

Soundscape and the Experience of Positive Silence



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Declaration

I declare that the work contained in this thesis has not been submitted for any other award and that it is all my own work.

Name: Richard Bentley

Signature: 

Date: 23rd September 2020

Abstract

This body of work employs a practice-based research methodology to explore the experience of silence as positive, of benefit to the individual and, by extension, wider society. The research is positioned within the related fields of Sound Art and Sound Studies with the practice component including soundwalks, sound installation, exhibition and phenomenological enquiry initiated through listenings and reflections. Current research in this area has explored the value of silence through quiet space studies, acoustics and psychoacoustics as well as research in the field of psychology around the human experience of solitude, mindful awareness and distraction. This doctoral research draws upon the insights of these disciplines to inform both the artworks and thinking that cohered into the themes explored in this commentary. Solitary and shared silences characterised by thresholds, masking, sounds of nature, simplicity, familiarity, safety and quality of attention are explored. In so doing, psychological theories of extended mind, construal level and psychological distance are considered in relation to the web of interactions between individual and soundscape. In all, these investigations revealed auditory distraction as a feature of the soundscape that consistently undermined the experience of silence as positive.

Acknowledging the growing influence of the ‘attention economy,’ the work explores the psychoacoustic basis for auditory attention and concludes by forwarding practical strategies for working with distraction that have been developed and refined through listening exercises and participatory arts practice.

Prologue

The motivation underpinning this body of practice-based research stems from a fascination with silence as a phenomena that is simultaneously internal and external, quiet and noisy, intangible and measurable. Silence eludes simple definition and appears able to embrace dichotomies and contradictions whilst remaining largely understood within a given context. The arts practice and commentary grapple with these contradictions. They explore the shapes and lines of silence, all the time eager to understand the raw material from which its many varieties are forged, simultaneously sensing it slip through the fingers. More specifically, I have been interested in the subset of silence which I have termed ‘positive silence’. This particular focus springs from two interrelated sources. The first, is a deep personal wish to explore experiences of silence that support wellbeing and open-up opportunities for insight and lived meaning. I have a long-standing interest in, and commitment to, contemplative practices, including mindfulness and meditation. Whilst the portfolio and commentary do not always make explicit reference to these interests, the reader should be aware that these practices catalyse and inform the explorations and insights in this work. The second impetus for focussing this study on the experience of positive silence comes from a professional interest in contemplative approaches to listening, field recording and composing. As a sound artist, musician and teacher in both formal and non-formal settings for over twenty years, I have sought to explore the potential of listening and sound-making in fostering wellbeing by creating space for connection, reflection and insight. These investigations have taken the form of lectures, seminars and related learning activities, public soundwalks, listening and field recording workshops as well as facilitation of meditation and mindfulness practice. My personal interests are, then, catalysed and enriched by a professional interest in understanding silence’s potential to benefit individuals and their communities. The work is best understood within the context of these interests and aspirations. Having set out my primary motivations for undertaking this research, an outline of the key themes and questions around which the arts practice and reflections in this commentary cohere, will help to guide the reader through the work and relate the practice to these reflections.

A central theme of this research explores the characteristics of auditory scenes that best support positive experiences of silence. These investigations have tried to avoid the assumptions of existing quiet space research, whilst not precluding the insights they offer. In this way, the research attempts to avoid walking for long on well-trodden paths, but explore the territory more openly. This wandering trail of enquiry intersects with paths from a range of disciplines that contribute to sound studies such as urban planning, positive psychology, music, psychoacoustics and auditory neuroscience. The trail attempts to maintain its integrity and focus

by pursuing sonic phenomena and their experience, rather than embracing intersensorial perspectives. This body of work investigates the influence of sound level, thresholds and masking, the perceived quality of the soundscape, the relationality inherent in moving between soundscapes, familiarity, safety, fear and self-consciousness. Stemming from these investigations, auditory distraction emerges as a common feature underlying and linking these many qualities of the soundscape, an insight that pushed me to explore its psychoacoustic basis. In pursuing a focus on the auditory, there is an open acknowledgment that the perceptual unity of sense experience is compromised and, as such, unnaturally biases the investigation and its insights. However, with this acknowledged, it is hoped that such constraints provide coherence and depth to the work, limiting it to concerns within the purview of my expertise.

A second line of enquiry probes the question: 'how can people access and manage silences in such a way that allows them to be positive?' From the listenings and participatory arts work, arise concerns regarding access to silence that have cohered around issues of inequality, auraldiversity and the many personal and societal barriers that may deter or prevent people from entering into silence. Better understanding the ways in which we may manage silences, in order for them to be experienced as positive, required an exploration of the interplay between the sonic environment and the orientation of the individual towards the soundscape. This was achieved through both the analysis of the soundscape in recording, transcription and analysis, alongside reflections on our experience of, and orientation towards, what we hear, often concurrently. With regard to the latter, personal reflections, often captured in phenomenological studies, were drawn upon to direct and inform participatory arts work. In turn, this participatory arts work facilitated discussions and drew comments and feedback from members of the public that both challenged and supported my initial hypotheses. This process of phenomenological enquiry and reflective practice-based research, resulted in the delineation of four strategies to manage or work with auditory distraction, namely; manipulation of the environment; attentional reorienting; familiarisation; and mindful attention.

In addition to these two themes, participatory arts work with students, staff, community groups and members of the public, alongside facilitation of meditation and mindfulness practices with Buddhist groups, has quite organically explored the perceived value of experiences of positive silence. The cultivation of contemplative practices that incorporate meta-awareness of both auditory stimuli and our mind-body's¹ responses, has highlighted the obstacles that many face when a silence is free from external distraction. Our unfamiliarity with such silence provides

¹ Mind-body is used to denote the complex and inseparable interactions of mind and body, a topic that will be expanded upon later in the commentary.

the stimulus for much of the research. Whilst this unease and unaccustomedness to silence makes itself known in a variety of explicit and subtle forms, I propose that often, at its root, is an existential anxiety, a fear of meaningless or nothingness. Such a conclusion may be influenced by the work's context, predominantly set in England, UK - an industrialised society, nominally democratic, increasingly secular, with an established and progressively intensified neoliberal economy. In such a society, the pressures of unremitting economic growth, the fast rate of technological change, the gradual dissolution of traditional worldviews, and the pervasiveness of digital distractions, may discourage us from attending to ourselves in silence. This milieu, which James Williams reframes as the 'attention economy', "compromises the "daylight" of our attention" and "undermines fundamental capacities that are preconditions for self-determination at both the individual and collective level."² Constant distraction, whether sought or forced upon us, has the potential to dehumanise by eroding our freedom to direct attention in line with our deepest intentions and aspirations. Silence, I would argue, can expose our conditioning and highlight our vulnerability to doubt and confusion. As such, throughout this commentary and accompanying art works, I wish to develop the proposition that harnessing the power of positive silence to relieve human suffering requires us to address both the causes of distraction in our environment, and the causes of this anxiety as an inseparably interrelated whole.

In presenting the arts work and reflections that constitute this body of research, it has felt necessary to take a multidisciplinary, and at points interdisciplinary, approach to sound art practice. Throughout this commentary, I hope to highlight how the practice of art-making has informed my thinking and vice versa. I will begin by outlining the contextual and methodological underpinnings of the project and defining key terms and overall scope (Chapter 2). I will then move on to explore common varieties of silence and how they relate to our everyday conceptions of sound level, sound quality and relational subjectivity (Chapters 3 and 4). Following from this, we will move inwards, to consider the influence of attentional control on our experience of silence, relating this to intentional listening exercises explored through participatory arts work (Chapter 5). The qualities and affordances of both silences amidst others and solitary silences, will be considered, probing themes such as self-consciousness and ergo-audition (one's own sound-making), familiarity, safety and the potential influence of the soundscape on distal thinking (Chapters 6 and 7). A brief sojourn into psychoacoustics will explore the characteristics of the soundscape that may diminish distraction (Chapter 8). We will then conclude by considering what practical strategies may be employed to assist in working with auditory distraction (Chapter 9). Having already alluded to 'soundscape' and 'positive silence' as

² Williams, J., *Stand out of our light*, Cambridge University Press, 2018, pp.80

terms defining the focus of the study, let us firstly set out the features that establish their significance and scope.

1. Key Terms and Context

1.1 Soundscape

To commence, let us turn our attention to a central term in this commentary; ‘soundscape’. The origin of the term ‘soundscape’ is commonly attributed to Southworth in his article *The Sonic Environment of Cities* (1969) later popularised by R. Murray Schafer in his book *The Soundscape: Our Sonic Environment and the Tuning of the World* (1977). Schafer refers to the soundscape as “...any acoustic field of study”.³ This rather broad classification perhaps arose from his focus on acoustic ecology, describing a “*grand vista*”⁴, a sonic equivalent to a landscape. Schafer’s is a soundscape that can be measured objectively and recorded using audio recording equipment, it is largely free from the vagaries of human perception. Later, however, Truax proposes a more substantive definition that shifts the focus of soundscape from the sounds present in the environment to the subjective experience of sound, the listener’s perception and understanding of those sounds:

“It refers to how the individual and society as a whole understands the acoustic environment through listening.”⁵

Soundscape here, is not only centred around the listener’s experience, but is understood as a social phenomenon as well as an individual one. While criticism may be levelled at Truax for his rather singular and restrictive focus on soundscape as functional and communicative, his reorientation of soundscape to encompass the understanding of the listener remains persuasive. Since this definition, experts have sought to clarify the scope of the term. Some have extended the definition to include our relationship and interaction with the sonic environment, such as Payne et al’s:

“...soundscapes are the totality of all sounds within a location with an emphasis on the relationship between individual’s or society’s perception of, understanding of and interaction with the sonic environment. This definition is based upon original soundscape definitions and landscape definitions (Defra, 2007; Schafer, 1994; Schulte-Fortkamp & Dubois, 2006; Truax, 1978). Soundscapes can be studied at the micro

³ Schafer, R.M., *The Soundscape: Our sonic environment and the tuning of the world*, Destiny Books, 1977, pp.7

⁴ Foale, K., *A Listener-Centred Approach to Soundscape Analysis*, University of Salford, 2004, pp.5

⁵ Truax, B., *Acoustic Communication*, Simon Fraser University, 1984, pp.xii

(individual place, e.g. urban park, street, room), meso (small area, e.g. residential area, large shopping mall) or macro level (large area, e.g. whole city).”⁶

Here, our sound-making is understood to contribute to the soundscape as we interact with the environment as well as our developing relationship with the sounds present. It also clarifies the various scales of a soundscape from a small ‘room’ to a ‘whole city’. The International Organization for Standardization have since ventured a definition, very similar to Truax’s and Payne et al’s, making explicit the contextualisation of listening, specific to a particular person (or group of persons) in a particular time and place:

“an acoustic environment as perceived or experienced and/or understood by a person or people in context.”⁷

This definition has gained a great deal of currency. Yet questions can be asked of its adequacy, along with the other definitions alluded to above. With regard to human hearing, one may argue that, particularly in very quiet environments, we can hear mechanical waves generated by our bodies. As we will explore later, in certain conditions, internal and external sound can be impossible to distinguish from one another. If bodily-generated sounds contribute to our overall perception of an environment, should these sounds be included in our definition of the soundscape? Moving inwards yet further, there is the possible inclusion of thought-sound within soundscape. The following quote from sound artist and acoustic ecologist Hildegard Westerkamp, may prompt us to question whether the term ‘soundscape’ is broad enough:

“Listen. WORDS ON THIS PRINTED PAGE ARE SOUND. Listen. The quiet voice on this printed page is sound. Listen. LIFE IN YOUR NEIGHBOURHOOD IS SOUND. Listen.”⁸

Whilst not originating from mechanical waves as is the case with environmental and bodily sound, we appear to perceive thought-sound as sounding, activating areas in the auditory cortex in a similar manner to acoustic vibrations.⁹ To many working in fields where sound is measured, and analysed, and where listening experiences are compared, such an addition to the term

⁶ Payne, S. et al, *Research into the practical and policy applications of soundscape concepts and techniques in urban areas*, University of Salford, 2009, pp.7

⁷ ISO (2014), ‘*Acoustics – Soundscape – Part 1: Definition and conceptual framework*’, (ISO/FDIS 12913-1:2014(E)).

⁸ Westerkamp, H., in *Sites of Sound: Of Architecture & the Ear*, LaBelle, B. and Roden, S. (eds.), Errant Bodies Press (1999), p.22-23

⁹ Perrone-Bertolotti, M. et al., *How Silent Is Silent Reading? Intracerebral Evidence for Top-Down Activation of Temporal Voice Areas during Reading*, *The Journal of Neuroscience* Vol.32, 2012

‘soundscape’ could seem outlandish. Yet, if soundscape is concerned with auditory perception, a decision not to include thought-sound, appears to be guided more by the limitations of traditional disciplinary boundaries and the available analytical tools, than the parameters of listening itself. A further criticism of the soundscape definitions offered above, is that they bias human perception, being anthropocentric in their formulation, failing to take into account the lived-experience of other living beings whose perception of sound may differ greatly from our own. This may include organisms who perceive sound above or below human frequency ranges and with markedly different sensitivities to sound level, as well as the peculiar impact of environmental sound on their ability to function effectively within an environment. Given these vagaries, it would seem that there may still be clarification required if we are to universally agree on a definition of the term ‘soundscape’.

With regards to my use of the term in this commentary, I have chosen to employ the definition of soundscape as set out in the ISO standard above. This is not to suggest that it is comprehensive and definitive, but because it provides a more widely shared understanding of the term, thus avoiding unnecessary confusion. As I argue below, our perception of silence or quiet depends as much, if not more, upon our freedom to select or moderate our thought-sound, as the sound in the environment. Not to include this aspect of the soundscape in our study of positive silence would be to perpetuate a common bias towards the impact of audible mechanical waves on our human perception of positive silences. Nevertheless, soundscape as experienced and understood by humans, in situ, anchors the commentary in the *lingua franca* of contemporary sound studies.

In labelling particular silences as ‘positive’, I may appear to leave myself open to the criticism, that R. Murray Schafer faced, of attaching a value to certain soundscapes by employing a predetermined notion of what is ‘positive.’¹⁰ It is a criticism made by Kelman in *Rethinking the Soundscape* and is worth briefly exploring here. For Schafer, the hi-fi soundscape is one “possessing a favourable signal-to-noise ratio...in which discrete sounds can be heard clearly because of the ambient noise level.”¹¹ The use of the word “favourable” here, expresses a value judgement that underpins much of Schafer’s early writing. Kelman believes that this denigration of lo-fi environments leaves little room for positive lo-fi soundscapes:

“The devolution of Schafer’s soundscape is so totalizing, so deterministic, that it provides little hope for the ears of humanity against the din of his historiography.”¹²

¹⁰ Kelman, A.Y., *Rethinking the soundscape: A critical genealogy of a key term in sound studies*, Senses and Society, Vol. 5, Issue 2 (2010), pp.216

¹¹ Schafer, R.M., *The Soundscape: Our sonic environment and the tuning of the world*, Destiny Books, 1977, pp.43

¹² Kelman, A.Y., *Rethinking the soundscape: A critical genealogy of a key term in sound studies*, Senses and Society, Vol. 5, Issue 2 (2010), pp.216

Whilst it may be true that hi-fi soundscapes can, in many instances, aid communication and provide a pleasant relief from overstimulation, one does not have to listen for long to come across scenarios in which lo-fi soundscapes may be experienced as positive. One example would be where a lo-fi soundscape affords privacy, such as a private conversation masked by the background sounds of a busy office. Lo-fi soundscapes may also be perceived as pleasurable, animated or as containing stimulation, interest and variety. Our sense of silence may also be supported through the familiarity of a lo-fi soundscape, the reassuring sounds of others, or the anonymity provided by a lively but personally undemanding backdrop of sound, such as may be experienced in cafés or on a busy beach. Whilst the connection between lo-fi environments and negative perceptions may seem an intuitively accurate association for many, it is clear that the demarcation of lo-fi soundscapes as ‘negative’ and hi-fi environments as ‘positive’ is an oversimplification.

Returning to the original question, that asks whether a ‘positive experience of silence’ constitutes a value-judgment, I would wish to restate that ‘positive silence’ is not an inherent quality of the soundscape. It is, instead, an individual’s perceived, in-situ, subjective, felt-sense of silence. The value judgement is placed upon the experience of the soundscape by the individual, not the researcher. Furthermore, while this commentary explores auditory distraction as a primary feature of soundscapes that support positive silences, I do not wish to assert that ‘distracting soundscapes’ are inherently unfavourable. Moreover, it is that distraction, by its very nature, draws us away from that which we wish to attend to and, therefore, impedes our freedom at that moment. This quality of human audition to be distracted is, of course, an advantageous result of natural selection, supporting our safety, physical health and mental wellbeing. Nevertheless, like our ability to empathise, reflect or imagine, our capacity to be distracted needs to be managed within specific settings, where it is to support human freedom and flourishing.

1.2 Endophonia

In using the term soundscape to designate the “acoustic environment as perceived or experienced and/or understood by a person or people in context”,¹³ I am choosing to omit ‘thought-sound’ from its scope. Nevertheless, thought-sound has played an important part in my explorations of positive silence and, as such, should not become divorced from the soundscape ‘out there,’ our sonic experience naturally incorporating both. As such, the term we use to denote this ‘mental soundscape’ requires some initial elucidation.

Mechanical sound waves enter our ears through the ear canal and tympanic membrane or through internal vibrations conducted through bone to the otic capsule. Both methods transmit vibrations that are transduced into electrical impulses in the organ of Corti and sent to the brain to be perceived as sound by the listener. Additionally, when reading the words in this commentary for example, we are generating ‘thought-sounds’ of the words on the page or screen. Interestingly, neuroscientists have discovered that thought-speech maintains the same wave structure as the mechanical waves that would be produced by the same words being heard at the ear-drum.¹⁴ Psychologists call this phenomenon ‘endophasia’ (literally ‘inner speech’).¹⁵ Similarly, humming a tune in one’s head without vocalising it is referred to as ‘endomusia’ (literally ‘inner music’).¹⁶ Endomusia has a strong likeness to the term ‘audiation’, a portmanteau word blending the sounds and meanings of ‘auditory’ and ‘imagination.’ Audiation originated from the work of the music psychologist E.E. Gordon, who suggested that “audiation is to music what thought is to language.”¹⁷ Both the term ‘endophasia’ and ‘endomusia’ stem from psychological research, whilst Gordon’s term ‘audiation’ more specifically arises within the context of his work in music education.¹⁸ Yet, from an initial survey of the literature, it is difficult to ascertain in what concrete ways ‘endomusia’ and ‘audiation’ differ from one another, spare the context in which they are employed.

From this brief outline of key terms relating to thought-sound, we see that all three terms; ‘endophasia,’ ‘endomusia,’ and ‘audiation,’ have quite particular meanings relating to either speech-thought or musical-thought. In writing this commentary I have searched for a term that is more inclusive, a word that refers to all sound generated by thinking, and which is less clumsy than simply using ‘thought-sound’. I was unable to find such a word. As such, I am proposing to employ the term ‘endophonia,’ originating from the Greek *‘endō’* for ‘internal,’ ‘inside’ or

¹³ ISO (2014), ‘*Acoustics – Soundscape – Part 1: Definition and conceptual framework*’, (ISO/FDIS 12913-1:2014(E)).

¹⁴ Moto, A., *What Is the Sound of Thought?* The MIT Press Reader, <https://thereader.mitpress.mit.edu/the-sound-of-thought/> (accessed 18th February 2021)

¹⁵ ‘Endophasia’, accessed 18th February 2021, <https://psychologydictionary.org/endophasia/>

¹⁶ ‘Endomusia’, accessed 18th February 2021, <https://dictionary.apa.org/endomusia>

¹⁷ Azzara, C., *Audiation, improvisation, and music learning theory*. *The Quarterly*, 2(1-2), (1991, Spring & Summer), pp. 106-109.

¹⁸ Gordon, E.E., *Developmental Music Aptitude as Measured by the Primary Measures of Music Audiation*, *Psychology of Music*, Vol.7, Issue 1, pp.42-49

‘within’¹⁹ conjoined with ‘phonia’ from the Greek *phōno*, meaning ‘sound’ or ‘sounding’.²⁰ The proposed noun ‘endophonia’ which I will employ throughout the commentary literally translates as ‘inner sound’ and can be simply defined as ‘the reproduction of sound in the mind’.

1.3 Silence

With reference to the term ‘silence’, it is clear from conversations throughout the period of research, that the term, does not typically refer to an absence of sound within the soundscape or thinking in one’s mind. As absolutes, both are unattainable states for humans. In anechoic conditions, the body’s basic functioning requires movement of key organs and related processes generating vibrations detectable by the ossicles in the middle ear. Similarly, whether we are conscious of it or not, the mind necessarily moves in thought, it cannot be otherwise. In both scenarios silence means death. This is not to say that endophonia cannot be quietened or silenced for a time but that, at some level, movement in thinking is a constant necessity. Absolute silence, therefore, is a theoretical construct or an imagined state rather than a lived reality. More commonly, the term ‘silence’ is used to designate a quietening or stilling of the soundscape or chatter of the mind, although non-auditory references to silence as visual, metaphorical or as an absence of movement, are also frequent. This shared understanding relates strongly to the etymological origins of silence as ‘stillness’ or ‘absence of sound’.²¹ As a vague and slippery term, its context within a sentence or within a wider narrative is key to its interpretation. We may consider a soundscape or our minds to be ‘silent’ but, as we shall see, when we try to specify its thresholds and defining characteristics, we become weighed down in subjectivity and the idiosyncrasies of personal perception. This inescapable relativity appears to render truths about silence obsolete.

As a result, the primary aim of this enquiry is to investigate, catalogue and present something of the experience of silence, rather than to construct ‘truths’ that replace this experience with ideas.²² Listening is contingent upon the reception of sound by a listener, or the construction of a sound as mental representation. Sound’s meaning and affect are formed posthumously, after the sound event, augmented by other related sensory information and typically refined over repeated listenings. Given the specificity of sound’s interpretation by the listener experiencing it, generalisations about meaning and affect are to be largely avoided. That is not to suggest that common characteristics cannot emerge from the collation and interpretation of sonic experience. However, such characteristics are not to be interpreted as

¹⁹ ‘Endo’, accessed 18th February 2021, https://www.collinsdictionary.com/dictionary/english/endo_1

²⁰ ‘Phono’, accessed 18th February 2021, <https://www.etymonline.com/search?q=phono>

²¹ ‘Silence’, accessed 19th November 2019, <https://www.etymonline.com/word/silence>

²² Voegelin, S., *Listening to Noise and Silence: Towards a Philosophy of Sound Art*, Continuum International Publishing Group, 2010, pp.xiii

solid and immovable, but as assemblages of like-features, intersected in various ways by the shifting rings of Venn diagrams. In this way, the shapes of these rings and their junctures will evolve along with the ever-changing experience of listening. An invitation is extended to the reader to augment the descriptions of experiences transcribed here with their own listenings, and to form novel connections. It is not my intention to clearly demarcate and claim rights to intellectual property. There can be no lasting conclusions, just tools to unpack and interpret the experience of silence, and a trail of markers left behind for those that wish to explore the territory, as markers have been left by others. Here, the tools are the methodological underpinnings of the research, grounded in both phenomenological studies and the action-reflection cycle of practice-based arts work. The markers delineate the varieties of silence that can be grouped by like-features; silence as oppressive or liberating, found in the midst of commotion or stillness, as threshold, as masking or as a freedom from distraction. These tools and markers point towards lived experiences of silence as we grapple with what will ultimately slip through the fingers. Yet, it is with this necessarily crude apparatus that we must persevere and attempt to make some sense of our experience of silence.

1.4 Positive

Even a brief survey of popular books on ‘silence’ reveal the almost endless varieties of silence and contexts in which they are experienced. This study stems from a desire to support human flourishing and explores the role of the arts in fostering wellbeing. As such, one is faced with the task of trying to mark the broad territory of silence that is under discussion. In an attempt to group together the many silences that form the focus of the arts practice here, I have chosen to prefix ‘silence’ with ‘positive’. The term ‘positive’ is used in this commentary to denote the affectively positive valence of the experience of silence and the positive outcomes of silence for human wellbeing beyond the immediate experience. The term originated from the prevalence of ‘positive valence’ in the psychological literature and was encouraged by Long and Averill’s use of a similar term ‘positive solitude’. I also found myself naturally employing the phrase ‘positive experiences of silence’, when conveying to others the subset of silence that I was interested in exploring. It, therefore, seemed a natural expression to employ. It could be contested that the term conveys a level of certainty and assurance that does not do justice to silence’s vagaries. Whilst open to this interpretation, the word ‘positive’ seems broad enough to encompass the wide variety of experiences of silence presented in this commentary. Other terms were considered alongside ‘positive’ including ‘pleasurable,’ ‘effective,’ ‘helpful’ and ‘beneficial’ and it is worth briefly outlining why these were not selected.

‘Pleasurable’ and its antonym ‘painful’ seemed to suggest a physical reaction to silence, restricting the scope of silence to that of provoking a more immediate and hedonic experience of happiness. As such, ‘pleasurable silence’ did not seem to convey the experience of eudaimonic happiness that embraces meaning and purpose. ‘Effective silence’ did not necessarily designate a positive valence and seemed to be closely associated with silence as ‘useful’. As well as having a utilitarian feel, the word ‘effective’ seemed to suggest that silence could possess tried and tested powers to benefit the individual. The experiences of silence alluded to in this commentary did not seem to provide this level of certainty. ‘Helpful’ and ‘beneficial’ silence were major contenders. However, ‘helpful silence’ seemed to place an emphasis on the role of the external environment in supporting wellbeing, rather than a more balanced and two-way interaction between the individual and the wider environment. ‘Beneficial’, did not feel as full of certainty as ‘effective,’ and suggested the production of "good results or helpful effects."²³ In many ways, ‘beneficial silence’ would seem to provide an equally acceptable term to that of ‘positive silence’. Yet, ‘positive silence’ seemed to be more open and freeing, demarcating a broad area for research that was not tied to specific ‘benefits’. It is not without some hesitation that I forward ‘positive silence’ as the term for silences that promote human wellbeing and flourishing. However, the term has felt natural to use in conversation and appears to convey the intended meaning quite accurately and lucidly.

1.5 Positive Silence

In forwarding the term ‘positive silence’, I would like to propose and outline a number of its key characteristics. These characteristics owe a great debt to Long and Averill’s work on Positive Solitude.²⁴ As the term suggests, positive silence is primarily distinguished from other forms of silence, by an affectively ‘positive valence,’ a subjective response to an experience of silence as determined by the individual. However, ‘positive valence’ on its own does not do the proposed term justice, as there are a number of other features that typify positive silence. One of the key characteristics of positive silence is freedom. In contrast to enforced silences, such as those imposed by authority, social obligation or self-imposed censorship, a positive silence is *free from* coercion or demand. Although, in certain limited circumstances an enforced silence could be viewed as beneficial, positive silence would typically be chosen. As such, positive silence is characterised by a lack of constraint, whether that be self-imposed constraints that impede one’s wellbeing, constraints imposed by the presence of others, societal rules, religio-cultural

²³ ‘Beneficial’, accessed 18th February 2021, <https://www.merriam-webster.com/dictionary/beneficial?src=search-dict-box>

²⁴ Long, C. and Averill, J., *Solitude: An exploration of the benefits of being alone*, Blackwell, 2003.

expectations, or the restrictions of the environment. In positive silence one is also *free to* engage with activities or thoughts as one chooses, which would typically be facilitated by a disengagement from the demands of others and the associated reduction of social inhibition. Whilst it may be that the individual chooses to willingly submit to activities that impose silence (thinking perhaps of creative endeavours, educational opportunities or spiritual practices), these are undertaken willingly, without pressure or coercion and with the freedom to opt-out. Positive silence is not, however, only characterised by the absence of constraints, but by the provision of opportunities. The setting in which positive silence is experienced is typified by a physical and psychological environment that supports the intentions of the individual. For example, this could be the presence of a soundscape that supports a person's purpose or offers a low risk of interruption that enables the individual to feel relaxed, focused and unapprehensive. Rather than compete for the attention and resources of the listener, soundscapes of positive silence support the listener's intent. Finally, and perhaps most critically, positive silence contributes to wellbeing. In all, the experience of positive silence is intended to promote human flourishing. On occasions, this may entail some temporary or extended periods of emotional or physical discomfort, weakening the assertion that positive silence is necessarily experienced as an affectively positive valence. However, seen over longer periods of time, discomfort is balanced by the longer-term advancement of a person's wellbeing. So, in attempting to define 'positive silence,' we may say that it is an experience of silence that is typically accompanied by a positive affective valence, free from coercion and demand, affording the individual opportunity to engage with activities or thoughts of one's choosing and which contributes to human flourishing. One could well argue that the use of the term 'silence' is too vague and renders the definition meaningless. This would be a fair assessment. As mentioned above, this work wishes to celebrate silence's ambiguity and encourage the reader to interpret its meaning in each context intuitively. Nevertheless, while it seems unlikely that there can be any comprehensive, catch-all definition of silence, this portfolio and commentary explores a variety of silences that attempt to move towards a greater understanding of some of its principal features.

1.6 Valuing Silence

Defining positive silence could be regarded as an opportunity to land-grab, to seize a territory for oneself. Any such intention contains a lack of appreciation, indeed a disrespect, for positive silence's long history. Such an intention belies a worldview restricted by profit, status and deeply held delusions of 'self' and 'mine'. It also falls into the trap of packaging pre-existing phenomena in order to commodify them economically or intellectually, something that has occurred with

ancient terms such as ‘mindfulness’. Silence has not escaped this process. Defining and attaching a value to ‘silence’ and ‘quiet’ has been a key objective of many health bodies, urban planners, acousticians and noise abatement enthusiasts. The need to justify investment in research, development and implementation of systems that reduce noise and promote quiet, necessitates that silence be measured, evaluated and costed. As such, silence or quiet has been valued in terms of its ecological, economic,²⁵ social and personal impact on health and wellbeing. The *raison d’être* for these many studies of silence and quiet space is typically the protection and advancement of public health against the backdrop of noise generated by rapidly increasing urban populations. This focus on health plays into anxieties and aspirations around wellbeing, making it an ideal leveraging tool to push for behavioural and structural change. As such, quiet space studies are littered with references to the physiological health benefits of both noise avoidance and time spent in quiet. Noise in this context is not the multifaceted, morally charged and contested term of contemporary sound studies,²⁶ but typically denotes environmental sounds that either induce hearing loss or that provoke negative psychological states and their related health conditions.²⁷ Studies investigating the positive benefits of time spent in silence have similarly reduced the term silence, or more often ‘quiet’, to low sound levels²⁸ and pleasing soundscapes.²⁹ These are subsequently related to physiological benefits such as a reduction in heart rate, blood pressure, minute ventilation and increased neuroplasticity.³⁰ One could add to these list of health benefits many others which are afforded and supported by quiet spaces encompassing creativity³¹, communication³², education³³, exercise³⁴ and exposure to natural settings³⁵. However, through conversations prompted by the soundwalks, installations, exhibitions and phenomenological enquiry that make up this project, it quickly becomes clear that these common, relatively easily-measured indicators give only a partial picture of the value of silence and quiet spaces. As a thread that binds the various artworks presented here, this commentary will reflect on other ways in which time spent in quiet promotes human growth and flourishing.

²⁵ Anastasopoulos, C., et al., *The Economic Value of Quiet: Final Report*, DEFRA, March 2011

²⁶ Thompson, M. *Beyond unwanted sound: noise, affect and aesthetic moralism*, Bloomsbury, 2017

²⁷ Basner, M. et al., *Auditory and non-auditory effects of noise on health*, Lancet, 2014

²⁸ European Environment Agency, *Good practice guide on quiet areas – EEA Technical Report*, EEA, 2014, pp.10

²⁹ Pheasant, R.J., Horoshenkov, K.V. and Watts, G.R., *Tranquillity rating prediction tool (TRAPT)*, Acoustics Bulletin 35(6):18-24, November 2010.

³⁰ Kirste, I. et al., *Is silence golden? Effects of auditory stimuli and their absence on adult hippocampal neurogenesis*, Brain Structure and Function, 2013

³¹ Douglas, O., et al. *Green space benefits for health and well-being: A life-course approach for urban planning, design and management*, Cities 66: 53–62, 2017, pp.56

³² Horr, Y.L., et al., *Occupant productivity and office indoor environment quality: A review of the literature*, Building and Environment, Vol. 105, 2016, pp.369-89

³³ Shield, B., Greenland, E. and Dockrell, J., *Noise in open plan classrooms in primary schools: A review*, Noise and Health, Vol. 12, pp.225-234

³⁴ Douglas, O., et al. *Green space benefits for health and well-being: A life-course approach for urban planning, design and management*, Cities 66: 53–62, 2017, pp.55

³⁵ Manning, R., et al., *From landscapes to soundscape: Understanding and managing natural quiet in the National Parks*, Proceedings of the 2006 Northeastern Recreation Research Symposium, 2006

1.7 Inequalities in Access to Positive Silence

In conversations, notably with academics and social activists, one can often sense a sighing resignation to talk about a ‘search for silence’. The view that such an endeavour is the privileged pursuit of the well-meaning but comfortably naïve middle-classes, frequently underpins these conversations. Such a narrow interpretation of the ‘search for silence’ often carries the baggage of labels such as ‘mystic’, ‘exotic’ or ‘other-worldly’. No doubt, silence as a topic of study has often been devoutly fetishized, set apart, almost deified, sharing something of the ‘othering’ of orientalism highlighted by Cox in his work on the Zen Arts.³⁶ In arts practice, silence and quiet space can encompass a sacred vision of quiet space, set apart and sanctified. In Rolf Julius’ ‘Rooms of Stillness’ installation, such a singular vision is explored:

“I have long thought about how one can create rooms where one can withdraw and find rest, where one can see, hear, and concentrate, where one is shut off from the external world and yet takes part in it. They should be simple, empty rooms that create an ambience of stillness with the aid of art or music or both together.”³⁷

Works such as these explore a personal realisation of silent space as sacred secular space, and have a long pedigree in the arts and architecture. It provides an idealised, perhaps bordering on fetishized, quiet space for seekers of stillness. The piece provided inspiration for the Small Silence³ installation.³⁸ Although in some ways similar to Julius’ piece, the Small Silence³ installation was perhaps less controlled and more closely wedded to the flow of everyday activity, given its location in a shopping mall. Rather than isolating a room, surround-sound speaker systems and a small darkened cube-shaped space helped to mask the excesses of noise from the mall.

