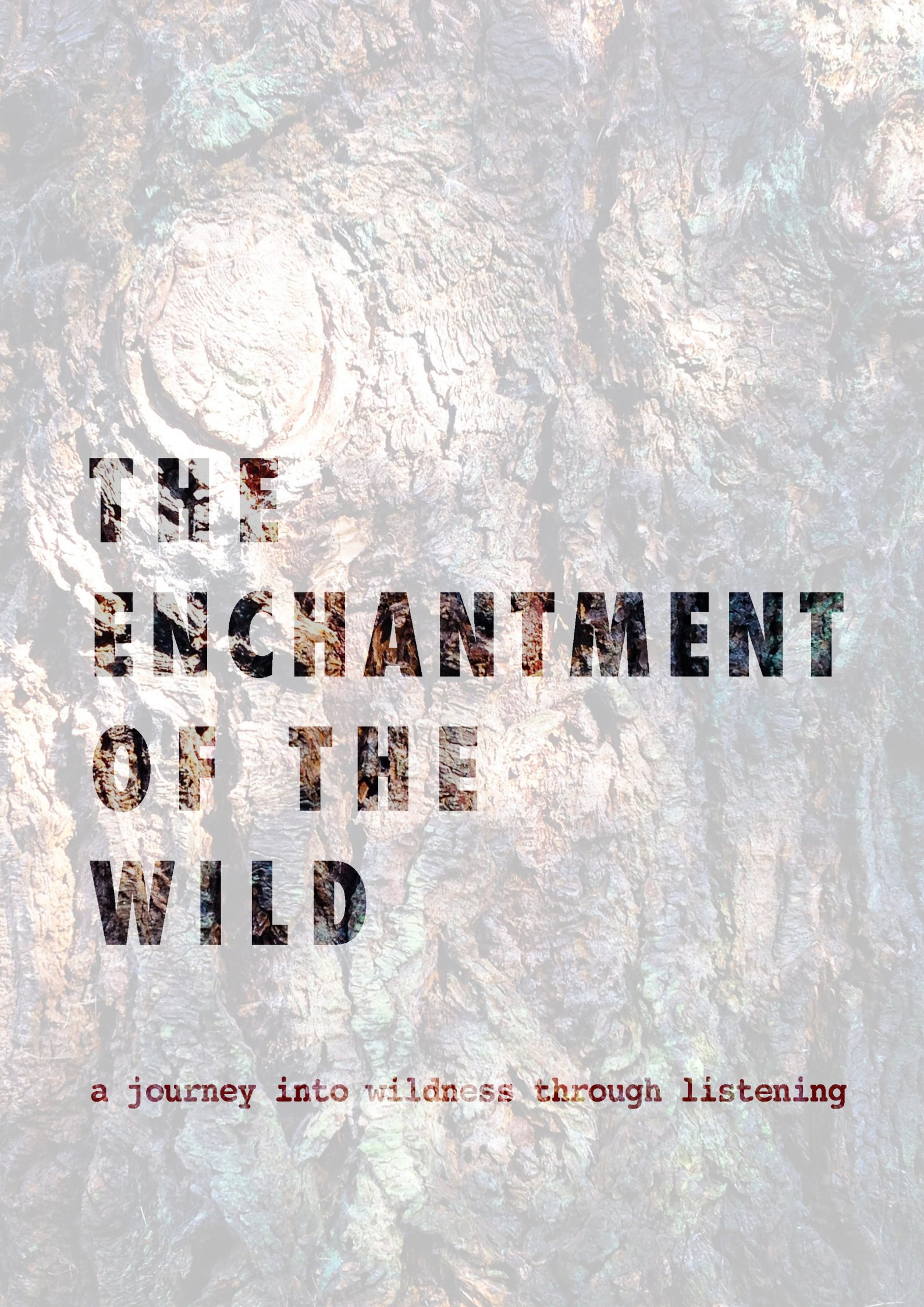
THE
ENCHANTMENT
OF THE
WILD
a journey into wildness through listening

THE ENCHANTMENT OF THE WILD
A journey into wildness through listening

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abstract

This research originates in three interrelated themes: the detachment from nature, the disenchantment of the world and the ocularcentrism of our culture.

With regards to detachment from nature, we live in paradoxical times: on the one hand, we are deeply entangled with nature by the resources that sustain us and through scientific and technological developments, and on the other hand, we still hold onto an idea of nature as pristine wilderness that we seek to protect and escape to. This bifurcated meaning of nature implicitly conveys an instrumental view of nature and a residual rationalist tradition where the rational human is regarded as superior to the non-human.

In parallel to the detachment from nature that intensified during the scientific revolution and onset of capitalism at the end of the Renaissance period, the world underwent progressive disenchantment, as everything was knowable through reason. The primacy of rational thought is therefore at the heart of detachment from nature and the disenchantment of our lives and is heightened by modern ocularcentrism that facilitates our abstraction from the world.

In this research, I propose that our detachment from nature does not stem from a lack of access to it, but rather, from a set of cultural values that prevent us from engaging with the wildness that we live entangled with. I aim to cultivate moments of enchantment with the wild as a vehicle to reconnect with nature and expand beyond its rational apprehension. To that end, I connect to the literal meaning of enchantment as mesmerizing through chants or sound and work with listening as a creative research method. Aim and method are developed into two strands that are carried out throughout the research and developed through the four initial chapters of this work: journey to enchantment, and enchantment and beyond.

In Journey to Enchantment, wildness and enchantment are sought in a spontaneous urban wildness and a remote wildness. Through the methodology of the soundwalk, walking whilst listening attentively, I develop a deep engagement with the environment that gives rise to several temporary installations and a practical guide to sound for landscape architects.

In Enchantment and Beyond, I revisit key moments of enchantment to develop a phenomenology of enchantment that builds on Merleau-Ponty's notions of flesh and wild being. Enchantment, I propose, unveils a connection with the environment that exposes an inner wildness: uncontrollable moments of extreme sensing where the experiences of time and individual self are suspended in favour of a sense of anonymity and correspondence with one's surroundings.

I conclude that the wild that we have lost a connection with is within us, and that sound can be a vehicle for reaching it. Drawing on key components of Val Plumwood's ecological self and Jane Bennett's vital materialism I argue that the power of the wild being stems from exposing our commonality with the others. Coming out of enchantment, coming into our personal and rational selves, we develop a care for the other that stems from having sensed our common essence that enables us to shape our values and actions accordingly.

acknowledgements

As I write these lines early on an October morning, I am slightly reluctant to let go of the work that has been my constant companion for the past few years. This research journey has not always been pleasurable or easy; however, it has challenged me to explore unknown territories, enriching in the process this work, and my life, in many ways.

Many people have accompanied me on this journey, new acquaintances and old friends, that through their time, knowledge, advice, support and love have contributed to the advancement of this work.

Special thanks,

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notes to the reader

This research springs from a standpoint of feminism. As the reader will discover, feminism is implied in the work through the inclusion of my body, private and personal life, through the core themes of vulnerability and care, and through the key figures that I engage with: Jane Bennett and Val Plumwood. Feminisim, however, is not directly addressed in the work.

Listening has been integral to the development of this research. The reader is invited to listen to the many sounds embedded in this work in the midst of reading or in between readings. Sounds are embedded as descriptive narratives for readers to co-create through their imagination, and as sound files and videos to listen to with headphones.

Walking has also been integral to the development of this research. Walks are also embedded in this work as descriptive narratives for readers to co-create. In addition, readers are invited to take the ideas of this work for a walk.

This document is an interactive pdf. Soundtracks play automatically on page loading[1]. Soundtracks, together with videos, can also be accessed on the link below:

bit.ly/wildenchantment

1 To listen to the embedded soundtracks, 3D content must be enabled when prompted by Acrobat Reader

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glossary

The following terms introduce the reader to the key concepts that I have adopted and adapted from a variety of disciplines and scholars for the development of this research.

Ear cleaning (or ear opening):
Ear cleaning is a term coined by Murray Schafer, to describe how ears must be cleaned to enable attentive listening (1967). The term implies that we need to open our ears and ourselves to all sounds, wanted and unwanted, as when we get frustrated with unwanted sounds we stop listening. Ear cleaning is the first step of the learning-to-listen journey that I embark on in this research.

Embodiment:
The notion of embodiment draws attention to the lived body as the vehicle to experience and make sense of the world. This work connects with Merleau-Ponty's understanding of embodiment where thinking is realised through the living body, reasoning through sensing, with neither aspect being superior to the other. The embodied experience is intersubjective as it takes place in the world, through the interaction with other living bodies, both human and non-human.

Enchantment:
Enchantment is an instance of intense joy and heightened sensoriality achieved through a counter-worldly encounter or experience. As counter-worldly, the encounter can entail a certain fear that does not prevent the enjoyment of the experience (Bennett, 2001). Enchantment in this research is pursued through attentive listening, thus connecting with the literal meaning of enchantment as mesmerising through sound.

Interiority:
Interiority in this research refers to our inner nature or inner life. Inner life connects with Merleau-Ponty's conceptualisation of wild-being (1968): the anonymous pre-reflective life that underpins our personal life.

Landscape:
The word landscape in this work is conceptualised through the interaction of people and place. In perceptual terms and following the Council of Europe's definition of it (2000), a landscape can be understood as an area whose character results from the interaction of human and non-human factors. It is worth noting that by experiencing a landscape we become an integral part of it, we become part of the landscape for others to experience. This last, the embodied experience of the landscape, is of particular relevance to this work.

Listening:
Listening in the context of this work is the interaction and communication between subject and object enabled by sound. Through listening, we perceive the other, and through listening to our sound making we become an integral part of the perceived.

Nature:
Ideas of nature are subject to many interpretations. The main concern in those interpretations is whether man is included in nature. In this research, nature is understood as ontologically encompassing humans. Grammatically, however, and adopting Keeling's proposition, the term is still required to denote the degree of human intervention and varies according to context (2008). Something is natural in comparison

to something else with a higher degree of human intervention. The complexities of this ontological and grammatical position are explored through this research.

Ocularcentrism:
Ocularcentrism is the primacy of the visual in Western culture to the detriment of the other senses. Ocularcentrism facilitates an abstracted and rational apprehension of the world. This work sets out to overcome ocularcentrism without negating the visual. The ocularisations included in this work express the visual as an active and integral part of the embodied experience of the landscape.

Ocularisation:
Ocularisation in cinema is a term coined by Jost (1983) to describe the ocular point of view taken by the camera. Ocularisation characterises the relation between what the character sees and what the camera shows. Jost distinguishes between internal and external (or zero) ocularisation. When the camera shows what a character sees it is internal ocularisation, as the viewer is invited to sense through the character's eyes. When what the camera shows is not from the point of view of any character is external ocularisation. Many of the photographs included in this work are internal ocularisations. The positions of the camera, and the manipulations of the photographs afterwards, direct the viewer to the details that the character of this work, the author, senses.

Rewilding:
The understanding of rewilding in this research is akin to Monbiot's (2013) conceptualisation of it as giving nature a free hand to make its way. Rewilding can be an active or passive process: active when it is achieved through conservation strategies that seek to restore and protect natural processes and species, and passive when it arises from spontaneous ecological succession. In seeking re-attachment to nature, this work is mainly concerned with passive rewilding, with the wildness that spontaneously arises in the urban fabric at a variety of scales, and is, therefore, an expression of the more-than-humanness of our cities. This work explores both the positive and the challenging aspects of rewilding in the urban fabric.

Sound:
Sound as a noun is a sensation enabled in our auditory cortex, and that of others, by vibrations that reach our ears. Those vibrations are produced by objects and travel through and are modified by the environment. Since all objects, organic and inorganic, are vibratable, all are capable of producing sound. Through vibrations, sound enables a direct engagement between source and perceiver that the perceiver cannot control at will, as our ears are always opened. Sound as a verb is the process of emitting a sound, as well as of been filled with sound. Sound is employed in this work with all these connotations.

Soundscape:
The word soundscape, as an analogue to landscape, connects people and place, through sound and listening. It is the interaction between all sounds emanating and travelling through a place at any one time, and the people that interact with those sounds and make sound in the process. By experiencing a soundscape, and through our sound making, we become an integral part of the soundscape. This understanding of soundscape is akin to Cobussen's conceptualisation of it where the soundscape is inseparable from one's embodied experience of it (2009).

glossary (cont.)

Soundwalk:
A soundwalk is a walk carried out in silence, alone or as a group, where the focus is on attentive listening.

Transcendent:
Transcendent in this work is used to describe an experience that is counter-worldly or atypical within a mundane life. Transcendent experiences can lead to enchantment, as the reader will uncover through this work.

Tuning:
Tuning is the process of manipulating sound sources so that they play at the correct pitch. This work is concerned with the tuning of soundscapes and the tuning of habitats. Tuning of soundscapes involves the careful consideration of sound sources, environments through which the sound travels, and uses and users of those environments to achieve a balanced soundscape for human and non-human health and well-being. Tuning of habitats, as proposed by the Acoustic Niche Hypothesis (Krause, 2012), is the process by which animals adapt their calls to avoid temporal and frequency overlap with other species that share their habitats.

Vibrant matter:
Vibrant matter is a notion developed by Jane Bennett (2010) to overcome the distinction between inert matter and living beings, and to think beyond humans as the only or primary agency on earth. In this conception, all matter has vitality in the sense that it assembles and interacts in many complex ways, causing a variety of effects in those interactions. In this manner, all matter is capable of action and it becomes difficult, if not impossible, to separate the organic and inorganic as they are intrinsically interlinked. This concept is adopted and tested in this work to blur the boundary between the human and non-human, and in the process recognise the more than humanness of our bodies, and the aliveness and agency of the non-human.

Wild and wildness:
Wild in this research is used to denote an untamed organism, growing outside of rational control. Wildness, in turn, is used as an abstract noun to describe the quality of uncontrolled growth, and as a concrete noun to describe a piece of land displaying said quality.

Wilderness:
Wilderness in this work is understood as an area perceived as a "moral counter-world" to culture (Kirchhoff and Vicenzotti, 2014). This conceptualisation expands the traditional view of it as pristine ecosystem without human intervention. The identification and mapping of wilderness as perceived is difficult, as it is variable. However, it has the potential to enable us to find wilderness closer to home.

staging the wild

"Because the mountains we climb are made not only of rock and ice but also of dreams and desire, the mountains we climb are the mountains of the mind." (*Mountain*, 2017)

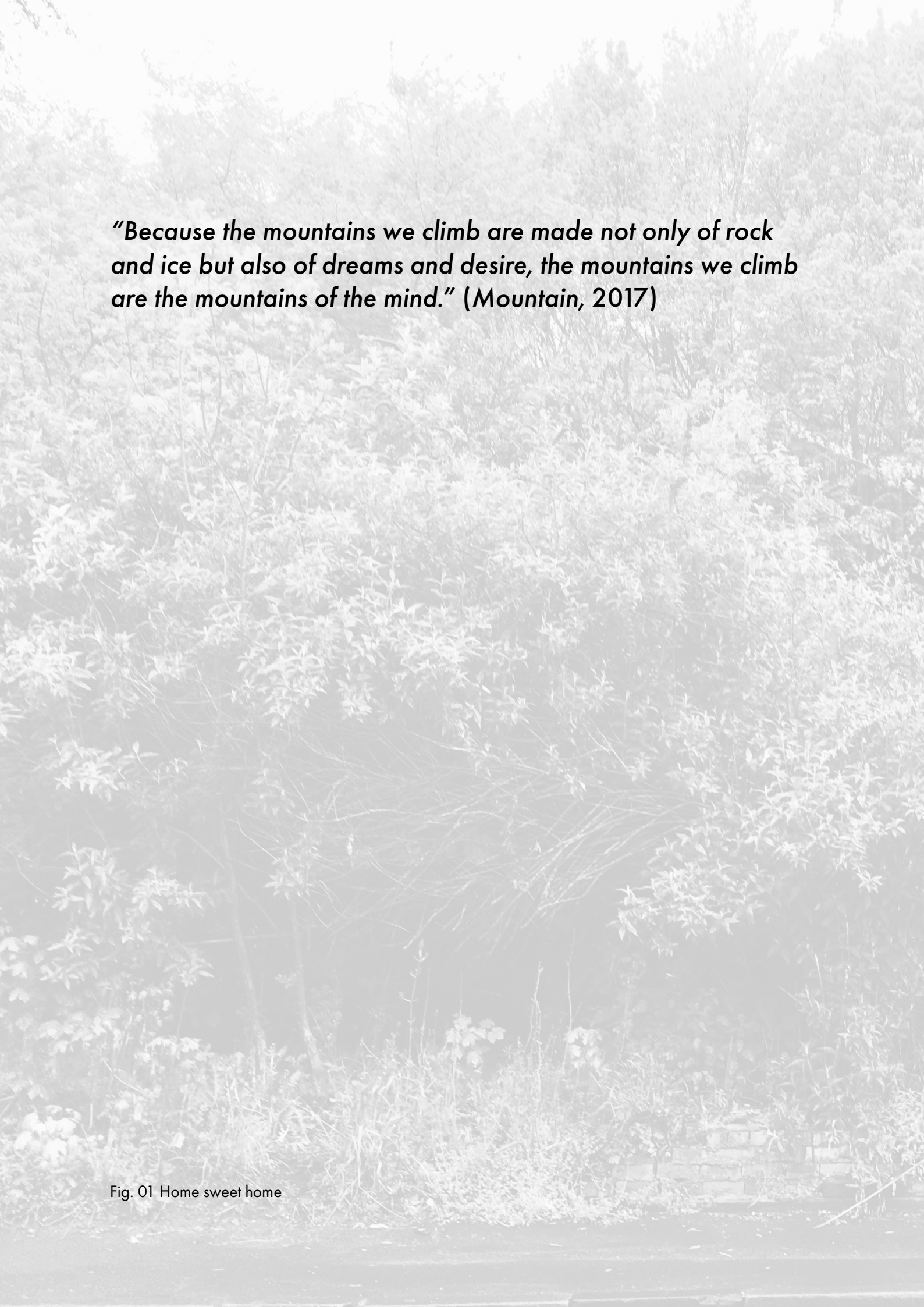


Fig. 01 Home sweet home

prologue

Sunday, 29 March 2015
BA London Heathrow to Toronto Pearson

The Wild is following me. After three days attending the "Landscape, Wilderness and the Wild" conference in Newcastle, "Wild" (2014) stares at me from the inflight movie entertainment options, and I follow. For the next two hours, the Wild is presented as the tough and rough journey into the unknown that is going to allow our protagonist to heal herself after years of self-inflicted abuse. Armed with basic food and equipment she survives the Wild of the Pacific Crest Trail and integrates with it, and in doing so, she becomes the strong person that her mother believed she was.[1]

1 From the author's own research diary, created to record and develop the project, 2014-2018. Unless otherwise attributed, dated citations can be assumed to be extracts from the author's diary.

THE ENCHANTMENT OF THE WILD

Back in 2014 at the start of this Ph.D., my immediate surroundings, and my practice as a landscape architect were getting wilder. This was a result of two main factors: an economic downturn that resulted in a dramatic reduction in street and park maintenance budgets, along with a proliferation of vacant land plots; and a number of pressing environmental concerns such as flooding that demanded new solutions from landscape architects (Landscape Institute, 2013a; Landscape Institute, 2014) and the general public. Streets were alive with a budding microcosmos of moss, plants, and germinating trees on the cracks, edges, joints, and surfaces of walls and pavements. Tree roots were liberating themselves from their confined spaces and lifting pavements and roads. Amenity grassed areas were turning into wildflower meadows. Shrubs were getting higher and thicker. Waves of naturalistic planting were thriving in newly developed sites. Wild animal species were adapting to urban life. Moreover, many of the development sites that I was encountering through work were barely penetrable due to the dense vegetation within them. It seemed like this new wilderness was finally bursting the city's seams.

Yet, a variety of academic and popular media, similarly to *Wild* (2014) introduced above, and following a long tradition of nature writing, was still inviting the public to escape cities, and get out into the wilderness in order to find a lost connection with nature and in the process encounter a myriad of benefits for themselves. Of particular significance was the Nature Deficit Disorder that American author and journalist Richard Louv identified as endemic in today's children (2005), and that triggered an international outcry to get children (and adults) back into nature (Payne, Davies and Adams, 2009; Black, 2012; Chawla and Derr, 2012; Myers, 2012; Start, 2013; Fearn, 2015; Briggs, 2016; Collado and Staats, 2016; Sampson, 2016).

Paradoxically, as we were getting more entangled with nature in our daily lives, we were travelling further out of the city to integrate with the wild. This paradox, however, was not new. The start of the need to evade cities to connect with nature originated with the scientific revolution and onset of capitalism at the end of the Renaissance period (Merchant, 1992). In the mechanistic worldview that originated at the time, where the world was considered "a vast machine made up of interchangeable atomic parts manipulable from the outside" (Merchant, 1992, p.11), the abstraction of man from nature intensified and the notion of nature split into two separate meanings: nature as resource (of scientific study, profit, and industrial development), and nature as wilderness to escape to (Williams, 1980). Nature as resource was regarded as "dead and inert, manipulable from the outside", to become the subject of study or intervention (Merchant, 1992, p.41-42). Nature as wilderness, active and alive, was all that was untouched by man, and it is this popular meaning that endures today.

This bifurcation of meanings has carried on into our modern lives. On the one hand we live deeply entangled with nature through the scientific, technological and economic developments that underpin our lives; and on the other hand we still hold onto an abstracted

idea of nature, as we live removed and ignorant of the resources that sustain us and the nature that taints us, and strive to preserve the ideal nature as a pristine wilderness (Latour, 2008).

This research proposes that enchantment with everyday wildness holds the key to "re"-attachment with nature. Enchantment is understood as a moment of intense joy and wonder, in a "temporary suspension of chronological time and bodily movement" (Bennett, 2001, p.5). The root of our detachment from nature, I propose, does not stem from a lack of access to it, but rather from a failure to recognise and value the nature that we live entangled with as we hold on to this bifurcated understanding of it, which is rooted in our instrumental attitude towards it. In turn, the solution is not (only) to provide access to pristine and remote wilderness, but more importantly to develop an attachment to the wildness in and around us and establish a connection with nature from within. To that end, this research sets out to cultivate moments of enchantment in wildness, as introduced below.

The bifurcated understanding of nature presented above implicitly conveys an instrumental view of nature, based around a dualistic account of humans and nature, and of a "divided self", where the uniquely human is limited to the rational mind and stands in contrast to the emotional and bodily self (Plumwood, 1991, p.10). The uniquely human is seen as superior to the other, and therefore as superior to nature as well (ibid.). In turn, this polarisation also extends to the wilderness that to be regarded as "genuinely natural" must exclude the human, to the detriment of the new wilderness, the wildness that I was observing around me, that is regarded as inferior as it is tainted by us (Plumwood, 1993, p. 162).

In the current geological epoch of the Anthropocene, where human activities are having a major impact on earth (Crutzen and Stoermer, 2000), deep ecologists and embracers of the epoch have sought to resolve the nature-culture dichotomy by removing all boundaries and proposing a unifying oneness. In this holism, humans are either one with nature (deep ecologists) or so entangled with it that they are no longer distinguishable (embracers of the Anthropocene). The problem with this oneness is that to care for others we need to see them as separate from ourselves and as having different needs to our own, in order to avoid projecting our own needs onto them. The holistic view, therefore, fails to override humans' self-interest, succeeding only in extending it to nature, and does not provide a suitable alternative to the nature-culture dichotomy (Plumwood, 1991). Alternative approaches are required to break down the nature-culture, rational-emotional dualisms underpinning the instrumental view of nature and establish a connection with nature from within.

The tale of the lost connection with nature shares many traits with the tale of the disenchantment of the world. In the first half of the 20th century, Max Weber proposed that the process of intellectualisation and secular rationalisation had led to the "disenchantment of the world and its transformation into a causal mechanism" (1946, p.350). The world could now be understood through reason, not in the sense that we knew it all, but rather that all was knowable through rational thought. Sublime and magical elements of thought where no longer central to public life but belonged to the personal or mystic life. As a result, our everyday lives were disenchanted (ibid.). Against this disenchantment, stands the argument

that "enchantment never really left the world but only changed its forms" (Bennett, 2001, p.91). Hence, it is not that the world is disenchanted, but rather that we need to open up to new forms of enchantment.

The primacy of rational thought is at the heart of the detachment from nature and the disenchantment of our lives, as we will uncover throughout this chapter. As introduced above, this research proposes that enchantment with the wildness of the everyday could hold the key to the "re"-attachment with nature. Through enchantment, I will argue, we access an inner wildness and develop a sensibility and connection with the nonhuman. From this newfound connection, we can then develop care, and an alternative human-nonhuman conceptualisation based on mutual recognition and respect to underpin our actions. Feeling that connection is no guarantee that the care will follow; however, it does make it more likely to happen. This research explores alternative human-nonhuman conceptualisations such as ecofeminist Val Plumwood's ecological self (1993) and political theorist Jane Bennett's vital materiality (2010) and argues that kinship and difference between self and others is a vital ingredient of those conceptualisations. I then build a phenomenology of enchantment from the notion of flesh that appears on Merleau-Ponty's later works (1968). The notion of flesh is adopted for its capacity to encompass kinship and difference and provide the foundation for those horizontal human-non human relations explored.

There is a third and final theme to add to the ones of detachment and disenchantment in this work: the ocularcentrism of modern culture. Ocularcentrism intensified in tandem with the abstraction of man from world, and with the view of the world as instrumental to man. The abstraction of man was precipitated by the move from an oral culture to a written one that brought with it a shift in consciousness and the understanding of the world: from situational, lived-in thinking to abstract thought (Ong, 1982). Whereas sight places us at the edge of the visual field as spectators, facilitating abstraction, the other senses immerse us within their sensory fields and therefore within our surroundings (Pallasmaa, 2012). Technological developments throughout the 20th and 21st centuries have furthered the dominance of sight and nowadays we consume images quickly and in rapid succession through our everyday media. In keeping with this trend, the visual also dominates the design and presentation tools of Architects and Landscape Architects, running the risk of prioritising visual gratification over lived, multi-sensorial, experience (ibid.)

Following the argument that our visually dominated culture sharpens our abstraction from the world, this work proposes that consequently it also sharpens our detachment from nature and disenchantment with the everyday. To overcome the dominance of the visual, this research uses the idea of enchantment literally, as "incantation: the use of a formula of words spoken or chanted to produce a magical effect" (OED, 2019a). Enchantment is therefore primarily sought through sound and attentive listening. To that end, this research becomes a learn-to-listen journey and an investigation of the role of sound in the affective engagement with and design of the environment.

A PROPOSAL AND TWO STRANDS

The overall aim of this work is to cultivate moments of enchantment in wildness as a vehicle through which to reconnect with everyday nature and provide the foundation for a horizontal human-nonhuman relation. To that end, this research follows two strands, each with a set of questions, each informing and being informed by the other. Each strand, in turn, is further subdivided into two threads.

The proposed strands and questions are:

Journey to enchantment:

A. **A pursuit of wildness** to find enchantment within it.

Where can we find wilderness?
Is enchantment in urban wilderness comparable to that of remote wilderness?

These questions are directed towards validating the spontaneous wildness developing in the urban fabric. To address these questions, historic and current notions of wildness, wilderness and nature-culture relations are reviewed, and the meaning of wildness and wilderness as employed in this research is clarified. Wildness is then sought in an urban and a remote setting, in the two central creative projects of the research.

B. **A learning-to-listen journey** to develop a sensibility to the environment through sound conducive to moments of enchantment.

How do we engage with our surroundings through sound?
Is sound a trigger to enchantment?
Could enchantment through sound lead to the acceptance of the new aesthetic that spontaneous wildness brings to the urban realm?

To address these questions, the meaning of enchantment is taken literally as spellbinding through sound, to develop a sensibility to the environment through listening. The affective engagement of listening is explored through the practice of the soundwalk, a walk aimed to bring attention to the acoustic environment through active listening (Paquette and McCartney, 2012).

Enchantment and beyond:

C. **A phenomenology of enchantment**

How is enchantment experienced phenomenologically?

To address this question, and from the instances of enchantment experienced, a phenomenology of enchantment is developed, building on Merleau-Ponty's notion of wild being and flesh (1968).

D. Beyond nature and culture

How can we develop an alternative human-nonhuman relation from that experience to reconnect us with nature and guide our actions?

Through enchantment, relevant alternative human-non human relations are "tested" to find key ingredients that will provide the foundation of a non-instrumental human-nonhuman relation.

The questions are unpacked through a creative methodology pursued through soundwalking, narratives of walks and everyday lived experiences, and culminating in temporary art installations. The written element that contextualises and supports the creative research is broken down into an introductory chapter, *Staging the Wild*, and two central soundwalking projects, *Let it Go* and *The Wild in Silence*, that are brought together in a concluding discussion chapter, Walking Back. Different aspects of the overarching questions are explored in each of the sections as follows.

The purpose of the current chapter, *Staging the Wild*, is to set the research aim and questions in context and provide the foundation to the two central creative projects. The *pursuit of wildness* strand introduces the theme of detachment from nature and conceptualisations of nature, wilderness, and wildness. The *learning-to-listen strand* embraces "ear cleaning" as the first step towards developing a sensibility to the environment through sound (Schafer, 1967a). In the *phenomenology of enchantment* strand that concludes this chapter, disenchantment is contextualised, and two alternative human-nonhuman propositions, Val Plumwood's ecological self (1993) and Jane Bennett's vital materiality (2010) are explored through two installations.

Let it Go and *The Wild in Silence* break down the research questions further and take them in different directions. These two projects are self-contained, although within the overarching aim and questions introduced above.

Let it Go moves the research to Toronto, Canada. In the *pursuit of wildness* strand, Leslie Street Spit, an accidental wildness, becomes the subject of much of my exploration and research. Unplanned encounters also have a strong effect on the development of this strand. These include encounters with a range of wild animals in the city and the exposure to the coldest February on record for over a century. This last scares me and invigorates me in equal ways, and helps me put a name to the instances of intense joy and surprise that I had experienced to date. It is through these unplanned encounters that I realise the possibilities of enchantment for connecting with the environment and conceptualising that environment from within.

In the *learning-to-listen* strand, the methodology of the soundwalk is contextualised and adopted. A key soundwalk through Leslie Street Spit is narrated and reflected on to provide an argument for the affective role of sound in the engagement with the environment. These reflections form the basis for the third installation: Audiopostcards Canada, and for incorporating sound into my practice as a landscape architect.

Fig. 02 Location of creative projects

The *pursuit of wildness* and *learning-to-listen* journey come together in a second soundwalk through Leslie Street Spit and a fourth installation, *Rewilding the Gardiner Expressway*, to uncover the role of listening in the pursuit of enchantment in wildness. The project concludes with the *phenomenology of enchantment* strand that introduces Merleau-Ponty's late concept of flesh as capable of underpinning the phenomenology of enchantment and the incipient nature-culture relation that is developing through it (1968).

The Wild in Silence shifts the research back to the North East of England and an isolated landscape. In this project, the first two strands, *a pursuit of wildness* and *learning-to-listen* are no longer separate but deeply entangled in the designation and protection of the landscape explored, and my methodology. Longing to find moments of enchantment of comparable intensity to the ones experienced in the cold, I turn to the tranquillity and remoteness of Northumberland National Park where I explore soundwalking. The purpose of this project is to question our place in this remote landscape and contrast this experience

of enchantment with that previously experienced. In the process, this project questions the validity of the tranquillity maps and affirms sound (and silence) as a vehicle for enchantment. In the *phenomenology of enchantment* thread, I find wildness in an unexpected place, within myself. An inner wildness accessed in the suspension of time and personal self that I relate to Merleau-Ponty's wild being (1968). The chapter concludes with a temporary installation at one of those tranquil areas of the park to question the idea of remote wilderness devoid of human life.

The concluding discussion brings all the moments of enchantment together through the fabric of Merleau-Ponty's notion of flesh (1968). Sound and silence are identified as the hinge in the intertwining of sensible and sentient layers of flesh, of wild and cultural sides of self, of self and other, for enchantment.

In this concluding discussion, I develop two interrelated arguments. The first is that reconnecting with our wildness, our wild being, is the key to our reattachment with nature. Sound and silence can trigger enchantment, which is a vehicle to that inner wildness. In recognising our wildness, our commonality with the non-human, we develop an attachment to it and care for it that starts with the wildness around us and extends to the wildness far from us. The second argument is that sound should not only be an important feature in the protection of tranquil and quiet areas. Landscape architects, other design professionals, land managers, and decision-makers need to think and design through their ears. If sound was an integral part of urban design and land management, of our thinking, there would no longer be a need for special protection in certain areas.

The written element of this research concludes with a guide to sound for landscape architects that compiles what I have discovered in this research through listening and sound of relevance for professional practice.

SOUNDWALKING, WRITING, CREATING

This project pursuits a methodology where artistic practice and research combine. In doing so, I join a breadth of PhD and academic researchers in a variety of disciplines whose work demonstrates how creative practice can lead to knowledge production. In the literature, creative practice research is named by a variety of terms including "studio-based research" (Barrett, 2007), "practice-led research" (Butt, 2017), "arts-based research" (Jagodzinski and Wallin, 2013) or "research by design"(van den Brink and Bruns, 2014). For my work, I use the term creative practice to refer to an artistic practice approach that encompasses a variety of methods. This section discusses why this approach is suited for this work, introduces the artistic methods that the reader will encounter, and the role of the written element in the research.

Creative practice as a form of knowledge-making in action (Barrett, 2007) is a relatively new research avenue in academia. With regard to the doctoral thesis, this new avenue started when the now-defunct Council for National Academic Awards allowed the supplementation of a written thesis with other materials for examination (1998). Many creative practice

PhDs have been completed since, and although the format of the work varies according to disciplines and Universities, most doctoral thesis share in common the inclusion of a creative output and a written text or exegesis that situates the creative component and makes findings explicit and transferable (Candy, 2006).

Creative practice in academia is also the subject of an ongoing debate due to the complexity in affirming arts practice as a form of knowledge-making, as attested by many recent publications (Mcleod and Holdridge, 2006; Barrett and Bolt, 2007; Duxbury, Grierson and Waite, 2008; Elkins, 2009; Smith and Dean, 2009; Biggs and Karlsson, 2010; Jagodzinski and Wallin, 2013; Butt, 2017). This complexity is due to the variety of practice as research models in art and design, and the need to expand traditional understandings of knowledge in academia to reflect the nature of artistic practice (Butt, 2017).

With regards to the variety of practice as research models, this is because both creative products and creative processes can constitute research (Smith and Dean, 2009). Thus, in Landscape Architecture, for example, distinctions are made between research on design, research for design, and research by or through design (Lenzholzer, Duchhart and Brink, 2003; van den Brink and Bruns, 2014). Within arts research, distinctions include research-led practice, practice-led research (Smith and Dean, 2009), and practice-based research (Candy, 2006). Research-led practice describes how research findings can inform practice, practice-led research refers to creative practice that leads to new knowledge about practice, and finally, practice-based research refers to research where the practice output constitutes new knowledge. The distinction between these last two categories is often blurred (ibid).

With regard to knowledge generation, creative practice is subjective, situated, and emergent (Barrett and Bolt, 2007). These are qualities that are not usually associated with objective and universal knowledge, but that can result in "praxical" and "embodied" knowledge that cannot be generated through other methodologies, as I will discuss next (ibid).

Creative practice is subjective and situated as the artist is engaged directly and intimately in making in a particular context, with the private and personal becoming deeply entangled in the process. The knowledge that emerges is embodied; it is "personally situated...revealing [when externalised] philosophical, social and cultural contexts for the critical intervention and application of knowledge outcomes" (Barrett, 2020, p.2).

Creative practice is emergent, as thinking is realised through making, and through reflecting on that making. Thus, the evolution and outcomes of that research cannot be predicted (ibid). This praxical knowledge is also called working knowledge, as I elaborate later on in the context of walking.

A creative practice that is subjective, situated and emergent is particularly suited for this research where I seek to move beyond a rational apprehension of nature, and reason-emotion, subject-object binaries. In my research, there is a creative journey and a creative output that unfold as the research progresses. The creative journey is centred in the practice of the soundwalk. The embodied engagement achieved through the soundwalks is narrated

in *Let it Go* and the *Wild in Silence* and critically reflected on. Those reflections then form the basis for the development of the temporary installations that conclude each of these creative projects. These installations are the creative output that make the knowledge made through the journey explicit. As the research progresses, my private and personal life gets entangled in the work and brought to expression through diary entries. These diary entries often express surprise encounters that shape the direction of the creative journey and are key to the understanding of the work.

There is a final creative output in this work: the practical guide to sound that concludes this work. Throughout this research, I have practiced part-time at OOBE, a landscape architecture practice. I originally intended to employ my design practice as the subject of my research or to develop my research to inform my practice. Although this last has eventually happened, it has been a slow process, and for some time, the two were kept separate. I needed time and space to explore, which my extremely fast-paced and goal orientated practice was not allowing me to have. Slowly, I started to realise how my research was infiltrating my design practice. With regards to sound, that influence was permeating to all stages in the life of the projects, and this is how the guide to sound for landscape architects that concludes this work was born. Therefore, in time, this research by creative practice became research for Landscape Architecture practice, when the insights and knowledge generated through the creative practice were turned into a practical guide for landscape architects.

Soundwalk as phenomenological approach in landscape research

The soundwalk, as a method centred on human experience, falls more generally within phenomenological approaches, and as such has been adopted for this work to study the world through my experience of it, and in doing so, to break down the dualisms regarded as problematic in this research, such as subject-object, reason-emotion, and human/nature. The soundwalk as a method is discussed in *Let it Go* as it is put into practice. This section provides an introduction to phenomenological approaches to landscape research, addresses criticism emerging from them, and introduces walking as a phenomenological research method.

Phenomenology places the body in relation to the world at the centre of the inquiry, and in doing so, thinking is realised through living, reasoning through sensing, with neither aspect being superior to the other. From the very beginning, right to the very end of this research, thinking always happened through living. Even when I was writing up, my desk was dedicated to slow writing, reading, drawing, and formatting. Thinking happened on the go, as soon as I got up from my desk, and testament to this are the many little typed notes made on my phone of ideas that I developed whilst walking.

Phenomenology in landscape research is a relatively new approach. In the 1990s, embodied practices in landscape research emerged, triggered by Ingold's paper "The Temporality of the Landscape" (1993), where he called for the adoption of a "dwelling perspective, according to which the landscape is constituted as an enduring record of – and testimony

to – the lives and works of past generations who have dwelt within it, and in so doing, have left there something of themselves" (1993, p.152). In doing so, he called for the prioritisation of lived experience in knowledge creation.

Examples of phenomenological landscape research of relevance to this study include embodied walking practices by Lorimer (2006) and Wylie (2005). Lorimer employed walking to study first hand the way daily encounters of herders and herd "are rooted in unconventional systems of ecological and cultural knowledge" (2006, p.497). For Wylie (2005) walking in the landscape became a critical and creative way to contextualise modern "self-landscape and subject-world relations within cultural geography and spatial-cultural theory more generally" (p.234). Both are prime examples of how intimacy and distance are combined through phenomenology for different aspects of landscape research.

Criticism of phenomenology

The phenomenological method has been criticised for its (1) apparent subjectivity and (2) inaccessibility to criticism (Hass, 2008). Within landscape studies, criticisms also include that phenomenology is (3) "too intimate" and therefore ignores the wider cultural, political and economic makeup of the landscape (Wylie, 2013, p.59). This criticism, due to its relevance to my soundwalk practice, is addressed here with reference to Merleau-Ponty's phenomenology, as my soundwalk methodology falls broadly within Merleau-Ponty's phenomenology where the body itself is "the conscious subject of experience" (Abram, 1998, p.2). Therefore, the body is the conscious subject of the listening and walking experience.

(1) Many authors dismiss the criticism of subjectivity by appealing to the intersubjectivity inherent to Merleau-Ponty's philosophy (see for example Hass, 2008; Toadvine, 2009). In his phenomenology reasoning is realised through lived experience. Lived experience is intersubjective as it takes place in the world, amongst other subjects. My lived experience is always my own, happening through my body. That experience, however, is not unique to me, in the sense that others can also have a similar experience as we share a common world and perceptual faith, as I will describe later on. The phenomenological method aims to show my experience to others so that they can relate to it, and relive it through their own experience of it. Phenomenology is therefore not subjective, but rather intersubjective, and founded on lived-in reasoning.

(2) With regards to the ability to criticise, the phenomenological method can be criticised according to the success of its argument. A phenomenological argument can be successful if it makes us "see or grasp what (it) aim(s) to show" (Hass, 2008, pos. 131), and unsuccessful when the desired intersubjectivity is not realised. Phenomenology can be criticised, however, such a critique requires an understanding of what the phenomenological method entails (ibid.).

(3) With regards to the intimacy implied in phenomenology, I argue that proximity is not incompatible with distance and that both are necessary for perception and encompassed

in Merleau-Ponty's ontology of flesh. The paradox of seeing, and sensing, Merleau-Ponty argues, is that we sense things at a distance while sensing through our own body, as I will describe in detail in *Let it Go*. The benefit of Merleau-Ponty's philosophy lies precisely in this double movement that encompasses and integrates proximity and distance, and sensing and reason, as I will argue. A phenomenological inquiry can therefore both encompass broader landscape issues with a study of the landscape from within, as is the case for example of Lorimer (2006) and Wylie (2005) introduced earlier.

Walking as a phenomenological landscape research method

In adopting walking as a research method, I joined a long tradition of walking writers, thinkers and artists, and Landscape Architecture researchers. Solnit (2014) provides a historic overview of walking as a practice for engaging with the environment, thinking, and writing. Rousseau, for example, claimed "never did I think so much, exist so vividly, and experience so much...as in the journeys I have taken alone on foot"(Rousseau, cited in Solnit, 2014, p.19). Schultz and van Etter (2017) provide a contemporary overview of researchers and designers such as Gehl, Jacobs, Whyte, Wunderlich, and Wylie that advocate for and incorporate walking in their practices.

In this work landscape is considered to be socially constructed: conceptualised through the interaction between people and place. Therefore, through walking, the researcher becomes an integral part of the landscape walked, as the reader will uncover throughout this work. The researcher becomes a subject perceiving and studying the landscape, as well as an object for others to perceive (Schultz and van Etter, 2017). In this manner, knowledge generated through walking is "socially robust knowledge", as it is intrinsically linked to the socially constructed landscape walked, and the particular experience of the walker (Nowotny, Scott and Gibbons, 2001, p.166). This mode of knowledge has also been described as "working knowledge", as the researcher is "working upon an object [landscape], which is created by knowledge" (Nowotny, cited in Schultz and van Etter, 2017, p. 181). "Working knowledge" is therefore akin to the praxical knowledge introduced previously. This knowledge stands as a contrast to "reliable knowledge" and/or objective knowledge that is not highly contextualised and can be universally applied (Nowotny, Scott and Gibbons, 2001, p.166). In addition, the direct and close experience with the landscape that walking affords provides "an understanding...that goes beyond knowledge" (Ingold, 2013, p.11), to allow a sense of wonder in our interaction with the world, as sought through this work.

Walking in landscape research has been used to engage with the landscape and gain a direct understanding of it, to generate ideas and research questions, and lastly to reflect whilst walking (Schultz and van Etter, 2017). In this research, walking is employed with these three purposes to generate working or praxical knowledge. Whilst walking, I engage directly with the landscape and I become an integral and inseparable part of it, transforming the landscape walked and being transformed in the process. Whilst walking, I conceptualise the artistic installations of this research. Lastly, whilst walking, I reflect on listening and the engagement with the landscape.

For this research, walking takes the form of the soundwalk. Whilst the focus of the soundwalk (and of this research) is on listening, walking is an embodied, multi-sensorial engagement with the landscape, as the reader will uncover through this work. Thus, walking as a creative and research methodology can be extended to understand the perception of the landscape through the other senses. This is evidenced by how, in this work, through a focus on listening all the other senses seem to heighten, and by how other researchers employ alternative sensory walks such as smellwalks to engage with the city and landscape (Porteous, 1985; Henshaw, 2014; McLean, 2020).

As described, the working knowledge generated through walking is implicit and contextualised. It is linked to a particular landscape, and a particular experience. However, the experience can be shared intersubjectively and made explicit, as I have argued for artistic and phenomenological approaches. Moreover, the questions and ideas that emerge from the walks are transferable; they can be transported to other landscapes, and other walkers (Schultz and van Etter, 2017). In this work, a variety of media are used to share the experience of the walks including diary entries and descriptive narrative, images and soundtracks, and temporary installations, as the reader will discover through the work.

Writing

The written element of this research captures thought pre-action, thought in action, thought in living, and thought post-action, and as such is inseparable from the creative component of the work.

With regard to thought in living and thought in action, key lived experiences are described through research diary entries and key soundwalks of projects two and three through narratives of varying lengths. The narratives are a record of thinking realised through walking and listening (thought in action) and lived experience (thought in living), and therefore form an important part of the phenomenological argument of the research.

These narratives are written in a lyrical style to invite readers to relate to my lived experience. These narratives are not simple accounts of what happened, they direct the reader to the experiences that are relevant to my thinking. The purpose then is for me as a narrator to render my "knowledge explicit, (and in doing so), conduct the attention of (my) audience along the same paths as (my) own" (Ingold, 1993, p.153). The narration is successful when the audience experiences what happened, "gets it" and in the process acquires "knowledge by acquaintance" (Hass, 2008, p.155).

In including narrative within this research I follow the path of contemporary geographers such as Wylie (2005), philosophers such as Lingis (2000), and architects such as Havik (2012) and Grillner (2003) that adopt alternative modes of writing alongside theoretical analysis to bridge the objective and subjective, rational and emotional dimensions of lived experience.

With regards to thought pre-action and thought post-action, the text contextualises and theorises the creative journey, installations, and the findings of the work. Through the text I make a "double articulation between theory and practice, whereby theory emerges from a reflexive practice at the same time that practice is informed by theory" (Bolt, 2007, p.29).

The self-reflective text is outside of the creative work as it is an exercise carried out before and after the work, however it is an integral part of it as it commits some ideas to paper and rejects others (Hirschhorn, 2013), and in doing so shapes the trajectory of the work. As this research consists of several installations, the double articulation between theory and practice takes place at various points throughout the research journey. There is a to and fro between theory and practice, which is reflected in the structure of the thesis as outlined below.

Thesis structure

The thesis is structured in four main chapters: two bookend chapters (*Staging the Wild* and *Walking Back*) and two central creative chapters (*Let it Go* and *The Wild in Silence*).

Staging the Wild contextualises the aim and research questions of the research within the three themes of the work: detachment from nature, disenchantment of the world, and ocularcentrism of our culture. Following this contextualisation, I start the creative journey (in pursuit of wildness and learning-to-listen journey) and carry out two art installations. These installations are informed by ideas that emerge from the creative journey and the engagement with theory. Following the installations and through self-reflection, I draw findings that form the basis of the next chapter.

Let it Go and *The Wild in Silence* are self-contained chapters and follow a similar format. The chapters start contextualising the particular landscapes and methods for the projects. Soundwalks and everyday moments of enchantment are then narrated and reflected on. These reflections, together with more engagement with theory serve to theorize the role of listening in the engagement with the environment and to gradually develop a phenomenology of enchantment. Informed by ideas that emerge in this interaction between practice and theory I develop art installations and self-reflect on them to draw findings for each chapter.

Walking Back revisits conclusions from all three previous chapters and brings them together to address the questions posed at the beginning of the research.

Additionally, a *Concluding Remarks* section is included at the end to affirm the main findings of the work, and outline ideas for future research that emerge from this work but are not fully developed within it. The Guide to Sound that emerges from reflections on the soundwalks is also included here as a work in progress practical guide for Landscape Architects.

Images

The relation between sight and sound is a key component of the narratives and installations. However, the role of images is not fully addressed in the text as I focus on sound and listening. This section serves as a short introduction to the many images contained in the work.

One of the first things that I noticed through attentive listening was how all the other senses seemed to heighten. Listening required spending time in a place, which made me focus on visual details that I might have missed had I not listened, and that contributed to the experience of the different landscapes. Photographs were taken with a fixed lens camera and manipulated afterwards to bring attention to what I was sensing. They are internal ocularisations as they direct the reader to the details that I was focusing on. Together with the descriptive narratives and soundtracks, they invite the reader to experience the landscape through my experience of it. This ocularisations, therefore, express the visual as an active and integral part of the embodied experience of the landscape.

ORIGINAL CONTRIBUTION

This work provides an original contribution to research as follows:

- It provokes us to question the origin of our detachment from nature or Nature Deficit Disorder and provides a solution for it through the access to our inner wildness in enchantment.

- It provides the foundation for a non-instrumental human-nonhuman relation where reason and emotion, and distance and affinity from nature co-exist.

- It develops a sensibility to the environment through listening that culminates in a practical guide to sound for Landscape Architects.

Additionally, this research:

- Draws on Merlau-Ponty's ontology to support critical aspects of Bennett's vital materiality (2010) and Val Plumwood's ecological self (1993).

- Explores Merlau-Ponty's ontology of flesh through sound, in place of his focus on sight and touch.

- Provides a vehicle for overcoming the criticism of Merleau-Ponty's ontology of "flesh" (1968) of anthropomorphising nature by drawing on human perceptual experience. This research turns this criticism into potential by arguing that the power of grounding flesh in perception resides in the opposite connection, in the "wilding" of humans.

PUBLICATIONS

Different aspects of the evolving argument of this work have been published as the research developed. The installation that concludes *Staging the Wild* and reflections arising from it were published as *Staging nature in the mundane city*, included in Issue 23 of Kerb journal (Ruiz-Arana, 2015). An abridged version of soundwalk 1 and its accompanying reflections was published as *Thinking with my ears – a reflection on sound and landscape architecture*, in a special issue on landscape architecture research of the *World Landscape Architecture* journal (Ruiz Arana, 2015). The making of *Rewilding the Gardiner Expressway* installation and following discussion was published as *The Gardiner Expressway birbasatzen*, included in Issue 29 (Suburbia) of *Aldiri, Arkitektura Eta Abar* journal (Ruiz Arana, 2017). An abbreviated version of *The Wild in Silence* has been published as *The Wild in Silence*, in Issue 7 (Sound and Environment: Sense of Place) of the *Interference* Journal (Ruiz Arana, 2019a). Input from the reviewers and editor of this last article were invaluable in developing the argument arising from that project. Lastly, a work in progress version of the guide that concludes this research was published as *Thinking with my ears – Guidance on Sound for Landscape Architects*, in the conference proceedings of *Inter.noise 2019* in Madrid (Ruiz Arana, 2019b).

A. journey to enchantment: *in pursuit of wildness*

A.1 DETACHMENT FROM NATURE

The following section frames modern society's detachment from nature through the review of a highly successful and influential book of the last decade, Richard Louv's *Last Child in the Woods: Saving our Children from Nature-Deficit Disorder* (2005). Last Child in the Woods engendered a national and international movement to get children (and adults) back into nature (Black, 2012; Briggs, 2016; Chawla & Derr, 2012; Collado & Staats, 2016; DEFRA, 2019; Fearn, 2015; Myers, 2012; Sampson, 2016; Start, 2013) and is a book that I was initially compelled to read as a mother of young children.

Detachment from nature has been identified as a significant underlying problem behind our current environmental crisis and inaction (Kareiva, 2008; Fletcher, 2017), and as an argument for bringing nature back into cities (Beatley, 2011; Landscape Institute, 2013a, 2013b). Through the following review, I argue, however, that our detachment from nature does not stem from a lack of access to it, but from an underlying set of cultural values with regard to nature that need addressing. Current cultural values with regard to nature prevent us from recognising, loving and valuing the nature that we live entangled with, and are also at the root of the current environmental crisis. Although solving the current environmental crisis is not addressed directly in this research, the process of changing cultural values discussed in this section is also conducive to that end.

In *Last Child in the Woods*, Louv introduced the Nature-Deficit Disorder (NDD) theory that proposes modern children and young adults are detached from nature, and therefore need to spend time outdoors to reconnect with it. NDD is not a medical disorder, he proposes, but rather a way to frame a contemporary and pressing problem. Backed by scientific research, Louv provides a compelling argument for the benefits that direct contact with nature has to build a foundation for environmental stewardship, and for children's (and adults') physical, psychological, social and spiritual development. These benefits include increased physical activity and obesity reduction (Bird, 2004), childhood asthma reduction (Lovasi et al., 2008), stress reduction and recovery from surgery (Ulrich, 1984), increased ability to concentrate (Taylor, Kuo and Sullivan, 2002), stress reduction in children (Wells and Evans, 2003), increased self-reported health (de Vries et al., 2003), fatigue reduction (Kaplan and Kaplan, 1995), improved social cohesion (Kim and Kaplan, 2004), and benefits for the elderly such as improved concentration and improved sense of coherence (Ottoson and Grahn, 2005), and increased longevity (Takano, Nakamura and Watanabe, 2002). The benefits of contact with nature are therefore widely researched. Despite these benefits, NDD and associated solutions have been criticised for treating the symptoms and not the cause of the disorder, as discussed below. Without addressing the cause, therefore, the disorder could carry on indefinitely.

Louv identifies the NDD problem as recent (the last two or three decades at the time of publishing) and a result of increased technology in children's lives, densification, lack of links to rural communities, parents' aversion to risk, and changes in education. Added to these factors are an intellectual understanding of environmental threats, ignorance of the origin of food, and a blurred boundary between humans, nonhumans, and machines. All in all

has resulted in an abstraction of children's understanding and experience of nature as they have lost direct physical contact with it, despite the increase of wild animals in cities that Louv reports.

Louv proposes many practical solutions to NDD at a variety of scales, ranging from wilder biophilic cities, to nature-based educational programs, and family outings. Some of Louv's solutions have been criticised on grounds that include: being exclusive as they are targeted to a middle-class white audience; developing educational programmes founded on nature science which still treats nature as an object and might create distance as oppose to reconnection; and promoting a longing for a pristine wild nature (Dickinson, 2013). Along similar lines, NDD and the broader idea of a need to connect with nature have been criticised for amplifying the segregation of humans and nature, as they imply in one way or another that humans are not part of nature if they need to connect to it (Maniates, 2001; Fletcher, 2017). Louv has also been criticised for idealising his childhood environment and regarding it as the benchmark against which any future environments are measured (Dickinson, 2013), thus implying that the human-nature estrangement is relatively new (Kahn, 2002). This last criticism, with which I concur, is elaborated below as it supports the idea that contact with nature is not enough to ensure attachment and stewardship.

Paradoxically, the cause of our environmental crisis is not the children who are suffering NDD, but the adults behind them who have failed to engage with the pressing problems of a degrading environment actively. These adults are the children of a generation past that could have enjoyed the contact with nature that Louv cherished; however, that contact has not translated into environmental stewardship. Interestingly, it is today's children, the ones who have supposedly lost contact with nature, who are demanding immediate change through school strikes to tackle our climate emergency and protect their future. There is no denying that time outdoors is necessary and should be facilitated and promoted, and Louv's book is admirable in trying to promote affective contact with nature. However, it is clear that contact with nature alone does not result in an attachment that is conducive to its defence.

If contact with nature alone is not sufficient to form an affective attachment to it, then what is? There is an aspect of Louv's work that has been overlooked in its critiques and that offers in defence a potential answer to this question: the enchantment that he, and many of the environmentalists that he introduces, experienced as children in nature. At the start of his book, Louv describes the joy and wonder that he experienced in his childhood playing freely in nature; feelings of joy and wonder, mixed in with risk and freedom that he comes back to again and again throughout the book. I propose that a shift is required in the treatment of NDD from the practical solutions described above, to the promotion of affective contact with nature that can lead to attachment to it, as has been the case for Louv and many other environmentalists. Emotional attachment, I will argue, can lead to addressing the root of the NDD and of our environmental crisis: the need to ultimately reformulate our power relation with nature (Plumwood, 1991; Maniates, 2001; Toadvine, 2009; Freyfogle, 2014). The next section (A.2) stresses the importance of this reformulation of power that forms the basis for the journey to enchantment that I embark on. The beginning of that journey requires a critical review of historical and contemporary human-nature relations in Western culture

to situate the reformulation of nature-culture relations, and a clarification of how the terms nature, wilderness, and wildness are employed in this research, to which I subsequently turn (A.3).

A.2 ENVIRONMENTAL VALUE CHANGE

Cultural change in the context of environmental change was the subject of an active academic debate in 2017. Social psychologist Michael Manfredo and colleagues at Colorado University proposed that to date, proponents of changes in environmental values within conservation science have failed to address how social values shift. Values in society, they argued, operate at different levels. At an individual level, values develop in youth and after that tend to remain stable, and are the "principles that guide people's behaviours" (2017, p.773). Within a society, values are ingrained within the societies' cultures, traditions and institutions, and provide the foundations on which people's values are built. Social values develop from "human adaptation to different social and environmental contexts" (ibid., p.776), and as such are subject to evolutionary change. However, they tend to remain constant over generations. When values do change as a response to significant socio-ecological changes, they do so on the foundation of previous values. Value change is therefore challenging, and when presented with the low priority that people currently place on the environment, conservation approaches should work to change behaviour (as opposed to values) within existing value systems (ibid.).

Sustainability scientists Chris Ives and Joern Fischer, on the other hand, argued that although difficult, a change in individual, social and cultural values is required to tackle the environmental crisis (2017). They build their argument on Meadows's leverage point system of intervention. Leverage points are "places within a complex system (...a living body, a city, an ecosystem) where a small shift in one thing can produce big changes in everything" (Meadows, 1999, p.3). Ives and Fischer argue that current conservation initiatives are targeted at shallow leverage points, such as carbon payments or sustainable intensification of agriculture, which only cause superficial change. To trigger significant change, interventions are required at deep leverage points. These interventions, although difficult, bring about cultural value changes, fundamental to guide environmental behaviour. Based on these leverage points they argue that shallow interventions will never be able to provoke the major changes ultimately required, although they should not be abandoned as they can cause ripple effects. Current socio-environmental values stem from a set of societal goals that developed at the end of the Renaissance period and during the Enlightenment, and with the onset of capitalism and the industrial revolution, that led to the pursuit of constant growth and an instrumental view of nature, as argued previously. It is those underlying values that need to be reassessed to treat the causes behind the symptoms. Changes to individual and social values, although difficult, are possible if we consider historical shifts. For example, at an individual level, value shifts occur in time after migration to live in a new country. At a social and cultural level, women's rights or racial discrimination have shifted significantly and continue to do so. Value shift, Ives and Fischer argue, has been shown to occur in a couple of decades. Value shift, however, needs to be triggered, and we cannot resign ourselves to interventions at superficial levels (Ives and Fischer, 2017).

This debate highlights the complexity of the environmental plight and ultimately shows that the values that guide modern societies have not changed within a generation, as Louv implies, but are rather rooted in a much older nature-culture dichotomy that intensified during the Enlightenment and industrialisation period. To reattach to nature, therefore, and in line with Ives and Fischer, I propose that we need to change the cultural values underpinning our relationship with it, and not just aim at shallow leverage points by enabling contact with nature. This point of view ties in with Aldo Leopold's proposition made more than half a century earlier that in order for a land ethic to develop to guide our actions, both convictions and affections need to be changed (1949). This was reinforced more recently by Plumwood (1991), Maniates (2001), Jamieson (2002), Toadvine (2009), and Freyfogle (2014). This is precisely what this research sets out to achieve through enchantment.

A.3 NATURE, WILDERNESS, WILDNESS

"Nature is perhaps the most complex word in the language" (Williams, 1983, p.219)

Ideas of nature are subject to many interpretations and have evolved throughout history. The main concern in the evolution of those interpretations has been and still is whether man is included in nature. Contemporary notions on nature can be broadly classified into two groups according to their relation to culture: nature and culture as two distinct entities, and nature and culture as one (Proctor, 2013). The following section provides an overview of these two schools of thought.

NATURE + CULTURE = 2

This group upholds the rationalist dichotomy of nature as the world external to human interaction or activity, and of cities as artificial environments where man dominates and feels independent from nature (Mumford, 1956).

Included here are anthropocentric environmental thinkers who in the current Anthropocene epoch (Crutzen and Stoermer, 2000) still hold on to some notion of nature as separate from culture and seek to remove the human impact on it. This view of nature is driven by a certain degree of self-interest (in that it is instrumental to human interests) as "[Current] environmentalism is no longer about saving nature alone: increasingly, it is about saving people given their dependences on nature" (Proctor, 2013, p.83). Amongst them, we find early environmental thinkers such as Passmore (1974), and McHarg (1969), both proponents of an "ethic of human stewardship" in land management (Thompson, 2019, p.553). Included here are also the journalist and author Bill McKibben and proponents of the Nature Deficit Disorder or Contact with Nature, such as Richard Louv, described previously. McKibben, in *The End of Nature* (1990), proposed that it will soon be impossible to find a world devoid of human action considering the global impact of our activity and has since advocated and campaigned to reduce human impact on the planet.

The origin of this worldview can be traced back to the scientific revolution and onset of capitalism when the abstraction of man from nature intensified, and the notion of nature bifurcated into two separate meanings, as discussed earlier. This bifurcation of the notion of nature still holds true today. Latour (2008) proposes that in contemporary cities we live paradoxical lives. On the one hand, we live deeply entangled with nature through scientific and technological developments and the sources that underpin our lives; and on the other hand, we still hold onto an abstracted idea of nature, as we seek to preserve an ideal nature as pristine wilderness by constantly intervening in it. According to Latour, when we are finally able to acknowledge that entanglement, and as we realise the unpredicted consequences of it, instead of following through with those consequences, we seek to withdraw from this progress and leave nonhumans alone. Latour illustrates this paradox with reference to Mary Shelley's Frankenstein. Doctor Frankenstein's crime, he argues, was not the creation of a monster, but rather its abandonment to itself (2011). Accordingly, Latour argues that we must stick with the monster that we have created and regard human development as "neither liberation from nature nor as a fall from it, but rather as a process of becoming ever-more attached to, and intimate with, a panoply of nonhuman natures" (ibid., p. 291).

NATURE + CULTURE = 1

This group comprises environmental thinkers that defend humanity's place in nature from two perspectives:

1. Humanity and nature as one

This group comprises non-anthropocentric environmental thinkers who confer "moral standing and intrinsic worth to non-human entities" (Thompson, 2019, p.554). The non-anthropocentric position was common to most thinkers in the onset of the field of environmental ethics in the 1970s (ibid.). This field developed in parallel to the ecological movement prompted by the publication of Rachel Carson's *Silent Spring* in 1963 that moved activists to demand radical changes on how nature was valued and societies were organised (Light & Rolston, 2003), and built on Aldo Leopold's "land ethic" (1949). Leopold advocated for a "land ethic" that would change "the role of Homo sapiens from conqueror of the land-community to plain member and citizen of it" (Leopold, 1949/2003, p.39). He identified that the conservation movement of the time was driven by economic self-interest, which ignored the intrinsic value of nature. Conservation, he proposed, was driven by the wrong convictions and affections; these needed to change in favour of a land ethic founded on "love, respect, and admiration for the land, and a high regard for its value" (ibid., p.46). The development of such a land ethic needed to be an "intellectual as well as emotional process" (ibid.), a sentiment endorsed later on by Plumwood (1991, 1993), as discussed later on.

This stance is currently defended from a variety of positions, as will now be discussed.

From an evolutionary point of view, for example, American philosopher J. Baird Callicott, a champion of Aldo Leopold's land ethic, defends the position that human actions and works are part of nature. The one trait that sets us apart from the rest of the animal kingdom, and

its dependence upon instinct, is the cultural aspect of our behaviour. However, since that cultural side is also the result of evolution, we are still part of nature. Callicott goes on to propose that it is precisely because it is not instinctive, the cultural side of our behaviour can change (1991), supporting the argument that cultural values can change. Furthermore, we are not the only species that can harm the communities that they live in (ibid.). One example that might illustrate Callicott's last argument in the UK is the damage to forests caused by unsustainable deer populations that can be attributed to the lack of natural predators since the elimination of wolves by humans over previous centuries.

Within this group, we also find deep ecology and ecofeminism. Deep ecology, a movement heralded by Norwegian philosopher Arne Naess, seeks to address the nature-culture dualism by identifying the self with nature (Naess, 1973). Ecofeminism relates the domination of nature with the domination of women from a variety of perspectives (Gray, 1979; Easlea, 1981; Griffin, 1984; Merchant, 1992). The common goal of ecofeminism is to restore the natural environment for all living organisms, human and nonhuman (Merchant, 1992). From the ecofeminism perspective, nature and women are both viewed as instrumental and valued for their usefulness (to men) (Plumwood, 1986). For the consequence of the instrumental view of nature is that not only is the notion of nature bifurcated into two separate meanings, but also the understanding of self. The genuine human is the rationalist "masculine" side and that which sets us apart from animals, whereas the non-genuine human is the emotional, "feminine", and bodily side, the opposite of the rational (Plumwood, 1991). Plumwood defends the role of emotion and direct experience in the concern for nature, as had Leopold previously. Moral values and rights, Plumwood proposes, are assigned to nature based on "inherent worth" that will drive people to act "from an understanding of ethical principles as universal", consequently dismissing action driven by emotion as it is personal (ibid., p.5). This reinforces humanity's dualism where the emotional (feminine) side is seen as inferior to the rational. However, Plumwood argues that emotion is essential to provide depth to the concern for the environment (ibid., p.7).

Within this group, we also find opponents of restoration in land management such as Elliot (1982) and Katz (2002). Restored environments, they propose, will never have the same value as the original, and are a sign of human domination over nature, as they might be used to defend their original degradation (Thompson, 2019). The opposite argument, however, advanced by environmental historian William Cronon, proposes:

> *"If by definition, wilderness leaves no place for human beings...then also by definition, it can offer no solution to the environmental and other problems that confront us... We thereby leave ourselves little hope of discovering what an ethical, sustainable, honourable human place in nature might actually look like"*. (Cronon, 1996, p.17).

Following Cronon's line of thought, humanity's place in nature is justified by the positive and active role that we can play in it. In a similar vein, Ladkin (2005) building on Sylvan (1994), suggests that in rehabilitation projects, humans and nature are co-agents, each playing a primordial role in the process (Thompson, 2019).

2. Humanity and nature entangled into one — a nature-culture hybrid.

This group comprises thinkers, such as Latour, introduced earlier, who argue that nature and culture are too profoundly entangled to be distinguishable and consequently propose to embrace the hybrid world that we have created to become more attached to the nonhuman natures within it.

Within this group we also find current urban theorists who have built on Marx's ideas on metabolism, where nature is not destroyed but transformed, and Donna Haraway's *Cyborg Manifesto* (1991), which presents the city as a cyborg, a nature-culture hybrid, therefore the result of both social and ecological processes (Kaika and Swyngedouw, 2002; Gandy, 2005; Heynen, Kaika and Swyngedouw, 2006).

Both environmental ethic categories, nature and culture as two (anthropocentric), and nature and culture as one (non-anthropocentric), are problematic.

There are two main problems with anthropocentric environmentalism. On the one hand, that it is still driven by self-interest in the formulation of moral values for nature, as described previously; a problem already identified by Leopold in his land ethic (1949/2003). On the other hand, it is the drive to leave no footprint on earth, which goes hand in hand with wanting to return to a pristine wilderness (a consequence of the rationalist tradition). We, like other animals, shape the environment that we live in, and by seeking not to shape it, we remove ourselves further from it. We cannot go back to a world in which we never existed, as we have always shaped our environment and our society and values in the process.

There are three main problems with non-anthropocentric environmentalism and hybrid propositions. Firstly, the simplification of a complex reality into one big nature-culture category might result in not being able to care for other lifeforms, as we need to recognise them as distinctive to us to establish that care. Secondly, by seeking universality we abandon the individual and personal dimensions, which prevents emotional attachment to place, although attachment to place has driven many conservationists and native people to care for their land (Plumwood, 1991). And thirdly, those wanting to obliterate the nature-human binary still employ a dualistic vocabulary for describing their beliefs, which demonstrates that the categories are still required grammatically, as defended for example by Keeling (2008). Keeling defends that the word nature is still necessary to express the degree of human intervention. In this sense, nature is "a matter of degree", as something is natural when compared with something less natural, or with a higher degree of human intervention (ibid., p.507).

WILDERNESS, WILDNESS

The concept of wilderness has been the subject of active debate in a wide range of academic and practice fields since the 1990s (Callicott & Nelson, 1998; Callicott, 2000; Vannini & Vannini, 2015). This debate has resulted in two opposing views of wilderness (Vannini and

Vannini, 2015). On one side sits the view of wilderness as pristine ecosystem without human intervention and with intrinsic values (Rolston, 1988; Noss, 2003), and on the other the view of wilderness as a socially constructed concept or as perceived (Callicott, 1991; Cronon, 1996; Kirchhoff & Vicenzotti, 2015; