argues that we can see the other side of the object, or rather, that we see, "our capacity to see the other side" (2011: 42)

> We're seeing, in the form of the object, the potential our body holds to walk around, take another look, extend a hand and touch. The form of the object is the way a whole set of active, embodied potentials appears in present experience: how vision can relay into kinesthesia or the sense of movement, how kinesthesia can relay into touch […] What we abstractly see when we directly and immediately see an object is lived relation - a life dynamic (Massumi, 2011: 42).

Massumi goes on to describe the process of observing the "actual" form "with and through" that set of "abstract potentials" (2011: 42) i.e., that objects and indeed the world is in a constant state of change. Massumi also suggests that objects are not isolated entities but are always being transformed by relationships to other objects and contexts and by the potential they possess. No object is static in Massumi's philosophy.

In the context of this thesis a static interpretation might be to consider a found object, sound object or photograph to be inert or fixed rather than in a process of dynamic flux. This is particularly evident where static objects are overwritten with historical speculation, memories, and fabulation.

Massumi also argues that "[t]o begin with, you have to get past the idea that form is ever fixed, that there is any such thing as stable form", (2011, 41) going on to say that "[t]he actual form and the abstract dynamic are two sides of the same experiential coin. They're inseparable. They're fused, like two dimensions of the same reality…" (*ibid.*) and also that an "objects' appearance is an event, full of all sorts of virtual movement" (2011, 43).

4.6 Massumi: Criticisms

Like Bennett, Massumi's ideas have also received valuable critiques, most notably from Peter Hallward in his book 'Out of this World: Deleuze and the Philosophy of Creation', which provides a critical examination of the underpinning Deleuzian philosophy, grounded in notions of the virtual and the actual. For Hallward Deleuze has established a dualism between those two forces, which, for him suggests a quasi-theological interpretation of the virtual as a transcendental force that shapes the actual world. One key point Hallward makes is that "all of the productive, differential or creative force in this dual configuration stems from the virtual creating alone, and not from the actual creature" (Hallward, 2006: 28), i.e., that the actual is merely the vessel or manifestation of the virtual, creative force, creating not just a dualism but a power imbalance between the two states.

John Protevi, writing in the 'Notre Dame Philosophical Reviews' (2007) argues that Hallward conflates the intensive with the virtual, which Deleuze treats as distinct registers. He asserts that the intensive should be considered a separate register that mediates between the virtual and the actual. For Protevi this distinction is crucial for the understanding of Deleuze's ideas where the processes exist in the actual world rather than out of this world as Hallward suggests.

Massumi, like Bennett, provides a generative and productive lens through which to reconsider creative practice, whether those positions are scientifically, philosophically or logically watertight is, as demonstrated in this chapter under significant scrutiny. That said, for this project it is the provocation, the potential that is key. When adopted as a bracketed and specialised experiment, both projects offer significant potential for any practice that engages with fragmented and distributed material.

4.7 Nonsite and New Materialism

Through the process of engaging with Bennett and Massumi's ideas a strong case emerges for Nonsite as a significant precursor to new materialist philosophy. Nonsite emphasises the vitality and agency of materials, while acknowledging material as an active participant in the art-making process—not just a passive substance shaped by the artist. The Nonsite series questioned the limits of gallery spaces and material detachment from the environment—showcasing how a work of art is created through various sensory channels and interactions. 'Nonsites' include excavated materials and recorded information such as maps, photographs, and text, which creates a complex relationship between location, material, artist, and viewer. Smithson was prophetic in his view of the entanglement between human and non-human forces, for example, describing excavated materials in New Jersey as, "the equivalents of the monuments of antiquity" (Mackey, 2011: Appendix J, 1). Nonsite broadened the aesthetic parameters of artworks and acknowledged their distributed agencies.

Smithson's interest in Anton Ehrenzweig's concept, "dedifferentiation" (1967: 19), or, in Smithson's words, "the state of mind in the primary process of making contact with matter" (1996: 102–3), is also related to new materialist thinking. When Smithson describes being "physically engulfed" (1996: 104) by site, it speaks to a deep investment in the affective power of material and chimes with Bennett's description of objects and material producing "sensual emanations and obscure insistences" (2011). Furthermore, when Smithson describes Nonsite as a "back and forth rhythm that goes between indoors and outdoors". (1996: 178). It has similarities with Massumi's 'abstract potential', i.e., "a whole set of active, embodied potentials appears in present experience" (Massumi, 2011: 42). A back and forth between different tenses of experience and different tenses of site.

Smithson's approach foregrounds material as an active force in the art making process, viewing material not as inert or a passive object to be shaped by the artist, but as a lively substance that interacts with human and non-human bodies, dynamic processes in which the artist and audience are 'engulfed'. Smithson's work anticipates new materialist concerns, dealing explicitly with the interdependence and interconnectedness of human and non-human bodies.

4.8 Electroacoustic Music and Materiality

As with Nonsite, vitalist new materialism has significant implications for electroacoustic music and sound-based composition, providing a useful problematic for notions of compositional control. A productive point of origin here are the modernist developments in music and sound-based composition, Varèse, Boulez, Babbitt, Stockhausen, Xenakis, Cage et al. who have in various ways asserted mastery over materials in their compositional ideology. This overview is not meant to be a criticism of those composers, whose work represents a radical departure from what preceded it and a genuine rupture in conceptual and aesthetic potential. However, in order to explore electroacoustic music through new materialist ideas it is productive to start with notions of fixity and control in order to think through material agency in the compositional process.

Approaching material (whether sound, form or instrumentation) as something to be shaped, manipulated and "moulded in space" (Varèse, 1967: 197), where the composer is "master of his material" (Xenakis, 1992: 57), in the pursuit of artistic vision. Demonstrating a tendency towards rigorous organisation and systemisation rather than an adherence to shapes and contours of material or the contingency of material interactions. For example, Boulez's statement that he, "prefer people feel his music as something organised, not improvised" (1986: 143), or Stockhausen's desire to "control the very smallest elements of sound" (2000: 105), which is similar in spirit to Babbitt's belief that the composer must have control over every parameter of sound, advocating for "total, resolute control" (1987: 100).

Even the foundational experiments in sound composition by Schaeffer and Cage reveal underlying narratives of control. Cage for example, writes in 'Silence: Lectures and Writings' (Cage, 1973: 3) [speaking in 1937] of his desire to "capture and control" sounds, foregrounding the agency of the composer and the will of the shaping hand to move material into desired configurations. While all structured work exists on a spectrum of control, rethinking this one-directional model of influence opens up possibilities beyond a purely human-centred agency. Exploring the vitality and agency of material offers new insights into musique concrète and electroacoustic music, inviting a more reciprocal relationship between composer and material.

At the international conference Triptyque at the 'École Normale de Musique' in 1949. Pierre Schaeffer describes a speech by Serge Moreux where he touches on the issues of control and mastery in musique concrète, "The material of concrete music is sound in its native state as provided by nature, fixed by machines, transformed by their manipulations" (Moreux, 2012: 60). Further

expounding on this theme Moreux continues “[t]here was a Middle Ages of stone: they carved it. There is a Middle Ages of sound waves: we capture them” (*ibid.*).

Moreux asserts compositional dominion over material, where the composer acts according to ideas of mastery, manipulation and virtuosity. Where the composer shapes materials until it forms an acceptable arrangement according to the composer’s aesthetic sensibility. This view of the sculptor who creates form from the formless is a pervasive view of human oriented compositional agency.

In ‘Spectromorphology: Explaining Sound Shapes’ (1997) Denis Smalley describes a system for understanding sound objects structured in time, stating that a “human agent produces spectromorphologies via the motion of gesture, using the sense of touch, or an implement to apply *energy* to a *sounding body*. A gesture is, therefore, an *energy-motion trajectory*, which excites the sounding body, creating spectromorphological life.” (1997: 111).

Denis Smalley is a sophisticated composer, but this description is rooted in human-centred agency and is almost theological in its description of a prime mover creating sonic life. In the same text Smalley also describes a “sound texture or event in its finished guise” (1997: 109) and additionally “[t]here may be no real sounding body involved nor any aurally identifiable causal action supposedly responsible for making the sound” (*ibid.*). Fixity is suggested in two ways here: firstly by outlining a finished, fixed material state and also by suggesting that sonic phenomena have fixed originating sources. The absence of such a cause in acousmatic music creates an autonomous, discrete and self-contained sound object.

4.9 Fixity and Thinging

Salomé Voegelin explores the notion of fixity in ‘Listening to Noise and Silence: Toward a Philosophy of Sound Art’ (2010). Wherein she outlines the difficulty of describing sound as a static object, a noun, and instead argues that sound is always a verb, a dynamic productive exchange between bodies. After Heidegger she calls this a “thing, thinging” (2010: 19). Voegelin draws from Heidegger’s essay “The Thing” (1950) which challenges the traditional understanding of a thing as a static object. Heidegger describes how a thing is defined by the relationships and interactions that bring it into existence i.e., its network of relations with the world—human, material and environmental. Heidegger repeatedly returns to the idea of the thing as a question, asking, "[w]hat is a thing? The question is quite old. What remains ever new about it is merely that it must be asked again and again." (1950b: 2) and later stating that the “question concerning our basic relations to nature, our

knowledge of nature as such, our rule over nature, is not a question of natural science, but this question is itself in question…" (1950b: 51). Here he asserts that objects are not fixed entities but are part of an ongoing questioning process.

Voegelin builds on this idea, positing that sound cannot be understood as a static object with a fixed point of origin that can be captured. Rather, it is always in the process of becoming, a dynamic event that involves bodies, spaces and time. It must be negotiated and questioned. She describes sound as a verb in a constant state of doing, "Listening to sound as verb invents places and things whose audience is their producer" (2010: 14). Voegelin also creates a sophisticated argument against sound having a fixed and stable origin. Writing, "[s]ound challenges our perceptions of fixity and certainty. We can never be quite sure what it is we hear, and thus what we hear contains elements of our auditory imagination that always remain unverifiable" (2015) and "I can never be sure of what I hear so I invent a contingent reality of the heard that is not a singular actuality but a possible reality" (Voegelin, 2014: 94)

Voegelin is often aligned, and aligns herself, with Schaefferian practices of phenomenological and reduced listening, but her ideas are more expansive and not bound to one specific ideology, she describes her own position as "post-phenomenological" (2015).

> Phenomenology is often accused of being subjective and human centred. I think and hope that via sound and listening it becomes apparent that in actual fact its project was aimed against a humanist objectivity of science, towards a much more humble and questioning position of humans in the world. (Voegelin, 2015)

Going even further she aligns her phenomenology with new materialist ideas, albeit with the some of the same reservations as Hallward and Hayles.

> If you engage with "sound on its own terms, you are through it and it is through you that moment of perception, and subsequently you come to understand your sonic subjectivity through that exchange. In this way sound gets us to a new materialism of flow, not through a mystical transformation, but through the engagement of material as process, as thing thinging. (Voegelin, 2015)

In 'Sound as Thing' (2021) Aden Evens also explores the ontology of sound, questioning whether sound can ever be a thing in the same way as objects. Evens casts doubt on sound's status as thing

arguing instead that “things *make* sound. The refrigerator makes sounds, your stomach makes sounds, the ocean makes sounds. Are there any sounds not made by some thing?” (2021: 166). This would seem to imply a cause and effect relationship, however, like Voegelin, Evens is uncomfortable with the idea of things ‘causing’ sounds, asserting that the relationship between sound and its thing is “closer to that of performance or happening” (2021: 166).

For Evens then, calling sound a thing implies too much fixity arguing that “sound leaves its thing behind, that it must leave its thing behind, is part of its ethical claim. Sound reaches out from the thing, carrying the thing’s character with it…” (2021: 169). Furthermore, Evens describes a process of emergence that has resonance with new materialist positions describing the “steady gathering, revealing, presencing, thinging” (2021: 164) of sound. Evens also discusses the multilayered and multitemporal nature of sound saying, “As compressed time, sound thus includes in its pattern the surrounding patterns, history, and future potential, the entire quavering world and its implicated reserve” (2021: 167). Evens’s exploration of sound’s emergence and temporal complexity has resonances with the new materialist positions of Bennett and Massumi. It also has resonances with Schaeffer’s original nuanced writings on musique concrète, which address the inherent potential within sound material. For example, when Schaeffer writes the following, “sound material in itself has inexhaustible potential. This power makes you think of the atom and the reservoir of energy hidden in its particles, ready to burst out as soon as it’s split” (Schaeffer, 2012: 15). Schaeffer also mentions “sound complexes” (2012: 14) i.e., the influence of material in an assemblage of other materials.

In musique concrète, as Schaeffer first articulated it, there is a tension between concrete and abstract material, real-world recordings and processed material that has been abstracted from its original context.

> The adjective “abstract” is applied to ordinary music because it is initially conceived in the mind, then notated theoretically, and finally executed in an instrumental performance. As for “concrete” music, it is made up of preexisting elements, taken from any sound material, noise, or music sound, then composed experimentally by direct montage. (Schaeffer, 2012: 25)

However, Schaeffer is also aware that the binary is not linear and the two states should be “studied for their relationship to each other, that is, it is possible to see prefigured the process of exchange […] it would no longer be a matter of seeing two movements, equal but opposed, but of seeing a

cycle…" (Schaeffer, 2012: 28). Later Denis Smalley would try to describe the influence of material on listening through the concept of "source bonding", writing, "I have invented the term source bonding to represent the intrinsic-to-extrinsic link, from inside the work to the sounding world outside", (1997: 110) stating that a piece of music or sound is not a "closed, autonomous artefact: it does not refer only to itself but relies on relating to a range of experiences outside the context of the work." (*ibid.*). Smalley defines source bonding as the tendency to relate, sounds to speculative "sources and causes", (*ibid.*) and to relate sounds to each other because they appear to have shared or associated origins" (*ibid.*). He describes how the bondings "involve all types of sounding matter […] whether they arise as a result of human agency or not" (*ibid.*). Positing that "[s]ource bondings may be actual or imagined" (*ibid.*) and that listeners "may equally have different, individual, personalised bondings" (*ibid.*).

Source bonding and new materialist ideas share a focus on the influence and agency of material, highlighting the dynamic processes that constitute experience. The intrinsic/extrinsic binary does not sit well in a new materialist conception of reality. However, Smalley does approach sound as an active material with the 'capacity to affect and be affected' (Bennett 2010: 34; Förster 2021: 76). In spectromorphology sounds are not just passive objects, but participants, complicit in shaping reality and experience.

The concrete/abstract binary would also be reconciled by Massumi. This relationship would become an event, an 'abstract potential' in the tension between the recognisable and situated and the abstracted. The tension of recognisability and possibility is Smalley's source bonding can convincingly be viewed as an 'abstract potential' i.e., a dynamic overwriting of potential pasts and futures.

There are additional examples where electroacoustic composers have sensitively acknowledged the agency of material in the compositional process. For example, Elizabeth Anderson, in her thesis 'Materials, Meaning and Metaphor: Unveiling Spatio-Temporal Pertinences in Acousmatic Music' (2011), discusses how composers engage with sound materials experimentally, allowing their inherent properties to exert influence on the composition. James Andean also explores this subject in 'Sound and Narrative: Acousmatic Composition as Artistic Research' (2014) wherein he outlines a process of composers manipulating and organising sounds according to their sonic properties. In this way a narrative or structure emerges through interaction with the material rather than from a set architectural plan.

In conclusion, sound-based composition has much to learn from ideas that foreground dynamic process over fixity and much to gain from fostering sensitivities to the contours, envelopes and agency of material. That does not mean that sound, or indeed any artwork, cannot or should not be structured or organised, rather it is useful to acknowledge the extent to which material guides, provokes, instigates and shapes work in an ongoing process. Where, according to Heidegger, material has agency through resistance, guiding and confounding artists in their attempts to exert domination over material, which has its own force and vitality. This has resonances with the new materialist positions of Massumi and Bennett. Indeed, in her talk 'Powers of the Hoard: Artistry and Agency in a World of 'Vibrant Matter'. Bennett posits that "thing-power" (2010: 6) can be understood through excavation and archaeologists' "exquisite attention to every material shard" (2011a). It's a resonant phrase and this thesis proposes that it can be applied to sound-based composition. Electroacoustic composers have a profound sensitivity to material shards, how they connect and reconnect and relationships between forms and energies, but do not always recognise, or acknowledge, the role material plays in shaping the work.

Part Two: Exegesis

The accompanying portfolio of works—including the album, book, performance, film, video excerpts, technical demonstrations, and software—may be accessed via the below QR code.

5 Portfolio of Works: Red Lake / Black Mine

The practice portfolio is a multidisciplinary project constructed from work made in and through an area of inland Cornwall sometimes referred to as the Carnon Valley, a trapezoid of land enclosed by the A30, A39, A390 and A393 roads.

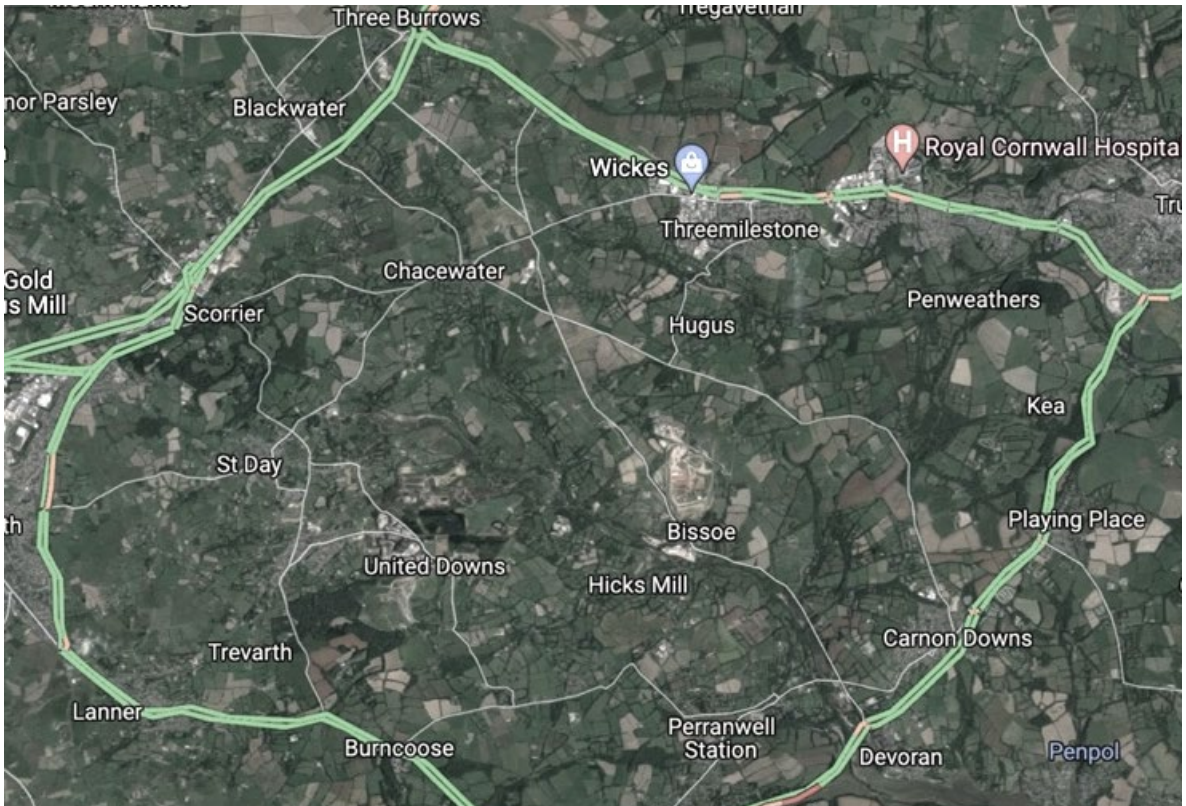

Figure 6: The Carnon Valley

The Carnon Valley exists between town, city and country: Redruth to the west; Truro to the east. It is both a functional, and dysfunctional, space that services larger areas with garages, industrial estates, refuse centres, scrap metal yards etc. Of particular interest are the sites Baldhu, Bissoe, Goon Gumpas, Unity Woods, United Raceway and Poldice.

I derived the title *Red Lake / Black Mine* from two sites: Baldhu (from the Cornish *bal du*, meaning 'black mine') and Wheal Maid, a former arsenic, zinc, and copper mine where drainage water has formed a crimson lake.

Figure 7: The Red Lake of Wheal Maid

5.1 Edgelands

The area is part of inland Cornwall and should be differentiated from the main coastal and tourist regions; it has resonances with Marion Shoard's term 'edgelands'. Described by Simon Sellars as "the interfacial interzone between urban and rural, a mix of rubbish tips, superstores, office parks, rough-hewn farmland, gas towers, electricity pylons, wildlife and service stations." (2011: 72). Central to Shoard's writing is sympathy and admiration for these interfacial areas. Shoard advocates for a recalibration of aesthetic norms and a shift from perceiving nature as something pristine and removed from human activity to the functional and 'every day'. Moving away from a romantic view of the past to grapple with the realities of the present. I have responded to this call in my choice of locations—moving away from the pastoral splendour and romantic attraction of the Cornish coastline to the messier, functional, and noisy inland sites.

Figure 9: United Raceway

Shoard highlights the artistic potential of 'edgeland' sites contending that "[t]own and country may show us the surface of life with which we feel comfortable, but the interface shows us its broiling depths" (2002: 142). 'Edgeland' areas appear frequently in psychogeographic works such as Ian Sinclair's 'London Orbital' and in contemporary nature writing. For example, Robert Macfarlane (2011) describes the edgelands as:

> [T]he debatable space where city and countryside fray into one another.
> They comprise jittery, jumbled, broken ground: brownfield sites and utilities infrastructure, crackling substations and pallet depots, transit hubs and sewage farms, scrub forests and sluggish canals, allotments and retail parks, slackened regulatory frameworks and guerrilla ecologies.

As discussed in 1.2 the primary focus of this thesis is not the discourses of psychogeography or place writing, however, Shoard's writing shares the same call for aesthetic recalibration and refocusing of attention that appears in Bennett's 'Vibrant Matter' (2010) and Benjamin's writing on 'rag picking' (1927-1934: 576).

I was drawn to these post-industrial, rural, 'edgeland' areas because they exist as a partially reclaimed or 'debatable' space. A mix of council property, private land and a poisoned legacy of mining. These sites aren't navigated in the same way as areas of outstanding natural beauty; they do not have the same designated paths and routes and exploring them often involves successful, and unsuccessful, negotiations with landowners. They are generally overgrown and the body's passage through the landscape is obstructed by literal and philosophical entanglements. The sites are not a perfect fit for traditional phonographic approaches, partly because of the previously mentioned access issues, but also because so much of the sound at these sites lies dormant, waiting to be activated. 'Active' and 'activate' are key terms in this context because much of the sonic activity exists as potential sound, which manifests in several ways. There are loose materials underfoot: stones, rubble, branches, and broken glass that only sound when walked. These materials mark the body's passage through the landscape, or to put it another way, the body activates the site by moving. These sites must be agitated, excavated, exhumed; the tenses of site unearthed.

Industrial scars are written into the landscape producing a secondary ‘playing’ in the mind of the sounds of heavy industry that made them. The multiple layers of history and human

Figure 10: Arsenic and Copper Mine at Wheal Maid, Goon Gumpas

endeavour written into the land, the noise, exertion, digging, and movement. Those actions and processes have a sonic dimension—they sounded in history and they re-sound when encountering the site. Figure 10 shows Wheal Maid in the area of Goon Gumpas. The marks of industry are clear and suggest the power and heft of industrial machinery. The surroundings define the experience of listening, this “frame of reference” (Voegelin, 2014) is left behind when making phonographic recordings. Also, relevant here is Michel Chion's statement in ‘Audio-Vision: Sound on Screen', when he states, “[w]e never see the same thing when we also hear; we don't hear the same thing when we see as well” (2019: XXVII).

Exploring these sites reveals other forms of dormant and potential sound. There are numerous capped and uncapped mine shafts where dropped objects take up to three seconds before impact—causing swells of sonic material to flood upwards and outwards into the landscape. Uncapped tin seams, full of old machinery, and skips of smashed glass wait to be sounded and activated.

Figure 11: Mine Shaft Near Wheal Maid

Another example is the network of pylons and telegraph poles that traverse the landscape. They are superficially silent to the inhabitants of the site, however, with VLF and electromagnetic sonifying devices the dominating weight and violence of their sculptural force is unearthed. The internal energy becomes apparent and objects that might be considered generally inert reveal their inner "vitality" (Bennett, 2010: 5).

Figure 12: Pylons, Baldhu

5.2 Excavation

This portfolio examines multiple readings of the term 'excavation' i.e., as an archaeological method and also an analytical method. I have used the word 'excavation', because it refers to the "exposure, processing and recording of a site" (Mast, 2016: 55) and provides a useful analogy when working with fragmented elements and artefacts. It is "the process of laying bare... an unearthing" (Oxford English Dictionary, 2024). It can be interpreted literally when collecting found objects—see also the surface survey—and figuratively when processing, sifting and filtering recorded material. This approach to recording, fragmentation and text also draws upon Walter Benjamin's 'Excavation and Memory' (1927-1934: 576) wherein he aligns his approach with Baudelaire's poetic method based on refuse. Benjamin explores ideas around 'refuse', 'scrap' and 'rag picking' i.e., assembling work from a complex tapestry of recordings and observations. He suggests that we "must not be afraid to return again and again to the same matter; to scatter it as one scatters earth, to turn it over as one turns over the soil. For the "matter itself" is no more than the strata which yield their secrets to the most meticulous investigation" (*ibid.*). Discovering productive methods for 'turning over the soil' is central to the research project and the term effectively conveys the literal and metaphorical digging down into material, 'turning the soil' and 'unearthing' new knowledge.

'Excavation' is a key theme of the portfolio and 'turning the soil' and 'unearthing' are useful ways of bridging site and studio work, but the thesis is also concerned with meaning. Meaning in this context is not buried with the objects, but rather emergent at the point of encounter through the unique configuration of objects in an assemblage. Or, as Bennett describes "the joint agency of person place and thing" (2011a).

This approach represents a way in which recorded sounds, text, images, and objects are responded to and processed. It affords a focus not only on the immediate now, and the materially present but a wider exploration of the "abstract potential" (Massumi, 2011: 42) and "vitality" (Bennett, 2010: 5) of seemingly inert objects. Massumi and Bennett are drawn from in order to explain the nature of potential sound, e.g., the industrial scars on the landscape producing a secondary 'playing' in the mind of the sounds of heavy industry that made them—or, how abandoned pianos, locks, felled trees, razor blades, broken animal skulls and shattered clay pigeons carry traces of their sonic past and form a complex network of forces that create the site through fragmentary connections of implied and potential sound.

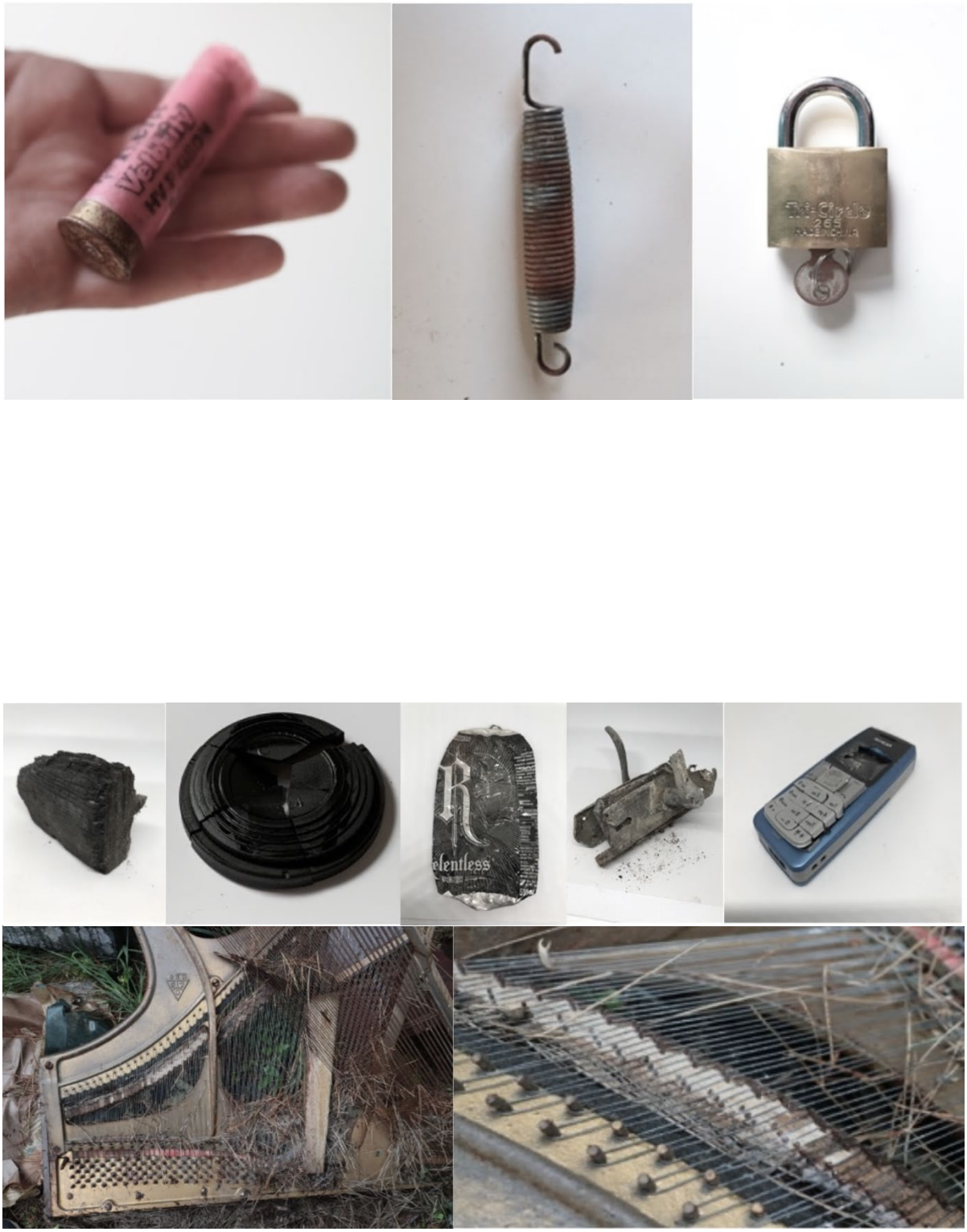

Figure 13: Objects Found within the Bounds of the Carnon Valley

An example of potential sound can be found in a group of alcohol bottles found near an old, uncapped tin mine in Baldhu. They seem superficially silent, but there is an "energetic vitality" inside these objects that are "generally conceived as inert." (Bennett, 2010: 5). In 'Vibrant Matter' (2010) and subsequent lectures and talks discussing the book Bennett describes the "thing-power" (2010: 6) of objects as "sensual emanations and obscure insistences" (Bennett, 2011a). The bottle lies on the ground seemingly inert, yet the scene is sounding, emanating, productive. Bennett describes this phenomenon as the 'call' of objects. She is particularly interested in the relationship between hoarders and artists in the way they perceive objects that are neither functional nor aesthetically pleasing in any traditional sense. In 'Vibrant Matter' Bennett describes a hoarder who rather than suffering from psychological dysfunction—although she does not rule this out—is particularly sensitive to the call of "thing-power" (2010: 6). She posits that artists and hoarders might share a "perceptual comportment—one unusually aware of, or susceptible to, the enchantment-power of things". She also speculates that, "[h]oarders and artists hear more of the aesthetic call of things—to conjoin with them, play with them, respond to them" (Bennett, 2011a).

Figure 14: Whisky Bottle Found Near Baldhu

I have taken Bennett's speculation as a direct provocation to reimagine field recording. To consider how human and non-human bodies connect in different configurations, creating narratives, abstracted themes and disembodied emotional forces. On the edge of hallucination, memory and fiction. A digging body fused into the call of surrounding objects. The artist's traditional notions of authorship and agency are both compromised and in flux.

The discarded bottle has "thing-power" (2010: 6) it calls to me and narratives emerge through "sensual emanations" (Bennett, 2011a). The grating of the screw cap being opened, the click of the metal security joints giving way, the swill of liquid moving air through narrowing glass, and the bottles' subsequent careless abandonment overwrite the static object.

Another useful way of conceiving objects in the field comes from Mike Pearson in 'Site-Specific Performance' (2010) wherein he states that "the stage is essentially synecdochic - in which limited resources stand in for the complete picture, as when a table and chairs suggests a domestic scene…" (Pearson, 2010: 1). This is also true of the site and with found objects, they forge connections to missing remnants through memory and experience. Additionally, in 'Sonic Possible Worlds' Voegelin

posits an idea called “timespace worlds” (2014: 21). Contending that the “artist listens to and produces the possibility of the landscape from the possibility of time and the possibility of space, hinting at a plurality of reality and challenging the singular actuality it is presented as” (*ibid.*). Going further she writes,

> Listening to the landscape’s pluralities and possibilities, hearing the dense multiplicity of its mobile production, allows us to challenge the singularity of actuality and articulate a different sense of place and a different sense of self that lives in those possibilities and shows us how things could be” (Voegelin, 2014: 22).

5.3 Fiction

There are many interpretations of ‘fiction’ in the thesis. The previous three examples all suggest a generative, productive and speculative role for the observer. Another example comes from Massumi‘s “abstract potential” (2011: 42) (see 4.5 for overview), which involves speculation and even a kind of fiction emerges at the point of encounter. A significant portion of the thesis is dedicated to teasing out the “abstract potential” (*ibid.*) and “energetic vitality” (Bennett, 2010: 5) of sites and objects, exploring the tension that exists between tenses of experience and in the disparity between static objects and the dynamic processes that bring them into being.

A further reading of fiction is informed by anthropology, for example, in ’The Interpretation of Cultures’ (1973) Clifford Geertz outlines the need for a different type of anthropological description. Calling for a departure from the objectivity of the sciences and moving towards a kind of ‘fiction’, arguing that “[a]nthropological writings are themselves interpretations, and second and third order ones to boot” and so they are “fictions, in the sense that they are “something made,” “something fashioned”—the original meaning of fictiō” (Geertz, 1973: 8)

Similarly, in his book, ’I Swear I Saw This: Drawings in Field Notebooks Namely My Own’ (2011). Michael Taussig contests the assumption that anthropological fieldwork should be considered de facto a branch of the sciences. He describes the two phases of science as “the imaginative logic of discovery, followed by the harsh discipline of proof” (Taussig, 2011: xi). “The imaginative logic of discovery” (*ibid.*) is a key phrase and for artists working with site and sound incorporating elements of fiction and fabulation in their work.

6 Portfolio Commentary

The following portfolio commentary demonstrates a methodological approach centred around 'material complicity'. As described in 1.4.3 material complicity is the deliberate cultivation of material possibilities and relationships. It is an approach inspired by Petra Lange-Berndt when she asks, "[w]hat does it mean to give agency to the material, to follow the material and act with the material?" (2015: 18). She proposes to engage with materials as "wilful actors and agents within artistic processes" *(ibid.).* This approach represents a departure from the traditional view of the artist as master who imposes their will on passive materials. It is also an acknowledgement that even when making sound work, material from other sensory registers exerts influence over the process i.e., "the sonic does not just involve sound: it is entangled with, and constituted by, a nexus of audible and inaudible processes, relations and inter- and intra-actions" (Thompson, 2017: 7).

This commentary is in chronological order of completion, to effectively describe how the methodology developed over time and outlines the chain reaction that took place during this research project. The final mode of presentation is a multimodal portfolio that seeks to allow objects, text, sound and moving image to form configurations and "sensual emanations" (Bennett, 2011a). The portfolio is, in spirit, a version of Nonsite. I would not necessarily use that term, but it is through Smithson's work that I have arrived at this version of my practice.

6.1 Figments | Fragments

Figments | Fragments is an electronic sound work that explores the dynamic space of exchange between site and studio, improvisation and composition. 'Fragments' in this context relates to physically agitating small slivers of material on site, and to the subsequent fragmentation of audio recordings through studio processes. 'Figments' from the latin "figmentum" to "feign" or "fashion" (Oxford English Dictionary, 2024), is best understood as my physical presence in the work and as an acknowledgement of the artist as part of an assemblage, whose agency is present but compromised. The figment here is similar to Bennett's encounter with objects that "began to "shimmer and spark" (2010: 5), where she became aware of the vitality and capacity of those objects to form into a "contingent tableau" (*ibid.*).

6.1.1 Material

The piece began as far back as 2015 and emerged slowly from a sequence of field recordings and site-specific interventions in the Cornish parish of Baldhu. I encountered slate chippings piled into large, unstable, stacks in an industrial area near Baldhu Chapel. The chippings were subtly agitated by the wind and occasionally a small piece of slate would move across the surface of the stack producing an incredibly delicate 'shkupput' sound. After observing this effect of entropy for some time, I moved a slate piece near the top of the stack which caused a chain reaction. The first piece moved, unsettling another, which in turn disturbed more pieces in a process that gathered momentum and intensity over time but then gradually dissipated, lost energy and returned to near stillness. I also held the slivers of material in my hand and gently let the material fall as individual fragments. I let the material build momentum as it flowed through my fingers. In this act of intervention, a process began and the material guided the form of the work. I was responding to, and being guided by material, which was a departure from the ownership and control narratives prevalent in electroacoustic music (outlined in 4.9). I was not in full control of the material; it was complicit in the forming of the work and from that beginning action the contours of the work began to emerge through the process of interacting with material.

It should be acknowledged at this point that the first person 'I' is never fully in control and focusing on absolute control risks reinforcing an implausible ideal while simultaneously attempting to undermine it. In the context of this thesis, there is no separate 'I', but rather, an assemblage of agencies competing to different degrees. Where the different agencies come from is complex; I identify multiple ways that agency can be understood in the introduction, which are then explicated throughout the thesis. Chapter Four is given over to interrogating this subject. For the purposes of this thesis though the more interesting way of thinking about the different agencies is through 'experience', as outlined by Wesseling, and 'questioning' as outlined by Lange-Berndt in the methodology i.e., "[w]hat does it mean to give agency to the material, to follow the material and act with the material?" (2015: 13). To treat materials as "wilful actors and agents within artistic processes" or when Bennett writes, "I have experimented with narrating events (encounters, with litter, electricity, food, metal) in ways that present non-human materiality as bona fide participants, rather than as recalcitrant objects…" (2010: 62). Figments | Fragments is a document of different agencies in the field and in the studio, and (as also discussed in 1.4.4 on style), there is power in *not* knowing where the agency comes from, that it cannot be formally and empirically articulated, and instead, to focus on the "…imaginative logic of discovery…" (Taussig, 2011: xi). The potential of a material-oriented approach to artistry resides in developing a sensitivity to the agency of material to resist and guide and arrange—to allow my own actions to develop through and alongside material.

The material of ‘Figments | Fragments’ was highly dependent on the relationship between site, body and technology. One relationship between site and body came in the form of physical and technical limitation. The sound of the slate slivers colliding was extremely quiet and so I set up a Sennheiser MKH 418 Mid-Side shotgun microphone at very close proximity to register as much of the sound of the material as possible, but the proximity of the microphone to my body caused several challenges particularly the sound of my clothes and breathing interfering with the recording. Initially I held my breath as I let the slate fragments fall through my fingers and laboured to avoid any sound from my body entering the microphones. This approach though was both unsustainable and unfulfilling. Having suffered with chronic asthma since early childhood the presence of breath in recordings has been a common theme of my field recording practice. After multiple takes of holding my breath and feeling uncomfortable, I abandoned that approach, in part because it was physically unpleasant, but also because it didn’t represent the reality of the encounter and unnecessarily privileged one set of materials over another.

At this stage of the project I was working *as* a field recordist, working with field recording as a discipline and I was planning to present the recordings relatively unedited in different contexts. At this stage I hadn’t fully developed a sensitivity to the material and phenomenological experience of recording on site i.e., field recording as documentation of experience (Wright, Simpson, Farmer et al.) and was still working somewhat within a phonographic frame that seeks to exclude the presence of the recordist. Recording in this context necessitates a different approach to the materials and out of habit I was seeking to disentangle material forces from one another when, in fact, the sound of breath, cloth and the slight squeak of boots moving over ground was a key part of the material experience of listening on site. I had not fully recognised the complex forms of sonic material and movement that are entangled with experience and was trying to remove them as sonic pollutants. Additionally, at this point the methodology for the thesis was not fully formed. I *was* actively engaged in a critique of the methods and assumptions of field recording practices, informed by various artists and academics problematising field recording i.e., Voegelin, Farmer, French, Wright et al., and their divergent research about the materiality of field recording and the role and presence of the recordist. I had not reached the point of expansion with field recording where it became one part of a larger methodology and not tied to sound alone. It was later that my approach became less defined by phonographic practice and more as a composer and visual artist who uses materials gathered partly through field recording.

At this time, my recording style developed, and I became increasingly interested in audio recordings that did not contain strong connections to place narratives, but rather expressed a sense of touch and movement, i.e., "the sensorial complexity of the contingent encounter". (Voegelin, 2014), or as Christoph Cox writes in 'Beyond Representation and Signification: Toward a Sonic Materialism', "the materiality of sound: its texture and temporal flow, its palpable effect on, and affection by the materials through and against which it is transmitted" (Cox, 2011: 148-149). At this stage I was interested in recordings such as Hiroki Sasajima's 'Melting Snow' (2011) in which he explores the effect of one material on another, in this case the material transference of the sound of snow falling recorded through a metallic sheet. And Toshiya Tsunoda's investigations into contact microphones and material transference in works like, 'Pieces of Air' (2002). I was interested in work where the detail or specificity of place is elusive but the work as it manifests is impossible elsewhere and the material detail of site is essential.

I was also aware of the possibilities of the microphone as an extension of the recordist—not just of the ears but of the hands and body to explore, touch and activate material. The body was permeating my work, and, significantly later, the Mid-Side configuration of the microphone allowed me to widen and narrow the stereo field in the studio, i.e., to let in moments of spatial signature and for more of the sound of the body to become audible and then refocus back to the narrow signal of the slate recording.

At the beginning of the research, I was invested in field recording as a practice in its own right and as the project developed field recording became one component in a much broader methodology. This point marked a shift towards materiality i.e., how material relationships begin to emerge through discovery, observation and agitation. I was also interested in the role of performance and improvisation in the instigation of a piece of work. The slate material was barely audible until it was activated, until it interacted with my body—the body was part of the instigating force—not in control, but a body among other bodies interacting.

6.1.2 Processing

Significantly later, I began processing and sifting the Baldhu recordings and I worked to tease out and interact with the traces of breath and movement. I employed various form of granular, corpus and concatenative synthesis, for example, Granular 2.5 (Sakonda), K.Granular (Santini), Cycles (Slate + Ash), Spindrift (Norris), Grain Scanner (Amazing Noises), Forester (Leaf Cutter John) and CataRT (IRCAM) to explore the material, seeking to uncover relationships and connections between different material registers. Forester was particularly valuable because it works on a system of overlapping 'nodes' that contain audio effect processes that interact with up to six discrete audio files simultaneously. The video ForesterSoftwareDemonstration.mp4 (Parker, 2025g) demonstrates the functionality and composite sound world. In this way different materials can be gesturally explored and relationships between different recordings dynamically investigated through digital signal processing.

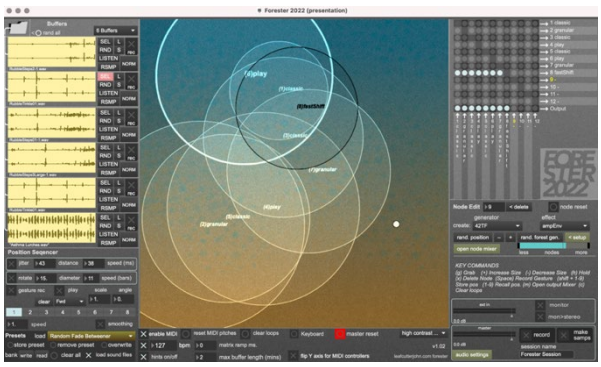

Figure 15: Forester Software by Leaf Cutter John

This stage of the compositional process, electroacoustic in its nature, involves a tension between acousmatic and anecdotal, i.e., between total abstraction and sounds that retain their narrative function. Rather than think in those terms, I was more interested in exploring exchanges between materials and allowing different sound objects to interact with one another. In Forester, the way the granular engine skips between six discrete files creates the illusion of continuity and generates a sonic output that is a dense assemblage of different audio and processing threaded together into a contingent whole formed from many dynamic parts. Each of the six files can also be randomised with new files from a pre-defined folder, expanding the possible configurations immensely.

In a similar vein CataRT—a “concatenative real-time sound synthesis system” that “plays grains from a large corpus of segmented and descriptor-analysed sounds according to proximity to a target position in the descriptor space”, allows users to “control the output grains by similarity to audio input […] or juxtaposition of sounds from varying sources by timbral features.” (Schwarz, Beller, Verbrugghe et al., 2006: 1). CataRT was also instrumental in discovering new relationships between materials. It groups audio files by timbral characteristics so it is therefore possible to reveal and explore similarities and previously unheard relationships between materials. Forester and CataRT represented a beginning stage of my thinking around ‘material complicity’, i.e., exploring how material interacts with other material and influences it and the work that emerges and how it connects and reconnects in different configurations. I also used granular processes to freeze, elongate, smear and blur the recordings. I combined this approach with long form automation curves which were designed to convey the slowness of landscape i.e., gradual changes that suggest slow movement and entropy. This contrasts with the gestural and fragmented material and creates different senses of timeline in the piece.

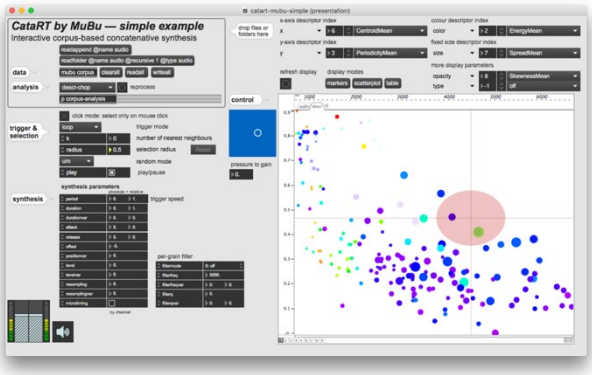

Figure 16: CataRT by MuBu and IRCAM

6.1.3 Amplitude Detection

The proto-investigation of ‘material complicity’ was developed by using the amplitude envelope of the slate recordings and sending that audio signal to ‘Ears’ by ‘Mutable Instruments’ - a multi-function Eurorack module that acts as an envelope follower and gate detector. I later developed this approach using Max/MSP, but in ‘Figments | Fragments’ the idea was still in germination. Using Ears was more immediate (because it can be instantly patched to other modules) but less accurate - the Max based onset detectors create more specific synchronisation. Both are interesting ways of facilitating material relationships. Ears sends out a positive a gate signal when the incoming slate audio signal rises above a certain amplitude threshold. Using this information, I could send triggers to percussion modules, `ping’ filters and begin processes such as opening and closing gates, operating switches and supplying unstable and erratic clocks to hardware sequencers. This approach stemmed from the idea of stones colliding. It was inspired by that initial chain reaction where events branch out into other events, where material affects other material. Much of the original recording of the stones was removed in the final version of the piece, but the contour and influence of the original material remains. This influence exposes how the research engages with new materialist thought and is an example of immaterial drive i.e., the ‘desire’ of the missing recording. This drive exerts influence through the work, i.e., how different material registers influence each other without being necessarily the focal point or even feature in the final iteration of the work.

Figure 17: Ears by Mutable Music Thing

6.1.4 Tones

‘Figments | Fragments’ features multiple tones and tonal elements that were added later in the creative process. Firstly, the addition of tones was a response to the pylons, power-outlets and telegraph cables that run overhead in most of the sites. The cables intersect the site, drawing a physical boundary that changes position in relation to the moving body. They are an inescapable yet largely unregistered presence in the landscape. Additionally, I have severe tinnitus, and an array of high-pitched sine-like tones are a feature of my everyday listening experience.

I recorded the pylons and cables through VLF and electromagnetic sonifying devices and contact microphones see 6.7 ‘Study for Pylon, Electromagnetism and Abandoned Piano’. I also incorporated synthesised tones generated from two sources: either triangle core sine oscillators in a modular synth, or via a custom Max/MSP patch I designed that generates a bank of sine waves extrapolated from the first thirty-two partials from phonographic recordings. The patch draws on the ZSA.Descriptors, “a library for real-time sound descriptors analysis” (Malt and Jourdan, 2008b: 1) for Max/MSP/Jitter developed by Mikhail Malt and Emmanuel Jourdan. I used the external ‘freqpeak~’ which “extract[s] a list of pairs of frequency and amplitude peaks by FFT frame” (Malt and Jourdan, 2008a). My patch then converts the amplitude/frequency data to numerical data that is fed into an iosbank~ object which creates an array of sine tones according to the frequency and amplitude values. The incoming data can be quantised to Hertz, forty-eight equal divisions of the octave (EDO), twenty-four EDO, chromatic Western intervals or to a predetermined scale. The patch works by sampling a ‘frame’ of incoming audio and creating partials from the data. This method can generate scales and chords and connects musical material to the materiality of the recordings taken. The method is inspired by a number of spectralist compositions such as, Gérard Grisey’s ’Partiels’ (1975) which uses the spectrum of a low trombone note as the piece’s harmonic foundation; Tristan Murail’s ’Gondwana’ (1980) and Jonathan Harvey’s ’Mortuos Plango, Vivos Voco’ (1980), which both use the spectrum of a bell as the harmonic foundation of the work.

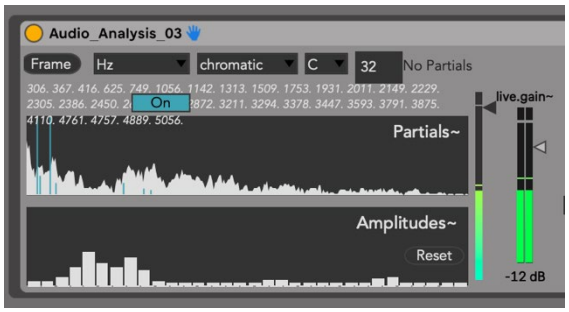

Figure 18: Audio Analysis Patch

The tones in this piece are part of the process of working with the materials from site i.e., ‘turning the soil’ (Benjamin, 1927-1934: 576). Additionally, a sine wave is a signal with theoretically “infinite total energy” (Colozzo, 2024) “with no beginning or end” (Phillips 2005). No natural sound can oscillate in this way without change, also “sounds composed of single sine waves (i.e., pure tones)” (Purves et al. 2001: 283) with no partials or overtones is an abstraction, generated electronically and so introduces a sense of disruption and unease to recordings, introducing a counter-representative function. The incorporation of tones was also partially inspired by the work of Japanese neo-minimalists, Sachiko M, Otomo Yoshihide and Ryoji Ikeda. Ikeda’s work has a strong material dimension; the use of sine waves and noise sources takes on a physical character particularly through headphones. The conclusion of the CD programme note for Ikeda’s album ‘+/-‘ (Touch, 1996) outlines his use of “barely audible” (Demers, 2010: 87) sounds that featuring “the faintest

gossamer sound grains" (*ibid.*) "that the listener becomes aware of only upon its disappearance" (Ikeda, 1996). Ikeda's statement has resonance with my interest in human traces in the landscape.

'Figments | Fragments' began as a problematisation of field recording practice and evolved into an exploration of the dynamic space of exchange between sites, affective bodies and the material influences involved in work emerging from site. The effect of material interacting and disturbing other material became the primary concern of the thesis and where the idea of 'material complicity' began.

6.2 Onsets | Debris

Onsets | Debris is an electronic sound work that draws from the same set of field recordings as 'Figments | Fragments' but adopts a different aesthetic and set of techniques. The approach to onset detection progressed from a relatively crude mapping of amplitude peaks via the 'Ears' module to a more rigorous and technically involved form of real-time audio analysis.

The first stage involved building a digital onset detector, which, like Ears, would 'listen' to an incoming signal and register when the sound level rose above a predetermined amplitude threshold. The fundamental principal of onset detection or "fast attack transient" (Xavier and Florent, 2001: 1) detection is registering the "instant when a discrete event begins in a music signal" (Zhou and Reiss, 2010: 1). 'discrete', in this context, simply means that once the signal rises above a defined threshold, it will not register again until the signal has fallen below another defined threshold, creating a separate output 'bang' from the software.

The onsets, "are zones of short duration and fast variation of the sound signal short-time spectrum

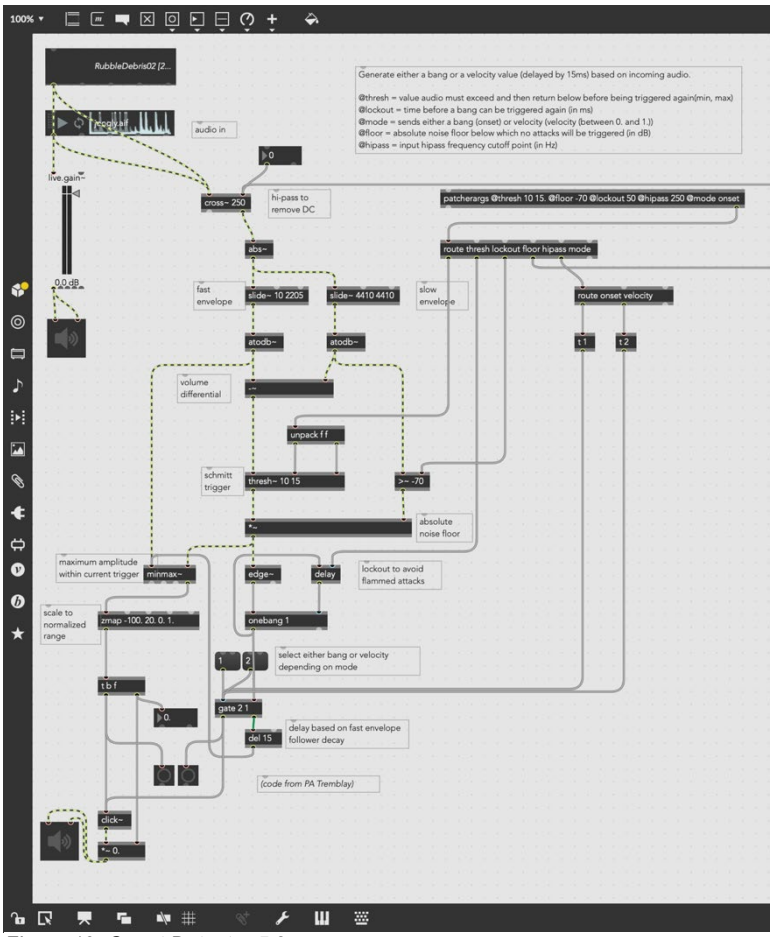

Figure 19: Onset Detector 5.2

such as at the attack of percussion instruments" (Xavier and Florent, 2001: 1). The slate recordings worked effectively in this "short duration and fast variation" (*ibid.*) context, where rhythmic patterns can be extracted and applied to various contexts. Max/MSP, a visual object-based programming environment, was indispensable for the task because it can connect natively with Ableton Live's expressive functionality. I designed several patches beginning with simple amplitude peak extraction where onsets are extracted from field recordings, by identifying increases in amplitude between specified 'windows' of a signal. The early patches worked but were not reliable enough or suitable for extracting accurate events. To develop the patch further I incorporated functionality from

Costanza, McCullough and Tremblay's conversations on the Cycling 74 forums i.e., 'Fastest onset detection? (native or external)' (Constanzo, 2012) and 'Rich onset detection (audio descriptors/features from percussion)' (Constanzo, 2017)

The 'Onset Detector 5.2' patch (Parker, 2025a) features a fast and slow window to calculate an 'amplitude differential'. It also incorporates a noise floor, peak threshold and release threshold to 'tune' the patch to the type of material being 'listened to'. The patch has a fast and slow envelope, creating a window for analysis. From these two incoming signals the 'amplitude differential' i.e., the difference between sampled amplitudes is calculated. This calculation then passes through a 'Schmitt trigger' or threshold to remove noise in the signal i.e., small values and so avoids false triggers. The 'differential is then multiplied by the slower envelope's signal and a second threshold is added to avoid the noise floor of the incoming signal. The signal is passed through the 'edge~' object which detects zero crossings. There is also a delay-activated gate to avoid multiple "flammed attacks" (Costanza, 2017). The patch exploits the high-frequency content (HFC) function by attenuating the low frequencies below 250hz of the signal to emphasise transient changes of energy which are more noticeable at high frequencies despite being broadband events. (Park and Jathal, 2016: 220). There is also the option to detect velocity at the cost of around 15ms of latency. This makes no practicable difference when using 'fixed media' field recordings as the source signal. The patch is demonstrated in the 'Onset Detector' (Parker, 2025b) video, which clearly illustrates the correlation between events in the field recording and the resulting output bangs.

It should be noted that none of the new insights or contributions to knowledge rest on the music computing dimension of the work and 'accuracy' is not the driving force of the project, however, that does not mean that the application and process is not useful to other practitioners. Indeed, any composer or sound artist should be able to follow my discoveries and recreate the methods using readily available tools, which hopefully is within the spirit of the open research movement. Additionally, there is no 'natural' correlation between the output of the bangs and the material this affects. The audio files have no formal relationship (although they were recorded within a five-mile radius of one another) the mappings are in some senses arbitrary, but onset detection does allow for a meaningful exchange between materials. It affords a kind of material agency, de-centring the composer and facilitating relationships between materials. The relationships would not be the same if they had been entered by hand as parameters changes and automation data, because some of the connections are so fleeting that the composer's job is re-oriented from author to observer, listening for material interactions and unheard relationships.

'Onset Rubble Reaktor' (Parker, 2025c) demonstrates a Max patch that communicates with, and influences' an adapted version of 'Newskool' a Native Instruments device found in Reaktor. The video demonstrates early experiments with transference and exchange between material registers. This connecting Max patch was then developed into a dual onset trigger for allow a split spectrum i.e., to branch low and high frequency onsets into different events and to trigger different processes.

The video 'Onset_send_receive_split_piano.mp4' (Parker, 2025d) demonstrates the onset detection system in operation where there the incoming audio triggers a high and low onset. The incoming inset then triggers a random MIDI value within a range which triggers a corresponding section of the piano file as demarcated by transient markers. This approach to temporal coupling, although basic, does give rise to significant interactions. An extension of this approach was to send the MIDI data to Granulator II in Ableton Live in order to read through an audio file according to the incoming data.

Onsets were used all throughout the portfolio, to initiate sonic events, to trigger 'bang-based' granular synthesisers such as k.granulator, (Santini, 2007); to create an array of parameter changes; to open and close gates; control switches; advance sequential switches and trigger-based sequencers in Max/MSP and Eurorack. Onset detection is a useful technique to extract patterns and explore relationships between materials i.e., to control the processing of one material source with the descriptor data of another material source, resulting in outcomes that are significantly different from my normal compositional methods.

6.2.1 Descriptors and Analysis

I developed this system further and created a more sophisticated Max patch build on the Zsa.Descriptors - "a library for real-time sound descriptors analysis" (Malt and Jourdan, 2008b: 1) for Max/MSP/Jitter developed by Malt and Jourdan. This new match uses the properties of phonographic recordings to influence other materials. Analysis data i.e., kurtosis, flux, decrease, centroid roll-off, amplitude, and relative noisiness (i.e., how many zero crossings in a sampled time-period) are extracted from an audio recording. I then created a Max for Live version of this patch which can be accessed via AudioDescriptors.amxd (Parker, 2025p). The different descriptors are listed on the left and once clicked they reveal more technical information about each. Each descriptor can be mapped to any parameter in Ableton Live via the LOM (Live Object Model). The LOM is the internal routing structure of Max for Live which allows access to devices, clips, tracks and

parameters. It's like an API (application programming interface) and facilitates multiple and sophisticated connections between materials.

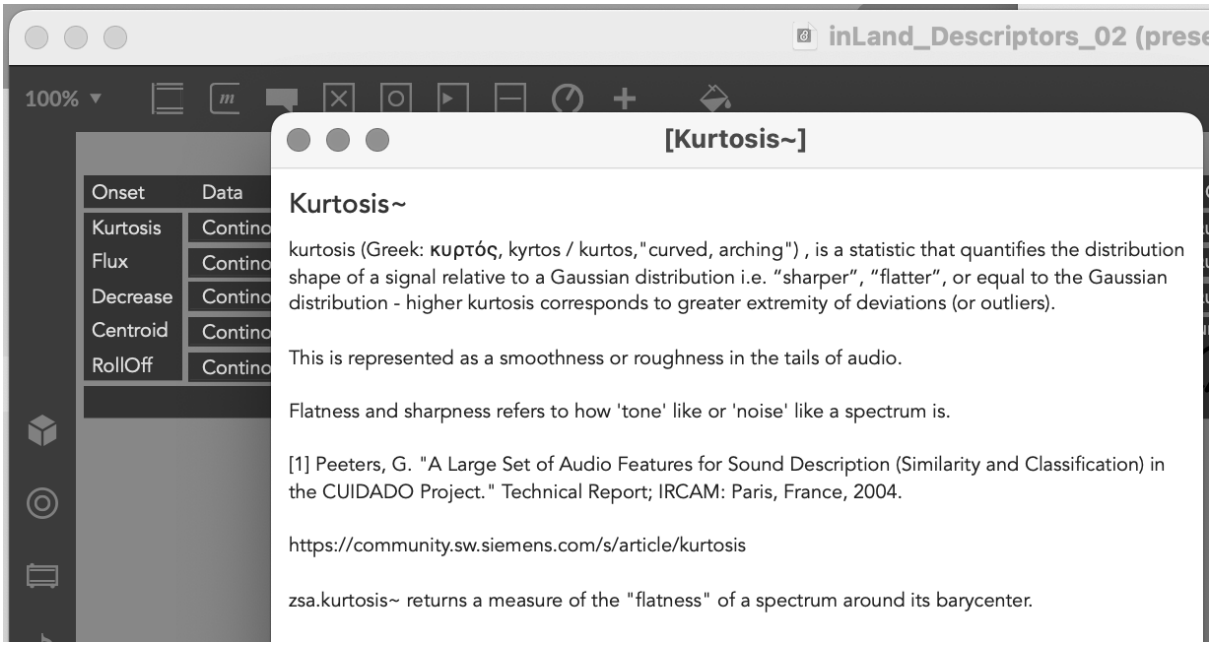

Figure 20: Descriptor Max for Live Patch

Figure 21: Descriptor Max for Live Patch

The descriptor outputs onsets/bangs creating an imprint of the original recording. This imprint cannot be considered empirically accurate or faithful but represents a meaningful correlation and relationship between materials. A method to allow the energy contour of one material to influence the properties of another. The patch also outputs continuous information which can create a sense of movement – a transference of gesture and dynamic energy from one material register to another. This patch was also used to affect and influence the visual transformation in the book and video pieces. See 6.9 and 6.10.

'Onsets | Debris' begins with the raw slate recordings and very gradually the onset 'bangs' are afforded more and more influence over other material. The system was generative and I let it run several times revealing the most resonant interactions. I also used onsets to jump between edits in Live via the 'Clip Slot API' functionality where different versions of the same piece were started and stopped by the incoming onset data. In that way the structure was also influenced by material.

The system is emergent, in that it can only be altered or affected by macro interventions. The composer is de-centred, somewhat and becomes a listener as much as a top-down architect. The process also involves recursive listening to material, i.e., the experience of site is played and replayed, each time exerting a different influence. The field recordings were used for their sonic properties but also as structuring devices to influence compositions.

6.2.2 Tones and Recording

The organ drone in 'Onset | Debris' is illustrative of another type of field recording, which is closer in spirit to Michael Taussig's writings on fieldwork - particularly when he describes the field as a "meeting of worlds" a "collage" of "field and fieldworker" (Taussig, 2011: 52). I found an abandoned electric drawbar organ at the back of Baldhu Wesleyan Methodist chapel. The organ was too damaged to be salvaged, but I consider the presence of the organ in the piece a 'recording' nonetheless. It's a material presence, a site-specific encounter rendered into artistic form. The organ

Figure 22: Abandoned Draw Bar Electric Organ, Baldhu

part is a single chord that does not change. There is none of the normal sense of development or progression that would be expected from music and so in that sense communicates duration, stasis and entropy. The organ part is not representative as much as a response to a material encounter and a recording of the field.

6.3 Devine Blink

'Devine Blink' is a continuation of 'Onsets | Debris' but draws from a slightly more recognisable electronic music palette. The use of this palette is an oblique nod to the Cornish electronic music scene past and present; a reference to the Cornish places Baldhu, Goon Gumpas and Carharrack, which were all prominent sites in the Red Lake / Black Mine project and are also mentioned in Aphex Twin titles, whose work often references Cornish places and language. The title also acknowledges the chaotic and generative modular experiments of Richard Devine; the proximity of the recordings to Baldhu Chapel and to the blink of a button object in Max/MSP, which signifies a bang.

The onsets and bang outputs are used to create rhythmic patterns and structures. The most traditional of the techniques involved quantising the bangs to the nearest metrical value on the DAW grid. If the quantisation is set to the nearest 128th note then the grid is not immediately noticeable, but the overall feel is more temporally consistent i.e., there is less of a sense of material speeding up or down but rather becomes more or less dense within a fixed reference point – the overall result is that the events become slightly more recognisably musical.

The bangs were also used to advance trigger-based sequencers and provide unstable clock sources to rhythmic modules in my modular system. For example, 'GateSEQ' by Starling accepts an external clock source and creates patterns, subdivisions, swing and shuffle ratios based on the input clock. Sending it an irregular clock creates strange slurring rhythms and sudden bursts of chaotic activity when the module cannot adequately track the incoming clock source or there is an increase in the intensity of bangs being received.

A further technique was to use a trigger-based sequencer to create rhythmic patterns. Trigger-based sequencers are different from normal sequencers like GateSEQ etc because rather than accept a clock and create patterns, divisions and multiplications of that clock, each trigger advances the sequencer by one position. In this way a chaotic input of triggers might play the same pattern again and again, but at varying speeds. I sent the bangs from Max/MSP to Eurorack via a MOTU UltraLight. The outputs of the UltraLight are DC coupled and have the capacity to send control voltage directly from software audio outputs.

The piece also features a stretched piano chord that creates contrast between the frenetic gestural bangs and a sense of a longer timeline and duration. A continuation of the investigation of immediate gestural experience against a deeper sense of history and duration.

6.4 Split Hands Touch the Soil

Split hands touch the soil is an electroacoustic sound work that combines an electronic sound palette from modular synthesis and also noise-based digital signal processing. The piece is formed from sounds and actions recorded in Wheal Maid, which is the location of the 'Red Lake' that forms part of the title of this thesis. The piece combined multiple themes combined into one piece. One of the recurring themes that I encountered across multiple sites was disposal. from numerous sites, but particularly in Wheal Maid, is 'disposal'. Over several months, I observed instances of fly-tipping, partially buried books and a sequence of discarded objects.

Figure 23: Found Objects

The physical objects were collected and documented both in situ and in the studio and later incorporated into the 'Red Lake / Black Mine' book and video work. Observed together in the studio the objects formed and reformed what Bennett calls a "contingent tableau" (2010: 5) (discussed in detail in 4.3). A composite and unstable narrative that intersected with broader themes of mining, extraction and excavation.

During this time, I also became aware of a court case in which a man was convicted of murdering and concealing on the body of another man by partially burying it on the Wheal Maid site on the 21st of May 2015. I do not wish to name any of those involved or make any of the work explicitly about that case, but it was in my thoughts as I made the piece. It fed into the digging theme and a general undertone of unease about the site. The unease was also evident in the distant voices and shouts that carry across the empty expanse of the site from young people on motorbikes who have created ad hoc routes for cross-country speed trials. I tried to explore this sense of unease further by agitating materials found on site and recording creaking, splitting and breaking sounds.

Figure 24: Contact Microphone Recording

Additionally, I found another fly tipping site near Baldhu where the entire landscape rested on bin bags covered with gravel, compacted over years. There is a strange sense of instability, almost like being on a boat, which fed into the overall sense of unease.

6.4.1 Breath, and the Body in the Landscape

Breath is a consistent theme throughout the portfolio. During one of the field recording sessions in Wheal Maid I had difficulty breathing and had to return home because of an asthma attack. In my home studio I recorded my laboured breathing at very close proximity through a condenser microphone to capture the rattling, wheezing sounds and the strangely tonal sound of gasping. I later found out that arsenic, especially in dust form is a respiratory irritant and exposure can trigger asthma. Additionally, both zinc and copper can cause skin irritation. Although it is hard to say with certainty that the site was the cause, the symptoms correlate with medical descriptions. There is a strong material connection between the site, the field recordings and the asthma recording. A connection between my body and the landscape, where the landscape in not inert but, as Bennett suggests, acting upon the body.

I then used the descriptor patch (see 6.2.1 for full overview) to use the properties of the asthma recording to control parameters of effects and also to manipulate other recordings. The video Audio_Analysis_Asthma.mp4 (Parker, 2025e) shows the processes of routing descriptor information to effect parameters. The video Descriptors_Material_Coupling.mp4 (Parker, 2025f) demonstrates descriptor information from one source influencing a second source.

I later returned to the site with a spade and searched for further objects and recorded the process of digging. I recorded the sound of digging in situ using binaural microphones, a Sennheiser MKH 418

Mid-Side shotgun microphone, and contact microphones. The different microphones were utilised to capture the different stages of digging i.e., the impact and scrape through soil, the breathing and exertion sounds, and the debris sounds of soil being cast from the spade.

6.4.2 Concatenative and Corpus Based Sound Synthesis

For 'Split Hands Touch the Soil' I utilised the 'FluidCorpusManipulationproject' (FluCoMa) and Rodrigo Constanzo's 'SP Tools (which are built on the FluCoMa externals) to create material relationships. 'sp.concatanalysis' for example, analyses an incoming signal in real-time and 'sp.concatmatch' then looks for the closest timbral match from a pre-analysed 'corpus'. I used the digging recording as input and pointed it at a variety of different corpora: breath and asthma, animal sounds, piano and modular synthesis, which allowed material relationships to emerge. By employing this technique, the material is complicit in the dynamic process of work emerging. The field recordings aren't always clear in the final output but exert influence on the other material, as previously discussed, the 'desire' of the missing recording exerts influence through the work.

6.5 Repeat Between Mirrors

This piece began with a site-specific intervention near Baldhu. I encountered a skip full of glass panes and began agitating and moving the panes in situ to create squeaking and grating as glass moved against glass. I also removed a piece and managed to extract tonal 'ding' sounds from the material. Using multiple microphones, I recorded a variety of smashing sounds from the explosive to the very delicate and granular. I also got in the skip and used my weight to crush the material and to use my body to crunch and compress the glass.

Figure 25: Glass in Skip, Baldhu

The title was derived by splicing together multiple texts including my journal, writing about the epiphany of Billy Brae (a methodist preacher known for spontaneous ecstatic outbursts) and a Cornish superstition about covering mirrors in a thunderstorm. Like all the text generated in this project, I cannot be exactly sure where the different fragments originated, I can only see relationships emerge between fragmented materials. See 6.8.5 full explanation of text processing techniques. I also took some of the glass panes back to my studio and recorded very delicate cracking and creaking in the studio using contact microphones. I processed this material in a variety of ways. Through granular synthesis software (granular 2.5, K.Granulator, Granulator II etc) and also again using the onsets and analysis methods discussed in 6.1.3 and 6.1.4 to find relationships between materials. Additionally, I used the descriptor outputs of the original glass recordings to control granular parameters and to control parameters in 'Forester' by Leaf Cutter John.

I sent the glass recordings to my modular synthesiser and used a module called 'Branches' by Mutable Instruments. Branches can process audio and CV signals through a "Bernoulli gate" (Mutable Instruments, 2014) which can be thought of as an electrical coin toss, the further the dial is turned clockwise, the more of the signal is affected. When sending bangs or triggers, this means that the number of bangs or triggers will be thinned out and the activity will be slower or sparser. When processing audio signals, because it is subtracting from the audio signal it creates pseudo sample rate reduction and then at higher ratios moves towards a noise and then granular sound palette. The effects can be heard at the very beginning of the piece. I also used the onsets and analysis outputs from the original recordings to trigger sample and hold circuits on my modular synth system, to change settings on filter units and to create electroacoustic gestures and movements of sound.

6.5.1 Transduction and Sonification

Another method employed was ‘surface transduction’ i.e., using surface transducers to move sound through material. Objects were ‘reanimated’ with sound, creating a meeting point of different types of vitalities. Sound agitates and activates the objects revealing the inner materiality and resonance of the object. In addition, contact microphones and electromagnetic coil pickups have been employed to reveal the vital nature of objects which either appear silent or at least very quiet. I transduced sounds into glass panes and bottles, recording through the bore with LOM mikroUši omnidirectional electret microphones. In this way the materiality and resonance of the vessel influences the sonic material transduced through the glass surface. I collected a partially smashed double glazed pane from a skip and in the studio transduced sounds such as voices, breath, footsteps and breaking glass into the surface. I also agitated the broken glass and recorded the minute creaking, grating, and squeaking with a JRF contact microphone. This approach was in part informed by Toshiya Tsunoda’s investigations into contact microphones and resonances, 'Pieces of Air' (2002) and the microscopic details and close proximity of Hiroki Sasajima's recordings of sound through material, particularly 'Melting Snow' (2011) recorded through a thick metal sheet. This approach to composition is a material first exploration focusing on “the materiality of sound: its texture and temporal flow, its palpable effect on, and affection by the materials through and against which it is transmitted” (Cox, 2011: 148-149).

Figure 26: Whisky Bottle Speaker

6.6 Study for Pylon, Electromagnetism and Abandoned Piano

‘Study for Pylon, Electromagnetism and Abandoned Piano’ is an electronic sound work that emerged from recordings of objects that appear superficially silent in the field but have a vitality and energy that can be extracted through extended recording techniques. The recording techniques include using VLF recorders, electromagnetic pickup coils, bat detectors and contact microphones. The piece includes sounds from pylons, electric fences, electric gates, telegraph poles, masts and telephony units; power-outlets, abandoned mobile phones and industrial equipment.

The main source for these recordings was a LOM Elektrosluch. It is an induction coil pick up consisting of “yards of thin copper wire wrapped around an iron slug” (Collins, 2006: 12) or

ferromagnetic core. It senses variations in electromagnetic fields and converts them to an audio signal. The 'Elektrosluch' is not a microphone and does not have the same representative correlation between source and reproduction. It is rather a type of sonification that reveals relationships between material forms and the vibrancy of electrical and technological infrastructures.

Figure 27: Telegraph Poles, Poldice

The sound palette from these recordings ranges from the incredibly loud and abrasive to almost a pure sine tone. The electronic tones unveil material presence from seemingly inert structures. The tones also fall outside of Western tuning, so in order to layer and respond to the material I used audio analysis to identify the frequency of the tones and to use this data as a type of spectralist tuning system, which was inspired by Grisey's 'Partials'. (1975). In order to do this, I used Izotope RX and the ZSA Descriptors to identify dominant frequencies in audio files and then created Scala files from that spectral information. I also retuned Ableton Live via the microtuner.amxd patch. The recorded sounds have an electronic music quality to them and register as synthesis in places.

The abandoned piano was salvaged and brought to my studio. I then recorded it using contact microphones. I bowed and agitated the strings; I used an ebow, a cello bow, and a personal fan with wool attached to the blades to create continuous sound. I cut the strings and struck them with various objects, hammers, soft beaters and objects collected from the same site such as bird feathers. The piano was covered in pine needles, and I recorded the sound of the needles dropping onto the strings.

6.7 Until We Meet (feat. Francesca Stevens)

This piece began as an encounter with the hymn 'God Be With You Till We Meet Again' (Rankin, 1880) at Baldhu Chapel. Written by Jeremiah Eames Rankin in 1880, it's a very simple piece of diatonic harmony designed to be easy to sing and harmonise among a congregation. In an electroacoustic context when working with material like this the first step would normally be to use digital signal processing to look for parts of the material that could be transformed and shaped into another form. For this piece though, I wanted to explore another form of processing and develop the musical material differently.

The first method I employed was to take the musical material and problematise it; use modal interchange and various forms of chord substitutions to complexify and stretch the original music to its limits and to create dissonance. This approach was interesting, and fit with an expanded notion of processing, i.e., to stretch and alter a material and play with recognisability. However, at this stage I was simply making decisions based on taste and falling into familiar compositional patterns. The material didn't feel particularly complicit in this process, which was more top-down.
I moved onto a technique that involved tracking the partials of field recordings and then routing that spectral information to a MIDI piano using IRCAM's 'IM Analyser', which maps the first six partials of an incoming signal and converts them to MIDI data. However, this approach created an extreme amount of musical information and the connection between input and output didn't feel strong enough, again the material didn't sound complicit in the making process, and I found myself essentially composing by removing extraneous material. My third attempt I refer to as 'melody tracing'. The video 'Melody Tracing' (Parker, 2025k) demonstrates the first stage of this technique. I isolated the top line of the 'Until We Meet' melody and created different divisions and multiplications of the tempo. In addition, I employed a MIDI random plugin to make small adjustments to the melodic contour by pushing notes up or down by a random increment. In this way the melody is sometimes passed unaltered, sometimes made faster or slower than the original but with the same notes, sometimes the output is melodically unrecognisable but at the same tempo, and sometimes there is a shadow of the original melody. It is particularly effective when the intervallic relationships or timing of the original melody is present and there is some semblance of the original material. At 02:31 in 'Until We Meet' the original melodic motif from 'God Be With You Till We Meet Again' (Rankin, 1880) can be clearly heard; it's a connected yet mutated version of the original material.

To make the random MIDI adjustments less random and more mapped to the energy contour of other recordings, I used the flux output from the audio analysis plugin and a recording from the area

near Baldhu Chapel to modulate how much of the randomness is applied to the original melody. The overall approach then was to trace the edges of the melodic contour but allow material to intervene in order to produce deviation and dissonance and material started to emerge from the disruption. The process was cyclical because as resonant gestures and motifs emerged – it gave rise to more musical possibilities. I then took the MIDI output and sent that to a Yamaha Disklavier and recorded the new melody through the piano.

Figure 28: Disklavier Recording

Another technique I explored was to work with a vocal specialist to interpret the composite text (see 6.8.5 for full text processing overview). Francesca Stevens took the text material and sang over it in the style of Lieder music – a German art song form that sets poetry to music and is performed with solo voice and piano. I added a single tone in order that very sparse sections would not be perceived as an ending, to maintain aesthetic congruence with the other pieces and additionally to allow Francesca to calibrate pitch across long periods of musical inactivity. I gave Francesca the full text and allowed her to use it like a text score to inform her articulation and phrasing. We then negotiated a limited edited text to sing, which energised and animated the text – creating further material connections and afforded new meaning and influence to emerge through the interaction of voice and material.

I included a piano because as discussed in 6.6 I had found and collected the innards of a piano near Baldhu Chapel. I developed a corpus of piano sounds to be deployed as sonic material. Additionally, the relationship between new, tuned piano and weathered, decayed piano is a resonant one. I also processed the piano, voice, breath and allowed material to interact with the singing and to play with and against the articulation and phrasing of the voice.

6.8 Book

The use of photographs and text joins a growing body of work that centres around sound, site and photography. Works such as 'Scores for Listening' (French, 2007-present); 'Language of Objects' (Lavelle and Eason, 2017) and the multiple outputs of Corbel Stone Press, particularly 'Memorious Earth' (Skelton and Richardson, 2015), which includes artefacts, music and film. I also drew from the collection of textual field recording 'Listening and Its Not' (Farmer, 2020).

The book emerged later in the research project, and I have never worked with print or text before. Initially the photographs and text were only to document the field recording work but as the project developed the images and text became an integral part of the work. In fact, I began to think of them *as* field recordings and approached and processed them as I might have previously processed materials for electroacoustic composition. In that sense the material processes of my regular creative practice were applied in a very different context and the material configurations were radically different.

6.8.1 Photographs

The visual dimension of 'Red Lake / Black Mine' emerged slowly over the course of the research project. I was taking photographs from the very beginning of the project, but I considered the photographs memorial devices, taken in order to recall the particular circumstances of phonographic recordings. The photographs were documentation for the benefit of the PhD write-up and nothing more, but gradually I became interested in them as both creative artefacts and also as connections to an unheard sound world. I wasn't sure how they would be used in the portfolio and my reticence was probably borne from a lack of experience and knowledge of photographic practices. I overcame that reticence in part because the role the photographs play in my thesis does not require any particular virtuosity. The images are relatively simple, brought alive by connections to other materials. I was aware of 'Scores for Listening' (French, 2007-present) and I was interested in sounds being triggered through other sensory registers.

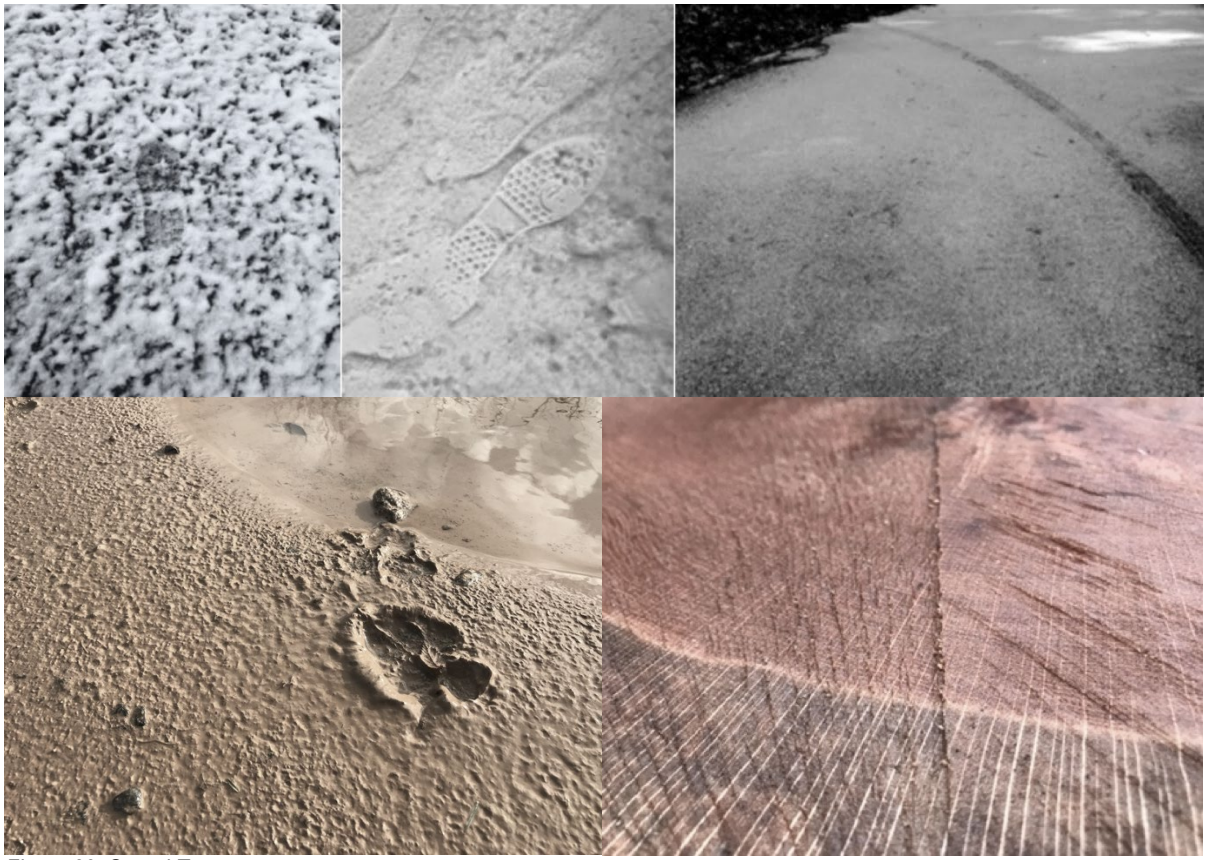

Figure 29: Sound Traces

6.8.2 Found Objects

At the same time that these material relationships between photographs and sound were emerging, I was also collecting objects on site with the purpose of sonically agitating them in the studio and exploring the tension between sounds from site and sounds made later in the studio environment from those same objects. During the process of collecting objects and artefacts that were suitable for sonic activation, there were also objects that featured text or carried meaning that existed outside of cochlea sound, yet either had a trace of sound, or scored an approach to sound making. The clay pigeon that I found near Carharrick does not make a particularly compelling sonic output even when broken and is easily confused with other light materials when crumbled into debris. It is the visual object that produces the most resonant sound world - it overwrites a layer of sound onto the static object. I started to amass a significant number of objects and artefacts and lay them out in my studio, looking for connections and interactions between materials. I only collected objects that would be considered debris in Bennett's terms. Nothing non-human was

Figure 30: Clay Pigeon, Poldice

removed from the landscape. Nothing was moved that would be missed. I printed the photographs and laid them out in my studio along with the objects. As I arranged and repositioned the items material connections began to emerge, and different types of narrative began to form between items. This connection between materials was also informed by Smithson's Nonsites, where different materials were displayed together.

I also bought a mini photographic lightbox, so I could photograph the objects and then isolate them from their backgrounds so that the material connections would be free from very explicit place narratives and the connections could be more ambiguous and open.

6.8.3 Field Notebook

At this time, I was also reading Michael Taussig's 'I Swear I Saw This: Drawings in Fieldwork Notebooks, Namely My Own' (2011). I began keeping notes about audio recordings I was making, but I also began documenting historical information, writing about sound (textual phonography see 2.2) and also writing about my experiences and affective responses to objects and materials, allowing space for speculative narratives based on encounters to emerge. I was also moved by the Chattopadhyay's listening and analysis methods that accompanied his field recording practice.

> I'm not only interested in recording but also in the field which makes thinking possible. I am actually writing a lot, not on sound, or describing sound but about the triggered thoughts that come out, or stem from a particular auditory situation, such as a toilet, a train, sitting inside a cafe, a demolition site or just in my office.
> (Chattopadhyay, 2011: 57)

Taussig describes his notebook in the following way "[a] fieldwork diary is like a scrap book that you read and reread in different ways, finding unexpected meanings and pairings as well as blind alleys and dead ends" (Taussig, 2011: 47). Pairing pages of my notebook with found objects created resonant connections between sometimes quite disparate encounters. The notebook in this context is not a fixed diary but an ongoing process of discovery. The "recursive" (2011: 50) time of notebooks that are revisited again and again, reworked, fabricated" and "unexpectedly open onto new worlds" (*ibid.*) when events and documents that are seemingly unconnected connect in resonant configurations.

> This way of thinking about the notebook seems to me all the more fitting and fruitful because of the peculiarities of the knowing that an anthropological fieldwork produces. The notebook provides an apt vehicle for conserving this knowledge, not so much as an inert record, but as something quite different, something alive, which is why I have used the ongoing, present inflection of that word—knowing—as in a type of knowing.
> (Taussig, 2011: xii)

Nelson describes similar "approaches to documentation which afford a 'telling otherwise' and keep alive a sense of 'what might be', rather than a fixity of what was'" (Nelson 2013: 6). I arranged and rearranged the objects, photographs and my notebook as well as listened to recordings. This process of sifting material also has resonances with the process described by Deleuze in 'Foucault' (2018) i.e., rejecting vertical and horizontal hierarchies and instead "…skimming along in a kind of diagonal line that allows him to read what could not be apprehended before…" (Deleuze, 2018: 3). Transversal 'reading' in this context is allowing material to emerge i.e., not reading literally what is there in a linear sequence but allowing resonant relationships to develop between materials. For example, themes emerged around digging, based on observed actions and events, but also certain text formations. The different sources were affective bodies in different configurations, that unleashed visions, narratives, themes, disembodied emotional forces. On the edge of hallucination, memory and fabulation.

6.8.4 Found Text

Text is one of the primary drivers of the project. The text comes from several sources, firstly, a fieldwork notebook, which was recorded both in-situ and on reflection, documenting my experiential and affective reactions to sites. It also contains conversations and encounters in the field for example, a conversation with Percy, a farmer whose land I recorded on, and a prayer group in Baldhu who showed me around the chapel. That text is mixed with what Voegelin calls "textual phonography" (2014: 1) i.e., writing about the perceptual experience of listening. I also collected archival text about the sites. Texts on

Figure 31: Abandoned Mobile Phone Found Near Wheal Maid

Wesleyan Methodism, the 'Redemption Hymnal', Cornish superstitions and police reports. In addition, in Goon Gumpas, Baldhu, Poldice, Unity Woods, and United Downs, I have collected abandoned and found texts. Burnt books, catalogues, schoolwork, litter, graffiti, bills, certificates, numbers and text on electrical and telegraphy conduits and messages on abandoned mobile phones.

The project fundamentally changed when I encountered a buried religious text. It was fused into the surrounding soil and was an almost indissoluble part of the ground. It had no 'sound' as such, it could not be recorded with audio, yet both as an artefact and as an impulse it became the central point of interest in that site. I dug it out of the ground and photographed it. I transcribed the text, although this was a challenging process because to open the pages is to destroy the artefact. The pages are so adhered that reading the text is a destructive act. My thinking changed at this point, and I considered finding and working with the book a field recording act. An act that has a sonic register but also where potential sound exists in a dormant form. The spoken voice that I hear when reading the text, the process of burying and uncovering it are all sonic dimensions of an object that appears inert. From that point I began thinking about the expansion of field recording possibilities and reconceiving my practice as a type of fieldwork.

Figure 32: Buried Book, Baldhu

6.8.5 Processing

The found text has been treated as a material as "primary as steel" (Smithson, 1996: 214). I have processed it in a variety of ways as I would sonic material, cutting and reforming, fragmenting and reassembling. The material connects and reconnects with other material, whether that is other textual material or sound, images and video. I have employed cut-up and interleaving to interrupt the original text and to create new text and material relationships. Initially, this process was manual and as discussed in the previous sections involved laying different material together and cutting printed elements by hand. This process developed and I started using the 'Language is a Virus' website, which contains a variety of text manipulation algorithms. I used 'Text Weaver', which grabs single words from a submitted document and recombines the text into predefined line lengths - creating a poetic form from any text. I also used, 'Cut up Machine' (Language is a Virus, 2024), (After

Burroughs and Gysin). The process is initiated by "taking a finished and fully linear text and cutting it in pieces with a few or single words on each piece. The resulting pieces are then rearranged into a new text." (*ibid.*). I used 'Mix With Me' (*ibid.*), where the algorithm splices input text with other user-defined corpora. For example, I mixed my notebook with writing about Cornish Methodism, Cornish superstitions, A police report and other sources. I also used 'Rewordifier' (*ibid.*), to randomly replace words in a text, pulling words from uploaded word lists.

Additionally, I devised Max/MSP patches to scramble and interrupt textual sources. I used a 'Coll' object to store phrases and spliced them together. I atomised the phrases into single words and reordered them. I also broke apart some words into single characters and scrambled them. This approach contained a high level of redundancy i.e., material that did not reconfigure in a resonant way. This is the nature of generative experiments and time had to be invested to allow material to find form. I also used Max patches to add spaces and line breaks and to replace some letters with special characters. TextManipulation.mp4 (Parker, 2025h) and TextManipulation2.mp4 (Parker, 2025i) demonstrate the process of character-based fragmentation.

This approach to text fragmentation and reassembly is inspired by granular synthesis. As I was deploying various DSP techniques I began to think of processing beyond electroacoustic norms and to consider the real-time, physical and psychological processing that happens in the various stages of encounter. The text, image, audio and objects have been isolated, displaced and reframed and the fragments are unstable and in flux. I have processed, recombined and reconfigured them using granulations, cut-ups and juxtapositions—creating unique configurations and assemblages. All of the processing listed in this section is inspired by Walter Benjamin's call "to return again and again to the same matter; to scatter it as one scatters earth, to turn it over as one turns over the soil. For the "matter itself" is no more than the strata which yield their secrets to the most meticulous investigation" (1927-1934: 576). Discovering productive methods for "turning over the soil" (*ibid.*) is central to the methods I have employed to fragment and reassemble material. The term effectively conveys the literal and metaphorical digging down into material, 'turning the soil' and 'unearthing' new knowledge. Additionally, Wilkie's method of site engagement is key

> Layers of the site are revealed through reference to: historical documentation; site usage (past and present); found text, objects, actions, sounds etc; anecdotal guidance; personal association; half-truths and lies; site morphology (physical and vocal explorations of site" (Wilkie, 2002: 150)

The book, dictated by tradition, will be navigated from left to right, top to bottom. However, I have intentionally not included page numbers and tried to avoid a definitive visual frame of reference. I have also not left instructions for how the book relates to the sound and in what order they should be engaged. I would like the relationships between materials to be as open as possible, to enmesh the reader/listener with a network of material that is unique to their particular engagement with the work.

6.8.6 Programme Note / Graphic Score

There is a dual tension in the book between description and provocation, there are centrifugal and centripetal forces pulling inwards and pushing outwards. The inward force documents the work and processes and brings the reader into the work. The outward force is a provocation, a score to trigger the reader's own experiences and to enter an assemblage of affective bodies.

In music, these two forces chime with the programme note and the graphic score. Programme notes contextualise and ground the work, helping the composer communicate with an audience. Graphic scores are often open to interpretation, provocations to think and interpret. The work shares some resonances with Mara Helmuth's 'String Paths' (2007), where the score is "derived from warped text strings" (Helmuth in Sauer, 2009: 102), in order to provoke responses in improvising players; also Herbert Brün's 'Mutatis Mutandis' (1968) where the graphic score is not a "symbolic representation" (Brün in Sauer, 2009: 42), but rather "traces left by a process" (*ibid.*); and also Christian Marclay's 'Manga Scroll' (2010) which reveals sound through an extended ribbon of dynamic onomatopoeic words derived from Manga comics.

6.9 Video and Performance

In preparation for a performance at the (FEAST and Arts Council-funded) 'Electronics Symposium', I developed a dynamic audio-visual performance of the materials gathered throughout the project. This section outlines the use, purpose, and nature of the video and performance, situating them within the overall portfolio. It considers the visual language and methods used in constructing the work and provides an overview of its antecedents and theoretical underpinnings.

The video was the final item created for the portfolio, marking a shift in direction and opening new possibilities to explore the themes of the thesis in a real-time environment. The performance

enabled a more embodied and immediate engagement with the materials, while also revealing the processes behind the book collages to a live audience.

The video draws on the same corpus of photographs used in the book but incorporates additional digital and analogue processes, layered through Max/MSP/Jitter and Adobe Premiere. Initially conceived as a backdrop for a sound performance, the video evolved into a creative artefact in its own right—featuring mark-making; photographic and text manipulation; particle systems; and the use of blend modes and opacity to abstract, obscure, and erase the material in real-time. Additionally, I drew on many of the same descriptor-based techniques discussed in the Exegesis, which are used here to fragment and structure the form of the video.

The video and performance are a further investigation of 'material complicity', introducing a live dimension to the exploration of material agency. Earlier chapters explored how materials collected in one context were displaced and transformed into assemblages of affective agents whose interactions exceed authorial control. This opens the latent tendencies within materials, which emerge through event-based interaction. The process of performing materials (see 6.9.6) is highly contingent and exposes the relationship between material, body, and performance environment, which constitutes a "field of forces" (Massumi, 2002: 9), charged with agency and energy. The resulting "contingent tableau" (Bennett, 2010: 5) draws the artist into what Bennett calls a "confederacy" (2010: 31) of affective bodies and material interactions in which photographs, text, image fragments, algorithms, and embodied gestures form a live assemblage—with each element contributing actively to the unfolding experience.

Gesture-based interaction reactivates and reanimates the collected materials in real-time, linking back to the thesis's earlier concern with embodied field practice. Just as the original recordings were shaped by bodily presence within specific sites, the performance replays this contingency: the body interacts with nonhuman systems, producing unique outcomes at each event.

This approach introduces another level of recursion. As Benjamin writes, one must "return again and again to the same matter; to scatter it as one scatters earth, to turn it over as one turns over the soil. For the 'matter itself' is no more than the strata which yield their secrets to the most meticulous investigation" (1927–1934: 576). In this sense, fragments already displaced are turned again—re-performed and re-layered—revealing new connections and potentials. The video/performance is not simply a representation of past work, but an active turning over of its materials, showing how even

established artefacts can continue to generate new relationships when returned to the field of creative action.

6.9.1 Methods

In order to interact with the sonic materials in a live context, I developed a round-trip performance system between Forester, Ableton Live, and a Eurorack modular synthesiser: an approach that facilitated real-time, embodied engagement with the materials. Using an external trackpad, I gesturally 'played' field recordings, sweeping across the pad to traverse different recordings and trigger effects in Forester. I also routed modular synthesis tones and noise through Forester, using a mixer to dynamically bring different processing channels in and out. In this method, the audio became highly responsive to gesture, but also highly contingent, with unpredictable outcomes emerging through the shifting combinations of material, technology and interaction.

The visual mark-making was created using Max/MSP/Jitter—a software application by Cycling '74. Jitter was deployed to fragment and collage the corpus of photographs taken over the course of the project, to create and manipulate text, and to create particle systems. I developed an auto-fragmentation and collage patch Image_Text_Fragments.maxpat (Parker, 2025j) based on Andrew Benson's tutorial series on the 'jit.gl.mesh' object (Benson, 2017). I also used audio descriptor patches to control both the intensity and degree of image fragmentation. The fragmentation was influenced by physical interaction and also by the energy contours of field recordings and sound compositions. This technique is demonstrated in the video Clay_Pigeon_And_Bird.mp4 (Parker, 2025m).

The software enabled the creation of small image fragments (also used in the book), while allowing real-time fragmentation with adjustable parameters such as dispersion area, fragment size, and rate of change. I employed the descriptor system once again to map this fragmentation process to audio onsets and other sonic data. I also developed several Max patches to create dynamic typography. These patches processed the text material (see 6.8.3 and 6.8.4 for full details), breaking it into individual characters and dispersing them across the screen in a granular, noise-like manner. Additional patches disrupted the text further by inserting special characters and randomising letters, abstracting the meaning and visual form.

The use of animated type was inspired by works such as ‘Type/Dynamics’ (2013), by Dutch design studio LUST for the Stedelijk Museum in Amsterdam. ‘Type/Dynamics’ reanimates the work of graphic designer Jurriaan Schrofer (1926–1990), creating a moving, complex work of text art. Another influence was ‘DropClock’ (Nakamura, 2008), which consists of numbers falling into and sinking beneath water in slow motion. Each number behaves like a physical object, splashing, distorting, and refracting as it interacts with the water surface. I also adapted Andrew Benson’s dynamic type patch ‘Recipe 19: Tannenbaum’ (Benson, 2006), which creates dynamic iterations of text that stream out across the screen.

For the video, I used static text (similar to the book) and also quick-moving granular type that matched the contour of the granular audio. At certain points, I deployed very large type and revealed the ‘mesh’ (the frame of the text) in Jitter to create abstract and intersecting lines on the screen. Occasionally, the type was so large that it would black out a large portion of the screen or create a blinking effect when the entire screen became black. This was inspired by ‘Test Pattern [No 12]’ (2017) by Ryoji Ikeda and ‘Black.Out’ (2013) by Frank Bretschneider.

These processes directly extend the descriptor-based fragmentation techniques already established earlier in the portfolio. Once linked to sound descriptors, images and typography acquire their own dynamics, acting almost as co-performers. They embody what Bennett calls “the curious ability of inanimate things to animate, to act, to produce effects dramatic and subtle” (2010: 6). This digital mark-making produces a live assemblage of shifting relationships.

I also employed a number of different ‘particle systems’ adapted from the research of Federico Foderaro, particularly the tutorial **‘**How to Transform an Image to Particles in Max/MSP with Transform Feedback’ (Foderaro, 2020).

> A particle system is a collection of many, many minute particles that together represent a fuzzy object. Over a period of time, particles are generated into a system, move and change from within the system, and die from the system
> (Reeves, 1983: 92)

Particle systems convey a semblance of a coherent image or object; however, this apparent unified whole is composed of an array of small points or ‘particles’, each of which can be influenced

individually as well as in relation to other particles within the system. Particles possess attributes such as position, colour, velocity and gravity (Schwarz, 2023).

This enables digital images to be atomised and manipulated in real-time, shifting fluidly between recognisable forms and abstraction and offering a compelling means of exploring the material qualities of digital objects. When combined with blend modes, particles can appear to erase on-screen content, only for the imagery to slowly return. Atomised objects reform and regain structural coherence, producing a dynamic, visually striking transformation.

In my original plan, all the processes were happening in real-time and each performance would be unique. I ran into two problems: firstly, my computer could not cope with the extreme CPU load of running multiple Jitter patches and particle systems simultaneously. Even the new Power Macs at my host university campus struggled with the load. Secondly, with real-time graphic processing systems it is hard to facilitate any sense of emergent structure because it is almost impossible to change 'scene'. I took a different direction, which was to create a complex fixed media video piece, but to create a generative audio input system so that the relationships would be different with each performance. Working in Adobe Premiere also allowed me to foster relationships between materials. Using the blend mode 'lighten' I could atomise objects, so that a particle system I had used would create the illusion of objects being broken into minute particles. The full video can be accessed via RedLakeBlackMine_Video_FullFilm.mp4 (Parker, 2025o); the atomising effect of one material erasing and then reconstructing another can be seen via the video clip Figments_Fragments.mp4 (Parker, 2025n).

The techniques developed for fragmentation, particle systems, dynamic typography, and audio-visual synchronisation extend the descriptor-based approaches already used elsewhere in the portfolio. These processes treat sound and image similarly: atomised, reorganised and recombined, revealing new formal and material qualities. These techniques directly link to earlier portfolio strategies for fragmenting and recombining sound and image. Bennett's "thing-power" (2010: 6) is evident in that each particle behaves like a micro-agent, acting and reacting within the system. The result is a constantly shifting visual field that mirrors the granular treatment of sound and reinforces the thesis's focus on the vitality of matter and the unexpected behaviour of materials when displaced from their original context.

6.9.2 Experimental Filmmaking

The video was constructed through layers of digital processing, collage and analogue handmade techniques. I refilmed printed versions of the photographs and text, cutting and editing them in real-time. This approach has some resonances with experimental and materialist approaches to filmmaking, which engage with the medium of film e.g., chemical processes applied to film, or warping and agitating the tape medium. According to Ramey, materialist approaches reveal the "artefacts of the process" (2016: 143). The 'Red Lake / Black Mine' video has some resonances with this ethos as many of the techniques employed reveal processes that would otherwise remain hidden. Many of the digital and analogue techniques expose the presence of the body in the creation of the work, demonstrating the material and physical engagement with the corpus of recordings. As Rachel Jones describes in her doctoral thesis on embodied and materialist filmmaking, "the folding in of process and material" into the video creates an "embodied, sensuous knowing" (2024: 24).

There are parallels between working on the medium of film and my investigation into degrading images with the use of particle systems and blend modes, which results in the effect of erasure of the image. The re-filming and layering methods emphasise the visibility of process, echoing earlier work that was concerned with revealing the labour and materiality behind creative acts. The degraded images and fractured text preserve traces of gesture and physical interaction as well as resonating with the project's broader interest in material agency in the work.

The end result of the video is a highly fragmented digital collage. Collage, according to Sophie Woodward, "carries some of the potentials of other material methods, where it can 'jar' people into seeing or thinking differently" (Woodward, 2020: 71). The relationships between images and sound are fleeting, sometimes strange and a deliberate attempt to revivify materials through juxtaposition and layering.

6.9.3 En Creux and Synchresis

The video and performance further the portfolio's material strategies, opening up new possibilities to explore the creative potential of synchronisation and audience expectation. When there is a disparity between what an audience sees and hears, it gives rise to a tension and draws the audience into the work. As discussed in (3.11), 'en creux', or sound "in the gap" (Murch, 1994: xix), describes "a purposeful and fruitful tension between what is on the screen and what is kindled in the mind of the audience" (Murch, 1994: xix). Such disparity opens "up a perceptual vacuum into which the mind

of the audience must inevitably rush. It is this movement 'into the vacuum' (or 'into the gap')" (Murch, 1994: xx) that generates the creative potential. As identified by Chung, en creux and Nonsite share parallels, i.e., both demonstrate a split of material and context, a separation through which "meanings spring and emerge in the gap between presence and the absence" (Chung, 2014: 17).

The video was broadly inspired by the experimental documentary techniques found in Chris Marker's 'Sans Soleil' (1983), Chantal Akerman's 'News from Home' (1977), Harun Farocki's 'Images of the World and the Inscription of War' (1988), and Trinh T. Minh-ha's 'Reassemblage' (1982). These films employ a diverse range of methods—interpretive gaps, editing disjunction, silence, juxtaposition, and non-synchronised sound—all of which invite the audience to co-create a dynamic and unstable work of art.

From a new materialist perspective, interpretive gaps are not inert voids, but active, productive spaces, through which sound, image, and audience interact as co-agents. In my site-based compositional strategies, this "negative space" (Gorbman, 1994: 218) takes the form of gaps, silences and ambiences that act as spaces "of transference from one sensory channel to another, which sometimes [produce] psychological 'presences' in the face of perceptual 'absences'" (*ibid.*). Just as audiences in experimental documentary fill narrative gaps, the audience for the video/performance must reconstruct implied or absent elements, informed by their own experiences.

In the context of the video, there is a disparity between displaced objects and actions—clay pigeon, landscape, cutting paper, dripping ink—and a soundtrack that is not always formally synchronised. Sometimes there is a distinct mismatch of audio and visual elements, such as simple sine tones accompanying the image of a dead bird. When the implied sound of objects diverges from the perceived or actual sound, the audience fills in the blanks in ways contingent on individual experience.

This psychological processing finds further form in another of Chion's terms, 'synchresis' (1994: 63), a portmanteau of "synchronism" and "synthesis" (*ibid.*), which Chion defines as "the spontaneous and irresistible weld produced between a particular auditory phenomenon and visual phenomenon when they occur at the same time" (*ibid.*). For example, when text appears on screen at the same time as the sound of fragments of slate is heard, the text begins to take on the character of that material. There is some form of material transference in operation, as if the words are being

dropped like the shards of slate. Percussive sounds may similarly take on the quality of a scattershot striking a clay pigeon, when viewed at the same time as the clay being digitally fragmented. Furthermore, as Chion observes, "[c]ertain experimental videos and films demonstrate that synchresis can even work out of thin air—that is, with images and sounds that strictly speaking have nothing to do with each other, forming monstrous yet inevitable and irresistible agglomerations in our perception" (*ibid.*). This means that without the filmmaker consciously synchronising anything, an audience will create connections and relationships between audio and visual elements.

In the performance synchresis extends to non-visual triggers—between sound and gesture, movement in space, or environmental cues. Additionally, the physical gestures of my body during the performance were not always tightly synchronised with an immediate sonic outcome, which created a further layer of synchresis between physical input and formally unrelated audio or visual elements. Synchresis often emerges unpredictably—in my re-recording and re-projection processes, chance alignments between sound and image generated moments of perceptual alignment without conscious design. These perceptual phenomena complement the thesis's material focus: audiences do not merely watch or listen but actively fill perceptual gaps and become part of an assemblage of affective forces that co-creates the performance.

6.9.4 Summary

The video and performance are a reinvestigation of the thesis's core concerns: material complicity, emergent form, and the recontextualisation of collected field material. It draws together key theoretical threads—including Bennett's 'thing-power', Massumi's 'abstract potential', and the displacement of matter evident in Nonsites—demonstrating how archival material can be activated in new and unpredictable ways.

The live performance foregrounds embodiment and interaction, reiterating the thesis's emphasis on contingency and co-agency. Performer, tools, and processed media operate together within a live assemblage where each element contributes to an unfolding event. Rather than simply re-presenting earlier work, the performance reanimates its materials, reaffirming their capacity to surprise, disrupt, and engage—exceeding their original context.

6.10 Dissemination

The book and album were released by DAAM (difficult art and music) a record label that specialises in artefacts and music that has an implicit research dimension on the 11th of April 2025.

The video piece was performed at the FEAST and Arts-Council funded 'Electronics Symposium' on the 16th March 2024 at the Fish Factory Art Space. It was then performed again on the 25th May 2025 at the 'Audio-Visual Symposium' organised by Dr. Simon Waite as part of an E3 research project on audio-visual and immersive music strategies. A small clip of the first performance can be accessed via https://www.instagram.com/p/C4ntRdKIZXY/ (Parker, 2024); the 2025 performance is available via RedLakeBlackMine_Video_Performance.mp4 (Parker, 2025l)

Figure 33: Performance of Red Lake / Black Mine at the Electronics Symposium

Figure 34: Red Lake / Black Mine Book

Figure 35: Red Lake / Black Mine Album Cover

7 Conclusion

This thesis has interrogated the relationship between site and work that emerges from it, exploring how material forces act on the artist from the moment of encounter and shape every phase of the work's development. It has intentionally cultivated relationships between materials—where sounds, objects, actions, and encounters form a "contingent tableau" (Bennett, 2010: 5), drawing the body of the artist towards other affective bodies that exert influence on the creative process.

Through engagement with disciplines such as land art, sculpture, photography, performance, poetry, philosophy, anthropology, and archaeology, the research has outlined both critical and practical strategies for exploring the emergent relationship between site and work. The thesis has developed methodological and practical strategies centred around 'material complicity', where the role and agency of material is acknowledged in the artistic process. These strategies have been outlined in the written component of the thesis and explicated through practice, developing exploratory, compositional, performative and text-based work that contributes to field-related practices. The thesis has contributed new insights into the relationship between the body, objects and events, and the following specific contributions:

- A new materialist reading of field recording and field practice that highlights the agency of material and the creative potential of 'material complicity'—where the artist is not the sole author, but rather a participant in a broader assemblage of forces—fostering sensitivities to "the joint agency of person place and thing" (Bennett, 2011a).

- An application of Massumi's "abstract potential" (2011: 42) to field practices, where narratives emerge through encounter, speculation, memory and experience. This has been explicated as a creative method i.e., strategies for engaging with sites, and is also demonstrated through the book of 'Red Lake / Black Mine' where seemingly static objects are reframed as dynamic events.
- An extension of field recording methodologies, drawing from Taussig, Farmer, Peter Wright, French et al. to develop a multimodal practice portfolio based on the principles of expanded recording. This extends to field recording as an influencing force, affecting sound, image, and text specifically when used for its onsets and spectral properties it exposes how the research engages with new materialist thought and is an example of immaterial drive i.e., the 'desire' of the missing recording. This drive exerts influence through the work, revealing how different material registers influence each other without being necessarily the focal point or even feature in the final iteration of the work.
- The development of recursive listening methods based on Taussig's notebooks that are "revisited again and again, reworked, fabricated", and "unexpectedly open onto new worlds" (Taussig, 2011: 50) and to conceive of recordings as not captured or fixed, but "something alive" and a "type of knowing" (Taussig, 2011: xii).
- The exploration of the creative possibilities of using audio analysis and descriptors to foster relationships between disparate materials i.e., using the properties of field recordings to affect other audio parameters as well as fragment images and text.

This thesis has demonstrated that material is not merely shaped by artistic intervention, but that it acts, influences and exerts force in ways that shape artistic processes. Over the course of this thesis, the agency of material has been explicated in several ways.

- 'Physical resistance and constraint': where material resists manipulation or can only be manipulated in certain ways. For example, wood splits in certain ways, and different field recordings will sound radically different through the same granular software. Fostering a sensitivity to the contours and affordances of material is an essential part of the thesis. This discussion was underpinned by Heidegger's concept of 'Earth' where materials' resistance to manipulation forces artistic decisions and where the materials' physical properties dictate action. Material creates tactile and haptic feedback through touch and agency operates through tactility i.e., material pulls the body into interaction. Texture and material invite prolonged handling and therefore shape compositional decision-making.

- ‘Vibrational and sonic properties’: for example, the abandoned piano I found near Baldhu vibrates at certain frequencies outside of Western tuning, as do fences and gates that I bowed and agitated. Engaging with descriptors (onsets, partials, centroid, flux, etc.) develops a method where the unique vibration of materials influences other materials as well as processing and compositional decision-making. Additionally, sites vibrate in certain ways absorbing and reflecting vibration, drawing the artist to certain points. Materials reflect and alter energy through light, heat and sound in ways that mediate perception.
- ‘Decay, weathering and temporal change’: i.e., how material changes over time. The buried book or Whisky bottle I encountered have changed over time which affects both their usability and also my perception of them. The implication is that agency is temporal and materials act over time – carrying marks of their history i.e., the physical marks of industry that resound into the environment or the can of ‘Relentless’ energy drink that carries its sonic past and is overwritten with potential and speculative histories. Materials retain traces of past interactions and material remembers and replays.
- ‘Invisible forces, contamination and exchange’: agency exists in the unseen forces of material i.e., materials radiate influence beyond their perceivable form and transfer substances. Materials infect, stain and influence each other. Pylons, telegraph wires, and power-outlets are vibrant active forces, not inert structures. The VLF and electromagnetic recordings in ‘Study for Pylon, Electromagnetism and Abandoned Piano’ demonstrate how materials emit fields, making their presence audible in unexpected ways. The ‘Red Lake’ at Wheal Maid is the product of mining and has poisonous emissions that affected my ability to engage with the site as an artist.
- ‘Fragmentation and assemblage’: broken and scattered material refuse singular meaning. Shattered glass cannot be restored to its previous form but rather spreads out and interacts with other materials. Agency operates in recomposition i.e., how fragmented objects form a “contingent tableau” (Bennett, 2010: 5) and forge new structures and dynamic assemblages. The thesis engages with fragments—text, images, sounds—treating them as a dynamic assemblage rather than static materials. This discussion draws from Bennett’s “thing-power” (Bennett, 2010: 6) and Barthes’ “advenience” (2000: 23-24) to describe the magnetic force of material on the artist.

The recognition of material agency shifts the role of the artist from one of architectural planning and control to one in collaboration with material forces, where the act of making is ongoing negotiation. The thesis has direct implications for field recording, sound arts and electroacoustic practices,

particularly in its approach to composition as an emergent and contingent process rather than a fixed 'architectonic' system. The multimodal practical output is an innovative artistic form and contributes to a growing body of work dedicated to expanding field recording into new conceptual and aesthetic domains.

The research has fundamentally affected my practice, opening up new ways of engaging with site, material, and sound, and although the project itself has reached a conclusion, the investigation is ongoing. The next stage of the work will be more open-ended, generative and aleatoric, where fragmentary connections are constantly being made and remade in real-time and where each encounter with the work remains unique. My plan at this stage is to develop a larger-scale work in a game engine, where the methodologies developed in this thesis—particularly material complicity, recursive listening and transductive relationships between sound, image, and text—can be extended even further into interactive, non-linear experiences.

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