"The soundscape in the box is so immersive, it felt like I was out in the space that the sound was found in. The rain even sounded like it was on the roof!"³⁹

Ambisonic soundscape recordings, sourced from local quiet spaces, were dispersed through the quadrophonic speaker arrays, one inside the cube and the other outside. The piece drew inspiration from the soundscape and acoustic properties of the local buildings visited during the project that consciously or incidentally provide quiet refuges for local people; religious buildings,

³⁶ Cox, R. A., *The Zen Arts: An Anthropological Study of the Culture of Aesthetic Form in Japan*, Routledge Curzon, 2003

³⁷ Julius, R., *Rooms of Stillness*, in LaBelle, B. and Roden, S. (eds.) *Sites of Sound: Of Architecture & the Ear*, Errant Bodies Press, 1999, pp.57-58

³⁸ “Small Silence 3,” accessed 30th June 2020, www.anoisysilence.com/smallsilence3

³⁹ Audience feedback from the ‘Small Silence 3’ art installation, <https://www.anoisysilence.com/smallsilence3>, (accessed 15th April 2021)

libraries, art galleries, museums and domestic settings. One does not have to spend long in these spaces to appreciate that they are silent spaces for relatively small and distinct sections of the community. In marked contrast, the installation's location, just off the main thoroughfare through the mall, enabled a constant stream of passers-by to venture in, many of whom had not experienced a sound art installation before. However, as with the public quiet buildings featured in the soundscape, there were many who clearly felt that an art installation, complete with ominous black cube and unfamiliar sounds, was not for them. The work highlighted how the presentation of silence as peculiarly set-apart can be a barrier to access and continues to inspire me to explore silences that are comfortable, accessible and inviting in their peculiar ordinariness. My desire is to create quiet spaces that attract a diverse audience and, as such, need to address the deeply entrenched historical inequalities in access to quiet, a subject to which I will now turn briefly.

Hendy, at the end of his book 'Noise: A Human History', arrives at the conclusion that "the world's supply of unwanted sound has generally been distributed very unevenly."⁴⁰ Silence has a long history of being commodified, favouring those that can afford to soundproof, control and regulate noise-makers, who can move away from the unwanted sound and surround themselves with more restorative soundscapes. Hendy's hypothesis appears to have much credence. Yet, I would assert that this structural inequality and perception of silence as a resource for those with the means to purchase it, should not be confused with a more common and widespread wish to experience moments of silence. There appears to be an inequality of access, not of aspiration. Inequalities in access to quiet, no doubt play into a perception of silence as the aspiration of the "bourgeois".⁴¹ Such perceptions are sometimes accompanied with a subtler, often unstated sentiment that money and effort would be better concentrated on the more pressing matters of poverty and social justice, than the provision of quiet. Yet, while Maslow's hierarchy of needs⁴² probably places 'access to quiet' nearer 'self-actualisation' than 'physiological requirement', I doubt anyone would wish to undermine access to educational opportunities or mental health provision, with which 'access to quiet' would comfortably sit. Indeed, the freedom to access moments of quiet is integrally bound-up with these more 'worthy' pursuits. To dismiss the desire for silence as a 'prescriptive', 'bourgeois' 'quest'⁴³, may be to not only patronise the 'proletariat' but also undermine drives for greater social equality. Discussions and feedback from many visitors representing a wide variety of backgrounds, made quite clear

⁴⁰ Hendy, D. *Noise: A Human History*, Profile Books Ltd., 2013

⁴¹ Rath, C.R., *Chpt.7, Silence and Noise*, in Bull, M. (ed.) *The Routledge Companion to Sound Studies*, Routledge, 2019.

⁴² Maslow, A.H., *A Theory of Human Motivation*, Wilder Publications, 2013

⁴³ Rath, C.R., *Chpt.7, Silence and Noise*, in Bull, M. (ed.) *The Routledge Companion to Sound Studies*, Routledge, 2019.

that moments of ‘silence’ are an important and embedded part of their daily lives.⁴⁴ Such moments may not take the recognisable ‘bourgeois’ or ‘middle-class’ forms of meditation retreats, floatation tanks, mindfulness groups or yoga classes, but visitors frequently talked of their gardens, allotments, fishing haunts, bedrooms, living rooms and headphone spaces as places they could retreat to. Long and Averill’s investigations into people’s desire for solitude show significant personal difference.⁴⁵ Similarly, conversations with members of the public suggest that the need or desire for silence varies from person to person. However, to suggest that seeking silence is an elitist pastime, is to unwittingly devalue the lived experience of vast swathes of the population.

1.8 Positive Silence and the Attention Economy

“Attention is paid in possible futures foregone.”⁴⁶

For individuals fatigued by information overload, a primary benefit of time spent in silence would appear to be the escape from busyness and overstimulation that it provides. As a visitor to the project’s Small Silence³ art installation noted:

"A deeply positive immersive experience - a sanctuary from the busy town and pressures of modern living."⁴⁷

However, as James Williams in his book ‘Stand Out of Our Light’ points out, more insipid than overstimulation is that which the bombardment of information consumes, namely “the attention of its recipients.”⁴⁸ Perhaps then ‘over-distraction’ would be a more appropriate term than ‘over-stimulation’? With a deluge of available information comes a need to allocate attentional resources effectively, to navigate, select and manage the exponentially mounting pool of data.⁴⁹ The attentional demands placed upon consumers of information and entertainment and that demanded by media and communications, has marketised the individual, who is encouraged to gorge on self-selected digital stimulants. Rather than being cajoled into acting, the persuasion

⁴⁴ “Small Silence³”, accessed 8th April 2021, <https://www.anoisysilence.com/smallsilence3>

⁴⁵ Long, C. and Averill, J., *Solitude: An exploration of the benefits of being alone*, Blackwell, 2003.

⁴⁶ Williams, J., *Stand out of our light*, Cambridge University Press, 2018. pp.45

⁴⁷ Audience feedback from the ‘Small Silence³’ art installation, accessed 15th April 2021, <https://www.anoisysilence.com/smallsilence3>

⁴⁸ Williams, J., *Stand out of our light*, Cambridge University Press, 2018. pp.14

⁴⁹ Young, D., *Distraction*, Routledge, 2014. pp.10-11

employed is far subtler, playing upon our desires more than our fears. In an attention economy, competition for attention is all, and the intentions of those with the means to distract, quickly devour the easily distracted. In this ‘attention economy’, an abundance of persuasively presented information creates competition for our attention. Our attention becomes money, paid in futures unrealised.⁵⁰ The result is a raft of available distractions that not only diminish our freedom to choose where we place our attention, but compromise our resolve to self-regulate in line with longer-term aspirations and values.⁵¹ A side-effect of this technological advancement, refined marketing and neoliberalism’s need to grasp attention as a means of maintaining economic growth, has been our resulting alienation from silence. When combined with the dissolution of inherited cultural and religious constraints in many societies, the prospect of hearing the reflections of mental chatter that silence unmasks, is less than appealing. Quoting Nietzsche, Damon Young writes:

“We are afraid that when we are alone and quiet...something will be whispered into our ear.” This “something” is our own conscience and awareness, the lingering, nagging realization that there are realities to be confronted, choices to be made; the knowledge that opportunities are diminishing with our days. If there is an internet terminal or pulp film handy, the so-called “call of conscience” is easily silenced or suppressed.”⁵²

Beheld by the necessity and immediacy of ‘doing’, strengthened by having to relentlessly adapt to rapid scientific, political and social change, regulated by technology and paralysed by uncertainty, the only questions we are likely to ask will begin with the necessities and practicalities of “How?” rather than the opportunities for growth proffered by the “Why?” and “What?”⁵³ With the existential certainties of traditional religio-cultural frameworks waning,⁵⁴ confronting the “Why?” and “What?” in silence is often far from comfortable. In contrast, distraction offers to mask silence and the awkward reflection of ourselves we behold in it. Can our individual and collective wellbeing be sustained on anything other than a turbulent, superficial level, where life is drained of meaning or, at least, there is no acceptance of doubt? Before moving on, it is worth exploring this fear of silence a little further as it strikes at the very heart of positive silence.

1.9 Fear of Silence

⁵⁰ Williams, J., *Stand out of our light*, Cambridge University Press, 2018. pp.12

⁵¹ Williams, J., *Stand out of our light*, Cambridge University Press, 2018. pp.16

⁵² Young, D., *Distraction*, Routledge, 2014.

⁵³ Young, D., *Distraction*, Routledge, 2014.

⁵⁴ Sherwood, H., *UK secularism on rise as more than half say they have no religion*, accessed 30th June 2020, <https://www.theguardian.com/world/2019/jul/11/uk-secularism-on-rise-as-more-than-half-say-they-have-no-religion>

“I know a woman whose daughter loved to go to sitting meditation at the local Zen temple and encouraged her to give it a try. The daughter told her, “It’s really easy. Mom. You don’t have to sit on the floor; there are chairs available. You don’t have to do anything at all. We just sit quietly.” Very truthfully the woman replied, “I think I’m afraid to do that.”⁵⁵

Acknowledging a fear or difficulty can be the first stage in addressing it. If naming the fear of silence is useful in this regard, we have a term to assist us; ‘sedatephobia’ from the Latin ‘*sedatus*’ meaning “composed, moderate, quiet, tranquil”.⁵⁶ Sedatephobia may have many subtle underlying causes including; loneliness and isolation from others, past associations with negative experiences of silence or fear of being left to listen to the uncontrollable chatter of one’s own thoughts. Yet, perhaps more fundamentally disturbing than these causes, is another by-product of our increasingly secular societies, that of existential uncertainty. R. Murray Schafer alludes to this in his book ‘*Ear Cleaning: Notes for an Experimental Music Course*’:

“Man fears the absence of sound as he fears the absence of life.”⁵⁷

Having lost the assurances and convictions promulgated by religious worldviews (for better or worse), secular societies are left to face questions of ultimate purpose and meaning without a trusted guide. Such an absence of ultimate meaning may appear to have little direct impact on day-to-day living, but our actions belie our deepest motivations which are, in turn, shaped by our worldview. Without the guidance of meaning, we are left alone to respond to those duties, actions and affordances that our lives provide. In the 16th Century, Catholic philosopher Blaise Pascal wrote in his *Pensées*:

“The sole cause of man’s unhappiness is that he does not know how to stay quietly in his room.”⁵⁸

⁵⁵ Hanh, T. N., *Silence: The Power of Quiet in a World Full of Noise*, Rider, 2015, pp.24

⁵⁶ “Sedatephobia,” accessed 19th June 2020, <https://www.etymonline.com/word/sedate>

⁵⁷ Schafer, R.M., *Ear Cleaning: Notes for an Experimental Music Course*, Clark and Cruikshank, 1967. pp.7

⁵⁸ Pascal, B., *Pensées*, Flammarion, 2008, pp.37

Pascal's assertion may initially seem rather bold. However, the point he is making in this chapter of *Pensées* is that seeking happiness in “diversions” distracts us from facing the truth, namely that happiness can be found in “God alone”. While we may not share his theistic *weltanschauung*, the phrase embodies a widespread existential angst that so many may be desperate to avoid confronting. Stripped of a system of beliefs and practices that engage and instruct us as to humankind's wider purpose, silence may leave us abandoned to contemplate entropy and meaninglessness. As such, this fear of emptiness in silence and in death is, perhaps, the most deep-rooted anxiety underlying our present epidemic of sedatephobia.

Whilst it is essential to acknowledge the pervasiveness and depth of this epidemic, it is not the subject of this commentary and portfolio, but the context in which silence is explored. Our focus is upon ‘positive silence’, its varieties, affordances and the challenges its elusiveness often presents us with. However, before moving to explore these aspects of positive silence, it is necessary to outline the methodological underpinnings of this body of practice-based research.

2. Methodology

2.1 Focus and Limitations of the Study

In writing about sound, one is inevitably wrestling with an attempt to describe and make sense of what has been heard. Words may sound in your mind's-ear as you are reading this, but the concepts they represent can only imperfectly reference experience as they clamber to encapsulate what was heard. Perhaps the most honest communication of listening is found in the simultaneous experience of sound by two or more people, in mutual acknowledgment that what was heard and understood only partly overlaps. This process of co-listening has been a feature of some of the participatory practice referred to here, notably on the soundwalks.⁵⁹ However, there remains an inherent contradiction in writing about sound, where words inevitably mask and distort the sounds they represent. There is also a necessary admission of guilt in fostering the illusion that listening can somehow be communicated accurately and impartially. It is, therefore, in a spirit of honest and open enquiry, and with these shortcomings acknowledged, that this commentary is presented.

In drawing upon insights from numerous direct experiences of positive silence, as this work does, there is a very real temptation to posit a grand, unifying theory that weaves together alternative interpretations. To do so would seem naïve. Silence, as has been alluded to above, has a richness and diversity that quickly exposes singular viewpoints and academic abstractions as absurd. An exploration of silence is, rather, best served by reflection upon the diverse insights of others, a determination to rebuff simplistic classifications and a courage to face enigmatic possibilities. It is, therefore, important to state at the outset that this exploration of silence stems from a specific research focus and necessarily constrained methodological approach. The ideas expounded here concerning silence, stand in a long line of writing on the topic. From the perspective of composers and music theorists such as Cage⁶⁰ Losseff⁶¹ and Takemitsu⁶², silence, both spiritual and sonic, provided inspiration, challenge, resolution and contradiction for their work, conscious of its paradoxical relationship with sound-making. In the sphere of sound studies Street's⁶³ recent study of silence draws upon the pregnant silences that emerge from the cessation of sound and awaits their re-establishment as waves of pressure and thought. Sound artist and writer Salomé Voegelin's 'Listening to Noise and Silence'⁶⁴, pulls me into the barely

⁵⁹ "soundwalks," accessed 14th April 2021, <https://www.anoisysilence.com/soundwalks>

⁶⁰ Cage, J., *Silence (50th Anniversary Edition)*, Wesleyan University Press, 2013

⁶¹ Losseff, N., *Chapter 12: Silent Music and the Eternal Silence*, in Losseff, N. and Doctor, J. (ed.), *Silence, Music, Silent Music*, Routledge, 2007, pp.205-222

⁶² Takemitsu, T., *Confronting Silence*, The Scarecrow Press, 1995

⁶³ Street, S., *The Sound inside the Silence: Travels in the Sonic Imagination*, Palgrave Macmillan, 2019

⁶⁴ Voegelin, S., *Listening to Noise and Silence: Towards a Philosophy of Sound Art*, Continuum International Publishing Group, 2010.

audible world of subjectivity, confusion and doubt, all the time sensing the thin veil that divides our internal and external sound worlds. Historical perspectives range from MacCulloch's⁶⁵ exploration of Judeo-Christian contemplative silences to Hendy's⁶⁶ history of silence that highlights its unequal distribution as a commodity and its role as a breeding ground for social distance, disconnection, mistrust and suspicion. While a vast literature from religious and spiritual practice can barely be touched upon, in this study, Hanh's 'Silence'⁶⁷ has been foundational in exploring the relationship between mindfulness and our felt sense of silence, whilst books from thinkers such as Main⁶⁸, Williams^{69 70} and Laird^{71 72} have provided a contemporary Christian understanding of contemplative silences. Accounts of time spent in silence underpin the writings of Kagge⁷³, Maitland⁷⁴ and Thoreau⁷⁵ drawing upon personal experience of silence and solitude to stand apart from society for a time, reflect and critique society's priorities and the place of silence in cultural life. While such an immense body of thinking around silence is impossible to survey, common themes do emerge, many of which are addressed in this body of work and commentary. From amongst these themes and with caveats acknowledged, this work presents both 'freedom' and 'distraction' as having a significant, if not primary, influence upon our experience of silence as positive. It also suggests that these basic facets of silence are often intuitively implied or are conspicuously absent from discourse on the topic. It is, therefore, my hope that the artworks and concepts contained in this submission can contribute to the multidisciplinary study of silence, bringing this interpretation to the fore and offering a distinctly sound-based standpoint from which to grapple with a subject that will ultimately elude simple explanation.

⁶⁵ MacCulloch, D., *Silence: A Christian History*, Penguin Books, 2013

⁶⁶ Hendy, D., *Noise: A Human History of Sound and Listening*, Profile Books, 2013.

⁶⁷ Hanh, T. N., *Silence: The Power of Quiet in a World Full of Noise*, Rider, 2015

⁶⁸ Main, J., *Door to Silence: An Anthology for Christian Meditation*, Medio Media, 2006

⁶⁹ Williams, R., *A Silent Action: Engagements with Thomas Merton*, Fons Vitae, 2011

⁷⁰ Williams, R., *Silence and Honey Cakes: The Wisdom of the Desert*, Medio Media, 2003

⁷¹ Laird, M., *A Sunlit Absence: Silence, Awareness and Contemplation*, Oxford University Press, 2011

⁷² Laird, M., *Into the Silent Land*, Darton, Longman and Todd, 2006

⁷³ Kagge, E., *Silence in the Age of Noise*, Penguin, 2018

⁷⁴ Maitland, S., *A Book of Silence*, Granta Publications, 2008

⁷⁵ Thoreau, H.D., *Walden; Life in the Woods*, Dover Publications, 1995

2.2 Art of the Mundane

“...experience is the fulfilment of an organism in its struggles and achievements in a world of things, it is art in germ. Even in its rudimentary forms, it contains the promise of that delightful perception which is aesthetic experience.”⁷⁶

Throughout the work runs an approach that honours everyday experience as worthy of attention. It is the mundane, everyday events and their associated sounds that are of interest. For the most part, this is simply because ordinariness is in abundance, offering repeated opportunities to experience meaning in listening, directly and intuitively. However, it is also a natural outworking of my initial listening and field recording practice that was situated within what might be regarded as unremarkable soundscapes (see “Lion Seats”⁷⁷ and “Sweep”⁷⁸ projects). Taking inspiration from these listenings and associated insights provided a rich seam of material to work with, further heightened by the recognition that the cultural and communal significance of commonplace sounds often go unnoticed. On this positive reappraisal of the mundane in everyday life, Thoreau writes:

“I had this advantage, at least, in my mode of life, over those who were obliged to look abroad for amusement, to society and the theatre, that my life itself was become my amusement and never ceased to be novel. It was a drama of many scenes and without an end. If we were always indeed getting our living, and regulating our lives according to the last and best mode we had learned, we should never be troubled with ennui. Follow your genius closely enough, and it will not fail to show you a fresh prospect every hour. Housework was a pleasant pastime.”⁷⁹

Mundane soundscapes and everyday spaces not only provided the inspiration for much of the work under discussion here, but were the milieu in which they were presented and explored. Siting work outside of galleries and traditional performance spaces, helped both to preserve the work amidst the everyday, and to engage with a diverse audience, particularly non-traditional audiences. It also presented the work outside of the exalted art museum, frequently associated

⁷⁶ Dewey, J., *Art as Experience*, Penguin Books, 1934, pp.19

⁷⁷ “Lion Seats,” accessed 14th April 2021, <https://www.anoisysilence.com/lionseats>

⁷⁸ “Sweep,” accessed 14th April 2021, <https://www.anoisysilence.com/sweep>

⁷⁹ Thoreau, H.D. *Walden; or Life in the Woods*, Dover Publications Inc., 1995, p.73

with the commodification of art, exclusive performances for the cultured and its more general separation from the ordinary. Where art was once seamlessly woven into the fabric of day-to-day life—in the home, community and ritual—much art today stands aloof, awkwardly divorced from the everyday. In response, the work in this portfolio was free to access and engage with, and was presented in openly accessible public places such as disused retail space, malls, high streets and a host of public quiet spaces. This inclusivity was something that was acknowledged by audience and participants, such as this feedback from the Small Silence³ installation:

“Inspiring exhibition on display, that invites all people to be a part of.”⁸⁰

The work was consciously influenced by an underlying aspiration to present mundane sounds and familiar soundscapes as artful, but to an audience who may be unfamiliar and unacquainted with sound art and its associated listening practices. The themes, format and content of the work reflect this intention. In sympathy with this approach, the participatory elements of the work, such as the soundwalks, schools’ workshops⁸¹ and street art performance⁸², drew heavily from community arts practice. Notable, in this regard, was the approach of John Stevens⁸³, with his characteristic emphasis on inclusivity, improvisation and process. The workshops were intentionally embedded within the fabric of everyday life and drew upon the soundscapes found there. The result was art that was largely happened upon, accessible, unthreatening, and situated amidst and between schedules of work, shopping, learning and leisure.

2.3 The Extended Mind Theory

Whilst the work situates itself within the fields of sound art and sound studies, its conceptual underpinnings are heavily indebted to studies from the fields of psychology (e.g. Long and Averill’s work on solitude⁸⁴, McAdam’s and McLean’s exposition of Narrative Identity⁸⁵), cognitive neuroscience (e.g. Williams’ and Kabat-Zinn’s development of secular mindfulness practice⁸⁶ and Penman’s practical application of mindfulness for creativity⁸⁷) and psychoacoustics (e.g. Bregman’s mammoth body of work on auditory scene analysis⁸⁸ and Schnupp and King’s studies in auditory neuroscience⁸⁹). Of notable import, has been the Extended Mind Theory: a

⁸⁰ Audience feedback from the ‘Small Silence’ art installation, accessed 15th April 2021, <https://www.anoisysilence.com/smallsilence3>

⁸¹ ‘primary,’ accessed 14th April 2021, <https://www.smallsilence.org/primary>

⁸² ‘Seasonal Slumberbus,’ accessed 14th April 2021, <https://www.anoisysilence.com/seasonalslumberbus>

⁸³ Stevens, J., *Search and Reflect: A Music Workshop Handbook*, Community Music Ltd. 1985.

⁸⁴ Long, C. and Averill, J., *Solitude: An exploration of the benefits of being alone*, Blackwell, 2003

⁸⁵ McAdams, D.P. and McLean, K.C., *Narrative Identity*, *Current Directions in Psychological Science*, 2013

⁸⁶ Williams, M.G. and Kabat-Zinn, J., *Mindfulness: Diverse Perspectives on its Meaning, Origins and Application*, Routledge, 2013

⁸⁷ Penman, D., *Mindfulness for Creativity*, Piatkus, 2015

⁸⁸ Bregman, A.S., *Auditory Scene Analysis: The Perceptual Organisation of Sound*, MIT Press, 1994

⁸⁹ Schnupp, Israel, N. & King, A., *Auditory Neuroscience: Making Sense of Sound*, MIT Press, 2012

concept within the field of philosophy of mind originally forwarded by Clark and Chalmers.⁹⁰ It is a theory that posits the active role of the environment in driving cognitive processes, understanding the mind as operating beyond the skull and skin. While not without its critics⁹¹, the theory relates strongly to the experience of silence explored in my initial phenomenological enquiry. As such, it underlies much of the work that followed, including this commentary, and is worth outlining.

Moving beyond traditional notions of the [substance] dualism of mind (soul) and body, as famously expounded by René Descartes⁹², empiricists and modern psychological theory⁹³ have increasingly embraced the integrally bound nature of mind and body, leading to ideas such as ‘embodied cognition’. Growing largely out of existentialist philosophy, embodied cognition views cognition, emotion and behaviour as a single system, with each element influencing the others through feedback loops. Much of the initial work on embodied cognition arose from the study of metaphor in language, highlighting ways in which our rationality deeply influences our bodies and that this is highlighted in metaphorical thinking. Silence, for example, is not simply an auditory phenomenon, but can be used as a visual metaphor. Conversations with artists throughout the duration of the project, suggested that silence had ocular qualities of simplicity, stillness and muted, complimentary colour palettes.



fig. 1

Visual Silence at Waterstone's Bookshop, Reading. Photograph by Peter Savage

⁹⁰ Menary, R. (ed.), *The Extended Mind*, MIT Press, 2010, pp.27

⁹¹ Levy, N., *Neuroethics: Challenges for the 21st Century*, Cambridge University Press, 2007, pp.44

⁹² Descartes, R. *Meditations on First Philosophy: With Selections from the Objections and Replies* (ed. Cottingham, J.), Cambridge University Press, 1996, pp.54

⁹³ Levy, N., *Neuroethics: Challenges for the 21st Century*, Cambridge University Press, 2007, pp.9

How do these qualities relate to an absence of sound or quiet? Perhaps, through an association of auditory silence with a lack of complexity, an absence of movement, and the complimentary colour palettes of quiet environments. Perhaps, there is a deeper connection with the positive silence of early life experiences, such as the muting of colours in darkness, and slowing or absence of movement at a child's bedtime. Whatever connections we make, 'silence' is intuitively understood as multisensory and an embodied quality, rather than an exclusively auditory phenomenon. Dworkin's *No Medium* explores this multisensory strand that threads together silent, erased and blank artworks, such as Rauschenberg's *White Paintings* with Cage's *Theatre Piece No. 1*.⁹⁴ As auditory silence can only ever be imagined as a theoretical construct, it is instead employed to describe sonic qualities and states of listening that share commonalities. Our embodied cognition of those qualities gives rise, not only to our use of silence as an auditory experience, but to silence as a broader concept within the mind-body's sense perception. While embodied cognition addresses that experience of silence within the mind-body and acknowledges its 'situatedness' in an environment, the extended mind theory broadens the boundary of mind to a wider system of feedback that includes the external environment.

In short, the extended mind theory recognises the many ways in which the mind-body 'outsources' comparable mental functions to structures, objects and technologies outside of itself. This expansion of the mind-body beyond the skin can be as simple as storing text on paper or mental pictures as photographs and as complex as the hive mind of the internet. A pertinent example is given by Michael Bull in his interviews with personal stereo users. A woman, Jade, explains how she cannot be without her Walkman, something to mask the emptiness of silence:

"It's almost as if the Walkman is part of my anatomy. As soon as it's off I notice the silence. I've actually been in panic situations when the batteries have run down. The silence is really noticeable. It gets you... The silence is really freaky for me. It's almost like a void if you like. (Jade: interview number 13)"⁹⁵

In *Sounding Out the City*, Bull gives numerous examples of individuals who manage their thoughts, emotions and social interactions using personal stereos. The panic expressed by Jade may be familiar to those who lose access to their mobile phones. Such devices become an

⁹⁴ Dworkin, C., *No Medium*, MIT Press, 2015, pp.118-119

⁹⁵ Bull, M., *Sounding out the City*, Berg, Oxford, 2000, p.67

extension of the users cognitive functioning, which becomes particularly evident when the phone is unavailable. In the above example, Jade is using the personal stereo as a coupled system where her choice of acoustic environment is regulating cognitive and emotional processes, and these processes are shaping her use of the personal stereo. It is an active, two-way coupling⁹⁶ where uncomfortable thoughts and feelings give rise to a need to play music which tempers the feelings of emptiness experienced by the listener. The important difference to music playing incidentally in the environment, is that she actively chooses personal stereo use as a tool in her emotional self-regulation. While the personal stereo being used has different properties than, say, the neuronal networks used in endophonia, both can work towards the same goal of managing cognitive and emotional states. As such, the extended mind theory views both as aspects of mind. Some may argue that the Walkman, unlike the mind-body, is not always accessible to its 'user'. However, one could equally argue that memories and other cognitive resources are also sometimes unavailable to the 'user.'⁹⁷ Including those features of the environment that support cognition⁹⁸ within our concept of 'mind' can seem counter-intuitive, but this should not prevent us from reflecting on the theory's merits and its ability to help us better present the dynamic interrelationship between mind-body and environment.

In relation to our present study of silence, we can see how the mind-body works with the environment through manipulation, organisation and choice to support its sense of tranquillity. Likewise, the environment can be used to create associations, prompts and memories which support the mind-body to access positive silence. One may, for example, organise one's room to avoid distracting sounds and sights. The individual, in creating such a space, is creating a capacity for silence which can be drawn upon when silence is sought. Similar feedback loops as those one would find in the more narrowly defined concept of embodied cognition can also be found in the extended mind. Our situatedness 'in the world' is further blurred with scientific advances that integrate technologies with our mind-bodies, such as prosthesis, augmented vision, direct brain-computer interfaces, exoskeletons and artificial intelligence. Ultimately, whether we call the coupled interactions between the mind-body and the environment, 'mind', is a debate for philosophers. Does the extended mind theory tell us more than we already know about the interaction of mind-bodies in their environment? Arguably not. Nevertheless, the theory constructs a useful framework through which one can explore the connections between our many experiences and understandings of silence. In including 'tools' external to us within our understanding of silence, we are making explicit the situatedness of listening. It underscores how

⁹⁶ Menary, R. (ed.), *The Extended Mind*, MIT Press, 2010, pp.2

⁹⁷ Menary, R. (ed.), *The Extended Mind*, MIT Press, 2010, pp.8

⁹⁸ Levy, N., *Neuroethics: Challenges for the 21st Century*, Cambridge University Press, 2007, pp.29

our listening influences society and how we are shaped by the society that has trained our listening and shapes the environments we listen in. Viewing the extended mind theory as an individually referenced, interrelated system allows us to talk of silence as both internal and external, endophonic, bodily sound and environmental sound. It can also incorporate silences outside of the sonic world through metaphor and links with embodied cognition.

2.4 Phenomenological Enquiry

“I speak the heart’s discourse because the heart is never far from what matters. Without the heart pumping its words, we are nothing but an outdated dictionary, untouched”⁹⁹

If we take the extended mind theory as the broad framework for exploring positive silence through arts practice in this study, any valid methodological approach must apprehend the “heart” of silence in its interwoven realms of experience, and externalise them in sounds, words and art’s multifarious forms. In the case of this research, the extended mind theory did not direct the methodological approach. Rather, it was the methodological approach of phenomenological enquiry employed in the initial stages of the research, that pointed to the suitability of the theory as a framework upon which experiences could be unpacked and hung. With a desire to convey something of the experience of listening to silence, phenomenological enquiry emerged as a fitting approach. Recording and transcribing listenings allowed me to capture the interplay of the mind as it extends into the body and environment, such as this excerpt from the ‘Sweep’ project:

“(Sound of emptying the dustpan into the compost bin)

The compost bin lid’s broken.

Phew, I’m done. Bit of a pain in my back after doing that.

Wash my hands I think.

(Sound of running water, depressing the hand-soap pump, squelching of lathering soap, rinsing hands under tap. It stops, exposing the whirr of the washing machine again).”¹⁰⁰

⁹⁹ Pelias, R. *A Methodology of the Heart: Evoking Academic and Daily Life*, AltaMira Press, 2004

¹⁰⁰ “sweep,” accessed 12-04-21, <https://www.anoisysilence.com/sweep>

In this way, the approach bypassed the reflective, theorising mind and allowed for a more direct record of listening¹⁰¹. This situated listening as immediately experienced¹⁰², from a “given point of view”, in a “particular sensory modality” and in “specific circumstances”¹⁰³ was central to the development of later creative enterprises.

Some would argue that the bias and subjectivity inherent in first-person accounts of listening, leaves the whole project mute, absent of empirical value and, therefore, with nothing substantive to offer. The primary criticisms levelled at phenomenological enquiry revolves around its lack of objectivity. Undoubtedly, in so far as listening is not studied as an ‘object’, it cannot be objective. The experience of listening is necessarily subjective and can never be such an ‘object’, thus rendering the epistemological foundations of the natural method powerless. An alternative reading of ‘objectivity’ might draw out the quality of excluding or curbing bias. In this alternative sense, many of the listenings transcribed can be viewed as objective, by ‘bracketing’ experience directly, and not drawing upon what Husserl calls the natural attitude, the reinterpretation of experience in the light of beliefs, judgments, theories and opinions¹⁰⁴. Nevertheless, an important admission and limitation of this research is the emphasis on the experience of the researcher, including reflections on listening. Given that the phenomenological method relies heavily upon intersubjective validity, such a constraint significantly narrows the scope of the research.¹⁰⁵ With this acknowledged, it is the hope of the researcher that the “restricted locus” of this preliminary body of work will help to inform future research, where its applicability can be more thoroughly explored and tested.¹⁰⁶

2.5 Practice-based Research

“The less we just stare at the thing called hammer, the more actively we use it, the more original our relation to it becomes and the more undisguisedly it is encountered as what it is, as a useful thing.”¹⁰⁷

¹⁰¹ Merleau-Ponty, M., *Phenomenology of Perception*, Routledge, 2014, pp.xxvii

¹⁰² Manen, M., *Practicing Phenomenological Writing*, University of Alberta, 1984, pp.37-38

¹⁰³ Brewer, B., *Perception and its objects*, Oxford Univeristy Press, 2011, pp.118

¹⁰⁴ Gallagher, S., *Phenomenology*, Palgrave Macmillan, 2012, pp.43

¹⁰⁵ Gallagher, S., *Phenomenology*, Palgrave Macmillan, 2012, pp.43

¹⁰⁶ Whitehead, A. N., *Process and Reality: Corrected Edition*, Free Press, 1978 (Gifford Lectures 1927-28)

¹⁰⁷ Heidegger, M., *Being and Time: A Translation of Sein und Zeit*, State University of New York Press, 1996

In fashioning artworks that explore positive silence's many facets, I had the opportunity to directly encounter silence as a "useful thing" to explore the workings of silence directly, in process and in situ. Knowledge of silence can, of course, derive from second-hand accounts, memories and generalities. We can interrogate silence from the outward appearance of things. Yet, as Heidegger reminds us, we conceptualise only after we comprehend things through "handling" them.¹⁰⁸ Practice-based research has the advantage of working directly in and with silence, unearthing tacit, experiential knowledge, discovering the 'handiness' of a thing in its practical application.¹⁰⁹ Such a direct form of knowing has the potential to delve into the depths, vagaries and intricacies of human experience in a way that observation and memory alone cannot. As Barrett notes, this peculiar potential of practice-based research, allows the researcher to explore "new ways of modelling and externalizing such knowledge"¹¹⁰ through artistic experimentation and creation. Material thinking holds the possibility of surprising the artist, uncovering tacit knowledge through the magic of working in and with a medium.¹¹¹ The created works provide opportunities for novel interactions between artist and audience or participants, reflexively informing future endeavours, moving and being moved by the lived-experience of others. Practice-based research provides a flexibility that enables the direction of the investigation to change, incorporate new insights as they are unearthed and explore unforeseen creative opportunities. This includes the freedom to explore, gather and incorporate insights from other disciplines, affording the artist-researcher a scope that is simultaneously overwhelming and fascinatingly wide-ranging.

What results from this methodological approach is a heterogeneous and broad-ranging body of practice and extensive commentary that values breadth and the forging of connections, over drilling-down into detail and specificity. This does, of course, necessitate a compromise, one that limits the research's depth. Nevertheless, the practice-based research approach followed here, afforded me the opportunity to explore territory quite freely, unencumbered by methodological strictures and artificially imposed disciplinary boundaries. This, I believe, can be viewed as the work's strength. However, it is also a natural reflection of the way I work and create, combining insights and practise from a diverse range of disciplines, and indulging my passion for engaging with unfamiliar and intriguing areas of research that originate from outside of my subject specialism.

In tandem with this multi- or interdisciplinary approach, is a wish to embrace styles of writing that reflect the thinking and style appropriate to that of each discipline. At points the

¹⁰⁸ Barrett, E., *Introduction*, in Barrett, Estelle and Bolt, *Practice as research: approaches to creative arts enquiry*, I.B.Taurus & Co Ltd., 2010, pp.30

¹⁰⁹ Heidegger, M., *Being and Time: A Translation of Sein und Zeit*, State University of New York Press, 1996, pp.67

¹¹⁰ Barrett, E., *Introduction*, in Barrett, E. and Bolt, B., *Practice as research: approaches to creative arts enquiry*, I.B.Taurus & Co Ltd., 2010, pp.2

¹¹¹ Bolt, B., *The Magic is in Handling*, in Barrett, E. and Bolt, B., *Practice as research: approaches to creative arts enquiry*, I.B.Taurus & Co Ltd., 2010, pp.31

subjects being explored in the commentary elicit a more prosaic style of writing, particularly when reflecting on the works and personal experience. At other points, such as the exploration of psychoacoustics, the work and style of writing embrace a more reductionist approach, drawing from empirical, experimental evidence. What transpires, throughout this commentary, is a patchwork of ideas and writing styles that are stitched or woven together, cohering around auditory experiences of positive silence.

3. Silence as Threshold and Masking

Having briefly surveyed some of the practical, philosophical and methodological questions that provide the context for this body of research, we now turn to some of the experiences of positive silence explored within the portfolio works. In this chapter, each variety of silence contemplates positive silence as existing as an audible part of the soundscape, each having its own peculiar, if overlapping, characteristic. The varieties of positive silence under consideration include; silence as a threshold level, silence as a blanket of sound masking distractions, and silence as contingent upon the sensitivities and idiosyncrasies of the listener. These varieties of positive silence are not presented here as an exhaustive classification, but have been foregrounded by practice and reflection as being particularly noteworthy. Let us begin by exploring, perhaps the most common connotation of silence, as being sound resting beneath a threshold level.

3.1 Silence as Threshold

If one rejects the silence of no-sound, but wishes to maintain a connection with sound level, one is left to determine a threshold for silence. In the absence of mechanical waves that can stimulate the ear-drum, the sounds of living tissue surface. Here, silence is not “the absence of sound, but the beginning of listening.”¹¹² In the silence of an anechoic chamber or floatation tank, vibrations instigated by forces outside of the body are quelled, leaving pulse, fluid, flicker and bubble. This is the realm of doubt and disorientation. Sounds quickly lose their directionality, appearing at the ears without a clear trace of their origins. The following is an excerpt from time spent in a floatation tank, explored in the ‘Lion Seats’ series of listenings:

“For long periods of time over the next thirty minutes, my awareness of sound fell away completely. I was left resting, floating in the darkness of the tank, with no sensory stimulation for reference, spare the occasional brush of my skin on the side of the tank. Yet even this sensation was so subtle that I could not tell whether I was merely imagining it.”¹¹³

‘Inner’ and ‘outer’ can lose their meaning, the silence leaving one floundering to localise oneself in space. A sound’s sonic ancestry may be elusive, blurred by unfamiliarity or similitude -

¹¹² Voegelin, S., *Listening to Noise and Silence: Towards a Philosophy of Sound Art*, Continuum, 2010, pp.83

¹¹³ “Lion Seats,” accessed 3rd March 2020, <http://www.sound-diaries.co.uk/category/recent-projects/lion-seats/>

uncertainly presenting itself as an analogy of a more recognisable event. Listening to the small movements of the body in silence can be fascinating, telling, reassuring or soothing in their rhythms. But, in habituating to soundscapes that mask subtle bodily sounds, their unveiling can bring feelings of unfamiliarity and doubt. Given this unsettling or distracting experience of silence as an absence of sound, one can perhaps look for positive silence in a threshold above that of our hearing.

Masking the body's sounding by augmenting the soundscape with small, intimate movements as one might hear on ASMR (Autonomous Sensory Meridian Response) videos¹¹⁴ may provide a refuge from the unfamiliar absence of external sound. These videos typically reframe the mundane at a safe and controllable distance, through binaural microphones and high-definition images, offering the respite of familiarity, safety and homeliness. Full of delicacy and detail, they present the barely-heard handling of combs, paper, nail varnish or the ceremonial 'unboxing' of products, offering an escape to positive silence, lulled by the whispers and hushed tones of presenters. Whether this provides a tingling from scalp-to-spine or simply respite from intrusive sound and unsolicited distraction, ASMR video-streaming provides millions with a wellbeing of soft-fascination in the mundane. Such subtle sounds piped through headphones and earbuds, may mask the uncomfortable absence, imposition or distraction of sound, whilst disclosing sought-after associations of care, tenderness and intimacy. But their capacity for relief is equally to be found in their ability to mask 'negative silence' with its loneliness, anxiety and unhelpful patterns of thinking.

Many #smallsilence¹¹⁵ (moments of stillness shared by the public on social media platforms) spoke of these intimate subtle sounds, but also those at great distance. Customary images of foregrounded people and midgrounded structures, gave way to idyllic vistas, details of leaves, expanses of water, macro-lensed bees and pebbles, paths vanishing into points and all hues of sky. Images resonated with nature's sounds, manicured or unkempt, intimately featured or delightfully remote. They were sounds at the limits of scale. At a distance, these sound-images, smudged with reflections, provided as much a temporal as spatial perspective on positive silence. Their perpetual presence and their bloodlines of sonic heritage seem to faithfully transmit through the lens of the contributor's mind. There emerges from the images a romantic longing, an unending reverence reminiscent of Romantic works of poetry:

¹¹⁴ "ASMR Playlist for Sleep" accessed 30th June 2020, <https://www.youtube.com/watch?v=V1Li4WVNp-U&list=PLf6khqWfoEkuiHn25uYdS7Th0ZEEnFHL6U>

¹¹⁵ "#smallsilence" accessed 30th June 2020, <https://www.smallsilence.org/quietinspaceonline>

“Break forth into thanksgiving,
Ye banded instruments of wind and chords;
Unite, to magnify the Ever-living,
Your inarticulate notes with the voice of words!”¹¹⁶

Similarly, as Wordsworth devoutly removes himself and others from the sacredness of the soundscape, contributions from participants were conspicuously absent of human form. When they were present, their outlines were miniaturised and obscured, lost amidst the dimensions being framed. Distancing is a theme that will be returned to, but within the bounds of our present focus of positive experiences of silence; subtle, distant soundings can provide that reassuring presence of life that protects and affords an intimate space for reflection without isolation.

This is, of course, also romanticism and privilege. Personal preference and context undermine any attempt to generalise about such small sounds in this realm. The gentle rustle of bushes in woods during the daytime can take on a quite different affective quality when visibility is limited. Ticking clocks, the low hum of air conditioning, the distant roar of rubber on asphalt and the whining of electronics can be a source of pleasure, indifference or loathing. As with sounds at other thresholds, they are run-through with subjectivity and largely blind to affect. Yet at this threshold, we can become so attached to the need for a silence in which to think or hear clearly, it becomes a burden for ourselves or others. The desire for quiet, if fetishized or revered too highly, can so quickly become a source of disquiet, anguish and contention. In such circumstances the sanctity of the experience becomes stifling, excluding, even dangerous. Environments for listening can become as ritually pure and protected as the modern recording studio with its audiophile technology, isolation and treatment. When freely chosen, such devout silence can be uplifting. When forced upon the listener, positive silence evaporates, leaving the vacuum to be filled by resentment, annoyance, fear and distrust. Sounds can weigh heavy in such environments, particularly the sounds of thoughts. These are not conditions under which a positive silence can be cultivated. A threshold masking the distractions of the body may be an asset when one is free to select it, but without this freedom we are at the mercy of our environment, our hearing body, our associations and our affective responses.

To set a threshold for silence yet further above the level of the body’s ‘noise-floor,’ is to become more deeply embroiled in issues of context and subjectivity. Searching out public and private quiet spaces was a natural starting point when beginning research into experiences of

¹¹⁶ “‘On the Power of Sound’ by William Wordsworth (1770-1850)” accessed 6th March 2020, <https://www.bartleby.com/236/65.html>

silence and formed the Lion Seats series of writings and recordings.¹¹⁷ Thresholds for designated urban ‘quiet spaces’ fluctuate around 45dB SPL to 55dB SPL¹¹⁸ often with some caveats embedded to encompass the contingency of circumstance. The need for strategies, directives and ‘big data’ makes such thresholds largely blind to specificity, locale, change and the diversity of sonic experience. The best-fit paradigm governing such large data-sets, whilst being continually refined, necessarily truncates experienced reality into numbers and favours quiet spaces represented by the colour green on urban planner’s maps. Bottom-up approaches employing crowd-sourced data mitigate some of these problems, while presenting their own methodological issues of coverage or participation, accuracy of measurements and the interpretation of qualitative data supplied by non-specialists.¹¹⁹ Curious to observe the link between sound level and quiet space, I ventured out armed with both a professional sound level meter and mobile phone operating the HushCity quiet-mapping app. Spaces visited included parks, riverside paths, urban enclaves, faith buildings, libraries, galleries and museums. Unsurprisingly perhaps, spaces identified by the public as ‘quiet’ had, on average, lower sound levels than surrounding spaces. There were exceptions of weirs, busy churches and small secluded spaces by thoroughfares. However, for most spaces there was a noticeable transition into quiet as one entered. Yet the level of quiet did not appear to be related to popularity of the space. Exterior locations such as public parks, allotments and tow-paths were on average the loudest quiet spaces yet appeared to be the most favoured and frequented. Conversely, less popular, interior public quiet spaces had lower sound levels, notably those in faith buildings. Factors other than sound level seemed to be at play, factors that will be explored later in the commentary.

¹¹⁷ “*Lion Seats*,” accessed 3rd March 2020, <http://www.sound-diaries.co.uk/category/recent-projects/lion-seats/>

¹¹⁸ European Environment Agency, *Good practice guide on quiet areas – EEA Technical Report*, EEA, 2014, pp.10

¹¹⁹ Radicchi, A., “*Everyday Quiet Areas*”: *What They Are and How They Can Be Integrated in Noise Action Plans*, Inter-Noise 2018: Impact of Noise Control Engineering, 2018.

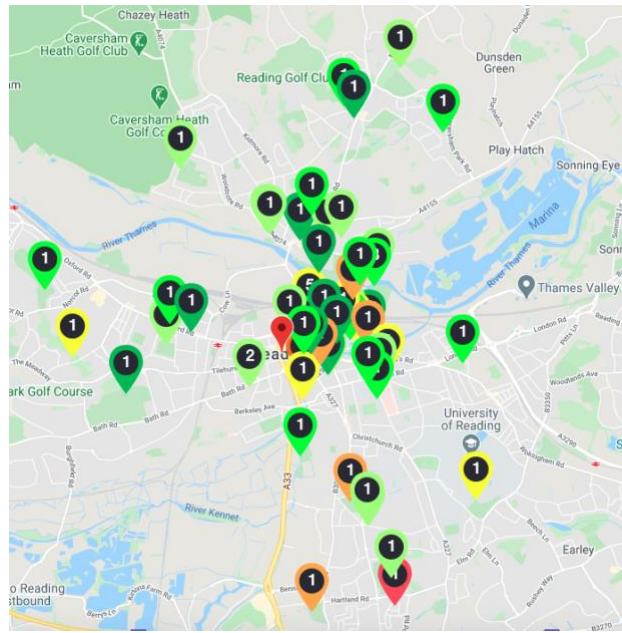


fig. 2

Mapping Reading's quiet spaces with HushCity app

As with more general measures of acoustic comfort¹²⁰, silence demarcated by a threshold level is plagued by relativity and subjectivity. The relative quiet of a library's group study space may be a source of annoyance for someone wanting to read in silence. An urban public garden may be a welcome refuge for a city-dweller, yet seem overpoweringly noisy for someone from quieter parts. The level of quiet one becomes accustomed to, the level of sound experienced prior to entering a quiet space and the expectation of quiet in a space all impact upon our perception of 'quietness'. And then, as if setting a threshold was not ambiguous and arbitrary enough, we are forced to consider the question 'whose threshold'?

3.2 Whose Threshold?

Neurodiversity, a term first coined in 1998 and revised by Judy Singer in 2019 is viewed as a subset of 'biodiversity' and describes "the limitless variability of human cognition and the uniqueness of each human mind."¹²¹ Deriving from this, an auditory-specific term auraldiversity was coined by Drever to describe the "variety of (often less than ideal) hearing that we experience throughout a normal day and throughout our lives."¹²² Neurodiversity and auraldiversity are terms with close ties to what has traditionally been labelled 'disability studies'.

¹²⁰ Hall, D., et. al., *An exploratory evaluation of perceptual, psychoacoustic and acoustical properties of urban soundscapes*, Applied Acoustics 74, 2013, 248–254

¹²¹ "What is Neurodiversity" Accessed 5th March 2020, <https://neurodiversity2.blogspot.com/p/what.html>

¹²² Drever, J.L., *The Case for Auraldiversity in Acoustic Regulations and Practice- The Hand Dryer Noise Story*, 24th International Congress on Sound and Vibration, 2017

However, in challenging the assumption of ‘normal’ or ‘typical’ audition, auraldiversity dispenses with the term ‘disability’ incorporating it into the auralinclusive ‘diversity’ of the whole population. In the context of our present discussion, the experience of silence as a threshold of sound is complicated further by auraldiversity. For many with autism and Asperger syndrome, aural hypersensitivity (hyperacusis) hyposensitivity (hypoacusis) to sound, together with the auditory ‘white noise’ of actual or perceived self-stimulated sound can create difficulties operating in environments designed for auraltypical hearing.¹²³ Not only does sensitivity to sound differ between individuals, but varies for an individual over time, be that day-to-day or over a lifetime. It was interesting to find that the soundscapes diffused through the surround sound speakers set up in the Small Silence³ installation offered differing degrees of relief to one visitor who suffered from tinnitus:

"I suffer from tinnitus and finds different sounds relaxing on different days." ¹²⁴

The comment and ensuing discussion, pointed to the need for effective masking that responded to the individual’s hearing in a dynamic way, from day to day. Similarly, it was made apparent from listenings undertaken throughout the Lion Seats study of quiet spaces, that perception of silence can be influenced by the dulling of audition through an ear infection, temporary tinnitus from exposure to loud sounds or hypersensitivity from transitions into much louder environments. Investigating the soundscape of an Intensive Care Unit, I was deaf to a very high-pitched whining produced by monitoring equipment, detecting something was wrong only when noticing a younger student wincing in discomfort.¹²⁵ The insights of the auraldiverse community extend to the realm of silence. If we are to strive for aural inclusivity, the question ‘whose silence?’ requires one to answer ‘everyone’s silence’. Increased awareness of auraldiversity has already led to practical outworkings such as quiet shopping times and spaces¹²⁶, inclusive acoustic design¹²⁷ and the provision of virtual worlds in which to think, act and communicate.¹²⁸ Opportunities to experience positive silence must necessarily embrace a variety of affordances that support differing perceptions of silence going beyond the vagaries of collective or individual thresholds, measured in decibels, phons or frequency. This begins by listening attentively to the needs of the individual. Then, drawing on the insights of extended mind theory, positive silence

¹²³ Bogdashina, O., *Sensory Perceptual Issues in Autism and Asperger Syndrome*, Jessica Kingsley Publishers, 2016

¹²⁴ Audience feedback from the ‘Small Silence 3’ art installation, <https://www.anoisysilence.com/smallsilence3>, (accessed 15th April 2021)

¹²⁵ “ICU Slow Media” accessed 30th June 2020, <https://www.anoisysilence.com/icuslowmedia>

¹²⁶ “Shopping can be hell for autistic people, ‘Quiet’ store hours will change my life” by Zack Budryk” accessed 30th June 2020, <https://www.theguardian.com/commentisfree/2016/apr/29/shopping-hell-autistic-people-quiet-store-hours>

¹²⁷ Centre for Autism Research, *Autism-Friendly Design Ideas*, The Children’s Hospital of Philadelphia Research Institute, 2014

¹²⁸ Lee, T., *Bridging Two Worlds: Co-designing social spaces for autism from a neurodiversity perspective by exporting affordances of virtual worlds to physical spaces*, OCAD University, 2018.

as freedom from distraction can be supported through addressing personal and environmental approaches concomitantly.

3.3 Masking

“Amplified through headphones, the weir’s size and force was magnified, low frequencies rumbling more threateningly than when heard by the naked ear. From above the roar, amplification brought-out the doppler-drone of aircraft circling for Heathrow, sirens of emergency vehicles, horns of diesel locomotives on the Great Western mainline and construction noise from yet more glass-clad office buildings for which Reading is famous. Taking off the headphones to start the meditation timer, I noticed how the weir masked all but the loudest peaks of these interruptions, leaving me feeling cocooned on the shore of this small river island.”¹²⁹

Although a threshold for silence evades us, perhaps it is because we are considering the wrong threshold? Might we seek out or generate silence through concealing unwanted elements in our soundscape with the constancy of more pleasant masking sounds? Creating the stable void of imagined or conceptual silence, could perhaps be achieved through obscuring or covering the sounds of body and environment. Like fountains in urban streets,¹³⁰ shaped noise-masking in offices¹³¹, musak in retail stores or podcasts on headphones, the weir in the example above masked the sounds of combustion, signals and construction, those elements within the soundscape deemed to be less pleasant. This experience of being cocooned in silence, played into the composition of the soundscape for a piece of interactive street art, I entitled ‘Seasonal Slumberbus’. The piece, commissioned as part of a series of ‘Magical Christmas’ events, tempted passing shoppers into the back of a gypsy caravan-style ‘Slumberbus’ to recline on cushions amidst an array of bohemian bibilots and seasonal sonic fayre.¹³²

¹²⁹ “*Lion Seats*,” accessed 5th March 2020, <http://www.sound-diaries.co.uk/category/recent-projects/lion-seats/>

¹³⁰ Watts, G.R. et al, *Measurement and Subjective Assessment of Water Generated Sounds*, Acta Acustica united with Acustica, Vol.95, 2009

¹³¹ Renz, T., Leistner, P. and Liebl, A., *Auditory distraction by speech: Sound masking with speech-shaped stationary noise outperforms -5 dB per octave shaped noise*, The Journal of the Acoustical Society of America Vol. 143, 2018

¹³² “Seasonal Slumberbus,” accessed 5th March 2020, <https://whatsonreading.com/venues/reading-uk/whats-on/seasonal-slumberbus>



fig. 3

The Seasonal Slumberbus, Reading, December 2019

The soundscape was composed as layers of continuously shifting drones and evocative field recordings, strewn with distant, half-remembered tunes. The interior, closed off from the busy pedestrianised street outside, complemented the soundscape, providing a nest-like den. Intentional masking of the urban soundscape was realised through encasing the visitor in sound, employing hidden speakers and two interactive music boxes. Evoking nostalgia, seasonal associations and collective memory, the music drew upon the phenomenon of mental construal and psychological distancing¹³³, enticing the visitor to reminisce and reflect. Contrasting the experience of shopping, work or leisure activities, alongside sounds associated with familiar seasonal traditions, the piece explored the disjuncture or integration of one's present experience of Yuletide activities with memories of these distal objects and events. Key to this, was creating an illusion of solitude through masking. Conversations with visitors suggested that they did indeed feel cocooned from the world outside, with many feeling they had enjoyed some sense of stillness and relaxation. However, in creating conditions that support positive silence, the isolation generated by masking had made some visitors uneasy. Hearing has been called “the sentinel of the senses”¹³⁴, warning us of threats in the environment and guiding our sight for visual confirmation. The inability to determine what was happening in the environment beyond the ‘Slumberbus’ made some unable to fully relax. The listening by the weir anticipated this:

“...whilst I felt shielded from distraction by the weir’s gentle onslaught, there lingered a slight unease at being unable to hear passing visitors. Interesting and eye-catching

¹³³ Theories of Mental Construal and Psychological Distancing are considered in more detail later in the work.

¹³⁴ Miller, D., *Effects of noise on people*, The Journal of the Acoustical Society of America Vol. 56, 1974

microphone set-ups can deter people from disturbing a recordist's seclusion, particularly when they are adorned with headphones. However, my position with a view across the weir also meant there was the chance that someone would notice me from the footpath crossing it and would wish to have their curiosity satisfied. Certainly, the roar of the weir would give me little time to collect myself and prepare an account of my presence in the event of someone approaching. Such distracting thoughts were hard to shake.”¹³⁵

Without confidence in our safety and security, positive silence eludes us. Sound can effectively mask distractions in the environment, but not distracting thoughts. If positive silence is characterised by freedom, the experience of silence in masking must afford freedom from distractions such as anxiety, as well as freedom to attend to one's chosen activity, a topic considered more extensively later in this writing. A further difficulty with masking is the sound level required to mask those elements of the soundscape that would distract. This throws-up two complications. Firstly, that one has to define what sounds are distracting. Secondly, that the masking sound has to be at a level, frequency and duration to be effective, but that is not in itself uncomfortable or annoying. Given our various personal dispositions towards any given sound and what has already been said about aural diversity, we are left to speculate as to the listener's possible response. Perhaps most crucially, the use of masking within sound-works highlights the problem of what to mask distracting sounds with. In many sound-based artworks, an affectively positive response from the listener is not sought and, as such, offers the creative space for the artist to compose freely. If an environment that supports positive silence is sought, the composer is forced to employ materials, devices, compositional strategies and production values that support that intention, as one might in sound for film and television. This leads to 'best-fit' assumptions surrounding the 'typical listener', context of listening and the conditioning of the audience. While tastes and affective responses to music and sound will vary enormously, more uniform responses to soundscapes perceived as 'pleasant' or 'positive' may offer some hope for the composer, a topic considered in the following section.

3.4 Silence as Threshold and Masking: Conclusions

“I can't hear myself think” is a common phrase, which not only highlights our perception of 'spoken thoughts' as heard, but of soundscapes so distracting that we are unable to focus our attention on a chosen task. It points us towards silence, not because the soundscape is deemed too loud, but because it is deemed too distracting. The phrase encapsulates the frustration at

¹³⁵ “*Lion Seats*,” accessed 5th March 2020, <http://www.sound-diaries.co.uk/category/recent-projects/lion-seats/>

being constrained by distraction. It is sound imposing itself upon us, impeding our capacity to think clearly and act freely. Our notion of what threshold sound level constitutes 'silence' for us, is contingent, relative and subjective. Thresholds, it seems, can tell us little about what sounds can support positive silence. Labelling 'quiet space' or 'silence' with sound pressure levels, no doubt, assists with big data projects. However, this could all too easily end up limiting and confusing the study of quiet and silence, while focusing attention on the misguided measurements.

4. Silence as a Quality of Sound

If silence is not purely a sensory but “perceptual phenomenon, including silence within the continuum of the field of sound”¹³⁶, and it cannot be described by a threshold level, perhaps silence is something perceived within the play of frequencies, amplitudes and modulations of sound. The following discussion explores the possibility that silence is a quality of sound. The arts practice and surrounding conversations highlighted three qualities of the soundscape that lent themselves to perceiving it as silent: silence as a natural soundscape, silence as simplicity within the soundscape, and silence as being relative to the sounds bracketing it. Let us address each in turn.

4.1 Silence as a Natural Soundscape

In questioning participants at workshops, during soundwalks and in discussions about the soundscapes that best support positive silence, the reply ‘sounds of nature’ became almost a given. Descriptions of serene natural settings, tinged with nostalgia, abounded; scenes set by the coast, rivers and waterfalls, in parks, mountains and moorlands, in rains, storms and on windswept hills. Underlying many of these replies seemed to lie an innate appreciation of our connection with the natural world and a feeling that such settings had therapeutic qualities. In his reflections on simple living in the woodlands surrounding Walden Pond, Henry David Thoreau wrote:

“There can be no very black melancholy to him who lives in the midst of Nature and has his senses still.”¹³⁷

Over the past forty years this conviction in the ‘tonic of wilderness’¹³⁸, has found an empirical foundation in ‘Attention Restoration Theory’, the ‘Biophilia Hypothesis’ and numerous related health studies on everything from the influence of environmental conditions to attendant physiological and psychological states.¹³⁹ More specifically, sound studies research has attempted to better understand our propensity to be drawn towards nature’s soundscapes. This has included sounds of nature aiding recovery from stressors in healthcare settings¹⁴⁰, positively

¹³⁶ Bull, M. (ed.) *The Routledge Companion to Sound Studies*, Routledge, 2019.

¹³⁷ Thoreau, H.D. *Walden; or Life in the Woods*, Dover Publications Inc, 1995, pp.85

¹³⁸ Toop, D., *Ocean of Sound: Aether Talk, Ambient Sound and Imaginary Worlds*, Serpent’s Tail, 1995, pp. 246

¹³⁹ Kuo, M., *How might contact with nature promote human health? Promising mechanisms and a possible central pathway*, *Frontiers in Psychology* Vol. 6, 2015

¹⁴⁰ Alvarsson, J.J., Wiens, S. and Nilsson, M.E., *Stress Recovery during Exposure to Nature Sound and Environmental Noise*, *International Journal of Environmental Research and Public Health*, 2010

impacting student's ability to study¹⁴¹ as well as offering restorative health benefits when compared to urban soundscapes¹⁴². Radicchi's quiet space mapping project has identified the sounds of birds, wind, nature, and water as four of the top five positive contributors to a 'sense of quietness'.¹⁴³ Some studies highlight the limitations and conditions under which the ability of 'nature sounds' can be restorative.¹⁴⁴ However, on balance, evidence-based studies appear to broadly support the opinion that natural sounds contribute to an environment's restorative qualities, even for those that live in cities.¹⁴⁵ It is no surprise, then, that in the face of increasing urbanisation, public green spaces, water features or retreats into virtual soundscapes such as those provided in app-form by RainRain¹⁴⁶ and Zensong¹⁴⁷ reassure the urban dweller that the biophilic connection can be maintained.

Explanations for this human affinity with natural soundscapes are diverse, although seldom contradictory. Some have proposed that an appreciation of nature may be linked to the environments and conditions under which humans evolved.¹⁴⁸ An example offered by Treasure is the "ceaseless diurnal vigilance of birds" whose song supports feelings of safety from threat, but also that their presence is company and connection, providing a "sense of coherence" that promotes positive mental health.¹⁴⁹ Associating the sounds of moving water¹⁵⁰ with restful, tranquil states of mind has been the subject of research, which concluded that it was not only the masking quality of water that is of importance, but the qualities of the sound itself.¹⁵¹ Nevertheless, what binds most of the studies, is the necessary qualification that preference for natural soundscapes is dependent upon personal inclinations and a host of context-specific factors. For example, Payne et al's study, employing virtual reality, suggests that "attitudes towards sound sources may affect noise annoyance."¹⁵² Another study by Herzog and Rector found that anxiety over one's personal safety negated the restorative quality of natural soundscapes.¹⁵³ This was evident in listenings undertaken as part of the Lion Seats series.¹⁵⁴ Rustling in nearby undergrowth, the presence of strangers nearby or the inability to hear them

¹⁴¹ Cox, A.L. et. al., *Using nature-based soundscapes to support task performance and mood*, ACM Publishing

¹⁴² Krzywicka, P. and Byrka, K., *Restorative Qualities of and Preference for Natural and Urban Soundscapes*. *Frontiers in Psychology* Vol. 8, 2017

¹⁴³ Radicchi, A. et. al., *Citizens as smart, active sensors for a quiet and just city. The case of the "open source soundscapes" approach to identify, assess and plan "everyday quiet areas" in cities*, *Noise Mapp* Vol. 4, 2017, pp.104-123

¹⁴⁴ Payne, S.R., Nordh, H. and Hassan, R., *Are urban park soundscapes restorative or annoying*, *EuroNoise*, 2015

¹⁴⁵ van den Berg, E., Hartig, T. and Staats, H., *Preference for Nature in Urbanized Societies: Stress, Restoration, and the Pursuit of Sustainability*, *Journal of Social Issues*, Vol. 63, 2007, pp. 79--96

¹⁴⁶ "Rain Rain Sleep Sounds," accessed 6th March 2020, <https://www.rainrainapp.com/>

¹⁴⁷ "Zensong," accessed 6th March 2020, <https://apps.apple.com/us/app/zensong-nature-melodies-sleep-sounds-free/id955664489>

¹⁴⁸ Orians, G. H., & Heerwagen, J. H., *Evolved responses to landscapes*, in J. H. Barkow, L. Cosmides, & J. Tooby (eds.), *The adapted mind: Evolutionary psychology and the generation of culture*, Oxford University Press, 1992, pp. 555–579

¹⁴⁹ Treasure, J., *Sound Business*, Management Books 2000 Ltd., Gloucestershire, 2007 p.89

¹⁵⁰ Tranquility ratings were particularly high for less utilitarian water flows (i.e. not drains, weirs, culverts etc.), characterized by variable water flow and less low-frequency content.

¹⁵¹ Watts, G., Pheasant, R., Horoshenkov, K. and Ragonesi, L., *Measurement and Subjective Assessment of Water Generated Sounds*, *Acustica* Vol. 95, 2009.

¹⁵² Payne, S., et al. *Are urban park soundscapes restorative or annoying?* *Euro Noise*, 2015

¹⁵³ Herzog, T. R. and Rector, A. E., *Perceived Danger and Judged Likelihood of Restoration*, *Peer Reviewed Articles*. Vol. 23, 2009

¹⁵⁴ "Lion Seats," accessed 5th March 2020, <http://www.sound-diaries.co.uk/category/recent-projects/lion-seats/>

because of masking, fostered a distracted and uneasy state of mind. Unsurprisingly, the level of familiarity with the soundscape both negatively or positively influenced perceptions of safety, as did the audible presence of others, both topics that will be addressed in more detail later.

Changing weather conditions and the accompanying shifts in the soundscape, could create a sense of unfamiliarity, uncertainty and unease. Yet again, in our search for soundscapes that support positive silence, as Long and Averill qualify in their work on positive solitude, we find that “almost any environment can be conducive...depending on the needs, expectations, and self-perceived capabilities of the person at that moment.”¹⁵⁵ Associations of positive silence with nature seem to hold for most, so long as other factors such as security, comfort and familiarity allow one to engage freely with one’s chosen activity.

Whilst providing restorative green spaces for populations without easy access to nature’s soundscapes may be a worthwhile endeavour, attempts to generalise about individual and collective responses quickly becomes ensnared in problems of preference, context and specificity. In this regard, what is particularly interesting about Thoreau’s observation above, is not that his mental wellbeing was solely dependent upon dwelling in the “midst of Nature”, but that he was required to have his “senses still”. What Thoreau means by a ‘stilling of the senses’, is unclear. To have one’s senses still, could relate to an absence of motion, or stimulus in the environment characteristic of a quiet or simple soundscape. However, the etymological origins of the word ‘still’ (adj.) not only denote being ‘motionless’, but extend in later Old English to mean ‘silent’¹⁵⁶, as in the “still small voice” of God¹⁵⁷, divine silence as activity. This appears to be in congruence with the more intuitive reading of Thoreau’s ‘stilling of the senses’, as a particular orientation of the individual towards the experience of nature. If antonyms of ‘stillness’ are ‘movement’, ‘agitation’ and ‘disturbance’, its translation into the language of sense perception may suggest states of mind that pull our attention in many directions, creating disruption, frustrating our intentions and, thus, restricting our freedom. Conversely, ‘stilling the senses’ could be linked to states of being that sustain attention or allow the mind to wander freely, supporting our intentions and fostering freedom. Given this interpretation, ‘stilling the senses’ would relate closely to freedom from distraction. If correct, Thoreau’s experiences point to the benefit of natural soundscapes in supporting a listener’s intentions, their stillness and their freedom from distraction.

The sounds of water, wind and waves can be a tonic, a tool available to the extended mind in supporting wellbeing. Nevertheless, the complexity, fluidity and unpredictability of mind

¹⁵⁵ Long, C. and Averill, J., *Solitude: An exploration of the benefits of being alone*, Blackwell, 2003 pp.31

¹⁵⁶ “Still” accessed 19th March 2020, <https://www.etymonline.com/search?q=still>

¹⁵⁷ I Kings 19:11-13, *Holy Bible, New Revised Standard Version with Apocrypha*, Oxford University Press, 1989

and soundscape can render such tools useless and ensures that oversimplifications will quickly leave us feeling foolish. Access to natural soundscapes have the potential to support positive silences. Initiatives to improve access to green spaces offer visitors an opportunity to rest and restore. However, without acceptance of the vagaries of mind and soundscape and insightful self-awareness, even these spaces can become prisons of distraction and unease.

4.2 Silence as Simplicity

In conversation, notions of ‘silence’ not only fuse seamlessly with ‘stillness’ but also ‘simplicity’. In the attention economy, simplicity could be described as a freedom from unnecessary or intrusive distraction. Converted to a more familiar currency, simplicity can be viewed as a commodity¹⁵⁸ sold in the form of noise cancelling headphones and meditation apps, quieter homes and residential areas, time ‘off-grid’ and silent retreats, visits to gardens, spas and floatation tanks. As a commodity of the attention economy, simplicity simultaneously protests the excesses of consumerism and endorses them. Such simplicity also favours those with the time and means to purchase it. The compelling contradictions of such a system keep most societies a safe distance from true simplicity - a sufficiency freely chosen, even if we could understand what sufficiency sounds like in real terms. As such, the heresy of true simplicity is only whispered in private. Research and initiatives to improve our soundscapes naturally work within this arrangement, where realistic solutions to noise pollution and access to quiet space need to accept these incongruities. Before we can address any of these issues, we need to better understand what simplicity might sound like, and how it may be able to support positive silence.

A good starting point is perhaps research into soundscape perception. Axelsson, Nilsson and Berglund’s¹⁵⁹ designation of a ‘calm’ soundscape is one that is both ‘pleasant’ and ‘uneventful’. A ‘calm’ soundscape seems intuitively akin to one that supports positive silence. ‘Pleasant’ affirms the positive valence of ‘positive silence’ while the word ‘uneventful’ seems to relate closely to the notion of sonic simplicity. A soundscape that is uneventful could be pleasantly calming and tranquil or unpleasantly monotonous and dull. In the context of our discussion here, one must ask whether a ‘calm’ soundscape is a quality of sound or depends upon the context in which it is heard, or both? Let us take an example from the Lion Seats series of listenings.

The gentle rumble of the washing machine, the intensifying roll-boil of the kettle, the toaster pinging, the TV chattering in the background can be a very calming soundscape, so

¹⁵⁸ Biguenet, J., *Silence*, Bloomsbury, 2015

¹⁵⁹ Axelsson, O., et.al., *A principal components model of soundscape perception*, Acoustical Society of America Vol. 10, 2010, pp. 2836–2846

pleasantly uneventful as to become sonic wallpaper. As a care-giver with responsibility for others in the house, such a soundscape can take on a very different affective quality. A transcript of a morning meditation¹⁶⁰ at home highlights the importance of context:

“Toaster’s pinged. Hope she’s not putting a knife in there to get the toast out.’
[Knife in jar and hitting against plate]
‘Breathing in, breathing out (x11)’
‘I should really make their packed lunches.’”

The ‘ping’ of the toaster, in other situations, may be viewed as part of an uneventful soundscape. Yet within a context where care-giving requires one to maintain vigilance, the same soundscape can cause distraction and set in motion thought patterns that further pull one away from any sense of ‘pleasantness’. Unsurprisingly, we quickly come to the conclusion that the affective quality of the soundscape is tied to the context in which it is heard. Research carried out without context is not without merit, but can only deal with vague generalities removed from in-situ associations and the interplay of other senses. What unites both context and quality is to what degree the soundscape supports the chosen activity of the individual. Whether meditating, studying, solving a problem or letting your mind wander, a pleasant and uneventful soundscape seems most likely to support positive silence. This is not because those sonic qualities are inherently beneficial to our wellbeing, but because it is often these qualities that protect us from distraction. By its very nature, distraction can only occur when our attention is drawn away from the task at hand. We can actively choose to attend to a distraction, but then we are not being drawn away from our chosen task.

Yet, we are still left to ponder what a simple or uneventful soundscape might sound like. It is, after all, another form of threshold, a threshold of activity. Such a threshold is rendered meaningless when one considers that labelling a soundscape simple or uneventful is a relative judgment based upon comparisons and transitions between soundscapes. For example, a walk in the quiet of the country can precede a visit to a country church where there is a choir practicing, a vicar quietly attending to ritual preparations and a church member arranging flowers. If the visitor was expecting to find the church quiet and empty, the soundscape could be experienced as unpleasantly eventful. However, the very same soundscape happened upon after a walk through a busy town centre and with an expectation or desire to be connected with others could be viewed as a pleasantly peaceful and uneventful one. The transition from one soundscape to

¹⁶⁰ “*Morning Meditation*” accessed 11th March 2020, <http://www.sound-diaries.co.uk/2018/02/morning-meditation/>

the next renders the experience relative to what has preceded it. How the change is perceived will also be contingent upon the idiosyncrasies of the individual and their expectations as a listener. What remains consistent in both experiences, however, is whether the soundscape has the potential to support the visitors chosen activity. Simplicity or ‘pleasant uneventfulness’ is not, in any meaningful sense, a quality of soundscape, but is contingent upon context. Once again, we arrive at the need to identify what it is that distracts the listener from their chosen activity in that given context. While this is still conditional upon the interplay of the individual situated within a given context, distraction may provide a more accurate indication of soundscapes that support positive silence and indeed any chosen activity.

4.3 Silence as Relational

“Isn’t it true that qualities of silence are as determined
– and here I speak phenomenologically –
by how they are arrived at?”¹⁶¹

Making transitions into soundscapes that might support positive silence do not have to go unmanaged. The environment, ambiance and personal management of the experience can contribute to support movement into and out of silence. A tangible example can be found in the design of buildings, as described here by Rose in his rather polemical book *Ugly as Sin* criticising much modern church architecture whilst extolling the virtues of traditional Roman Catholic designs:

“When our pilgrim finally steps through the church doors, he has arrived. It’s here in the narthex¹⁶², the threshold of God’s house, that he will pause to get his bearings, knock the snow from his boots, remove his hat, or close his umbrella. But this is no mere foyer, mudroom, or lobby; it’s primarily the final transitional space from the outside world (the profane and temporal) to the church’s interior (the sacred and eternal). It’s here where our pilgrim will first smell lingering incense and the burning wax of vigil candles. It’s here where he’ll be given a hint of where he’s headed....”¹⁶³

¹⁶¹ Hogg, B. *Geographies of Silence* in Bull, M. (ed.), *Routledge Companion to Sound Studies*, Routledge 2019, pp.169

¹⁶² The **narthex** is an architectural element typical of early Christian and Byzantine basilicas and churches consisting of the entrance or lobby area, located at the west end of the nave, opposite the church's main altar.

¹⁶³ Rose, M. S., *Ugly as Sin*, Sophia Institute Press, 2001, pp.50

As Rose draws our attention to in this scenario, effective quiet spaces such as those in churches, public gardens, libraries or temples, do appear to intuitively support transition into and out of silence. These transitional spaces, be they reception areas, staggered quiet zones, porches or secluded paths into gardens, graduate the experience of entering and withdrawing from silence. The soundscape of these spaces naturally combined the sounds and silence that permeate from inside and out, buffering and blending, reflecting and regulating the soundscape for visitors. These were sometimes augmented by the sounds of water, psithurism or birdsong, distant ritual, hushed voices or the small sounds of pages turning, conveying intuitively what signage with polite requests for silence could not. Of particular note were the movements of quiet's custodians; gardeners, priests, monastics and librarians. The unhurried walks, the respectfully quiet tones, the attentive care of objects and the slow rituals of a space, spoke with a quiet, unassuming force that could not be matched. Modelling, or more effectively still, embodying silence is a profound source of support for those wishing to enjoy positive silence, but seems so frequently overlooked.

Considerations surrounding modelling and transitioning into silence directly fed into the Small Silence³ installation. Greeting passers-by in the busy thoroughfare of the mall required a sensitivity to their current state of being. To be comfortable with the silence of the space, there was typically a need to manage the transition from busy focused activity to a more contemplative and reflective quiet. Embodying quiet for visitors was key and was realised through gradually deescalating initially hurried interactions, whilst slowing movements to match the quiet soundscapes presented. The movement of visitors from the bright, reverberant retail space into the darkened and acoustically deadened cube was facilitated by a porch-like side-entrance. With a low threshold over the exterior and interior doorways, the visitor naturally bowed their head slowly and reverently on entering and exiting the cube and was welcomed into the darkness by softly lit light bulbs melting into the walls.



fig. 4

beyond twilight, Mark Langley, July 2019

In the dim light, the gradual adjustment to night-vision encouraged visitors to move slowly and prudently, manoeuvring themselves vigilantly into the soft bucket-style seat provided. The porch entrance provided a graduating impediment to light and sound, leaving the visitor resting amidst a deadened acoustic that contrasted with the lively reflections outside. Once inside, the transition from the busy mall to the quiet and intimate heart of the installation was complete and the listener was left to listen, unaccompanied, without interruption or pressure to move-on.

The soundscapes of transitional spaces provide a significant source of support to visitors of quiet spaces. However, reflecting upon the many quiet spaces visited over the course of the research, effective transitional spaces were few and far between. This was primarily because positive silence was very rarely the primary focus of the spaces. With the exception of a handful of churches, libraries and Buddhist centres, silence was only a small part of the overall offering. Churches, temples and mosques were primarily used as spaces for meetings, devotional activity, education and social outreach projects. Galleries offered small silences between conversations and school visits. Green spaces typically hosted leisure and recreational activities or acted as favoured through-routes to places beyond. Given this absence of dedicated spaces for positive silence, managing such transitions for ourselves and others becomes vital, something that a decade of facilitating meditation and mindfulness gatherings has highlighted. Simple sonic additions such as the sound of a bell can mark and support this transition:

“Good to get in the zone at the beginning with the meditation bell.”¹⁶⁴

In formal meditation practice, one of the most difficult transitions typically occurs at the end of a session, moving from what is usually a calm and undistracting soundscape into a comparatively frantic and distracting one. This is heightened considerably on retreats, which are often held in quiet, rural locations and involve long periods of sitting and moving in silence. In some of the soundwalks undertaken as part of the Small Silence project, strategies for managing such transitions were incorporated into the plan of activities. These included; gradually broadening awareness of sound from the individual to the wider soundscape; taking time to make the transition; increasing awareness of one’s heightened sensitivity to sound; noticing how the transition influenced feelings and mood; and perhaps making others aware that you are making such a transition. In forwarding these strategies, there is a need to balance management of the activity and environment with simply accepting the inescapability of the transition. Creating a desire to dwell longer in stillness can quickly lead to resentment of the noise and bustle of most people’s daily reality. There is often limited scope for managing the environment and the activities that proceed periods of silence. The most effective strategies, therefore, appear to be those that balance the development of emotional awareness with an acceptance of the inevitability of the transition.

4.4 Silence as a Quality of Sound: Conclusions

When talking in generalities, the sounds of the natural world and the simple soundscapes of calm uneventfulness appear to be experienced as silent, stilling or quietening. Yet, as the portfolio work has illustrated, context is key and the experience of silence as positive must be viewed as a relational quality that accounts for the soundscapes that bracket silence. As we have seen of thresholds, it is the soundscape’s ability to support the intentions of the visitor and avoid being a distraction from this that appears to have the closest relationship with our interpretation of silence as positive. Let us then, move to look further beyond the physical properties of the soundscape to the orientation of the mind-body towards sound.

¹⁶⁴ “Soundwalks,” accessed 15th April 2021, <https://www.anoisysilence.com/soundwalks>

5. Attending to Silence

5.1 Silence as a Framing of the Soundscape



fig.5

Recording silence at Convocation House, Oxford, December 2019

“Perched on a creaking wooden bench under the stone-vaulted ceiling of Convocation House in Oxford, I sit expectantly. Microphones straddle a Jecklin disk prepared to listen, record lights flash in anticipation of a short silence bracketed by the unstable tuning of strings and the eruption of applause. The shock of Cage’s 4’33” has long since subsided and the audience now wait expectantly to hear what sounds the stillness will uncover. As the silence begins, some of the audience appear to be meditating, gaze lowered or eyes closed, resting on the intimate sounds of feet shuffling, clothes rustling, recurrent coughs and sniffs and the faint voices of passers-by outside the windows. Others, eyes-shifting slowly around the hall, seem to be probing the sounds unearthed with archaeological inquisitiveness. Come the end, I am left uncertain as to whether the audience’s smiles are born of an appreciation for silence, the comic irony of a silent score or a relief that the emptiness has ended and the ‘real music’ can begin.”¹⁶⁵

¹⁶⁵ “*Silence Hub*” accessed 6th February 2020, <https://www.torch.ox.ac.uk/silence-hub>

The concert, hosted by the Silence Hub - an interdisciplinary mix of scholars with an interest in silence - began with a meditation offered by Professor Kuyken, intended to anchor the audience in meta-awareness¹⁶⁶. This seemed a fitting fusion as both Cage¹⁶⁷ and the Mindfulness movement¹⁶⁸ drew inspiration from Buddhist meditation practice. Like those mindfulness practitioners that employ sound as an ‘object’ of awareness, Cage’s listening was attuned to the incidental sounds that did not speak to him as music but “just as sounds”.¹⁶⁹ 4’33” translated this into score, framing silence for the concert goer and opening-up new aesthetic possibilities for those artists that would follow.¹⁷⁰ As such, 4’33” is a musical silence. Whether bracketed by live musical performances or other tracks on a playlist, it is presented within a time stricture, to expectant listeners, prepared to attend to the sounds present in adherence with musical conventions. There are, of course, many forms and functions of silence in music; communicating an ending, illuminating audiation, creating boundary or transition or simply providing an interruption. As R Murray Schafer writes¹⁷¹ “silence is the most potentialized feature of music” the silence reverberates with sound just passed and “continues until another sound dislodges it, or it is lost from memory”. The difference with 4’33”, was that instead of making musical sound the point of reference, it extended the more familiar pauses that punctuate music, so that the bed of silence underlying the music was exposed. As the sounds of instrument tuning, rustling of scores and settling-in, decay and fade from memory, the silence becomes its own point of reference. In this way, as with the work of other contemporary sound artists¹⁷², Cage’s desire was to ‘potentialise’ the silence, to allow musical memory to fade and to refocus our attention in a way that would “turn up the volume” on silence “in order to hear it better”.¹⁷³

The Small Silence³ sound installation ‘turned up the volume’ of silence in a very literal sense.¹⁷⁴ It consisted of two acoustically contrasting environments in which to amplify the silences of quiet spaces, one in an acoustically dead cube and the other in the empty and more reverberant retail space. The sounds of voluminous churches and homely shrine rooms, roaring weirs and delicate natural soundscapes enveloped the listener. Both private and public quiet spaces were presented in quadrophonic surround. Pairs of recordings embodying the interior and exterior of each space were presented simultaneously inside and outside of the cube. Passers-by were invited to sit, listen and become absorbed in the peculiar ordinariness of the recordings. In

¹⁶⁶ Derived from meta-cognition, ‘meta-awareness’ is our capacity to know, directly, intuitively, our experience as it arises in each moment.

¹⁶⁷ Larson, K., *Where the heart beats: John Cage, Zen Buddhism and the Inner Life of Artists*, Penguin, 2012 pp.XV

¹⁶⁸ Williams, J. Mark G. and Kabat-Zinn, J., *Mindfulness: Diverse Perspectives on its Meaning, Origins and Applications*, Routledge, 2013.

¹⁶⁹ “Cage about Silence,” accessed 8th January 2020, <https://www.youtube.com/watch?v=pCHnL7aS64Y>

¹⁷⁰ Voegelin, S., *Listening to Noise and Silence*, Continuum, 2010 pp.80

¹⁷¹ Schafer, R.M., *Ear Cleaning: Notes for an Experimental Music Course*, Clark and Cruikshank, 1967, pp.7

¹⁷² Whitty, P., *Football not Happening*, accessed 30th June 2020 <http://www.sound-diaries.co.uk/category/lockdown-projects/football-not-happening/>

¹⁷³ Kelman, A.Y., *Rethinking the soundscape: A critical genealogy of a key term in sound studies*, Senses and Society, Vol. 5, Issue 2, 2010, pp.229

¹⁷⁴ “Small Silence,” accessed 30th June 2020, <https://www.noisysilence.com/smallsilence3>

this way, the presentation of mundane silences as worthy of attention can be likened to Cage's 4'33". Recordings framed the silence, foregrounding it for the audience. The ambient sounds of shoppers, piped music and the roar of traffic outside could, of course, be viewed as interference.¹⁷⁵ However, in a spirit of acceptance, these sounds were invited in to participate as a background to the recordings. The piece was a meditation on noisy silences, the sounds presented being the only guide. Some visitors chose to interrogate the sounds and unearth their origins. Others settled into the familiar and allowed the soundscapes to wash over them with a freely wandering attention. A few meditated, focusing their attention on the sounds as they shifted, morphed and switched spaces. In all, it was clear from visitors' comments that most had found the experience engaging and restful.¹⁷⁶ Entombed in sound, visitors were largely sheltered from auditory distraction. Accompanying this silence was a visual stillness, particularly inside the darkened cube where the only focus was artist Mark Langley's piece *beyond twilight*, consisting of numerous lightbulbs melting into the walls.

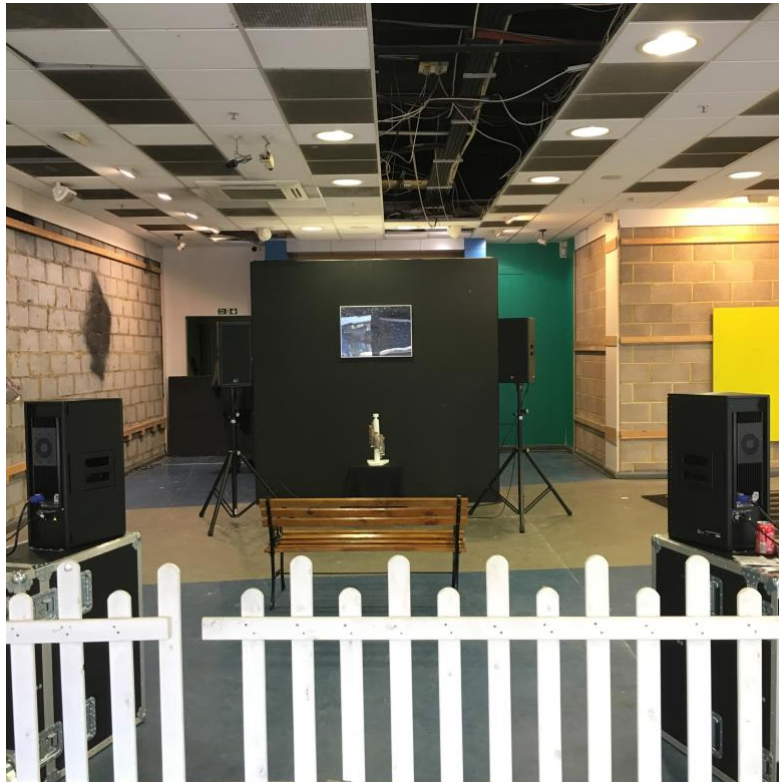


fig. 6

Small Silence³ installation, Broad Street Mall, Reading, July 2019

¹⁷⁵ Westerkamp, H., in *Sites of Sound: Of Architecture & the Ear*, LaBelle, B. and Roden, S. (eds.) Errant Bodies Press, 1999, pp.22-23

¹⁷⁶ "Small Silence³," accessed 2nd July 2020, <https://www.anoisysilence.com/smallsilence3>

While there was no instruction to listen in any specific way, removing people from their day-to-day routines and tasks, presenting the mundane as artful and clearing the space of unnecessary stimuli appeared to promote the stabilizing of attention and slowing down of perception commonly associated with mindfulness practices.¹⁷⁷ Akin to the expectations in a concert hall, the entrenched social norms adhered to by visitors provided the structure within which they were free to engage with the work, largely on their own terms. Instead of directing attention, as one might in a guided meditation or listening exercise, these customs and expectations seemed to promote an uncommon intentionality to listening. For many, this appeared to ground them in a present-centred experience, undermining the minds' habitual disposition to attend to distractions, memories and thoughts.¹⁷⁸ For some, changing the content of the mind seemed to provide a relief from overstimulation and unhelpful discursive thought.¹⁷⁹ Indeed, one gentleman suffering from anxiety and depression disclosed that he visited the installation daily for just these reasons. For other visitors, the soundscapes presented, provided a puzzle to be solved; 'what is that sound?' and 'where was that recorded?'¹⁸⁰

Discussions with visitors to the installation suggested two dominant approaches to listening. The first was the careful examination and analysis of sounds to unearth clues as to their origin, 'causal listening' as Chion would categorise it.¹⁸¹ Listening in this way can be linked to the 'doing mode' of convergent thinking, employing existing knowledge and strategies to extract certainty from doubt¹⁸². Presenting soundscapes amidst Mark Langley's thoughtful and sometimes puzzling, conceptual artworks, may well have encouraged this form of listening. The second approach was one of reduced listening, a 'being mode' of more divergent thinking, where the sounds were less interrogated, than experienced independently of their cause or meaning. While both styles of thinking can be enhanced by mindfulness practice, being present to the soundscape without judgement and cross-examination has more in common with this divergent mode¹⁸³. In developing sound practices that foster mindful attention, it became clear that the context in which the sounds are presented and the way participants are introduced to the piece, guides listeners to predominantly engage with one or the other mode of listening. This conclusion was reinforced during the soundwalks¹⁸⁴, where some participants would have a strong desire to identify, categorise and explain what they were hearing, while others preferred to

¹⁷⁷ Feldman, C. and Kuyken, W., *Mindfulness: Ancient Wisdom Meets Modern Psychology*, The Guildford Press, 2019 pp.37

¹⁷⁸ Rappaport, L., *Mindfulness and the Arts Therapies*, Jessica Kingsley, 2014, pp.117

¹⁷⁹ Teasdale, J. D. and Chaskalson (Kulananda), M. *How Does Mindfulness Transform Suffering? II: The Transformation of Dukkha*, in Williams, M.G. and Kabat-Zinn, J., *Mindfulness: Diverse Perspectives on its Meaning, Origins and Application*, Routledge, 2013

¹⁸⁰ "Small Silence," accessed 2nd July 2020, <https://www.anoisysilence.com/smallsilence3>

¹⁸¹ Chion, M., *The Three Listening Modes*, in Sterne, J. (ed.), *Sound Studies Reader*, Routledge, 2012

¹⁸² Penman, D., *Mindfulness for Creativity*, Piatkius, 2015, pp.16

¹⁸³ Penman, D., *Mindfulness for Creativity*, Piatkius, 2015, pp.18

¹⁸⁴ "Soundwalks" accessed 30th June 2020, <https://www.anoisysilence.com/soundwalks>

be absorbed in the moment of listening, allowing their imaginations to wander or rest in the total experience of the senses. The activities undertaken, the modelling of behaviour by the walk leader, and the structure of the walks fostered particular approaches to listening beyond the instruction of guided listening exercises.



fig. 7

Wellbeing Soundwalk at Earth Living Festival, Reading, May 2019

Temporally constraining and framing silence within a concert programme or spatially constraining it within a sound installation provides an opportunity to “turn up the volume” and confront visitors with silence as sound attended to. It is believed that short musical pauses fashioned from the gaps between voices and instruments induce relaxation more readily than the ‘sound’ generated by them.¹⁸⁵ In extending these silences and turning them up, as Cage did, the affective quality of the experience appears to vary far more from person to person. As highlighted by audience members present at the Silence Hub concert and Small Silence³ installation, some settle into the silence, others interrogate it. Without guiding auditory attention, the experience of framing silence affords the listener a freedom to respond naturally or habitually. As a creative act, without directing listening in an intentional way, simply framing silence appeared to focus some listeners’ attention on the soundscape, while for others create a

¹⁸⁵ Bernardi, L. et al., *Cardiovascular, cerebrovascular, and respiratory changes induced by different types of music in musicians and non-musicians: the importance of silence*, Heart Journal, 2005, pp.451

mirror to reflect one's own thinking. Other forms of sound-based practices offer more curated and directed approaches to silence.

5.2 Silence as an Exploration of the Listener's Reality

Drawing inspiration from listenings undertaken as part of the Lion Seats series for Sound Diaries¹⁸⁶, and the notated listening scores of David Dunn¹⁸⁷, a 'mindful listening score' was developed that provided an opportunity for listeners to cultivate a shifting singular focus and meta-cognitive awareness. The piece took the rehearsed, virtuosic listening of Dunn's scores and made impromptu sight-reading untroublesome for a range of non-specialist participants. It encouraged listeners to direct their attention, not only to the soundscape, but to the body (specifically the breath) and the mental 'chatter' of the mind. In moving between inner and outer sound worlds, the listener was offered the opportunity to probe the connections or disparities between the two spheres and explore their own responses to sound. Mediating these two connected worlds was the breath, a stable and reliably available point of reference. In following the breath, participants were encouraged to become centred and present. In this way, the score drew upon the traditional meditative practices of concentration and experiential enquiry, together fostering a mindful awareness intended to support calmness and clarity.¹⁸⁸

¹⁸⁶ "Lion Seats," accessed 27th February 2020, <http://www.sound-diaries.co.uk/lion-seats/>

¹⁸⁷ Dunn, D., *Purposeful Listening In Complex States of Time*, 1997-1998

¹⁸⁸ Batchelor, M., *Meditation and Mindfulness*, in Williams, M.G. and Kabat-Zinn, J., *Mindfulness: Diverse Perspectives on its Meaning, Origins and Application*, Routledge, 2013, pp.164

Score for listening

Below is a score for listening to the soundscape within and around you.

Familiarise yourself with the different symbols in the key.
Then use the five exercises below to explore your sound world:

Key

- = Omni-directional listening (listening in all directions) to distant sounds
- = Omni-directional listening to sounds close-by
- = Listening to your breath
- = Listening to the sound of your thoughts
- = Arrows show directional listening (up arrow denotes listening to sounds in front of you, down arrow denotes sounds behind you)

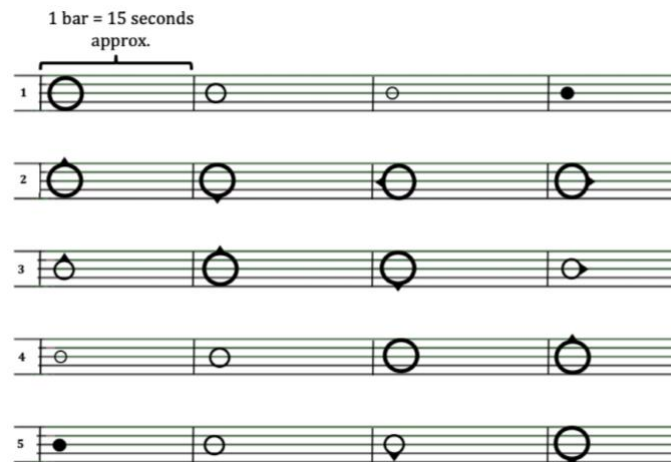


fig. 8

Mindful Listening Score, May 2019

When following the directions of the score, participants were encouraged to become observers, distanced somewhat from the observed. As Toop recognises, in paying attention to sound in silence, we have an increased awareness of details, complexity and structure.¹⁸⁹ This certainly appeared to ring true. Although challenging for a score lasting just five minutes, the exercise explored the act of listening to ourselves in an environment and noticing our affective responses to sound. So often, environmental sound and discursive thinking work on us unconsciously. One can be unaware of their power and influence, until sound breaks through into consciousness through its distracting sonic qualities, salience or cumulative affective pressure. In stepping away from the habitual process of labelling and discarding sounds, we are presented with an opportunity to become aware, not only of their complexity, fleetingness and ambiguity, but also their relationship with thinking and their affective interplay.

¹⁸⁹ “David Toop on Making Sound,” accessed 27th February 2020, <https://www.youtube.com/watch?v=-nYdsNqHo1g>

In practice, some of those that engaged with the exercise throughout the project appreciated the prompt to direct their listening. Others used it more loosely; sometimes choosing to be guided, sometimes following what ‘caught their ear’ or simply choosing to lose themselves in listening. Others found the focus of intentional listening frustrating, stifling or difficult to maintain. Yet all of these responses, approached in a spirit of detached enquiry and acceptance, afford the development of insight into our relationship with sound and silence. Observing our listening and relationship with sound in a more detached way, can better equip us to distinguish between sound and affect. As cognitive therapists Teasdale and Chaskalson state; “If we can let go of our tendency to identify personally with experience, then we remove a basic condition for the arising of the configurations that support *dukkha* [suffering].”¹⁹⁰ In navigating the listener through inner and outer soundscapes, fostering meta-awareness, the listening score ‘chips away’ at the wrong perceptions we have of ourselves in the world. Over time, such practices have the potential to align our experience with the realities of transience and interdependence that pervade our lives. While these may appear lofty goals, conversations during the Small Silence project suggest that even short periods of practice with the score can stimulate detachment and reflection on our relationship with sound. Additionally, it became clear that practices embedded within arts activities were, for many, more appealing than traditional meditation and mindfulness practices they had experienced.

5.3 Silence as Focusing and Resting Awareness upon a Sound

Prompting listening and directing the focus of auditory attention is a practice with a distinguished history in the field of sound studies. The art of the ‘text score’ has abounded in recent years, to the point where a twitter feed¹⁹¹ (now website¹⁹²) provides ‘a text score a day’. The skill of the text score has typically been to challenge the reader to make adventures in their own listening. This personal and explorative approach to listening has been instigated with many wide-ranging objectives, from providing opportunities for in-situ composition¹⁹³, exploring the relationship of our sound-making and space, cultivating endophonia, engaging with koan-like paradoxes¹⁹⁴ or nurturing meditative ‘Deep Listening’.¹⁹⁵ Less common are approaches that aspire to sustain single-focused attention. Such approaches push against habits of distraction, mind wandering and intellectual enquiry. As a result, they can feel less natural, harder work and

¹⁹⁰ *How Does Mindfulness Transform Suffering? II: The Transformation of Dukkha*. Teasdale, J. D. and Chaskalson (Kulananda), M. in Williams, M.G. and Kabat-Zinn, J., *Mindfulness: Diverse Perspectives on its Meaning, Origins and Application*, Routledge, 2013 p.104

¹⁹¹ “Text Score a Day,” accessed 27th February 2020, <https://twitter.com/textscoreaday>

¹⁹² “Text Score a Day,” accessed 27th February 2020, <http://aces.ricercata.org/textscoreaday/>

¹⁹³ Riley-French, J.R., *Scores for Listening*, Self-published, 2017

¹⁹⁴ Garrelfs, I., *Scores for Listening Workshop*, 11th October 2017 <https://pointsoflistening.wordpress.com/2017/09/11/pol-37-scores-for-listening/>

¹⁹⁵ Oliveros, P., *Deep Listening: A Composer's Sound Practice*, Deep Listening Publications, 2005.

invariably require greater self-discipline. Yet, the cultivation of stable, unified attention allows us to slow down perception, appreciate the richness of our experience and observe perceptual processes at work rather than being caught by them.¹⁹⁶ As a meditative practice, such an “undistracted singleness of mind” or *Samadhi*, has the capacity to evoke “very pleasant states of tranquillity and happiness, as well as deepening mindfulness and liberating insights.”¹⁹⁷

In 2019, the work ‘Sweep’ was commissioned by the Sound Diaries project. It offered me an opportunity to investigate the sounds of a simple domestic activity, with an eye to cultivating this single-focused attention, combined with an attitude of care.¹⁹⁸ Developing the capacity to rest one’s attention on an activity, reuniting thinking and acting, is a skill that has many benefits for the practitioner¹⁹⁹, not least in wrestling-back our freedom to select what we attend to. While the arts practice that ensued from the project took many forms, the most lasting has been a sound-based *gatha* (a short poem read and committed to memory) that acts as a reminder to rest one’s attention on the activity at hand:

“This sweeping sound
removes separation.
Lifetimes of forgetfulness,
recalled in an instant.”

Rather than generating an exploratory approach to listening, as is the case with many text scores, the *gatha* narrows the focus of attention to the brush swishing, creaking, knocking on the skirting boards and reverberating around the room. Its purpose is not to probe the soundscape, to be used as a prompt for thinking or to encourage imaginative listening, but to ground listening in what is being heard at any given moment. Such an aim could be viewed as unnaturally restrictive. Yet, while there can be an uncommon effort required to sustain single-pointed concentration, there is a relief and pleasure in sweeping this way, as one may find in becoming engaged and attentive whilst playing a musical instrument. Cultivated correctly, this attentiveness can embody care for the work at hand which is fed-back to the listener through the sounding. Paying attention appeared to result in an audible slowing and softening of the sweeping sounds. With practice, the restrictions of attentive listening became a freedom from a distracted and dissipated state of being. The care and attention with which one sweeps the floor, tended to reverberate into subsequent activity and beyond. The single-focus of attention was an attempt to revive the

¹⁹⁶ Feldman, C. and Kuyken, W., *Mindfulness: Ancient Wisdom Meets Modern Psychology*, The Guildford Press, 2019, pp.37

¹⁹⁷ Shankman, R., *The Experience of Samadhi: An IN-Depth Exploration of Buddhist Meditation*, Shambhala Publications, 2008, pp.4

¹⁹⁸ “Sweep,” accessed 30th June 2020, <https://www.anoisysilence.com/sweep>

¹⁹⁹ Feldman, C. and Kuyken, W., *Mindfulness: Ancient Wisdom Meets Modern Psychology*, The Guildford Press, 2019, pp.18

simple act of sweeping by subverting habitual patterns of behaviour. Habits, such as sweeping briskly to move on to the following task, may have been passed down through generations, imitated from others quite subconsciously or were perhaps simply a by-product of modern living, with its commitments, clocks and schedules. Wherever these habits originate, they can quickly pull one away from enjoying the activity, or at least experiencing it fully. Read before commencing sweeping, the *gatha* was a reminder to be present, a tool of the extended mind, which over the weeks became burnt into memory. Similarly, the sound of the brush knocking violently on a door frame acted as an *aide memoire*, a cue to return the mind from wherever it had ventured and care for the task at hand. The audibility of the sweeping throughout the activity afforded a consistency of focus and linked directly with the movements of the body. The sounds of sweeping made an auditory focus appropriate, where it may not be in other activities. Silence was experienced as an absence of distracting thoughts and was supported by conditions such as solitude, a freedom from responsibility for others and an absence of distracting sounds. This singular focus on sweeping bore-out the advice of experienced meditators to practice somewhere quiet, somewhere you will not be disturbed.²⁰⁰

Some dismiss what may seem an intuitive assumption that cultivating silence is best carried out in an environment where distractions are minimised. As will be highlighted in our later study of auditory distraction, one can easily overplay the strength of focused attention to ignore auditory distractions in the soundscape. While studies such as Shao-Yang et al's suggests that training in meditatively focused concentration diminishes our likelihood of being distracted by our own thoughts and auditory stimuli²⁰¹, we are hard-wired to respond to some exogenic auditory cues. It is, therefore, important to consider the soundscape of environments where the cultivation of interior silence or freedom from distraction is sought. If a positive silence is to be nurtured, this establishment of supportive soundscapes needs to be accompanied by skilful approaches to distraction, that promote acceptance, non-judgmental thinking and meta-cognition. In developing therapeutic sound-based practices, flexibility is key. Attending and responding skilfully to the soundscape allows the practitioner to practice in harmony with the prevailing conditions. Single-focused concentration could be practiced in less distracting soundscapes, while more investigative listening practices may be appropriate amidst distracting soundscapes. As has been highlighted thus far, an important facet of silence is freedom from distraction, but the flexibility to accept and embrace distraction is equally important if the listener is to maintain a sense of equanimity. It is essential to recognise both the importance of

²⁰⁰ Gunaratana, B., *Meditation on Perception*, Wisdom Publications, 2012, pp.5

²⁰¹ Tsai, Shao-Yang et.al., *Meditation Effects on the Control of Involuntary Contingent Reorienting Revealed With Electroencephalographic and Behavioral Evidence*, *Frontiers in Integrative Neuroscience*.12, 2018

soundscapes in supporting the cultivation of silence, and the flexibility of the listener to adapt to the prevailing circumstances. Acknowledging the integral connection of mind-body and environment, encapsulated in the extended mind theory, leads to a more holistic and credible approach to cultivating silence as a therapeutic tool, a theme that will be developed further.

5.4 Attending to Silence: Conclusions

Selecting or creating soundscapes that support attentive listening and help mitigate distraction can be used skilfully to develop our focus and awaken our interest. Whether through headphone listening, speakers or the modification of the environment, we may have opportunity to fashion soundscapes that support our intentions. The hard-wired distractions of exogenic auditory cues can, and usually will, continue to alert us to danger and connect us with our fears and anxieties. However, many of these cues are far from threatening and can be used as a tool to cultivate positive silence, through accepting their occurrence and even appreciating their inherent value. In framing and attending to silence, we not only ‘turn up the volume’ but are encouraged to become present with the soundscape’s ephemerality. This reorientation of ourselves in relation to the soundscape has numerous potential benefits for our wellbeing. An intentional focus upon silence allows us to strengthen the ‘muscle of attention’ to select that which we wish to attend to, rather than being caught up in involuntary, unconscious responses. As ‘neurons that fire together, [generally]²⁰² wire together’, this will, over time, provide an opportunity to cultivate more positive habits of mind. In the attention economy, this resistance to pulls on our attention permits us a degree of freedom from those who would otherwise manipulate it. It can also distance us sufficiently that we can approach the soundscape with interest and curiosity, investigating its sonic qualities and affective resonances. In directing our attention in this way, we become aware of our relationship with what is heard, and are less likely to be pulled to and fro, pressed by its action upon us. Even sounds that may normally irritate or arouse unpleasant feelings can be externalised, and with this, some distance placed between ourselves and the sound. From this safer distance, we become listeners of listenings, a vantage point that has the potential to yield insight into our relationship with what is heard. In engaging with the soundscapes of silence, we change the content of the mind, which can come as a welcome relief from unhelpful patterns of thinking. When the sounds being attended to are of our own making, we have the opportunity to bring body and mind together, pushing against the estrangement of thinking from doing. Even without focused concentration, simply framing the soundscape and

²⁰² “Neurons that fire together, don’t always wire together,” accessed 31st March 2020, <https://www.sciencedaily.com/releases/2018/11/181108130537.htm>

being open to the sounds present, has the potential to create conditions whereby distractions are less likely to thwart our intentions, but are accepted and embraced as part of our reoriented sense of purpose. Through curiosity and acceptance, we change our stance towards the soundscape, the overlooked or affectively neutral sounds, the distracting sounds and those sounds we may have an aversion to. Attending to the soundscape, particularly when directed by guided listening practises, can help free us from judgments of pleasant or unpleasant, desired or undesired, and instead welcome them as objects of interest. As such, the experience and skill of sound artists in crafting novel and engaging ways of framing silence, has a great deal to offer those working in health, wellbeing and therapeutic contexts. Concerts, installations, soundwalks, listening scores and workshops, offer means of framing the unfamiliar or everyday, in ways that support positive silence. A comment from a participant of an art and wellbeing soundwalk, as part of Earth Living Festival in Reading, brought this home:

“Made me realise how little I walk in silence and actually listen to my surroundings - this helped to ground me and make me feel more connected to everything around me.”²⁰³

The curation of listenings, the sensitivity to the needs and dispositions of participants, and the skilful direction of an experienced artist, can help nurture it further. Attending to silence does not free us from distraction, nor does it provide us with a shortcut to liberation. However, employed skilfully, it has tremendous potential to cultivate equanimity, interior stillness and reveal helpful insights.

²⁰³ “Soundwalks,” accessed 15th April 2021, <https://www.anoisysilence.com/soundwalks>

6. Silence as Solitude Amidst Others

Silence amidst others is moulded by our relationship with ourselves and those around us. Listening to the soundscapes of shared quiet spaces not only emphasises the presence, movement and intentions of others, but makes us conscious of our own presence, movement and intentions. In the following chapter, we will explore this self-consciousness brought about by our relationship to the space, to others and to our own sound making. In so doing, we are brought face-to-face with our underlying uneasiness with novelty, ambiguity and our wish to pattern soundscapes of positive silence to provide familiarity and security.

6.1. Silence in Shared Spaces

When sitting in silence amidst others, familiarity with patterns, drones and predictable tones helps them swiftly dissolve into an effortlessly disregarded ambience. These elements are often keynote sounds²⁰⁴, providing something akin to the repeating rolls of sonic wallpaper that line vestibules²⁰⁵ and airports.²⁰⁶ It is the imperfections, the onset and offsets, shifts and interruptions that appear to seduce the ear which, in sensing novelty, pull on attention to investigate. The changing pace of footsteps nearby, the unexpected sine-tone burst of a wristwatch alarm, the sudden cessation of conversation, all are potentialised to disrupt the flow of intentional thought and action. Unthreaded from the weave of busier soundscapes, human speech or movement exposed in quiet, can take on an uncommon novelty that pushes them into consciousness, unearthing trivial sonic artefacts that may have otherwise remained buried.

Likewise, the visible imagined as audible has the power to interrupt. Listening in a bookstore with a group of soundwalkers, highlighted this phenomenon.²⁰⁷ On asking the group about their experience of the soundscape, most recounted the reverently hushed tones of shoppers, the reassuringly constant drone of air conditioning or the muted cacophony of pedestrians outside the stained-glass windows. One woman, however, explained that she was disturbed by the plethora of voices escaping from the pages of the books lining the walls. She found this most distracting and was forced to close her eyes to make the voices stop. Much like synaesthesia, this visually stimulated endophonia binds sense experience, highlighting the important interplay of visual and auditory silence in minimising distraction and in shaping soundscapes that support positive experiences of silence. Indeed, not just the visual. The evocative perfume of a stranger replays pleasant reminiscences, persistence of flavour recreates

²⁰⁴ Schafer, R. M., *The Soundscape and the Tuning of the World*, Destiny Books, 1977

²⁰⁵ Satie, E., *musique d'ameublement*, accessed 1st July 2020, <https://www.youtube.com/watch?v=CU2mDkZoYsc>

²⁰⁶ Eno, B., *Ambient 1: Music for Airports (remastered)*, EMI, 2009

²⁰⁷ "Photography Soundwalk," accessed 1st July 2020, <https://www.anoisysilence.com/soundwalks>

the setting of lunch, the soreness of sitting bones on wooden pews prompts the grumbling inner voice. All create their various diversions, transformed into speech and sound memories. As such, silence amidst others; occupying communal spaces, and sharing schedules, guidelines and rituals, requires some degree of letting go of control. If we have difficulty managing the domestic environment, how much less can we influence and organise public space? Furthermore, not only are we subject to these outward distractions and strictures of common life, but in public we are on view, having our way of being reflected by the presence of others. In such circumstances, we may find that we place our own limitations on silence, constrained and distracted in dutiful self-consciousness.

6.2 Silence and Self-consciousness

Moving beyond mere self-awareness, self-consciousness persistently and often unhealthily questions the way others perceive us. Sometimes self-consciousness is sprinkled with mild unease as we negotiate silence with others. At other times, it may be flooded with anxiety. Soundscapes of positive silence evaporate under the heat of other's judgments and strain amidst stimulants of self-reflection. With regard to the latter, field recordist Gordon Hempton contrasts sitting amidst the quiet of the natural world with being in the city:

“I find that when I'm in the city, I'm very self-aware. Every place I look, in the advertisements, the people and the fashion and the conversations are all about people, all about us, and I find myself thinking about me.”²⁰⁸

In contrast to solitariness, such self-awareness appears more common where the sounds of human activity and interaction encourage us to consider our own actions and way of being. Perhaps the company of others can also tip this self-awareness into a more restrictive self-consciousness where we modify our actions to accommodate or imitate those around us.

“The mere presence of other people, he [Koch] notes, obliges us to coordinate our experience with theirs, thereby diminishing the scope of our actions. As one's experience of viewing a painting in a museum changes when another person walks up, our subjective experience is influenced by the slightest interaction with another person. We

²⁰⁸ “Hempton, G., Being Hear, Short Film on Gordon Hempton's Sonic Ecology,” accessed 1st July 2020, <http://sonicfield.org/2017/07/being-hear-short-film-on-gordon-hemptons-sonic-ecology/>

become conscious not only of the object we are viewing, but also of ourselves as viewers.”²⁰⁹

In the first instance, the presence of strangers is distracting as we collect and collate data about them. In the second, their presence can coerce us to self-consciously adapt our behaviour. Additionally, we may find that we are aware of how our actions may impinge upon the freedom of others, as this excerpt from the Lion Seats series highlights:

“After finding a place to sit, I erected and tested a rather conspicuous Jecklin Disc stereo recording array, set the timer on my phone and settled into the comfy bucket-style-sofa I had chosen. No one seemed at all distracted by the sounding of the meditation bell, no doubt because it was so ubiquitous, blending in with the many other sounds of technology permeating the space. I naturally slouched back into the seat, trying not to draw any more attention to myself, not because I felt self-conscious, but to avoid stifling other’s conversations through fear of feeling monitored.”²¹⁰

In densely populated urban environments, true solitude may be difficult to find and perhaps, for some, only experienced within the home. Beyond this, one may look to public quiet spaces. Yet, while the soundscapes of urban quiet may contain less intelligible speech, fewer sounds of human movement, provide greater distance from others, and nurture behaviours that foster quiet, they are rarely places of complete solitude. Instead, they are invariably places of solitude amongst others, distanced physically or socially. This distance from others may lessen the burden of experiencing ourselves as the object of another’s actions or thoughts. However, in quiet, the soundscape amplifies the sounds present, with the risk of fostering a distracting self-consciousness. These sounds may be the sounds of others, but equally, they can be of our own making.

²⁰⁹ Long, C. and Averill, J., *Solitude: An exploration of the benefits of being alone*, Blackwell, 2003 pp.24

²¹⁰ “On the mezzanine” accessed 23rd September 2020, <https://www.anoisysilence.com/lionseats>

6.3 Silence and Ergo Audition

“There is ergo-audition when an auditor is at the same time, completely or partially, answerable for, consciously or not, a sound that is heard: playing an instrument, operating a machine or vehicle, making noises-footsteps, the sound of clothing, and so forth-on account of movements or actions, and, also, by speaking.”²¹¹

As quiet environments reveal the presence of others, so they expose our own sound-making. For most of our lives, we learn to ignore the sounds we produce, scotomising them so that we can pay attention to more salient aspects of our acoustic environment. Whilst this unawareness of our sounding is a useful evolutionary trait, we rapidly become unaccustomed to it. It is only when we enter quiet soundscapes or are trying to hide our presence from others that we become acutely aware of them. In such quiet environments, silence becomes a brilliant light illuminating us. This heightened awareness and intensified auditory feedback can capture our interest and make us more attentive. On soundwalks in peaceful buildings, when amplifying soundscapes through headphones or when disinteresting soundscapes let our attention drift inward, participants take a peculiar interest in the rustling of clothes, the detail of voices or the sound of footsteps. In the context of such group listenings, ergo-audition becomes self-aware, yet generally retains a freedom and playfulness that is unselfconscious. However, where our soundings contain revealing information or draw unsolicited attention, the silence becomes an unwelcome conduit. I experienced this acutely during a field recording workshop in the bell tower of the University Church of St Mary the Virgin in Oxford.

²¹¹ Chion, M., *Sound An Ecological Treatise*, Duke University Press Books, 2016, p.92



fig. 9

The bell tower of the University Church of St Mary the Virgin, Oxford, April 2016

The still air and protracted reverberance of the bell tower meant that participants were able to hear each other whispering at a distance. Soon after came the dawning realisation that, in talking, we were addressing the whole room. While experiences of ergo-audition can provoke a relaxed curiosity in our sound-making, conspicuousness can make our speech self-consciously censored and our movements subdued or awkward. In such situations, our sound-making leaves us vulnerable to judgment by others and the silence becomes a negative silence, restricting our freedom to communicate or act.

Equally, even the fact of our silent presence can make us self-conscious. The Silence | Absence exhibition²¹² was curated in such a way that artists could create work in silence on day one, leaving their work-in-progress along with tools and materials in situ for day two. This experiment with live art-making intended to employ silence as a means of focusing visitors' attention on the craft of the artists, while sustaining an unobtrusive, creative space for the artists to respond to the quiet. To remain silently engaged in creating work, while visitors look on, is an unusual request in such an intimate setting, buffered, as it was, by the busy shopping mall outside the doorway. While the pre-exhibition briefing acknowledged the need to talk on occasions, it quickly became apparent that the pressure of social norms - the expectation of verbal interaction

²¹² "Silence | Absence," accessed 1st July 2020 <https://www.anoisysilence.com/silenceabsence>

- crept into the silence until the retail unit, in which the exhibition was held, was buzzing with conversation and activity.

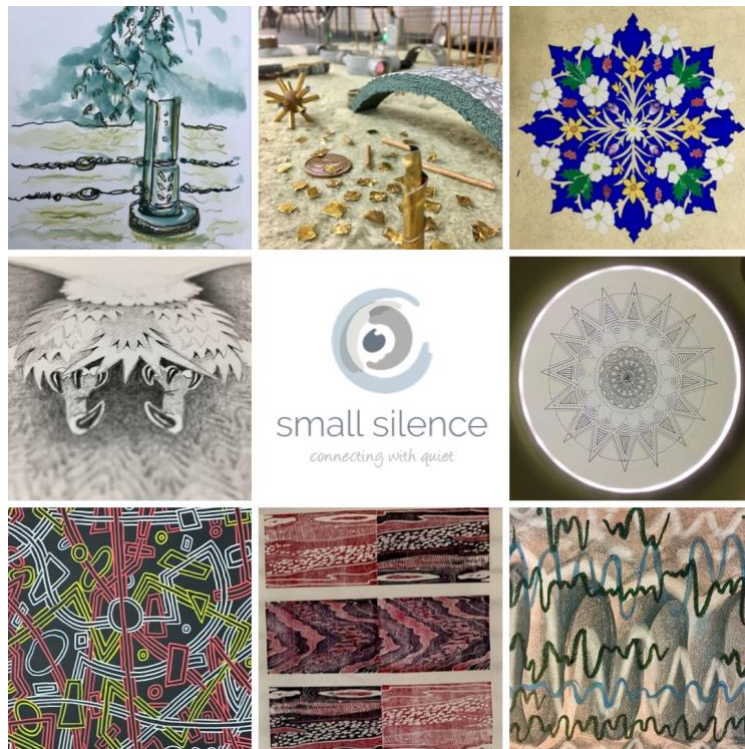


fig. 10

Artist responses to silence at the 'Silence | Absence' exhibition, Broad Street Mall, Reading, September 2019

As an experiment in silent live art-making, the exhibition can claim limited success. However, it underscored what has become a recurrent observation throughout the study: that the learned habits and socialised behaviours of filling silence with human speech and movement are incredibly forceful. Most silences observed with others need not be uncomfortably self-conscious. Few silences confer a judgement upon us, and fewer still provoke concerns for safety or enforce censorship and submission. For most, the majority of shared silences throughout the day are reasonably inert, incidental openings embedded within the timetables of home, work and leisure. Yet, observations of people sharing silence, and subsequent conversations about these silences, quickly expose an unfamiliarity with how to manage shared silence and a pre-occupation with how our silence will be perceived by others. The roots of this angst appear to go beyond social norms and self-image, to the existential anxiety explored earlier in the commentary. However, on the more superficial level of interpersonal relationships, it seems that it is our underdeveloped rapport with shared silence that forces us to retreat to noise, restlessness and chatter. The soundscape may help ease this disquiet by making our soundings inconspicuous and

creating concordance between our action-intentions and those of others present. Yet, it can only paper over these deep underlying cracks.

If an essential element of positive silence is freedom from the constraints of unhealthy self-consciousness, facing our insecurities around shared silence is critical. While addressing these primary problems of self-image and fear of judgment is beyond the scope of this commentary, secondary factors, including the influence of soundscapes appear to have a role to play in reducing our sense of insecurity. In practical terms, creating environments that support positive silence requires a congruence between the aspirations of the individual and the collective.²¹³ This can mean the establishment of spaces in time set-aside for specific activities; browsing, reflection, reading, prayer, study, imagining, creating, contemplation. The sounds of these places can assist by cultivating a familiarity with the expectations and protocols surrounding quiet, helping self-consciousness to subside. Thinking holistically, acoustic treatments that minimise distractions uncovered by quiet—or that reduce conspicuous ergo-audition such as sound-absorbent building materials and furnishings, acoustic baffles, sound masking systems, separated spaces or graduated silent spaces—may further support this objective if sensitively applied. While setting out expectations of quiet through signage seemed largely ineffective, both modelling or embodying of quiet by others and the creation of an ambiance that expresses the variety of silence sought, seemed to support comfortable shared silences. As Thibaud²¹⁴ argues, if we are to regard this ambiance as a “heterogeneous ecological habitat that shapes practices,” we must pay close attention to these subtle interactions of soundscape, group dynamic and personal experience if positive silence is to be fostered. All of the above interventions require a best-fit approach, adapting to the vagaries of context. However, listening to silence appears to indicate that considerable congruence can be attained where adaptability, sensitivity and insight is employed.

6.4 Silence as Familiar

“With only a distant peacock call for sonic novelty, the familiar soundscape and sun on my back allows me to slouch in to the park bench with considerable ease.”²¹⁵

²¹³ Long, C. and Averill, J., *Solitude: An exploration of the benefits of being alone*, Blackwell, 2003, pp.24

²¹⁴ Thibaud, J., *The three dynamics of urban ambiances*, in LaBelle, B. and Martinho, C. (eds.), *Sites of Sound: Of Architecture & the Ear*, Errant Bodies Press, 2011, pp.44-45

²¹⁵ “*Distal Bodies 26th May 2020*” accessed 23rd September 2020 <https://www.anoisysilence.com/distalbodies>

While interesting and novel soundscapes stimulate enquiry, it is the familiar, local, intimately-known soundscapes that seem to provide the deepest silences. We sink in to silence most easily, when we feel at home - safe, secure, comfortable and at ease with ourselves and others around us. This desire for home is an acknowledgment of our need for safety from our vulnerabilities, space to collect our thoughts, independence from self-determination and a place where we can realign ourselves with our deepest aspirations.²¹⁶ Of course, 'home' may be the physical space to which we retreat and out of which we build our lives, but it may also be a café, garden, street corner or simply the 'island of self', this centrifugally assembled point of listening. Wherever we wish to situate home, its silences aspire to be free from fear, judgment, coercion and constraint. The positive silences experienced as a 'dwelling at home' may vary greatly, but wherever they are found, they appear to support this freedom.

Sound may be full of doubt, but while audition may afford less accuracy and certainty than vision, sounds' ambiguity can be easily overstated. Most of our lives are lived in the presence of familiar, recognisable, locatable sounds. In these well-mapped soundscapes, sounds are full of comforting certainty, which allows the detail of their features to add layers of subtle depth to our understanding. We listen for the way a door is closed, the combinations of materials colliding in the preparation of lunch or the tone of someone's voice. Even in most unfamiliar soundscapes, certainty outweighs doubt as the contexts, materials and movements of human life offer surprising consistency. While most familiar sounds will pass by without conscious recognition²¹⁷, those that attract the spotlight of our attention can typically be scanned, labelled, dismissed and our attention moved elsewhere. Seeds of anxiety can still present themselves when doubting a sound's origins but, on the whole, familiarity prevents constant distraction. Not only is this familiarity prevalent in the recognition of the qualities of objects, materials and their envelopes, but also in their sequencing, the yearly cycles, the circadian rhythms, the rituals and routines of the everyday. The accurate prediction of a sound streams' origin, development, patterning and trajectory appears to dominate our sonic experience.

As we become familiar with the soundscape, so our relationship with the space becomes more harmonious. As a study of visitors to Chinese Buddhist Temples highlights, this may be because "hearing something for a long time, one does not notice the noise."²¹⁸ The authors also propose that because those that visited most frequently were more likely to be Buddhist or local residents, they may be "more used to the temples' acoustic environments." While the underlying psychological factors influencing this sense of harmoniousness are, no doubt, far more varied

²¹⁶ de Botton, A., *The Architecture of Happiness*, Penguin, 2007. pp.107

²¹⁷ Plack, C.J. and Moore, D.R. (eds.), *The Oxford Handbook of Auditory Science: Hearing Vol.3*, Oxford university Press, 2010 pp.266

²¹⁸ Zhang, Zhang, Liu & Kang, *Soundscape evaluation in Han Chinese Buddhist temples*, Applied Acoustics, 2016, pp.196

and complex, both propositions appear to ring true. Returning to the same quiet space regularly, allowing familiarity and confidence in one's personal security to grow, appears to diminish the distraction triggered by novel sounds or perceived threats. At a subtler level, familiarity with the cycles, expectations and customs of a space can further aid this settling-in. As the above example illustrates, cultural and religious factors can have a strong influence on our experience of quiet.

Faith buildings, traditionally Christian churches, chapels and cathedrals in the UK, have provided refuges of prayerful quiet for centuries. As the dynamic of religious affiliation changes, it has become increasingly difficult for churches to remain available for silent prayer and reflection. Following broader shifts in worldview, the declining and ageing church membership²¹⁹ experiences a pressure to put sacred spaces to 'productive' uses that boost attendance, provide income or offer more tangible forms of social outreach. On visits to churches as part of the Lion Seats series of recordings documented on Radio Aporee²²⁰, most were found to be closed to the public. The few that did open their doors, tended to have times set aside for public access. Invariably, these periods of admittance were typically filled with the sounds of children at playgroups, card sales, meetings, texting and phone calls, flower arranging, cleaning, organ tuning and a multitude of other activities. The church at rest mirrored the dedicated busyness of secular space, albeit in more hushed tones and spacious surroundings. As someone brought up within the church and familiar with the patterns, punctuations and language of the soundscape, it was peculiar to sense the tension between sacred and transactional space. One may imagine that sitting quietly amid the pews would feel comfortable and familiar, but more often it felt conspicuous, even suspicious, a sensitivity tinged with awkwardness that I was not also engaged in some helpful undertaking. The sounds of social action, liturgical preparation and community involvement are, of course, a natural sounding of the church's mission, but it was disappointing to so rarely sense the profound stillness at the heart of the tradition. On reflection, familiarity with the soundscape may encourage a seeker of silence to enter a faith building and even feel comfortable with their presence there, but it is the quality of silence held by the building and its occupants that provides the primary conditions for nurturing positive silence.

Unlike Christian churches, Britain's mosques and Islamic centres are proliferating, providing refuges of communal devotion for the growing Muslim population. Listening to Islam has led me to understand it, primarily, as an oral spiritual tradition, that binds community through shared recitation, prayer, discussion and listening. Even silent prayer sounds the inner

²¹⁹ Curtis, J. et al., *British Social Attitudes: The 36th Report*, The National Centre for Social Research, 2019

²²⁰ "Lion Seats," accessed 23rd September 2020, <https://aporee.org/maps/work/projects.php?project=lionseats>

voice to move words of devotion toward *Allah*. Only in the Sufi orders, through the movements of *ziker* and meditative lamentations of the *ney* have I touched the sound of wordless Islam.



fig. 11

Monitoring sound levels at the Abu Bakr Islamic Centre, Oxford Road, Reading, November 2018

Despite a working knowledge of the faith, time spent in quiet at the Abu Bakr Islamic Centre, standing within the Sunni tradition, highlighted how unfamiliarity with the customs, rules and expectations of a quiet space can undermine positive silence.²²¹ On entering I was made to feel welcome and was guided to a quiet space within the *musallā* (main prayer room) to sit and record. Nevertheless, being unaccustomed to the structuring of time and place and the conspicuousness of my presence, made it difficult for my mind to settle. In the absence of ritual and ceremony, the silence was ubiquitous with the building's structure and location, being dominated by the sound of traffic outside the large double-glazed windows and the omnipresent hum of air conditioning. Despite the generous support and best efforts of other attendants to make me comfortable and at ease, the subtle underlying sense that I did not belong did not subside. I was safe, welcome, undistracted by the soundscape, but ultimately, could not feel 'at home'. Here, listening created a discord of familiar soundscape and unfamiliar context. This unfamiliarity underscored listening, an expectantly restless presence, almost pre-empting the intrusion of the

²²¹ "Abu Bakr Islamic Centre" accessed 1st July 2020, <https://aporec.org/maps/work/export/?loc=41221&m=satellite>

alien. It was a form of vigilance that undermined a quiet undistracted presence. In other listenings, such as that at a local Hindu temple, the soundscape itself contained elements that heightened this sense of not-belonging; people talking in unfamiliar languages, performing unfamiliar rituals and piping religious music into the space. For those familiar with these sounds, this would likely be a positive augmentation of the soundscape, supporting an undistracted, familiarly noisy silence. For the uninitiated, unfamiliarity, religious specificity, or uncomfortable personal associations will likely prove a barrier to feeling at ease. Again, we find that soundscape plays a pivotal role in our sense of familiarity and connectedness with a space, affording us opportunities to soften distraction's hold. Sometimes unfamiliarity breeds explicit distraction, sometimes the workings of distraction are more subtle, a quiet formless dis-ease rather than something one could easily isolate and identify.

Playing into this sense of familiarity is the transience of many quiet spaces. These are often the quiet spaces that research studies miss, being small, temporary or undiscernible from maps. They are the spaces that local people will isolate more readily. Town squares, courtyards and market places can be on one day bustling with activity and, on another, quite still. Buildings may open at given times, public parks may shut. Prediction of these events is often dependent upon one's familiarity with the venue and its activities. Soundscapes can gradually ebb and flow or rapidly switch between loud and soft. In addition to the changing dynamics of quiet spaces, listeners become familiar with the soundscape through those temporal idiosyncrasies that are linked to personal circumstance. The businesswoman familiar with the relative quiet of a daytime business district may be unfamiliar with that space amplified with nightlife. The museum visitor may be unaware that the stillness of a museum at the weekend, contrasts so intensely with the exuberant voices of school pupils echoing through the galleries during the week. Our sense of familiarity is based, not solely on acquaintance with the soundscapes of spaces, but their experience in time. Knowledge of the structured or chaotic manifestation of quiet can help isolate soundscapes that support one's intentions and can be as invaluable as knowing its location. However, given the indeterminate appearance of some quiet spaces, it is perhaps no wonder that quiet is so often superimposed through the use of headphones and earphones. As Bull notes, augmenting the soundscape with personal-stereo use cloaks "the alien with the familiar and in doing so transforms the subjective response to it."²²² Such a comfort-blanket of dependable acoustic isolation not only minimises distraction, but covers the world in a reassuring familiarity.

²²² Bull, M., *Sounding out the City*, Berg, Oxford, 2000, pp.74

Throughout all the listenings that comprised the Lion Seats project, it became apparent that creating soundscapes that felt familiar, even when the location was not, was an important prerequisite for positive silence. Sonic familiarity seemed to diminish distraction by a measure. This lessening of distraction seems further heightened when there is concordance between a visitor's intentions and the affordances of the space. In the absence of environments that one has control over, freedom to experience shared solitude may be sought through this congruency. As such, it is likely that those without the means to fashion quiet space over which they can exercise some control, will be disproportionately disadvantaged by the disappearance of peaceful public places. With rising population density²²³, urban communities appear especially susceptible, particularly when accessing familiar interior quiet spaces. Discussions with those who provide these spaces, point to the influence of a complex web of pressures including the availability of space, time constraints, financial cost and the perceived value of quiet in a society that places efficiency and productivity on such a high pedestal. Additionally, and closely related to this sense of familiarity, is both the security of spaces from the threat of violence, theft and vandalism, and the less tangible influence of perceived harm and psychological disquiet, a theme to which we now turn.

²²³ Randell, M., *Overview of the UK population: March 2017*, Office for National Statistics, 2017.

6.5 Silence and Safety

Our ears are our early warning system.²²⁴ Human hearing's ever-alert, omnidirectional nature turns out to be incredibly effective in alerting us to disquieting features in the soundscape. In localising and gleaning preliminary data on the nature of a sound source, the auditory guides visual attention to explore or confirm what has been heard and collect a more comprehensive picture.²²⁵ Even in sleep, we are involved in a process of surveying the sonic environment to alert us to change that necessitates our attention. A useful, if often unwelcome, side-effect of this, is that hearing is commonly the most distracting sense, particularly in novel and unsettling situations. Activities commonly undertaken in quiet spaces; reading and studying, thought and quiet reflection, prayer and meditation, along with various forms of recreation, frequently involve either focused visual attention or limited visual awareness. With the head stationary or bowed and with our eyes focused, lowered or closed, this aural warning system becomes imperative. If an individual perceives the environment to be threatening in some way, this alertness is further heightened and, in its wake, comes distraction. In silence amidst others, the presence of unfamiliar groups or individuals may be perceived as threatening to one's safety or peace of mind. This interruption may spotlight genuine threats to safety, but can equally be as subtly disquieting as mild social anxiety triggered by the expectation of having to interact with someone. A characteristic typical of many quiet spaces, is that they are sparsely populated or deserted. While such privacy could afford the freedom to follow one's intentions, solitude can equally be perceived as unsafe. Without the protection of others, unfamiliar, unpredictable or ambiguous non-human movements can quickly become a distraction. Unveiled by quiet, sounds that we may ordinarily be unaware of can push themselves to the fore, provoking alarm, uneasiness or uncertainty. The unfamiliar clunks of a heating system, rustling in nearby shrubs, automated murmurings of technology, drafts and wind awakening comatose objects. At a distance, their envelopes are dispersed and contorted by the spaces they travel through. Up-close the immediacy of their presence disturbs. Not only their proximity, but their perceived source and trajectory are constantly monitored at pre-conscious stages of listening, with those demanding our attention 'breaking through' into awareness as distraction.²²⁶ These two interrelated elements; the sources of sounds that comprise the soundscape and the acoustic properties of the space, are explored in the portfolio of work. Discussion of the portfolio works here, will be woven with reflections from listenings that contrast intimate, secluded and acoustically dead quiet spaces with expansive, open, and acoustically live spaces.

²²⁴ Juslin, P. N., & Västfjäll, D., *Emotional responses to music: the need to consider underlying mechanisms*. Behavioral & Brain Sciences 31(5), 2008, 575-621

²²⁵ Niedenthal, P. M., *Embodying emotion*. Science 316, 2007, pp.1002-1005.

²²⁶ Early processing in audition of important sounds.

6.6 Silence in Intimate Spaces

“[Without] training, our experience of aural architecture is fragile and perishable. Yet, however difficult to recall, describe, reproduce, or even study, aural architecture can elevate or depress our affective responses-it bears directly on our sense of: privacy, intimacy, security, warmth, encapsulation, socialization, and territoriality. It changes our behaviour as individuals and influences the social structure of our groups.”²²⁷

Small, acoustically dead spaces allow the concentric expansion of sound pressure waves to be traced in straight lines more than tangents, providing a peculiar precision and detail to listening. On entering such intimate quiet spaces, the doubts produced by the distortion and interference of reflections subside, giving way to greater confidence and certainty. Contained and enclosed within intimate quiet spaces, we sit within a shell that muffles the babble of the world, rendering it distal and suspended. Within this shell, the detail of sounds are unveiled, and with this comes understanding; onset, distance, trajectory. This subtle and instinctive precision within the auditory scene, can breed confidence and trust in the dynamics of a soundscape. Familiar and unthreatening sounds moving reliably within the deadened acoustic of small rooms are generally experienced as agreeable, calming and safe.²²⁸ In intimate settings, we are better able to track sound, to localise it's point of origin, offering the listener a “safer shelter”.²²⁹ As such, intimate quiet spaces may evoke something of home – secure and comfortable. Where negotiated and respectful silence is nurtured, intimate quiet spaces may also provide protection from the encroachment of expectation and obligation to others. Some authors have criticised this withdrawal into shells of quiet space, arguing that by distancing ourselves from others and keeping them at arm's length we are making strangers of them, fostering suspicion and anxiety.²³⁰ This is the subset of silence characterised by fear and distrust, a negative, constraining silence. Without dismissing this use of silence to avoid hearing others, listening to silence and only hearing what is being kept-out is only half the story. The social distance of quiet space can be enjoyed without creating strangers and fostering social exclusion, indeed it can be quite the opposite. Quiet seclusion in intimate space, whether forged from walls, hedges or fences, can

²²⁷ Blesser, B. & Salter, L., *Spaces Speak, are you listening?* MIT Press, 2009, pp.18

²²⁸ Tajadura-Jiménez, A. et al., *When Room Size Matters: Acoustic Influences on Emotional Responses to Sounds*, Running Head: Emotional Auditory Space, 2009, pp.12

²²⁹ Tajadura-Jiménez, A. et al., *When Room Size Matters: Acoustic Influences on Emotional Responses to Sounds*, Running Head: Emotional Auditory Space, 2009, pp.14

²³⁰ Hendy, D., *Noise A Human History*, Profile Books Ltd, 2013

create a space in which we are relieved from noise and duty, and offered a safe space to cohere and be refreshed. In so doing, far from creating strangers, silence offers an opportunity to return to the world better positioned to resume the myriad of relations that bind our social networks. Moreover, to embrace a yearning for silence is not to dismiss the importance of community, friendship and noise, but to recognise their co-dependence with solitude, detachment and stillness. Free from the constraints of negative silence, the distance and seclusion afforded by intimate quiet spaces are its strength, further enriched by the safety of acoustic transparency.

Sitting, reclined and rested in the enclosed spaces fashioned from wood and metal for the Small Silence³ installation and Seasonal Slumberbus project, a primal feeling of shelter, seclusion and safety abounded. The rolling waves of sound enveloping the listener further amplified this feeling of being cocooned and safe. This was captured in some of the feedback from the audience:

“...I discovered the most magical pull-along machine with two wonderful people who invited me inside and I lay down and I was transported away. I was on a cloud, I was on a beach, I was in a wood, I was on a horse, with things whispering in my ears. It was fabulous!”²³¹

“I think it provides a very unique atmosphere, a very calming ambiance, in which an individual can take themselves away from the busyness of life and be at one with nature, and it was very comfortable.”²³²

"In the box, I felt like I was sheltering from the rain, but kind of consumed by it at the same time - very immersive."²³³

"I enjoy listening to the different sound effects. So calming and relaxing. Good for my PTSD, depression, it was nice to experience."²³⁴

The intimacy of the physical space in both pieces almost entirely precluded the movement of others. These were solitary experiences to be enjoyed without interruption or disturbance. Unfamiliarity with the spaces could evoke feelings of uneasiness or anticipation and, as we have

²³¹ Audience feedback from the 'Seasonal Slumberbus' mobile street art installation, accessed 15th April 2021, <https://www.anoisysilence.com/seasonalslumberbus>

²³² Audience feedback from the 'Seasonal Slumberbus' mobile street art installation, accessed 15th April 2021, <https://www.anoisysilence.com/seasonalslumberbus>

²³³ Audience feedback from the 'Small Silence'³ art installation, accessed 15th April 2021, <https://www.anoisysilence.com/smallsilence3>

²³⁴ Audience feedback from the 'Small Silence'³ art installation, accessed 15th April 2021, <https://www.anoisysilence.com/smallsilence3>

seen, auditory masking can bring its own anxieties. However, being staffed and set within open, public spaces, most visitors appeared to settle into the new environments with little difficulty. Allaying the fears and anxieties of visitors to allow them to experience the silence as positive, appeared to be enhanced by clarifying the context of the installation, clarity around how to engage with the work, the visible presence of staff, but most critically, control over engagement with the sound works. The autonomy to participate or withdraw from the work offered the visitor a choice that supported trust and allayed some of the anxieties around being in a novel situation. It was a freedom to access silence on one's own terms, in the knowledge that one could re-emerge into the familiarity of public space at any time. This freedom to experience the works on their own terms, in their own time and for an undetermined period, afforded the visitor an escape from the social obligation to conform to timetables, expectations and rules. Public quiet spaces, and many private ones, invariably come with limitations; opening and closing times, the imposition of concurrent activities, conformity to social expectations and responsibility to others, to name but a few. Visitors may have brought their own self-limiting behaviours and circumstances, but the presentation of the work endeavoured not to add to them. This liberty to choose appeared to foster feelings of safety, safety from external threat, obligation and judgment, but also from that acute self-awareness that so often plagues us in seclusion amidst others. Familiar and innocuous soundscapes, set within environments where sonic activity can be charted easily, may allay some of our anxieties. However, it is the underlying freedom to access quiet spaces on our own terms that appears to provide depth to our experience of positive silence.

6.7 Silence and Distance

The expansive, open, unyielding interiors of many quiet churches, galleries, museums and historic buildings have a rare and treasured sonic signature, that may sound wastefully capacious to 21st Century ears. In larger spaces, the dimensions and materials encapsulating quiet can hold the bustle and busyness of life at a distance. In urban areas, their reverberant chambers typically soften a comforting mumble of modulating transport and construction drone, and the faint murmuring of unintelligible human voices. Surrounded by a moat of trees, shrubs, stone and moss, older churches are still better protected from the imposition of commerce and communication, by creating distance and overlaying the manufactured drones with birdsong and psithurism. Sheltered within these cloisters, rare moments of quiet reveal human presence, twisted, diffuse and inarticulate. The respectful hush fostered by the sacred nature of quiet spaces devoted to deities, histories and human endeavours, blurs this presence further. With our

eyes open and attuned, these spacious interiors offer ample opportunity to confirm what our ears sense, buoyed by reflections from stone, brick and plaster. Although our ears may struggle to pinpoint the source of a disturbance, their sensitivity allows them to touch vibration at a distance. This translucent soundscape feels safe when lines of sight can verify what our ears doubt. However, with eyes closed, lowered or absorbed, audition is characterised by distrust. Movements are awash with their own echoes, and uncertainty abounds. Sounds become overextended, blended with versions of themselves, until their myriad paths help them break loose from their cause, whereabouts and meaning. Anthropophonic sounds could be innocuous; the movements of visitors and staff, half of a conversation, the groaning creaks of doors, the rituals of books, candles and exhibits. Yet, activity here reverberates, detached, remote, stretched and rounded. The movement of people in a space prompts us to track and analyse such sonic characteristics as the person's trajectory, weight, gait and clothing, ultimately amalgamating this into a representation of their likely intentions. Without ocular verification, uncertainty and anxiety rapidly undermines any confidence in our perceptual constructs. The doubt-filled sonority of reverberant spaces is countered only by familiarity and trust in one's company and environment.

6.8 Silence as Solitude Amidst Others: Conclusions

Whether the expansive hollows of historic buildings and the intimate clarity of small study spaces, shrine rooms, domestic enclaves, courtyards and walled gardens can support positive silence, depends upon the unique interaction of a range of factors. Familiarity and positive associations with the environment, trust in one's safety, and consonance between a visitor's intentions and the affordances of the soundscape all appear to be fundamental in this respect. If the foundation of positive silence is freedom from disquiet, anxiety and fear, sensitivity to the interplay of soundscape and the individual's affective state is central. If the quiet space we inhabit can support positive silence, we are afforded the opportunity to both disconnect from distraction and connect with ourselves, a topic to which we now turn.

7. Silence in Solitude

“When from our better selves, we have too long
Been parted by the hurrying world, and droop,
Sick of its business, of its pleasures tired,
How gracious, how benign, is Solitude.”²³⁵

Freely chosen, solitude both disconnects us from the “hurrying world” and connects us to “our better selves.” Disconnection from the hurrying world may be understood within the context of the attention economy, the demands of work, achievement and profit, of language and the labels we are given and build identities around. However, solitude is not simply a retreat from others, but an optimization of “freedom of choice with respect to... thoughts and actions.”²³⁶ In solitude, we may be afforded the opportunity to connect with “our better selves”, that ideal self we harbour, with its values, beliefs and dreams. Perhaps the positive experience of silence in solitude can also connect, by softening or interrupting that view of the world that separates and demarcates this from that, self from other. In exploring this silence in solitude as both disconnection and connection, I will draw on the insights of positive psychology, insights that have guided, informed and corroborated with the experiences of listening described and explored in the portfolio works.

7.1 Narrative Identity

“...our self-feeling in this world
depends entirely on what we back ourselves to be and do.”²³⁷

Sitting on a park bench, in a disused retail unit, surrounded by the easily forgotten sounds of familiar quiet spaces, visitors to the Small Silence³ installation talk of escaping to the coast, woodlands, towpaths and cafes to ease the symptoms of PTSD, depression, anxiety and the side

²³⁵Wordsworth, W., *The Prelude*, quoted in Storr, A., *Solitude*, Collins, 1988, pp.202

²³⁶ Long, C. and Averill, J., *Solitude: An exploration of the benefits of being alone*, Blackwell, 2003. Pp.24

²³⁷ James, W., *Principles of Psychology*, CreateSpace Independent Publishing Platform, 2017, pp.54

effects of perpetual distraction. A few minutes before, they were shopping, walking to work, visiting friends, on their way to catch a bus. And yet the quiet seclusion offered by the installation turns many conversations to weightier matters, those of the heart, of life and its fleetingness. The thread weaving together many conversations over nine days of the installation, was the incongruence between people's present life-situation and their life story, into which was woven their deepest beliefs and values. Subsequent research and reading highlighted a literature in psychology around Narrative Identity that appeared to go some way to explaining this tendency.²³⁸ In the context of the theory, psychologists talk of two selves, the 'diachronic' and 'synchronic'. The diachronic self is a person's internalised and constantly evolving life story, pieced together, tying reconstructions of memories with imagined futures in order to maintain a consistent and coherent account of oneself. This consistency is useful in creating and maintaining trusting relationships with others and serves to unify the self-narrative, nurturing a sense of meaning and purpose.²³⁹ In contrast, the synchronic self is that of experience at any given moment, unfolding, uncertain and transient. The changing circumstances and experiences of the synchronic self, need to be aggregated, patterned and aligned to maintain the coherence of the diachronic self.²⁴⁰ Research around narrative identity suggests that "narrators who find redemptive meanings in suffering and adversity, and who construct life stories that feature themes of personal agency and exploration, tend to enjoy higher levels of mental health, well-being, and maturity."²⁴¹ It would seem that, in living lives in which our senses are perpetually entertained and distracted, the 'story of self' becomes impoverished and fractured. In the silence of the sound installation, a space may have opened up for some, exposing this incongruence. This supposition is not without a basis in research. Anthony Storr argued that in solitude, we separate ourselves from those people and objects that define and confirm our identities.²⁴² The sounds of fellow teachers and students confirm our identity as a lecturer, the sounds of children and toys as a parent or carer. In silence, we may be able to put a distance between the situations and soundscapes that forge our identities and create a space in which we can be introspective, reconceptualise our sense of self and integrate experience into a broader narrative. Long and Averill isolate empirical studies that show that "people often use solitude for contemplation of concerns both internal and external to the self" gaining "a new understanding of themselves and their priorities."²⁴³ Silence can provide conditions for creativity, for novel conceptual

²³⁸ McAdams, D.P. and McLean, K.C., *Narrative Identity*, Current Directions in Psychological Science, 2013

²³⁹ Polkinghorne, D.E., *Narrative and Self-Concept*, Journal of Narrative and Life History, 1991, pp.135-153

²⁴⁰ Adler, J.M. et al., *Personality and the coherence of psychotherapy narratives*, Journal of Research in Personality 41, 2007, pp.1180,

²⁴¹ McAdams, D.P. and McLean, K.C., *Narrative Identity*, Current Directions in Psychological Science, 2013

²⁴² Storr, A., *Solitude*, Collins, 1988

²⁴³ Long, C. and Averill, J., *Solitude: An exploration of the benefits of being alone*, Blackwell, 2003, pp.26

associations and combinations.²⁴⁴ If positive silence is closely bound with freedom from distraction, then it is also freedom to creatively explore ideas and materials, as well as reimagine and reconfigure the self.

In encouraging us to confront ourselves, positive silence presents opportunities for reflection, questioning, creativity and integration of our experience into a broader narrative framework. Carving out time and space to embrace positive silence, in whatever way is possible for the individual, is one means of reaffirming our humanity and taking back some control from the multitude of alluring distractions that surround us. Storr suggests that people in the industrialised West may have lost the capacity to effectively use solitude and the silence therein. While the prospect of rest, relaxation and better health may entice some to silence, for others the risk of coming face-to-face with fears, powerlessness and vulnerability may be a significant barrier. If the more profound benefits of silence to human wellbeing are to be grasped, the often-difficult process of integrating experience with our beliefs and accepting ourselves in silence may need to be realised. While qualities such as safety and an absence of distraction seemed important in supporting this integration of the synchronic and diachronic self, it may also be that this process is supported by the nature of the soundscapes themselves.

7.2 Construal Level Theory

The work that comprised the Small Silence project provided numerous opportunities to access moments of positive silence, and explored the conditions under which these affordances could be realised. For most, the opportunity to access quiet was welcomed as a restful, calming and peaceful experience of relative quiet. However, it became clear through conversations with visitors and participants, and from time spent listening in quiet spaces, that the soundscape offered a much less immediate and tangible benefit than those characterised by the positive states of mind alluded to above. The relative silence of the soundscapes frequently appeared to accompany a shift in perspective, principally manifesting either as an intimate, present-centred, meta-awareness of thoughts, feelings and sensations or as a reflective or projective distancing from immediate experience. Interestingly, one may be able to relate this observation to the synchronic and diachronic self of Narrative Identity. Increasingly, the artworks that comprised the Small Silence project playfully investigated the phenomenon of ‘distancing’, exploring the synergies and disparities between the perception of temporal and physical distance in the soundscape, and related shifts in psychological perspective. A body of research investigating these themes came to heavily influence my explorations of positive silence. It focused around the

²⁴⁴ Long, C. and Averill, J., *Solitude: An exploration of the benefits of being alone*, Blackwell, 2003, pp.26

theory of psychological distance, the interrelationship of perceived distance across multiple domains, including distal thoughts. Before exploring this theory, it is necessary to outline the basis for this phenomenon, employing another psychological construct, that of construal level theory.

In psychological theory, the word ‘construal’ refers to any move beyond direct experience into the realm of abstract thought. The level of construal can vary, from thoughts that relate closely to direct experience, to those thoughts that require increasingly more abstraction. For example, the shifting white noise-like sound I can now hear through the open window may prompt me to picture trees lining a road, similar to the one outside. This is an abstraction, as I am imagining the scene, but it is not so distant from my direct experience of listening. On the other hand, I could hear this psithurism and recall walking in a woodland as a child, its similarity with the sound of distant traffic, the impact of trees in offsetting carbon or what trees would look like if they were to float in mid-air. This distancing from direct experience is not measured in spatial terms as meters, or in temporal terms as seconds, but in our subjective experience of distance as closer or further away from direct experience.²⁴⁵ This distancing is egocentric, always measured from the self and always related back to our centre of experience. With greater levels of abstraction, thoughts become increasingly remote. As such, they hold less information about direct perceptions. Instead, thoughts progressively move towards “a more schematic, simple, and coherent representation”²⁴⁶ that draws upon stored knowledge. Such distal thoughts may also “contain additional information (i.e., high-level meaning), about the value of the stimulus and its relations to other stimuli.”²⁴⁷ This kind of abstracted thinking is critical in the assimilation and organisation of experience into a coherent sense of personhood, with a heritage, a set of values, and beliefs about the world. It is this personhood that can provide resilience, a sense of purpose and nurture our relations with others. This affordance of silence to unfold a space in which to connect and organise our thoughts, is captured in this short quote from Patricia Hampl:

“Contemplatives say silence speaks, but really I think silence sorts.”²⁴⁸

Opportunities for an individual to reflect, plan, connect, think-through and problem solve are essential to the construction of a coherent sense of self, which naturally has implications for the

²⁴⁵ Liberman, N., Trope, Y. and Stephan, E., *Psychological Distance*, 2007, pp.354

²⁴⁶ Liberman, N., Trope, Y. and Stephan, E., *Psychological Distance*, 2007, pp.355

²⁴⁷ Liberman, N., Trope, Y. and Stephan, E., *Psychological Distance*, 2007, pp.355

²⁴⁸ “*Silence speaks*” accessed 2nd July 2020, https://encountering Silence.com/?fbclid=IwAR1F-YkKbZTcj6g1vTsNOjzTucHwlv9xfZyB_Aj2z5eMg4mS08x6fl1JcM

functioning of social groups of all sizes. More specifically, there is evidence that high-level construal impacts positively upon self-control, mood and wisdom, each of which I would like to briefly address now.

Our ability to regulate our thought, speech and action requires self-control. Social problems from crime, venereal disease, alcoholism, drug-addiction, educational underachievement, gambling and domestic violence are heavily influenced by social, political and economic circumstances. The capacity to self-regulate one's behaviour undeniably plays into this.²⁴⁹ Similarly, aspects of personal wellbeing such as procrastination, binge-eating and overspending can be deeply affected by an ability to instigate measures of self-control. The ability to act in a way that is congruent with one's deeply held beliefs and objectives differs between individuals, but acting in-accordance with these objectives has been linked to the activation of high-level construal. Acting in line with one's primary objectives rather than immediate situational, incidental concerns, requires one to resist temptation and see the bigger picture. James Williams quotes the American philosopher Christine Korsgaard, who sums this up when she writes:

“Reflection is an essential ingredient for the kind of thinking that helps us determine “what we want to want.”²⁵⁰

Studies have shown that resisting temptation or delaying gratification is easier when one is familiarised with the wider, more abstract, distal realm of beliefs, values, and objectives etc.²⁵¹ It follows that conditions which afford the individual opportunity to form, consider and reflect upon these high-level construals will support an individual's propensity to exert self-control.²⁵²

Another potential benefit of this broadened, distal and abstracted thinking is its positive effect on mood. A number of studies have proposed a causal relationship between this ‘global processing’ and positive mood²⁵³, as well as links between open, creative, associative and divergent thinking. While the causes behind these results are unclear, the nurturing of positive mood could be linked to the broadening of attention to positive stimuli in the environment. It has also been suggested that global processing leads to ‘big picture’ thinking that “may nudge the observer to evaluate the information around them or their lives more abstractly, thereby

²⁴⁹ Baumeister, R.F. and Heatherton, T.F., *Self-Regulation Failure: An Overview*, Psychological Enquiry, Vol.7, No.1, 1996, pp.1-15.

²⁵⁰ Williams, J., *Stand out of our light*, Cambridge University Press, 2018. pp.70

²⁵¹ Fujita, K., Trope, Y., Liberman, N., & Levin-Sagi, M., *Construal levels and self-control*. Journal of Personality and Social Psychology 90(3), 2006 pp.351–367

²⁵² Trope, Y., Liberman, N. and Walslak, C., *Construal Levels and Psychological Distance*, Journal of Consumer Psychology Vol. 17, 2007, pp.15

²⁵³ Ji L-J, Yap, S., Best, M.W. and McGeorge, K., *Global Processing Makes People Happier Than Local Processing*. Frontiers in Psychology 10, 2019, pp.2

potentially trivializing more minor and immediate concerns.”²⁵⁴ Zooming out to see our lives within wider contexts may help prevent us from getting caught-up with details that might have a negative impact on mood. In their paper ‘Happiness is a Warm Abstract Thought’ psychologists Updegraff and Eunkook propose that:

“...people who view important aspects of themselves and their lives abstractly, that is, by focusing on broad descriptions rather than specific events or criteria, are likely to report higher life satisfaction than people who tend to view important aspects of their lives more concretely, that is, by focusing on specific events or criteria rather than broader descriptions.”²⁵⁵

This distancing from the minutiae of everyday pragmatic concerns, and engagement with broader matters, is believed to give expression to the idealistic self which is oriented towards values and identification with a “true, inner self”.²⁵⁶ This identification with the idealistic self, increases the relative importance of identity-related concerns, such as respect and quality of treatment.²⁵⁷ Interestingly, Alain de Botton makes the observation that the architecture and furnishing of buildings may play in to this formulation and identification with the ideal self:

“In danger of being corrupted by our passions and led astray by the commerce and chatter of our societies, we require places where the values outside of us encourage and enforce the aspirations within us. We may be nearer or further away from God on account of what is represented on the walls or ceilings. We need panels of gold and lapis, windows of coloured glass and gardens of immaculately raked gravel in order to stay true to the sincerest parts of ourselves.”²⁵⁸

By extension of the senses, we may also consider the soundscape and acoustics of spaces as elements of the environment that support this identification with the ‘true self,’ bringing associated increases in self-regulation, positive mood and wisdom.

²⁵⁴ Ji L-J, Yap, S., Best, M.W. and McGeorge, K., *Global Processing Makes People Happier Than Local Processing*, *Frontiers in Psychology* 10, 2019, pp.7

²⁵⁵ Updegraff, J. A. & Eunkook M. Suh, E. M., *Happiness is a warm abstract thought: Self-construal abstractness and subjective well-being*, *The Journal of Positive Psychology* Vol. 2:1, 2007, pp.18

²⁵⁶ Trope, Y., Liberman, N. and Walslak, C., *Construal Levels and Psychological Distance*, *Journal of Consumer Psychology* Vol. 17, 2007, pp.11

²⁵⁷ Trope, Y., Liberman, N. and Walslak, C., *Construal Levels and Psychological Distance*, *Journal of Consumer Psychology* Vol. 17, 2007, pp.11

²⁵⁸ de Botton, A., *The Architecture of Happiness*, Penguin, 2007, pp.108

“Do you need more knowledge? Is more information going to save the world, or faster computers, more scientific or intellectual analysis? Is it not wisdom what humanity needs most at this time? But what is wisdom and where is it to be found? Wisdom comes with the ability to be still. Just look and just listen. No more is needed.”²⁵⁹

Relating to this, studies have also linked distal thinking and the associated value-laden perspective that it encourages, to increased wisdom. Here, we are defining wisdom as “certain forms of pragmatic reasoning and behaviour that help people navigate important life challenges.”²⁶⁰ More specifically, in this paper Kross and Grossmann identify three key dimensions of wisdom; the impermanent nature of existence, recognition that there are limits to one’s knowledge, and developing a prosocial orientation to life that encourages the common good. Common to all three dimensions of wisdom is the requirement to view oneself as part of a ‘bigger picture’ and reason things through in a holistic manner. It is, therefore, well within the realms of possibility that distal thinking—allowing one to abstract and transcend one’s egocentric viewpoint—can encourage the development of wisdom in thought and action.

Such a hypothesis is, in part, bolstered by work researching links between conceptions of distance and levels of construal. Known as ‘psychological distancing,’ a growing body of research has provided evidence that levels of construal, abstraction and distance from the egocentric self, are associated with other forms of distance such as perceived “spatial distance, temporal distance, social distance, and hypotheticality” (the latter referring to the construction of imagined, alternative realities).²⁶¹ It would appear that these dimensions of distance; an object’s location relative to the perceiver; whether it happened recently or a long time ago; whether it is expected imminently or at some point later; whether it is expected to be experienced by oneself or another and whether or not it is probable or improbable are, to some degree, interchangeable. A cue on one of these measures of psychological distance can alter the perceived distance on another. This phenomenon is embedded in our language, for example the use of spatial terms when describing lengths of time such as ‘far in the future’ or ‘that time is *nearing*’. Bar-Anan et al.²⁶² demonstrated that we intuitively link measures of distance together. In their experiment,

²⁵⁹ Tolle, E. *Stillness Speaks*, Hodder and Stoughton, 2003, pp.9

²⁶⁰ Kross, E. and Grossmann, I., *Boosting Wisdom: Distance From the Self Enhances Wise Reasoning, Attitudes, and Behavior*, Journal of Experimental Psychology: Vol. 141, No. 1, 2012, pp.46

²⁶¹ Trope, T. and Liberman, N., *Construal-Level Theory of Psychological Distance*, Psychology Review 2010, pp.6

²⁶² Bar-Anan, Y., et al, *Automatic Processing of Psychological Distance: Evidence from a Stroop Task*, J Exp Psychol Gen., November 2007

they employed a Stroop task which represented distance in both spatial and social dimensions simultaneously, by placing the word ‘enemy’ and ‘friend’ in the foreground and background of a scene. In this experiment, “the participants classified the spatial distance of words faster when the word’s implicit psychological distance matched their spatial distance.” In this and other experiments²⁶³, measures of psychological distance and levels of construal were related to spatial, temporal, social distance and hypothetical distance from present reality. While these experiments have focused upon the visual domain, my reflections entertain the possibility that the perception of distance in the soundscape may have a similar impact upon construal level. Relating this more closely to the present study of quiet space and positive silence, I would hypothesise that the elements of distance present in the soundscape—often foregrounded or revealed by quiet—may encourage high-level construal, and the change of perspective witnessed in many of the visitors when engaging with the various artworks presented here. To illustrate this, I will explore the possible influence of the soundscape on each domain of psychological distance; spatial, temporal, social and hypothetical.

7.3 The Soundscape of Quiet Spaces and Psychological Distancing

“...for thinking one needs a detached outlook, to be at a distance, to have clear air. One needs to be unconstrained to think far. And what then do details, definitions, exactitudes mean? It is the armature of human destiny that one needs to see laid out. From very high up one sees the movement of landscapes, the design of hills. And thus with history: Antiquity, Christianity, modernity ... what do they produce in the way of archetypes, characters, essences? The moment your nose is buried in dates, in facts, everything falls back on your own clenched peculiarity.

Whereas the need is to construct fictions, myths, general destinies.”²⁶⁴

The quiet of the open countryside, mountains, moors and plains, is frequently complemented by the visual silence of objects moving slowly, their motion attenuated by distance. On fine days, this visual stillness can be heard as a transparency in the soundscape, allowing the listener to notice softer, distal soundings that busier, rowdier soundscapes mask. On such quiet days, the remote tremolo of tyres on asphalt, the falling drones of aircraft, the cries of birds gliding on

²⁶³ Trope, T. and Liberman, N., *Construal-Level Theory of Psychological Distance*, *Psychology Review* 2010, pp.6

²⁶⁴ Gros, F., *A Philosophy of Walking*, Verso, 2015. pp.23-24

thermals and the clattering of industry softened by reverberance can create an audible perception of distance.²⁶⁵ On stormy days, when claps of thunder expose the contours of the landscape, we may also perceive distance through sound. Similarly, when large interior spaces render sounds aloof, or when sounds in distant corners are given away by their smeared reflections, distance is audible. In these soundscapes dominated by distal bodies and their distorted, often tempered envelopes, and when immediate concerns of comfort or survival have fallen away, our minds are free to slowly wander at a distance, “unconstrained to think far.”²⁶⁶ Diary entries from the ‘Distal Bodies’ series of listenings, made on Woodcote Village Green during the first Covid-19 lockdown in England in 2020, seem to highlight this:

“After spending the weekend working, converging my thinking on problems, process and product, I can sense the warm rays of the sun tempering this implacability and my mind open to the soundscape once again. Unlike on chillier, stormier days, the calm breeze buoys sounds to my ears and I can listen attentively. The alto wash of MPVs, four-by-fours and estates seems to dominate today, with no screaming sopranos and only the occasional rumble of tenors and basses. The counterpoint of birds, leaves and softly plosive wind noise across my ears creates a relaxing and familiar composition. I marvel at the size and gracefulness of a kite swooping low in front of me, while the surprisingly loud tumbling, sine-tone of a light aircraft drives the limiters on my recorder into action. It is only the presence of others that breaks my outward attention.”²⁶⁷

Conversely, when we are cold or uncomfortable, we may not be able to move our thinking far beyond the body. In aeolian soundscapes, where the wind animates nearby objects, or when the soundscape is dominated by the immanent sounds of rain and the rustle of layers of clothing, the mind may draw inward:

“I attend to the rolls of white noise from the branches above, dominating the soundscape today. With no obstructions, the chilly breeze appears to gather momentum across the green, making me conscious of the tripod’s stability, top heavy with microphones and blimp precariously nesting on the apex. My inability to hear into the distance keeps my thoughts turned inward. A slow-moving tractor, trailer with entourage

²⁶⁵ “*Distal Bodies*,” accessed 15th June 2020, <https://www.anoisysilence.com/distalbodies>

²⁶⁶ Gros, F., *A Philosophy of Walking*, Verso, 2015. pp.23-24

²⁶⁷ “*Distal Bodies* (May 18th 2020),” accessed 15th April 2021, www.anoisysilence.com/distalbodies

of patient motorists rumbling along the Goring Road and the occasional shriek of red kites pull my attention outward, but not far and not for long.”²⁶⁸

In these soundscapes, where the proximate masks the distal, there appears to be a propensity to attend to the immediate, to converge on problem solving and the minutiae of present experience. While based solely upon anecdotal evidence, the correlation of spatial distance in the soundscape and construal level appears to mirror findings in other domains of perception. When the mind is free from anxiety, distraction and physical discomfort, it is afforded the opportunity to venture outward, into the soundscape, but also into realms of more abstracted and divergent thought. When we are free from distraction, we can become engaged in the play of the senses, including the play of the mind. Attending to the soundscape of the village green as part of the Distal Bodies series of listenings²⁶⁹ frequently became an opening to relaxed, creative and distal thinking, and an invitation to interpret present experience within the timeframes, not only of a human lifetime, but the lifetime of other beings, of planets and stars.

It may be that particular soundscapes promote this sense of a coherent self through the organisation and integration of memories and projections. This instinctively assembled self does not only seek coherence within a lifespan, but pursues meaning through an understanding of one's present situation within the context of longer spans of time. This desire to understand one's lineage can be reflected in the soundscapes of quiet spaces around us. We could think of ancient structures that give their particular shape to sound; the reflections from caves and natural rock formations, burial chambers and standing stones or edifices honouring the achievements of gods and human endeavour. These constructions offer a continuity, not just with specific places and people, but with wider values and beliefs. As such, they afford us opportunities to disconnect from immediate concerns and connect with more abstract thoughts; questions of ethics, meaning and purpose. This connection with the past may be enhanced when a building's current use expresses a continuity with its historical purpose. One may think of secular buildings; stately homes, galleries, museums and other historic structures. This continuity is, perhaps, more commonly experienced in religious buildings; cathedrals, parish churches, temples and stone works that continue to be sites of pilgrimage and sacred rites. Soundscapes that still resound with chant, bells, recitation and communion may connect us to our heritage, even if we no longer identify with those beliefs systems. During a radio programme aired shortly after the extensive

²⁶⁸ “Distal Bodies (May 24th 2020),” accessed 15th April 2021, www.anoisysilence.com/distalbodies

²⁶⁹ “Distal Bodies,” accessed 15th June 2020, <https://www.anoisysilence.com/distalbodies>

fire at La Cathédrale Notre Dame de Paris in 2019, Canon Michael Smith of York Minster reflected upon the significance of these great architectural masterpieces:

“Cathedral’s ask important questions of us, of life and death and why we’re here, and value...”²⁷⁰

Discussions of this kind tend to focus on the visual, on statues, architecture, artefacts and artworks, as the most palpable features connecting us with our past. Nevertheless, it is the sounds that fill and ripple outwards from these spaces, sounds of devotional music, prayer, ceremony and sounds marking the canonical hours, that animate history in a way that motionless entities cannot. It is this living, moving history, that sound conveys so candidly, that may better support this felt sense of connection with the past and through it an association to distal thinking. Indeed, this intuitive association between sounds connecting us with the past, distal thought and positive experiences of silence may have some pre-existing empirical basis. Research exploring the restorative potential of nature, discussed above, has more recently expanded to investigate the affective impact of historical sites on human experience. Studies appear to confirm that “pleasant built/historical environments” do indeed provide improvements in mental health and quality of life.²⁷¹ Suggesting that on-site experience has a greater restorative potential than, for example, merely looking at an image of a building or environment, these studies may support our contention that listening in context, to sounds with positive historical associations for an individual, may offer some restorative potential.

Such connections could be fostered by the sounds themselves, but may also be influenced by the echoes of the past found in reverberant buildings. While the acoustic properties of cathedrals and churches was likely an “unintentional consequence of religious, philosophic and social forces”²⁷² and the opportunities presented by new construction techniques, it has left a legacy of associations with cosmological questioning, devotion and holiness. Works of sacred music from Christian monastic plainchant, Dunstable’s revered polyphonies, through to Oliveros’ *Suiren* and the plethora of recordings employing post-production reverb, draw upon these distortions of architectonics to rekindle longstanding associations with the sacred past.²⁷³ These strong associations with sacred space could well support our identification with the ‘ideal self’ mentioned earlier, strengthening self-regulation,

²⁷⁰ “Beyond Belief – Notre Dame, BBC Radio 4, 29-04-19,” accessed 29th April 2019, <https://www.bbc.co.uk/programmes/m0004lfz>

²⁷¹ Scopelliti, M. et. al., *Is it Really Nature That Restores People? A Comparison With Historical Sites With High Restorative Potential*, Frontiers in Psychology, 2019.

²⁷² Blesser, B. and Salter, L.R., *Ancient Acoustic Spaces*, in Sterne, J. (ed.), *The Sound Studies Reader*, Routledge, 2012, pp.192

²⁷³ Toop, D., *Ocean of Sound*, Serpent’s Tail 1995, pp.244

positive mood, value-led decision making and other facets of wisdom. Yet, even the mundane sounds of footsteps, doors shutting and general clatter, sound the environment, illuminating its size and distance which can foster an awareness that such spaces are set-aside from the world. As such, the experience of listening in these places captured in the portfolio works, not only encouraged connection with the past, but supported a cosmological distancing extending into the realms of value, meaning and purpose. The smoothing of sound, and the peculiar acoustic signature of such ancient stone buildings, held sounds at a distance and encouraged thought to rest on distant alters and shrines, to drift upward into rafters and trusses. The interplay of the senses and the spatial, temporal and cosmological distance that the soundscape conveyed, combined to move thought outward. There was often a sequencing to the progression of listening and thought. Attending to the soundscape would typically instigate a process of identifying, labelling and locating sounds in the environment. The more distant and acoustically contorted a sound was, the more abstraction was required to locate and identify it. Without the introduction of new stimuli, the mind would often diverge into a more freely associative mode. Without the intrusion of discomfort and distraction, the sounds commonly became a source of soft fascination, launching flights of thought and imagination where memories, notions and concepts were explored. This development from the immediate, proximal experience of the soundscape into more abstract, distal thought was not necessarily linear, with thoughts and direct experience influenced by other factors, such as the exhausting of a line of thought, or the imposition of novel sense perceptions. However, attending to distal bodies in the soundscape did appear to be mirrored in higher levels of construal and abstraction.²⁷⁴

Writing this as the UK slowly emerges from the Covid-19 'lockdown', the term social distance brings to mind the maintenance of an invisible two-meter bubble of seclusion from others and the isolation of being confined to home. This social distancing and isolation has many faces, but perhaps two of the most noticeable are that of anxiety, loneliness and separation on the one hand, and quiet, retreat and peaceful solitude on the other.²⁷⁵ The soundscape has had a significant impact upon our perception of this social distancing, with perceptions of relative quiet ranging from the apocalyptic to the utopian. In many ways, such perceptions highlight the elements of positive silence forwarded in this study, such as freedom, security, familiarity and comfort. While the impact of changes in the soundscape have been highlighted during these extraordinary times, they are elements often hidden within our everyday experience. Short of forced distancing and isolation, one can voluntarily seek out seclusion in protected or hidden

²⁷⁴ "*Distal Bodies*," accessed 23rd September 2020, <https://www.anoisysilence.com/distalbodies>

²⁷⁵ "*Two faces of Covid-19 silence*" accessed 23rd September 2020, <https://silentspace.org.uk/two-faces-of-covid-19-silence/>

places. To create enough space between ourselves and others is often the function of quiet space, where babble masking and freedom from the pressures of interaction may be as important as the qualities of the soundscape. However, there are numerous other ways in which we can inconspicuously establish social distance. Perhaps the most common cue we employ when seeking privacy is that of wearing headphones or earphones, the auditory equivalent of staring purposefully at a screen. The use of headphones cocoons us from others, creating a bubble of acoustic isolation that is only mildly permeable. Amidst others, wearing headphones can modulate our presence in the shared space. Bull notes that the headphone user “does not perceive herself as being ‘alone’ but understands that neither is she ‘really there’”.²⁷⁶ Wearing headphones, in combination with a fixed gaze, closed eyes, or withdrawn body language can convey the degree of openness we have towards interaction with others.

With respect to our current focus on psychological distancing, the presence of others, silenced by a soundtrack of our choosing, can be key to our appreciation of positive silence through social distance. From infancy, we gradually learn to be alone by being conscious of the presence of another nearby, typically a caregiver.²⁷⁷ As we grow, this requirement for the reassuring presence of another does not leave, and positive experiences of solitude are typically experienced against a backdrop of supportive social relations. If those social relations become severed, the positive experience of solitude and silence is likely to vanish, to be replaced by feelings of loneliness, anxiety and isolation. As a result, when we talk of social distance as supporting positive silence, we must be aware that this is a *retreat* from social interactions, not a *release* from them. It is also a retreat that is freely chosen and not forced upon us. This goes some way to explaining the pleasure of controlling social distance through headphone use when amongst others. In whichever way this social distance is secured or managed, it can help to mitigate against distraction, interruption and self-consciousness, and provide a space for our thoughts to transcend the immediate concerns presented by interaction with others. As Gros explores through the act of walking, positive silence in a bubble of solitude may similarly disentangle us from the “web of exchanges” that reduce us to “a junction in the network redistributing information, images and goods.”²⁷⁸ To listen from a position outside of these exchanges, can help us to re-evaluate the importance we give to them and view the reality of situations from an alternate perspective.

Psychological distance can also be conceived of as a dimension of abstracted thinking, of imaginings and creativity that plays with connections, identities and scenarios. Forming

²⁷⁶ Bull, M., *Sounding out the City*, Berg, Oxford, 2000. p.31-33

²⁷⁷ Long, C. and Averill, J., *Solitude: An exploration of the benefits of being alone*, Blackwell, 2003. pp.27

²⁷⁸ Gros, F., *A Philosophy of Walking*, Verso, 2015. pp.5

associations between previously unrelated ideas and expressing those connections often requires the space to think more abstractly and the freedom to experiment. Hypothetical distance fostered by solitude, silence and a freedom from distraction is critical to much of this creative activity.²⁷⁹ Some creative thinking takes flight in a group, or can happen when alone in the presence of others. The product of such associative, divergent and distal thinking is not just artworks, scientific breakthroughs or works of fiction, but also the ability to experiment with alternative versions of ourselves.²⁸⁰ It is in hypothetical distancing that we can try out identities and play with our self-concept, to project possibilities of our future self that the workaday world may rob us of. Soundscapes that entertain and support such hypothetical thinking may not always be quiet, but will often be those that afford a freedom to follow thoughts where they will. As such, soundscapes with few off-task interruptions may offer just such a creative, positive silence.

Given this brief survey of the impact of the soundscape on our perception of spatial, temporal, social and hypothetical distance, I am persuaded that the soundscape influences our experience of psychological distance. While there does not appear to be a body of research supporting this hypothesis of audible distancing, it is an area ripe for further investigation. In relation to our present study of positive silence, I would conclude by postulating that an important aspect of our auditory experience of positive silence is the opportunity it provides us to “think far”.²⁸¹

7.4 Silence and Our Sense of Self

In growing up, we learn to label and group perceptions into objects with similarities that form categories, providing the basis for our patterning of experience. The metallic overtones and envelopes of hollow cones being struck are ascribed the label ‘bells’, the structured phonation and articulation shaped through exhaling becomes ‘speech’. This is an instinctual process, honed from our very earliest years, helping us to make sense of the environment. It affords us the opportunity to identify, categorise and disregard a sound, unless it is note-worthy or relevant to our current task. Labelling may not involve the need to recall the label as a sound repeated within our mind’s-ear; “bell” or “speech,” or indeed to imagine the cause within our visual imagination, but there is recognition nonetheless, even if this appears as an intuitive, subconscious acknowledgement. This is of course, a useful, indeed vital evolutionary trait that frees up our minds to attend to more pressing matters. However, a side-effect of this familiarity

²⁷⁹ Storr, A., *Solitude*, Collins, 1988. pp.26

²⁸⁰ Long, C. and Averill, J., *Solitude: An exploration of the benefits of being alone*, Blackwell, 2003. pp.26

²⁸¹ Gros, F., *A Philosophy of Walking*, Verso, 2015. pp.23-24

is that we are able to operate on autopilot for vast swathes of our life, without paying attention to and acknowledging elements within the soundscape. As Gros observes:

“The outlook born of experience flattens everything, piles it together, renders it dull. It all comes down to the same.”²⁸²

Experience is flattened through our training in labelling the everyday, mundane soundings that form the patterning on our sonic wallpaper. Those sounds that lack novelty, interest or task-relevance are generally lost in the forgetfulness of autopilot. Both intentional listening and mindful listening attempt to loosen this habit, by directing attention to elements in the soundscape that may otherwise be disregarded. In the absence of speech and other semantically coded sound, our mode of listening appears to alternate between causal listening (listening to identify the cause or source of a sound) and reduced listening (attending to the traits of sound independently of its cause or meaning).²⁸³ The modulations between these two modes of listening often appear to intertwine and overlap. When practicing ‘intentional listening,’ one focuses on the sound, perhaps noting its features, movement and setting. As we have seen with the ‘mindful listening score,’ mindful listening additionally acknowledges the thoughts that listening may trigger, and our affective affiliation with sound. As such, mindful listening takes a holistic approach to the investigation of our relationship with the auditory world. In both forms of listening, there can be a quietening that is ushered in from absorption in the environment, cultivating a soft fascination that does not necessarily require discussion. Equally, our cognitive and affective response to a sound may highlight less positive reactions and associations or, indeed, simply disinterest and dullness. Whether affectively positive, negative or neutral, awareness of these responses can increase our awareness of the impact of sound on our state of being. While this process of intentional or mindful listening does not demand quiet, it is often supported by an undistracting stillness that grants the listener freedom to explore the soundscape and allow “the faint meanings of sound to gain [their] original importance.”²⁸⁴

As alluded to above, and explored through research into auditory attention expanded upon below, labelling sound streams allows us to more efficiently disregard those that are not ‘goal-relevant’, reducing our propensity to become distracted. Prompted by the use of labelling as a consciously initiated practice within formal meditation techniques²⁸⁵ and explored through a

²⁸² Gros, F., *A Philosophy of Walking*, Verso, 2015. pp.160

²⁸³ Chion, M., *The Three Modes of Listening*, in Sterne, J. (ed.) *Sound Studies Reader*, Routledge, 2012

²⁸⁴ “Being Hear, Short Film on Gordon Hempton’s Sonic Ecology,” accessed 22nd June 2020, <http://sonicfield.org/2017/07/being-hear-short-film-on-gordon-hempton-sonic-ecology/>

²⁸⁵ “Meditation is the Key to Knowing Yourself,” accessed 2nd July 2020, <https://www.lionsroar.com/the-key-to-knowing-ourselves/>

variety of listenings²⁸⁶, it became clear that labelling can provide a useful practice in the minimisation of auditory distraction. By attending to a specific sound stream and exploring our bodily, cognitive and affective responses with what is heard, we become aware of our resonances with those sounds. Such ‘mindful listening’ practices not only help us to acknowledge our relationship with the soundscape, but appear to allow us to return our attention to an intended task or focus through reducing levels of auditory distraction. This consciously instigated process of acknowledgement and labelling may serve to quicken what might occur naturally when listening for extended periods. However, the directed focus on both the exterior and interior world may provide a more self-reflexive practice that can foster greater self-awareness than ‘unintentional listening’.

Paying attention to and familiarising ourselves with external auditory stimuli and their personal resonances begins with an engagement with worlds beyond the points of interface offered by our bodies. These listening practices have the potential to fashion congruence between the soundscape and our intentions. This congruence can be developed through an intentional exploration of sound streams and their affect, or through a process of familiarisation that diminishes distraction, and the struggle between our intentions and the affordances of the sounds around us. Naturally, we can also engage our attention in endophony, the world of imagined sound, by directing our attention to thoughts, sounds and scenes within the mind’s-ear. This may be a consciously cultivated practice or a natural movement inwards. This silencing of the external sound-world by turning inwards may never be absolute, but it can afford the mental space and freedom to reflect, problem-solve, organise, assimilate, connect and plan. This bubble of sound, subjective and inaudible to everyone but the individual, is the silence of the thinker; the philosopher, the psychologist and the dreamer. Maitland calls this the writer’s silence:

“...a rushing inward, aimed at bolstering an intrinsic murmur. It draws one away from external noise so that an internal voice can rise in a clearer, bolder way.”²⁸⁷

It is a turning away from distraction to liberate the inner voice, and allow it the space “to think far”.²⁸⁸ While supported by soundscapes that are familiar, free of fear, anxiety, novelty and distraction, such ‘writer’s silences’ are noisy silences, containers that protect chatter and movement from unwanted intrusion. As such, they are not silent at all, the auditory cortex firing as if the exterior soundscape were bustling with a mix of comforting repetition, novelty and

²⁸⁶ “*Listenings*,” accessed 2nd July 2020, <https://www.anoisysilence.com/listenings>

²⁸⁷ “*The Sound of Silence*,” accessed 2nd July 2020, <https://www.gq.com/story/what-happens-during-a-month-long-sound-fast?>

²⁸⁸ Gros, F., *A Philosophy of Walking*, Verso, 2015, pp.23-24

distraction²⁸⁹. This captured in this quote by Haemin Sunim in his book ‘The Things You Can See Only When You Slow Down’:

“We know the world only through the window of our mind. When our mind is noisy, the world is as well. And when our mind is peaceful, the world is, too.”²⁹⁰

While the freedom to think is a right due to all, this noisy silence can equally present itself as a padded cell, where we are endlessly played the same records on a radio station we cannot change. Bolstered by the demands of the information and attention economies, it removes us from the world which, unless kept in-check, may easily fall into what Hinton describes as a “self-absorption that is a form of lonely exile from the very nature of Cosmos and consciousness.”²⁹¹

Beyond this intentional perpetuation of chatter, or unwilling surrender to ‘thought-sound,’ lies the expectant silence, a space cleared of language in order to hear the murmur of something hidden or other. Such a space may become clear as effortlessly as clouds dispersing on a bright day, revealing the deep, open sky beyond. Without agitation or exertion, waiting in stillness may allow thoughts to pass and thin on their own.²⁹² Sometimes one can catch the mind flickering with the buds of thought that may never break through to consciousness and fruit.²⁹³ Alternatively, conscious effort may be employed to cultivate a focused attention that listens to thoughts pass through the mind, “like clouds in a windy sky”,²⁹⁴ without an attending monologue, conversation or exposition. Yet, with no thought to chase, and with attention rested, expectant silence continues to wait for some sign, some “voice”²⁹⁵ or movement of the spirit. Such a silence is experienced as pregnant, about to give birth to words, maybe even meaning and revelation. We are listening to apprehend meaning as it arises, anticipating understanding or waiting for clarity. As interesting, awkward and challenging as these voices or movements are, they could be viewed simply as a reflection of oneself in silence, only faintly removed from the silence of the writer by its scarcity and affective weight. Certainly, it can mark subtle, nascent insights into the nature of one’s relationship with the world, but ultimately it perpetuates discussion and the dualism of self and other. Such an expectant state of mind cannot rest

²⁸⁹ Perrone-Bertolotti, M. et al., *How Silent Is Silent Reading? Intracerebral Evidence for Top-Down Activation of Temporal Voice Areas during Reading*, The Journal of Neuroscience Vol.32, 2012

²⁹⁰ Sunim, H., *The Things You Can See Only When You Slow Down*, Penguin Life, 2017.

²⁹¹ Hinton, D., *Hunger Mountain*. Shambhala, 2012, pp.26

²⁹² “*St. Leonard’s Church*,” accessed 2nd July 2020, <http://www.sound-diaries.co.uk/previous-sound-diaries-projects/2017-2/lion-seats/11-50-23062017/>

²⁹³ “*Morning Meditation*,” accessed 2nd July 2020, <http://www.sound-diaries.co.uk/previous-sound-diaries-projects/2017-2/lion-seats/morning-meditation/>

²⁹⁴ Hanh, T.N., *Chanting from the Heart: Buddhist Ceremonies and Daily Practices*, Parallax Press, 2007, pp.41

²⁹⁵ *Holy Bible: New Revised Standard Version with Apocrypha*, 1 Kings 19:13, OUP, 1989

contented, but is always searching. As such, expectant silence must be recognised for what it is, a waiting for movement, lest it undermine a more subtle and profound experience of silence.

For those that give up on such expectation, that out of silence some resolution will be delivered, a liberating silence may arise. Here, silence is not sought, but rested within. Listening is no longer effort and perhaps, as such, is no longer listening, as Losseff's exploration of St John of the Cross' 'Silent Music' suggests.²⁹⁶ In this effortless listening, meaning may unfold as an experience of equanimity, presence or unity with what is, vanishing the moment self-consciousness returns. Resting in silence has, for some, been experienced as a dissolution of this and that, now and then, self and other. To abide in this effortless silence may be to experience meaning directly, intuitively, a thundering silence.²⁹⁷ In such a wordless silence, perhaps all that makes sense is to bow in reverence and continue.

²⁹⁶ Losseff, N., *Chapter 12: Silent Music and the Eternal Silence*, in Losseff, N. and Doctor, J. (ed.), *Silence, Music, Silent Music*, Routledge, 2007, pp.205-222

²⁹⁷ Hanh, T. N., *Silence: The Power of Quiet in a World Full of Noise*, Rider, 2015, pp.13-14

8. Positive Silence as Freedom from Auditory Distraction

“In order to do anything that matters, we must first be able to give attention to the things that matter. It’s my firm conviction, now more than ever, that the degree to which we are able and willing to struggle for ownership of our attention is the degree to which we are free.”²⁹⁸

I have ventured a definition of positive silence as an experience of the soundscape that is characterised by a predominantly positive affective valence, free from coercion and demand, affording the individual opportunity to engage with activities or thoughts of one’s choosing and contributing to human flourishing. As we have seen highlighted in the commentary thus far, auditory distraction is likely to be the principal barrier to such freedom. While the accompanying portfolio works explored the experience of positive silence through artworks and listenings, I felt it important to augment this understanding with an analysis of auditory attention and auditory distraction as psychoacoustic phenomena. As such, the following chapter explores our understanding of psychoacoustics, so as to better appreciate how a soundscape may support positive silence. In beginning such an analysis, it is firstly necessary to understand the means by which we separate and group auditory objects within the soundscape.

8.1 Sound Objects and Streams

Our intuitive understanding of sound objects, is that they are the sounds emanating from discrete sound sources. When sitting in a room of people we may hear: the sound of sniffing behind us; clinks and whirrs around the building; distant chirping. Each of these sounds is perceived as emanating from a physical sound source: someone close by with a cold; the heating system; the bird in a tree outside respectively. Whether the sound has been correctly appropriated to a source or not, the sound object is commonly understood as originating from one physical source. In identifying visual objects, we may define them through the analysis of their geometry, boundaries, relation to other visual objects etc. Similarly, sound objects are defined by their contiguous spectro-temporal structure, including frequency, harmonic structure, loudness and semantic content. Spatial positioning further assists the brain in grouping sonic stimuli into discrete sound objects by analysing and tracking patterns of sound absorption and reflection in an environment. An example would be listening to the changing acoustics of sounds

²⁹⁸ Williams, J., *Stand out of our light*, Cambridge University Press, 2018. pp.128

generated by a person walking through rooms in a house towards you, where the loudness, tonal quality and ratio of direct to reflected sound would change as they came closer. Surprisingly, spatial auditory cues offered by inter-aural time differences (the delay in sound arriving at one ear compared to another) do not seem to play such an important role in sound object formation, perhaps as the richness of such auditory information is limited. Findings such as these may initially suggest hierarchical processing of sound objects by the brain, where important sonic indicators (such as the acoustics of a space) are prioritised over those less important (such as inter-aural time differences). However, Shinn-Cunningham²⁹⁹ believes that sound objects are formed through more egalitarian heterarchical interactions between the various spectro-temporal elements of a sound object. It would appear that sound object formation involves the parallel assimilation of all available auditory information about the spectro-temporal structure of a sound at any particular moment.

The formation of sound objects are of great importance to auditory attention, as it is object formation that has a direct bearing upon the way in which we analyse and perceive complex soundfields. As we shall discuss later, the human brain has only the capacity to appropriate active attention to one sound object at a time, and when a number of sound objects are present in a soundfield there occurs what is known as biased competition. This is where sounds vie for our attention exogenously, by nature of their inherent spectro-temporal features (such as a loud wailing siren) and/or through top-down volitional endogenous selection by the listener.

Thus far, our discussion of sound objects has presumed that it is possible to locate a specific sound object as arising from a specific sound source. However, it is difficult in many situations to define precisely what constitutes a sound object, particularly when listening to a complex auditory scene. For example, when listening to a rock band, some listeners may perceive the object to be the sound generated by the entire band, while others may hear each individual instrument or part as a separate sound object. It is clear that in many situations a sound object can be further subdivided through attentive listening, for example the sound of a car can be subdivided into the sounds of the engine, brakes, gears, suspension etc. At other times, a sound present in our environment may get lost in our perception because the sound is not salient to the listener at that moment, or that the listener's auditory attention is focused elsewhere. Additionally, sounds in an auditory scene may be missed because they are unexpected or their distinctiveness as discrete sound objects is masked by other sounds in the environment. These

²⁹⁹ Shinn-Cunningham, B. G., *Object-based auditory and visual attention*, Trends in Cognitive Sciences May 2008; 12(5) pp.182-186.

scenarios highlight the difficulty in clearly defining a sound object, as sound objects are formed through perception. As Voegelin elucidates:

“Every sensory interaction relates back to us not the object/phenomenon perceived, but the object/phenomenon filtered, shaped and produced by the sense employed in its perception. At the same time this sense outlines and fills the perceiving body, which in its perception shapes and produces his sensory self. Whereby the senses employed are always already ideologically and aesthetically determined, bringing their own influence to perception, the perceptual object and the perceptual subject.”³⁰⁰

Not only does a listener’s predisposition shape what is perceived, but this perception subsequently moulds future listening experiences. A car mechanic’s predisposition through training may lead her to focus on a rattling sound at the rear of the vehicle and link this to a suspension problem. But she is also honing her ability to locate and identify any similar sound in the future. Such training will naturally mould her future perception of car sounds.

In the introduction to her book ‘Listening to Noise and Silence’, Voegelin contrasts sound’s ‘ephemeral invisibility’ with the stability of the visual image. The nature of vision is to perceive from a distance, enabling a detachment from the object, allowing for greater objectivity and is the basis of the saying ‘seeing is believing’. Whereas, Voegelin argues, a sound object is produced in the listener’s ear and is ‘full of doubt: phenomenological doubt of the listener about the heard and himself hearing it’. In making a case for sound’s distinctiveness as the sense more open to subjectivity, it is perhaps easy to exaggerate differences. Visual perceptual objects are also subject to the vagaries of individual perceptual bias, masking and distortion. In ‘The Universal Sense’ Horowitz argues that it is “harder to trick your ears” as hearing is faster than vision and is better adapted to segregate input signals, even though it often collects information from a much wider area than our eyes.³⁰¹ Indeed, theories of visual attention, such as those surrounding object formation, masking and selective attention, have a marked similarity to those of auditory attention. In visual perception, parts of an object that are hidden or missing can be reconstructed by the brain to make sense of the scene. Similarly, in auditory masking—where contiguous sound is temporarily masked by another louder or more salient sound—humans have developed the ability to fill in the gaps. This phenomenon is known as phonemic restoration when referring to speech³⁰², and auditory continuity illusion when applied more generally to sound.³⁰³ In such

³⁰⁰ Voegelin, S., *Listening to Noise and Silence: Towards a Philosophy of Sound Art*, Continuum International Publishing Group, 2010, pp.3

³⁰¹ Horowitz, S. *The Universal Sense: How Hearing Shapes the Mind*, Bloomsbury, 2012

³⁰² Shinn-Cunningham, B. G., *Object-based auditory and visual attention*, Trends in Cognitive Sciences, May 2008; 12(5), pp.182-186.

³⁰³ Kubovy, M. and Van Valkenburg, D. *Auditory and Visual Objects*, in Cognition 80:97-126, Elsevier, 2001

cases, we perceptually reconstruct the ‘broken’ sound by integrating the available evidence in a way that makes sense of the auditory scene. This evidence can be assembled from both the temporal continuity of the sound’s characteristics as well as the lexical and linguistic conventions and the semantic content of the signal being monitored. While it is more pronounced in speech signals, phonemic restoration can also be used to make sense of non-speech sounds. Nevertheless, despite similarities with visual perception, the ‘ephemeral invisibility’ of sound as temporally shifting and transient, can leave the auditory scene open to a degree of subjective interpretation found less frequently in the visual modality. The use of the score, the audio waveform display and the audio spectrogram in music composition and analysis, appears to confirm this need to visualise the auditory in order to objectify it. Without these visual representations, the listener is left to embrace the vagaries of the sound object as subjective and interpretive and not to reduce it to empirically verifiable, visible fact.

Despite the intuitive and everyday deployment of the term ‘sound object’ as relating directly to a sound source, it appears doubtful that we can meaningfully define the term, other than to describe it as ‘that which is the focus of the listener’s attention at any given moment’. Indeed, Bregman³⁰⁴ suggests that we would do better to discard the term ‘sound object’ and instead load the term ‘auditory stream’ with just such a meaning. In his book ‘Auditory Scene Analysis’, Bregman advances the term ‘auditory stream’ as a perceptual entity, the grouping of auditory stimulus into a coherent representation by the listener. He reiterates the point alluded to above, that “a physical happening (and correspondingly its mental representation) can incorporate more than one sound, just as a visual object can have more than one region”. Bregman also suggests that the word ‘stream’ refers exclusively to a “perceptual unit that represents a single happening”, i.e. that it is a *mental representation* of a sound or group of sounds as distinct from the physical cause which is more likely to be termed the ‘sound’ or ‘acoustic event’. I would perhaps add to this, that while the term ‘stream’ is deficient in capturing the total experience of sound, it captures well the shifting and transient nature of sound in a way that the term ‘object’ does not. As such, this term will be used here in our survey of human auditory attention and distraction. As sound streams are a perceptual unit rather than an objectively identifiable event in the soundscape, it may be difficult to single-out a sound stream as potentially distracting. The efficacy of such an undertaking would be further restricted by the idiosyncratic relationship of the individual to a particular sound. Alternatively, if identification of distracting sounds were based on the overall spectro-temporal features of a soundscape at any

³⁰⁴ Bregman, A.S., *Auditory Scene Analysis: The Perceptual Organisation of Sound*, MIT Press, 1994

given moment, we would be required to identify commonly distracting features of a sound wave's amplitude and frequency over time.

8.2 Singularly focused modulating auditory attention

As is alluded to above, humans have the capacity to *actively* attend to just one sound stream at any given moment. This can seem counter-intuitive, as our experience is one of continuation and integration of sounds within an environment.³⁰⁵ However, this can be explained by our ability to modulate attentional resources swiftly between two or more sound objects and still perceive the auditory scene as a continuous whole, through the use of the auditory continuity illusion mentioned above. For example, in listening to sounds in a park, we can move our attention between a bird singing in the tree above and then a father talking to his child as they pass by. However, whilst we can hear both as part of the wider soundfield (a 'wide-angle lens' which is the sound object at that moment), actively directing our attention to one of these sound streams will render us unable to actively attend to the other sound simultaneously. Where it is required for us to attend to two or more sound streams, we are forced to modulate our attention between them in order to extract enough information from both streams to fill the gaps and make sense of both. An obvious example of this is when maintaining a conversation with someone in a crowded room, whilst listening-in to another's conversation. The difficulty with this attention switching is that, in so doing, we degrade the information we can glean from both streams. Every time we switch attention we lose 100-200ms and, as sensory memory degrades over time, some of the information from a newly attended stream will be lost. Furthermore, when we attend to just one auditory stream there is a build-up of information about that particular stream over time. Every time we switch attention, we restart this build-up process, thus destroying the benefits of maintaining focus on one sound object. With auditory distraction, we see the degradation of the task-relevant sound stream by interruption from a task-irrelevant one. In other words, auditory distraction degrades the quality of focus-oriented experience.

Relevant to our discussion of auditory attention is the categorisation of attention into three overlapping, but meaningfully different, dimensions of attention. The first is 'alerting attention' that tends to be instinctive, fast and largely beyond our control. It originates from 'hard-wired' parts of the brain concerned with neuroendocrine functions related to arousal and alertness.³⁰⁶ The second is 'orienting attention' which draws our attention in order to examine it in more detail. It is within our voluntary control as it is directed by executive attention, but can

³⁰⁵ Cox, T. *Sonic Wonderland: A Scientific Odyssey of Sound*, Bodley Head, 2014

³⁰⁶ Feldman, C. and Kuyken, W., *Mindfulness: Ancient Wisdom Meets Modern Psychology*, The Guildford Press, 2019, pp.38-41

occur automatically, such as when we unintentionally find ourselves listening in to someone else's conversation after hearing our name. The third form of attention is 'executive attention'. This form of attention employs executive functions to manage what is brought to the forefront of awareness, and manages this with sound streams competing for that attention. These three dimensions of attention are important in the ensuing discussion, as they highlight the fact that some forms of auditory distraction are inevitable, as we are hard-wired to attend to them, whereas we can choose to attend to other distractions, depending upon the management functions and resources of executive attention.

8.3 Selective auditory attention and working memory

Many studies of auditory attention employ variations of speech-shadowing tasks where participants are asked to repeat aloud (shadow) the auditory message presented to one ear, whilst at the same time attempting to ignore a distractor message presented simultaneously to the participants other ear.³⁰⁷ One of the first and most influential models of auditory attention was the early selection model of attention which suggested that environmental information would be analysed at an early stage of mental processing according to the sound's spectro-temporal features (e.g. location, intensity, pitch) and would be filtered out of awareness if these were irrelevant to the person's current goals.³⁰⁸ However, later studies found that the semantic content of the auditory stream was also being processed and not just the physical features of the sound. For example, when participants were presented with their own name in the unattended auditory stream, they shifted their attention to focus on this sound, a phenomenon now well grounded in research and commonly referred to as the 'cocktail party effect'. Models now incorporate these findings, and there is general agreement that auditory stimuli can also be processed late on (late-selection), just before awareness in a way that takes into account the semantic meanings of the stimuli received.

More recently, Lavie has developed perceptual load theory that proposes a model of attention that incorporates both early and late selection of auditory stimuli. It suggests that a person's attentional resources are fully deployed in analysing any incoming sensory information, but awareness depends upon the attentional resources available to the individual at that moment. If the listener is in low-load conditions, where the task of listening and processing this information is not particularly demanding, late processing of auditory information is more likely to take place and the semantic content of the sound analysed, not just its physical features.

³⁰⁷ Spence, C. and Santangelo, V. in *The Oxford Handbook of Auditory Science: Hearing* (Vol. 3), Plack, C. J. (ed.), Chpt 11: 249-270, Oxford University Press, 2010

³⁰⁸ Handel, S., *Listening: An introduction to the perception of auditory events*, MIT Press, 1993

However, under more demanding, high-load conditions, attentional resources are required to process information that is deemed as important to the listener, resulting in less spare processing capacity and, by necessity, the need for a higher degree of early selection to filter irrelevant auditory information. As Spence and Santangelo point out, the congruence of studies investigating this subject, appears to support this interpretation:

“Perceptual load theory certainly provides an intuitively plausible account for why selection might sometimes occur early and at other times (and/or in other studies) it occurs much later in human information processing. What is more, in the 15 years since Lavie and Tsai (1994) first proposed the theory, an impressively large number of studies, both behavioural and neuroimaging, have been published providing support for the theory...”³⁰⁹

What adds further weight to the argument is the commonality between the auditory modality and the visual modality, where perceptual load theory has a more extensive body of empirical evidence to support it.

A further area of research in the field of auditory attention has been the effect of a person’s working memory on their ability to focus attention selectively. Working memory is the term used to denote a “theoretical construct, a cognitive system containing storage buffers and a central executive that actively maintains goal-relevant information in the service of complex cognition”. Most recent research concludes that there exists a correlation between working memory and selective auditory attention, even if the reasons behind this correlation have not been unequivocally established. One hypothesis is that a low level of working memory inhibits a subject’s ability to maintain his or her current task priorities, i.e. that they will be more likely to get distracted by non-target auditory information.³¹⁰ Furthermore, studies into auditory-change deafness, where participants were asked to detect changes in an auditory scene, suggest that “people may actually be unaware of the majority of the auditory information present in complex auditory scenes”. Spence and Santangelo suggest:

³⁰⁹ Spence, C. and Santangelo, V. in *The Oxford Handbook of Auditory Science: Hearing* (Vol. 3), Plack, C. J. (ed.), Chpt 11: 249-270, Oxford University Press, 2010, pp.251

³¹⁰ de Fockert, J.W. et al., The Role of Working Memory in Visual Selective Attention, *Science*, Vol. 291, Issue 5509, pp. 1803-1806, 2001

“Given the limited capacity of attentional resources, it seems that people simply need to focus their attention on a subset of the available sensory information (normally just a single object or stream) in order to make sense of the world around them.”³¹¹

Most of what we hear (have conscious access to) either captures our attention exogenously (stimulus driven e.g. a loud siren) or is purposefully attended to (endogenously). Research has also demonstrated that increased perceptual load dramatically reduces our ability to be receptive to exogenous auditory cues. In other words, less cognitively demanding situations afford the listener a greater openness to sounds in the environment.

8.4 Sensory Crosstalk

It has already been noted above that there are significant similarities between the attentional mechanisms underlying both human vision and hearing. However, research in neuroscience, particularly the application of fMRI brain scans, has demonstrated the interconnectedness of our sensory systems. For many years, the concept of a ‘modular brain’ forwarded the theory that specific regions of the brain would focus solely on a specific input (sound, light, smell etc.) with these discrete regions subsequently communicating with each other and producing an overarching picture of the world, our *umwelt*. However, in recent years, correlations between physiological and anatomical data has led neuroscientists to the conclusion that, in processing sensory data, the brain acts as a connected network. In Seth Horowitz’s book ‘The Universal Sense: How Hearing Shapes the Mind’ he states that:

“The superior colliculus, formerly thought of as a visual midbrain nucleus, brings maps from all the sensory systems into register with each other. The medial geniculate, while providing most of its input via a ventral pathway to the auditory cortex, also has a dorsal projection that goes to the attentional, physiological, and emotional control regions. The auditory cortex can respond to familiar faces.”³¹²

What was once thought of as a discreet system of auditory processing is now explained as a complex network integrating input from the other senses, with loops feeding information both onwards towards perception and backwards to modify input signals. Indeed, there are very few auditory-only neural projections. In the context of the present study, this contemporary

³¹¹ Spence, C. and Santangelo, V. in *The Oxford Handbook of Auditory Science: Hearing* (Vol. 3), Plack, C. J. (ed.), Chpt 11: 249-270, Oxford University Press, 2010, pp.266

³¹² Horowitz, S. *The Universal Sense: How Hearing Shapes the Mind*, Bloomsbury, 2012. pp.101

understanding should caution us not to overlook the influence of the other senses on our auditory perception.

8.5 Auditory Distraction

Hearing, as previously noted, has been called the sentinel of the senses. Unlike vision, it is omnidirectional in nature and has the capacity to receive information at any time, even during sleep or in darkness. Although closing one's eyes excludes the visual world, the ear comes equipped with no mechanical means of shutting out unwanted sound. As such, the auditory world remains largely ineluctable. This property of the ear has clear benefits, as salient auditory streams that are outside the purview of other senses do not go unnoticed. Nevertheless, a by-product of this continual surveillance of the acoustic world is that goal-irrelevant sound impinges and dominates necessary auditory processing to the detriment of the goal-relevant task at hand.

If we understand positive silence to be closely connected to freedom from distraction, we can appreciate the importance of soundscapes that support our intention to focus on the goal-relevant task. Almost counterintuitively, research has shown that the degree of distraction does not depend upon either the content of the sound or the sound's intensity.³¹³ Quiet environments do not necessarily offer less distraction. What is critical in distracting sounds, it would appear, is their 'changing state'.³¹⁴ To be distracting, a sound must generally be divisible into discreet segments such as syllables, beats or tones with segments differing from the ones preceding it. For example, a tone that modulates, gliding between pitches will be less distracting than the same modulation segmented by silences. Similarly, a sequence of repeated sounds of the same pitch, tempo or duration are unlikely to cause distraction, while changes in any of these parameters are more likely to distract. For example, we may hear a regular pattern of footsteps in the room above us, and may be unaware of these until the pace of the footsteps change. In patterns, we need to hear enough repetitions for us to establish the sequence before we will find deviance from the pattern distracting.³¹⁵ Sequences of segments in unattended streams that contain the greatest changes, will more likely distract the listener, although disruption will decrease if the degree of change is too large. In listening to a repetitive stimulus, we become habituated to that particular sound and it fails to distract us. However, if the repetitive sound changes, or another distracting sound is heard, the neurons can fire regularly again, alerting us to the need to update our mental picture of the auditory scene.³¹⁶ Furthermore, and as the anecdotal evidence derived from the listenings in this portfolio of work have highlighted, fear and anxiety

³¹³ Macken, Phelps, F.G. & Jones, D.M., *What causes auditory distraction?* Cardiff University, 2009

³¹⁴ Macken, Phelps, F.G. & Jones, D.M., *What causes auditory distraction?* Cardiff University, 2009

³¹⁵ Schnupp, Israel, N. & King, A., *Auditory Neuroscience: Making Sense of Sound*, MIT Press, 2012, pp.261

³¹⁶ Schnupp, Israel, N. & King, A., *Auditory Neuroscience: Making Sense of Sound*, MIT Press, 2012, pp.262

also influence our susceptibility to auditory distraction. A study by Logan and Goetsch suggests that clinically anxious subjects are more likely to be distracted by threat cues that are specific to their triggers while “anxious nonclinical subjects show bias towards general threat”.³¹⁷ We can then conclude that soundscapes which support focus and mitigate against distraction will be characterised primarily by a sense of safety, continuity and regularity. There are, however, other factors that influence distraction; working memory, similarities in the processing paths of sounds, and the content and context of a sound stream. Let us address these individually in order to further explore soundscapes of positive silence.

Tasks where information needs to be held in short-term memory are particularly susceptible to interference from distracting sounds, as this interference occurs when processing the item for recall in memory and not when it is initially presented.³¹⁸ When undertaking tasks that require working memory to maintain an order of objects (seriation) in short term memory, distracting sounds can put a strain on our ability to hold the sequence in our minds. For example, when reading in our heads, we are required to accumulate meaning from a sentence by holding the words in our short-term memory. If we are disrupted by the semantic characteristics of irrelevant speech sound, this accumulation could be disrupted and the meaning lost³¹⁹. Here, there is a tension between the demands of the goal-relevant task and the demands of distractions. Studies such as Berti and Schroger’s, point to the role of working memory in determining how distractible we are.³²⁰ However, much auditory distraction appears to have less to do with the capacity of working memory and more to do with the obligatory auditory processing of sounds in an auditory scene.³²¹

Hughes³²² reviews a range of laboratory work, indicating that auditory distraction involves two mechanisms. Firstly, interference-by-process involves the involuntary processing of a sound that competes with a task-relevant focus, which engages the same manner of processing. Interference-by-process has also been observed in studies involving semantic content of sound. For example, when participants are required to recall a list of related words (e.g. “red, yellow, green”) and are presented with different words in the same semantic category (e.g. “brown, black, blue”) they are more distracting than semantically unrelated words (e.g. “horse, cow,

³¹⁷ Logan, A.C., Goetsch, V.L., *Attention to external threat cues in anxiety states*, Clinical Psychology Review, Vol. 13, Issue 6, 1993 pp.541-559

³¹⁸ Banbury, P., Macken, W., Tremblay, S., & Jones, D. *Auditory Distraction and Short-Term Memory: Phenomena and Practical Implications*, Cardiff University, 2001

³¹⁹ Banbury, P., Macken, W., Tremblay, S., & Jones, D. *Auditory Distraction and Short-Term Memory: Phenomena and Practical Implications*, Cardiff University, 2001

³²⁰ Berti, S. and Schroger, E., *Working memory controls involuntary attention switching: evidence from an auditory distraction paradigm*, European Journal of Neuroscience, Vol. 17, 2003, pp.1119-1122

³²¹ Macken, Phelps, F.G. & Jones, D.M., *What causes auditory distraction?* Cardiff University, 2009

³²² Hughes, R.W., *Auditory distraction: A duplex-mechanism account*, PsyCh Journal 3, 2014, pp.30-41

sheep”). Some studies suggest that interference-by-process cannot be brought under control by increased engagement in the goal-relevant task.

Hughes’ second mechanism of auditory distraction is that of attentional capture which “occurs whenever the sound causes a disengagement away from the focal task, regardless of the qualitative nature of that task.” Attentional capture has two main varieties; specific and aspecific. Specific attentional capture occurs when it is the specific content of the sound that captures our attention, such as when hearing our name spoken by others, or when a sound is meaningful or of interest to us, such as our own child crying. The second variety is that of ‘aspecific attentional capture’ and occurs when the specific content of the sound does not inherently capture our attention, but its context does, in other words, when it seems out of place. For example, if a regular pattern of footsteps on concrete is heard, and then one footstep is heard on gravel, it will draw our attention because it deviates from our expectations. It has been suggested that some individuals are able to exercise a degree of cognitive control over distraction that results from specific and aspecific attentional capture. The level of distractibility has been linked to the nature of the task demand being undertaken, foreknowledge of the distraction and variances in an individual’s susceptibility to distraction. On this latter point, there is evidence to suggest that training in attentional control, such as the focus developed in meditation practices, can reduce such susceptibility. Tsai et.al. found that:

“A group difference was observed across interventions, showing that meditators were more accurate and more efficient at attentional suppression, represented by a larger Pd (distractor positive) amplitude of event related modes (ERMs), for target-like distractors than the control group. The findings suggested that better attentional control with respect to distractors might be facilitated by acquiring experience of and skills related to meditation training.”³²³

In the context of this commentary’s focus on positive silence, we may conclude the following. Humans have the capacity to actively attend to just one sound stream at any given moment. As such, there is the possibility that goal-irrelevant sound can impinge on a goal-relevant task and the more we are distracted, the greater the degradation of the task-relevant sound stream. Some of these distracting, goal-irrelevant sounds are responded to involuntarily, alerting or orienting us to them, while other distracting sounds may be attended to or ignored voluntarily under the

³²³ Tsai, Shao-Yang et.al., *Meditation Effects on the Control of Involuntary Contingent Reorienting Revealed With Electroencephalographic and Behavioral Evidence*, *Frontiers in Integrative Neuroscience* Vol.12, 2018

management of executive attentional control. Given that the brain acts as a connected network, it is important to view non-auditory sensory information as inextricably connected to the auditory stream. As such, we must acknowledge the contribution of the other senses when considering our propensity to be distracted.

When considering soundscapes that could support focused attention and minimise distraction, some general rules hold in most situations. Importantly, quiet environments do not necessarily offer less distraction. Of greater importance is that elements in the soundscape offer continuity and regularity. The most distracting soundscapes are those that contain sounds that ‘change state’ from one segment to the next, including changes in pitch, tempo, timbre, intensity, duration or pattern. Undistracting environments should also be those where the individual feels safe, as feeling anxious or fearful naturally makes us more susceptible to distraction. There are also a number of individual, subjective and contextual factors that make us more likely to be distracted. For example, sounds within the soundscape that employ the same processing paths as the task being undertaken (such as hearing talking while reading) are more likely to be distracting. Research into specific attentional capture also suggests that the distractibility of a sound will depend on the individual’s association with that sound, for example where a parent’s attention is drawn by their child’s voice but not an unrelated child. Research into aspecific attentional capture demonstrates that the context in which a sound is heard will also influence its distractibility, with sounds being more distracting in environments where they are, perhaps, out of place or of particular contextual relevance. The nature of the task at hand and our ability to resist distraction also play into our perception of soundscapes as distracting. For example, our distractibility can be influenced by how demanding the activity is that we are presently undertaking. Engaging, high-load tasks tend to reduce our ability to become distracted by exogenous auditory cues, while less cognitively demanding tasks allow the listener to be more open to the soundscape. Foreknowledge of distracting sounds, perhaps through familiarisation with an environment, can also decrease our susceptibility to auditory distraction. The ability for an individual to resist distraction may have links to the facility of working memory, and there is also evidence to suggest that training in attentional control can reduce our likelihood of being distracted.

8.6 Positive Silence as Freedom from Auditory Distraction: Conclusions

If, as this commentary suggests, positive silence is primarily supported by freedom from distraction, soundscapes that support ‘quiet’ will, in general, offer continuity, regularity, familiarity, predictability, safety, be tailored to support the activity being undertaken and, where

possible, customised to minimise distracting sounds peculiar to that individual. In practice, of course, such environments may be hard to find, access or construct, particularly where they are not designed for a given activity or individual. However, as general principles on which to carry out analysis, evaluation and design of quiet spaces, these principles may act as useful guides. Placing this understanding within the wider context of the extended mind theory, we may consider the organisation of quiet space to support positive silence as analogous to, and connected with the mind's executive attentional function. Let us consider a commonplace example. A distraction in the soundscape may draw our attention away from our work, generating a feeling of annoyance. We address this by donning a pair of headphones, playing music that masks the distraction and enables us to concentrate on our work, with the feeling of annoyance subsiding. In this example, the mind does not have the capacity to exercise attentional resources to maintain concentration, so it outsources this to a pair of headphones playing music. The brain relies upon this music to mask distraction and free up the mind to attend to the work at hand. Both the music in the headphones and attentional control become a coupled system where "the human organism is linked with an external entity [the headphones] in a two-way interaction."³²⁴ As a coupled system, both components—executive attention and the masking music—play an active causal role, governing behaviour in such a way that if the headphones were removed, the behavioural competence of the human organism will drop. The headphone masking is providing a direct support to attentional control and becomes a coupled system where, over time, we may become adapted and reliant on headphones to support mental focus. The mind's cognitive functioning adapts to this external support which becomes a tool in the management of distraction. These coupled systems have been a feature of the research, and have given rise to thinking around approaches to auditory distraction that address both exogenous and endogenous auditory distraction.

³²⁴ Menary, R. (ed.), *The Extended Mind*, MIT Press, 2010, pp.3

9. Positive Silence amidst Auditory Distraction

Reflecting upon the phenomenological enquiry, and participatory arts work that forms the bulk of the accompanying portfolio, has led me to consider how we manage auditory distraction to foster positive experiences of silence, both exogenously and endogenously. These reflections, often stimulated by literature and discussions, have led to the development of a number of strategies and related practices that support movement into specific modes of listening, and often encourage meta-awareness of our bodily, cognitive and affective responses. These strategies have proven of particular benefit when leading soundwalks and sonic meditations, where our orientation towards distraction is critical to the cultivation of a positive silence that promotes freedom from the imposition of distraction and fosters wellbeing. The strategies provide a range of approaches that work with the affordances of the environment and individual dispositions to support the experience of positive silence. Given that the interplay of personal dispositions, situational context and soundscape creates an infinite combination of possible scenarios, the selection and application of these approaches requires discernment and a degree of trial and error. While specific strategies can be presented to an individual, it is for that individual to decide which to use, when to switch from one to another or whether to use them at all. The strategies I propose draw upon four distinct approaches to transform distraction. The first involves various means of manipulating our physical relationship to the distracting sound. The second requires us to redirect our attention. The third encourages us to familiarise ourselves with the distraction in order to return our attention to the activity at hand. The fourth supports us in embracing the distraction as an object of attention and interest. All four strategies have already been explored in relation to the artworks above. However, here I will relate them explicitly to the experience of positive silence as a freedom from distraction.

9.1 Manipulation

“I know a person who found that the type of music played in her supermarket made her very sad. The songs reminded her of a difficult time in her life, and she saw herself focusing on the memories and not on her shopping. When she realized this, she made a conscious and intelligent choice to take good care of her consciousness. Now she puts in earplugs every time she goes to the supermarket, in order not to be distracted and depressed by the music.”³²⁵

The first approach is that of manipulation, quite simply, changing and augmenting the physical environment to attenuate or eliminate the distracting sound source. This approach can take a number of forms; manipulation, moving, masking and shielding. Manipulation involves removing or attenuating the distracting sound by muting it or altering the environment so as to attenuate it. Such interventions are commonplace. Indeed, I have just stood up to close the doors between the room my three daughters are talking in, and the room in which I am writing this. Other examples may be; taking the battery out of a ticking alarm clock; adjusting the position of someone snoring next to us; covering a sound source with a pillow; switching our playlist from a podcast to instrumental music; stopping the wind from rattling a window by closing it; or asking others to be quiet. In each case, we are manipulating the intensity and character of the sound source, or attenuating the propagation of soundwaves as they make their way to our ears. However, it should be noted that removing one distraction can merely create a perceptual space where attention is drawn to another distracting sound. The second form of manipulation involves moving ourselves or the distracting sound object to a position in which it can no longer distract us. This could be achieved by simply moving to a different room or asking a person to leave, but could be as far-reaching as moving home. The third form of manipulation involves the masking of distracting sounds with broadband or tuned masking frequencies. Tinnitus could be masked by white noise, distracting voices may be masked by music, construction and traffic noise by the sounds of a water fountain or the babble of commuters by headphone listening. The fourth form of manipulation is illustrated in the quote above, and involves shielding the ears from distraction using ear protection or similar. All four forms of manipulation employ external actions to attenuate, filter or mask distracting sounds. However, as interventions in the world, these manipulations often depend upon the limited affordances of

³²⁵ Hanh, T. N., *Silence: The Power of Quiet in a World Full of Noise*, Rider, 2015, pp.110

our environments, scenarios and relationship with others. Inherent in such interference and manipulation of the soundscape are the problems of freedom, agency and the complex interaction of power-relations. A more detailed exploration of this topic is beyond the scope of this commentary. Nonetheless, examples could include the duties and responsibilities of carers not to cocoon themselves from important auditory warning signals, the inflexibility of neurotypical soundscapes, the pressure to conform to cultural norms concerning which noises are deemed distracting, and the economic inequalities inherent in generating masking, employing soundproofing solutions or living in a quiet neighbourhood. Such inequalities and complex power-relations can make mitigating distraction through manipulation challenging to realise and prone to inequalities. Nevertheless, when such modifications to the environment can be realised, the approach has the advantage of avoiding placing demand upon our attentional resources. As such, where appropriate, manipulation provides considerable benefits for supporting focus and positive experiences of silence.

9.2 Attentional Reorienting

Attentional reorienting is one of three alternative approaches that works with the attentional resources of the listener to counter or minimise distraction. It takes two distinct forms; what I am terming ‘exogenous reorienting,’ where attention is directed away from the distracting sound to some other aspect of the soundscape, and ‘endogenous reorienting,’ where bodily sounds or the auditory imagination provides an alternative sonic stimulus. The work carried out as part of the Sound Diaries ‘Sweep’ project explored the former variation, employing the sounds of sweeping to engage attention. A *gatha* was recited to cultivate the intention to listen to the swish of the brushes on laminate flooring, the creaks of the broom handle and the sighs generated by the sweeping body. This was a contemplative listening practice that encouraged me to rest attention upon the sound without the intrusion of distractions. As was highlighted in the previous chapter, training in attentional control can minimise distraction over time. However, even without training, such focus-oriented practices can support a concentration that reduces distraction, but has other benefits for positive silence, such as familiarisation with the ‘being’ mode of present-centred experience³²⁶, and the cessation of rumination, overthinking and other mental configurations that cause suffering.³²⁷ Similarly, endogenous reorienting works by changing the focus of the mind, moving it away from the distracting sound, towards bodily or imagined sound. The key difference with endogenous sound sources is that familiar sounds are

³²⁶ Penman, D., *Mindfulness for Creativity*, Piatkus, 2015, pp.53

³²⁷ Teasdale, J. D. and Chaskalson (Kulananda), M. *How Does Mindfulness Transform Suffering? II: The Transformation of Dukkha*, in Williams, M.G. and Kabat-Zinn, J., *Mindfulness: Diverse Perspectives on its Meaning, Origins and Application*, Routledge, 2013, pp.104

typically within our immediate purview. For example, the sounds of the breath or the mental rehearsal of familiar songs are easily available to us, and can provide anchors for attention that may help us to move away from auditory distractions in the soundscape. While this mindful reorientation requires effortful practice and a degree of self-discipline, it can shift attention away from the distracting sound long enough for it to pass, or alternatively acknowledge its affective impact and evaluate our instinctual responses, which may be less than helpful.

9.3 Familiarisation

“Gareth’s inability to cope with the sound of the electric saw disrupting a contemplative prayer retreat resulted from his spasms of preference for only sounds that pleased him, such as birdsong, the rustling of leaves, or rain. Apart from his inner contortions during this one hour of outrageous disruption, there was nothing else going on just then except a saw making the sound they make when they’re switched on and sawing through timber. The more he allowed the noise to be present, without fighting the fact that it was there, the more he could simply sit in the midst of it. He would have preferred, and with good reason, that the noise not be there (and ideally it should not have been), but he was amazed that, after this deepened release into his practice, his mind no longer hopped around like drops of oil on a hot skillet.”³²⁸

Rather than changing the content of the mind by reorienting attention away from distraction, familiarisation changes the shape of the mind³²⁹ by resting awareness on the distracting sound and briefly exploring it. This may be likened to Cage’s approach in 4’33” where he invites an open acceptance of sound by framing it. This exploration affords us the opportunity to investigate the qualities of the sound heard. In treating the distraction as an object of interest, we gain some distance, albeit briefly, from the immediate experience of ‘living in distraction,’ facilitating a more detached and reflective locus of enquiry. Having become familiar with the distraction, it may then be easier to return to the object or activity of primary focus. An example may help to illustrate this process. Perhaps we are trying to read and the wailing of ambulance sirens going to and fro from a nearby hospital continually distract us. Instead of persisting in reading and potentially becoming increasingly annoyed with the intrusion of the sirens, we may

³²⁸ Laird, M., *A Sunlit Absence: Silence, Awareness and Contemplation*, Oxford University Press, 2011. pp.52-53

³²⁹ Teasdale, J. D. and Chaskalson (Kulananda), M. *How Does Mindfulness Transform Suffering? II: The Transformation of Dukkha*, in Williams, M.G. and Kabat-Zinn, J., *Mindfulness: Diverse Perspectives on its Meaning, Origins and Application*, Routledge, 2013, pp.104

take a moment to attend to the sound. We may listen to the sound and find it of interest, its modulating tone shifted in pitch by the Doppler effect. We may sense the urgency of the ambulance's path, racing to recover sick patients. As we do so, we may even be able to welcome the sound as a positive addition to the soundscape. As such we may have then achieved two things. Firstly, we have begun to cultivate a new, more accepting relationship with the sound of the siren as an object of interest rather than distraction and annoyance. Secondly, in familiarising ourselves with the sound, we may be less disposed to distraction by it in future. Familiarisation with the soundscape may be continually undermined by novelty. However, the majority of environments we visit to enjoy positive silence, are typically quite consistent, particularly interior quiet spaces that tend to be more controlled. As illustrated in Gareth's experience above, familiarisation employed with discernment, can be an effective strategy in mitigating distraction and cultivating positive silence.

9.4 Mindful Attention

Mindful attention takes the same initial approach as familiarisation, orienting ourselves towards the distraction rather than directing attention elsewhere. Like familiarisation, it involves changing the shape of the mind in processing the auditory stimulus³³⁰, but maintains a focus upon the distraction in order to explore it. As such, mindful attention requires the time and inclination to explore auditory distraction more fully than with familiarisation. Having become distracted, rather than pushing the distracting sound away or labelling it and returning to our former focus, we move towards it with curiosity, interest and open enquiry. Silence is described by George Prochnik³³¹ as a stance towards listening that no longer wishes to impose its values and demands on the world, but accepts what is present. Fundamental to fostering this detached curiosity is the adoption of an approach to listening that acknowledges our instinctive responses, but does not get caught within judgement and criticism. Such common responses may involve judging the sound as boring, mundane and unworthy of attention. It is important to acknowledge this instinctual judgment as another form of labelling and pushing away. We may also be in the habit of allowing our past experiences of this sound to cloud our perception. Listening may bring up positive feelings, negative feelings or indifference. While this is a component of our brain's natural functioning, it can be a barrier to listening, particularly if we are bored by the sound or have an aversion to it. We may also project our identities and expectations onto the listening,

³³⁰ Teasdale, J. D. and Chaskalson (Kulananda), M. *How Does Mindfulness Transform Suffering? II: The Transformation of Dukkha*, in Williams, M.G. and Kabat-Zinn, J., *Mindfulness: Diverse Perspectives on its Meaning, Origins and Application*, Routledge, 2013, pp.104

³³¹ Prochnik, G., *In Pursuit of Silence: Listening for Meaning in a World of Noise*, Doubleday, 2010.

perhaps telling ourselves “I should be good at attending to sound because I am a teacher, a sound artist, a good listener.” Another common response when attending to a sound is to analyse it, dissect it, or investigate its origins. However, it is essential not to treat this as an intellectual or academic exercise. If we feel that we are being drawn away from the experience by thoughts and feelings, expectations and judgments, mindful attention can embrace those responses and help us to see how they may be clouding our perception of the sound. It is this orientation of non-judgmental acceptance, arrived at by a curious but detached meta-awareness, that facilitates mindful attention. Having accepted what is there, we are able to begin the process of unravelling our relationship with the distracting sound and embrace it as a teacher and friend. To end this chapter, I present an example of this process of mindful re-orientation towards a deeply disturbing and distracting sound given by Thich Nhat Hanh in his book ‘Silence’:

“Once I held a retreat at a monastery in the mountains of Northern California. At the beginning of the retreat, there was a large wildfire nearby. While we were practicing sitting and walking meditation, we could hear the sound of many helicopters. It wasn’t exactly a pleasant sound. Many of the practitioners, including myself, were either Vietnamese or Vietnamese-American, and for us the sound of helicopters meant guns, death, bombs, and more death. We had lived through a brutal war and it was disturbing to hear the helicopters all the time and be reminded of that violence. Even for those people at the retreat who hadn’t experienced war, the sound was still loud and intrusive.

But the helicopters were not leaving, and neither were we. So we chose to practice listening to the sound of the helicopters with mindfulness. Hearing a pleasant sound, like that of a bell, people want to focus their attention on it. Giving our attention to a pleasant sound, it’s easy to feel more present and happy. Now we had to learn how to focus positively with the sound of helicopters. With mindfulness, we were able to remind our reactive selves that this was not a helicopter operating in a situation of war. This helicopter was helping to extinguish destructive flames. With that awareness, we could transform an unpleasant feeling with gratitude and appreciation. Because the sound of those helicopters came along as often as every couple of minutes, if we didn’t practice mindfulness in that way, it could be quite tedious.”³³²

³³² Hanh, T. N., *Silence: The Power of Quiet in a World Full of Noise*, Rider, 2015, pp.132-133

10. Conclusion

Reflecting on the many listenings and discussions I have had over the period of the research, has brought home to me the complexity and diversity of our interactions with the soundscape. I have needed to engage with practice and thinking from a wide range of related disciplines, including those of landscape architects and urban planners, acoustic ecologists and acousticians, silence's many enthusiasts from literature, philosophers, religious practitioners, politicians and policy makers, psychologists and meditators, as well as listeners, field recordists and artists. The themes explored in the arts work and commentary spring from contact with these people and their ideas. Emerging, quite organically, has been; the central importance of undistracting soundscapes that support our freedom to choose where to place our attention; the opportunities offered by contemplative arts practice to support wellbeing; and lastly, the potential value of quiet spaces to support distal thinking. Let us briefly address each of these, returning first to the question 'what are the elements in a soundscape that best support a positive experience of silence?'

10.1 Soundscapes Supporting Positive Silence

Key to unpacking this question has been the definition of positive silence proposed in the commentary, which understands it to be a silence that is 'typically accompanied by a positive affective valence, is free from coercion and demand, affords the individual opportunity to engage with activities or thoughts of one's choosing and which contributes to human flourishing'. Thus, if we are to better understand how the soundscape can support positive silences, we must ascertain how the soundscape; firstly, promotes a positive affective valence and supports wellbeing; secondly, minimises distraction; and thirdly, reduces demands upon us while supporting our intentions.

A large body of research has focused upon ways in which the soundscape can support affectively positive states of being. We have seen how, despite the vagaries of context and subjectivity of thresholds inherent in a silence measured by decibels, sound level remains a routinely employed measure of quiet in soundscape analysis. While its limitations are partly circumvented by its aggregation with other measures of quiet, it is, perhaps, the simplicity of data collection and ease of analysis that continues to allure. Another common measure of quiet space has involved surveying the soundscape for the presence of natural elements, translating these into a measure of an environment's tranquillity and restorative potential. As we have seen, there is a great deal of evidence to support these interpretations of natural soundscapes, even if the ubiquitousness of such positive associations need to be tempered by context and specificity.

While not explicitly covered in this work, the augmentation of soundscapes with artificially reproduced natural elements remains a point of contention amongst sound artists, landscape architects and urban planners. This was recently attested to in a discussion following a talk at the Landscape Institute South West (UK) by Dr. Usue Ruiz Arana.³³³ The crux of the issue appeared to revolve around the quality, efficacy and sustainability of artificially reproduced soundscape elements compared to more ‘natural’ interventions such as the construction of water features, tree planting and other measures to encourage desirable flora and fauna. Nevertheless, despite some disagreement over the delivery medium, the listenings and participatory work carried out as part of this research, support the widely-held view that natural elements in a soundscape are almost universally perceived as beneficial. The perception of a soundscape as ‘simple’ (as both ‘uneventful’ and ‘pleasant’) was also explored as a potentially positive quality of the soundscape. However, given the problem of defining both an ‘event’ and ‘pleasantness,’ in any objective sense, there remains a difficulty in employing these terms without further exploration of what the listener understands these to mean. Nevertheless, the idea of complex soundscapes may bear a resemblance to the notion of distracting soundscapes, where perhaps we can more narrowly define what a distracting event may sound like.

Drawing upon insights from psychoacoustic research into the features of human auditory distraction, I have suggested that an undistracting soundscape may be described as one that, in general, offers continuity, regularity, familiarity, predictability, safety, can be tailored to support the activity being undertaken and, where possible, customised to minimise distracting sounds peculiar to that individual. Auditory distraction will always be peculiar to the dispositions of individuals. Nevertheless, in shared spaces, generalised sonic features may help to identify the types of sounds that can support positive silence in any given context. Continuity and regularity point to the need for stable soundscapes, regular patterns and rhythms, and sonic elements that eschew auditory change. This stability and orderliness may occur over short periods of time such as the patterned movement of water in a fountain, or the regular gait of someone walking past. Alternatively, it may occur over longer timescales such as the continual presence of hum from an air conditioning unit or the diurnal rhythms of a soundscape. Continuity and regularity can also take the form of auditory masking that smothers sonic variation and novelty. Where change is part of the soundscape, prediction may minimise distraction. This could be the prediction of sonic events at points in time or simply the expectation that certain sonic events may occur. Familiarity with a space can further support this ability to predict or pre-empt changes in the

³³³ Arana, U.R., Thinking with Ears: Soundscapes, accessed 24th April 2021, <https://www.eventbrite.co.uk/e/thinking-with-ears-soundscapes-tickets-135662884339#>

soundscape, which could suggest that spaces best supporting positive silence are those that we visit often, are local or readily accessible. Familiarity can also promote trust in the space and its soundings and a feeling of physical and psychological safety. This feeling of safety may be enhanced by continuity, regularity and predictability in the soundscape, but could also be supported by a range of sonic events or acoustic qualities such as transparency in the auditory scene, the ease of acoustic localisation or the presence of staff or trusted others. As well as the distraction of fear and anxiety, we may also be distracted by the responsibility we have for others in a space. This could be a professional responsibility in a place of work or a personal responsibility as a parent or carer. In either case, our need to be alert, on-call or available to others in some way, may easily curtail our freedom to disengage from distracting communicative signs and signals in the soundscape. In choosing or fashioning soundscapes that support positive silence, we must be aware of the limitations such duties and responsibilities place on our freedom to attend to whatever we wish. The qualities of undistracting soundscapes listed above are seldom free from the influence of personal sensibility, but they may provide some guidance for those wishing to design or augment the soundscape to support experiences of positive silence.

There may, of course, be scenarios where we are able to offer or create soundscapes that are tailored to individual preferences, such as headphone experiences or private dwellings. Here an understanding of how the above elements of the soundscape are uniquely experienced by an individual, in a given context and with a recognition that our affective relationship with them may change over time, can help to create environments that support our intentions and attention. There may also be scenarios where people share both a soundscape and a common intention, such as the wish to study, peruse exhibits, pray or quietly take in a view. Here, greater refinement of the soundscape may be possible, particularly where the quiet space has a singular, specialised function. So, although a best-fit model of mitigating distraction may be the only fit possible, the insights of psychoacoustics provides some general principles for supporting our focus. To further this work, there appears to be a need to explore the influence of auditory distraction on wellbeing through collaborative research between acousticians, planners, architects and artists, research that can result in practices that directly impact the lives of communities.

If we understand many modern economies as being necessarily predicated on their ability to seize our attention for their own purposes, then we can understand the importance of mitigating distraction, wrestling back our attention and recovering our freedom to attend to objects that better align us with our intentions. This seems to be a necessity for human flourishing. Yet, it is also a profound act of revolt. Reasserting the place of silence in our lives

and regaining a freedom to determine the object and quality of our attention, seems to be a radical act of rebellion against those who would hijack it for their own ends. It is a protest against some of the inequalities and imbalances inherent in post-industrial economies. At the same time, cultivating positive silences in our lives, can be seen as a personal act of rebellion against our own tendencies to retreat from ourselves into the familiar and alluring comforts of consumption. Planners and architects of sound can protect, develop and augment spaces to improve the provision of positive silences. However, it seems safe to say that soundscape research, careful planning and protection of quiet spaces will not, on its own, enable this rebellion to gain a foothold. If we are to support and encourage positive silences, both on an individual and collective level, we will need to acknowledge their importance to our health and wellbeing and find practical ways of assisting those who seek to embed them in their lives.

10.2 Accessing and Managing Positive Silence.

This brings us to the second of our three themes that thread their way through the arts work and commentary, a theme that investigates the question; ‘how can people access and manage silence in order for it to be positive?’ While interwoven with the affordances offered by the soundscape in supporting positive silence, the exploration of this theme is more introspective in nature, focusing largely upon an individual’s capacity to engage in active listening and a reflexive meta-awareness of self and soundscape. Insights that inform this aspect of the research were gleaned primarily from direct engagement with silence, either unmediated or facilitated, made known through discussions, feedback and the creative responses of participants that took part in the many arts activities that constituted this project. Reflections upon these engagements with silence, prompted many important learnings, a few of which I will draw together now.

The selection of location for participatory workshops was important in supporting meta-awareness and comfortable, playful, creative exploration. The choice of soundscape depended upon the nature of the activity being undertaken, either supporting focused attention or sonic exploration. Unsurprisingly, activities that required the cultivation of focused attention were best undertaken amidst undistracting soundscapes that offered relative quiet, sonic continuity, predictability and regularity, a sense of familiarity and safety, as well as an absence of intelligible speech and sonic signals. Comfortable, safe, quiet, private or secluded spaces often provided the best environments for cultivating this singular focus. In contrast, open, expansive listening favoured soundscapes with numerous auditory streams that could be attended to, as this prompted curiosity, exploration and reflection. However, in promoting positive experiences of silence, this relative sonic complexity and the provision of contrast in the soundscape, was

always tempered by a need to avoid overstimulation and continual exogenous auditory distraction.

Transition in to and out of quiet in workshops, exhibitions, soundwalks and installations required a degree of forethought. The quiet space itself had significant potential to support this transition, particularly if it was a place that fostered an expectation of quiet, such as was found in many bookshops, churches, mosques and galleries. However, helping participants to move into a stillness that supported a more present-centred, self-aware, reflective or open state of being also required careful guidance from the facilitator. There was a need to respond to the energy and dynamics of a group of participants, in order to sink into the silence in a way that was comfortable and felt natural. Modelling, or better still, embodying the silence for participants was critical to the quality of the engagement with contemplative listening and responses. The quality of presence that the facilitator brought to the activity was of paramount importance.

Exploration of silence, required a sensitivity to the needs and disposition of the participants. Confronting oneself in silence was, for some, surprisingly demanding and best approached cautiously and with sensitivity, cultivating an attitude that invited creativity, playfulness and a slightly detached curiosity. In this regard, arts activities that did not place undue expectation and pressure on participants, were an invaluable resource, affording a creative exploration of the soundscape that supported a freedom to probe and respond, especially when set within a workshop structure that increased confidence and trust. As alluded to above, I noticed that the many and varied contemplative arts activities undertaken, tended to invite participants to cultivate meta-awareness in two primary ways. The first involved exercises that cultivated single-focused attention. The second promoted an expansive awareness that was open and flexible, that framed the soundscape in order to explore it and creatively respond to it. In both forms of contemplative listening there was a conscious move away from both conversation and inward discursive thinking, as well as a wish to promote a keener awareness of movements in the soundscape and body-mind. Where experiences of listening were negative, boring or in some way challenging for the participant, the cultivation of meta-awareness generally enabled the participant to reframe the experience, approaching it with curiosity and investigating what it was about the sound and their experience that elicited particular thoughts and responses. Current work with staff from the Intensive Care Unit at the Royal Berkshire NHS Trust, continues to develop these contemplative listening practices in quiet spaces, gathering a range of data on their impact upon wellbeing, while helping to refine my thinking and practice in this area.

While quiet, pleasant, undistracting soundscapes can support our perception of silence as positive, it is our ability to respond flexibly to a soundscape that we must cultivate, if we are to

access silence in environments that are distracting. Drawing from the phenomenological enquiry, reflective practice and participatory arts work, I proposed four strategies for adapting both the soundscape and our orientation towards it. These strategies employ manipulation of the environment, redirection of attention, familiarisation with distraction as a means of moving back to the object of attention, and mindful exploration of the distracting sound as an object of curiosity and interest. Application of these strategies requires skillful, mindful awareness so that we *work with* the affordances of a given situation and implement them with sensitivity in support of our wellbeing. Navigating auditory distractions successfully, requires us to nurture a familiarity with the soundscape and our reflexive relationship with it, while fostering the flexibility and creativity to work with distraction. In this sense, an important ‘value’ of silence is its mirror-like quality to reflect the self and reveal our interior world.

10.3 Valuing Positive Silence

Talking of the ‘value of silence’ plays into our contemporary obsession with instigating spending cuts and justifying funding, commodifying silence as an asset, and ‘delivering’ a positive silence that is measured against targets. An unease with the terms of engagement leads us to ask the age-old question of whether we work within a faltering system in order to nudge it towards greater equality, access and sustainability, or attempt to stand at the fringes of this collective creation and draw attention to its shortcomings. In the knowledge that this is not an ‘either/or’ dichotomy, this body of work attempts to modulate between both positions. So, with this unease acknowledged, let us talk of ‘value’. The value of quiet space, as we have mentioned, has been measured in decibels, thresholds, respite from noise, property, hard currency, opportunity, and equality, physiological, psychological, spiritual and ecological health. Having explored soundscapes of positive silence and the destabilisation of these silences by distraction, this work also draws attention to the value of the soundscape in supporting silence through psychological distance.

As we have seen, abstract thinking is critical in the assimilation and organisation of experience into a coherent sense of personhood, with a heritage, a set of values and beliefs about the world. It is this personhood that can support our resilience in the face of challenges and foster a sense of purpose, while nurturing our relations with others. Whilst speculative, I suggest here that an important value of positive silence is its potential to create a space in which to ‘think far’, to integrate direct experience with our broader life-story, to reconcile the synchronic with the diachronic self. Undistracting soundscapes that place few demands on the listener, support this freedom by allowing us to choose what we attend to, inwardly and outwardly, and maintain a

train-of-thought. Furthermore, I would tentatively suggest that soundscapes in which ‘distance’ can be heard, provide opportunities for distal thinking that have the potential to cohere our biography and identity. As we have seen, construal level is supported by the perception of distance across domains. With regard to soundscapes, these domains may include spatial distance where the spectro-temporal features of a sound stream fuse seamlessly with the acoustic properties of a space to provide a perception of distance from the listener. Temporal distance may be heard in the soundscape through a sound’s association with history, such as traditional music, ancient bells or the seemingly timeless elements of natural soundscapes. Sounds of social distance may provide the social space necessary to free ourselves from interactions and self-consciousness, while hypothetical distance afforded by the soundscape may allow our minds to wander and make connections. We can see from the likely distribution of these distal elements in the soundscape, that natural and historical sites may have particular importance in supporting wellbeing through the promotion of distal thinking. This impact of auditory distance may be further strengthened when combined with distal perception in our other senses. We have also reviewed evidence suggesting that high-level construal impacts positively, not only on the formation of narrative identity, but upon measures of self-control, mood and wisdom. Studies in this area of psychoacoustics may further establish this oft-overlooked value of quiet space which could, in turn, impact upon the protection, conservation and preservation of nature and heritage sites, and support arguments for greater public access.

Work could be undertaken to quantify the cost and benefit of interventions employing wellbeing scales, interviews and controlled experiments. The peculiarities of each methodological approach may fragment the more holistic experience captured within the artworks presented here. Nevertheless, such a fragmentation may be necessary in moving the work forward. However, what remains convincing in the practice-based approach taken here, is the need to draw together insights from a range of disciplines, in order to formulate policy and develop praxis that better supports positive experiences of silence. In taking up this approach, we may wish to draw on the interdisciplinary nature of the extended mind theory, where coupled systems link soundscape with psychology, acoustics with mental health, architecture with embodiment. The extended mind reaches out into social life, retreats to the quiet of solitude, and appears in the spaces in between. As such, it makes little sense for us to operate purely within the safety of our own disciplines. What is clearly required is an integrated approach to the exploration of positive silence, where psychologists, artists, acousticians, planners, philosophers and practitioners of silence, jump the walls of their respective silos, reorganise, take risks and make fresh connections. While much of the groundwork identifying the processes, conditions and

benefits of positive silence has already been undertaken, what is conspicuously thin-on-the-ground is enlightened praxis born of everyday situations and experiences. Work on silence tends to live in the hemispheres of academic and popular thought as abstracts, papers, books, talks and tutorials. The complex cycles of practice and reflection, engagement with the nebulous structures of authorities, institutions, communities and individuals and the messy engagement with practicalities, appears scantily attended to in comparison. Silence may elude simple definition, but if the silence of the mystic, the philosopher, the scientist, the planner and the woman in the street cannot cohere into a recognisable, intelligible, if amorphously swelling body of praxis, its many features will be overlooked, its value missed and its efficacy to promote wellbeing diminished. In being inclusive, there is an obvious tension between the commodification of positive silence through labels, strategies and goals, and the ungraspable, shifting and ethereal silence that flees the realities of our mundane condition. As a sound artist, I have been free, indeed encouraged to traverse both worlds, something which I hope comes through in the portfolio and commentary. Silence has not only been the topic around which the work coheres, but has been the ground from which the practice and thinking has grown.

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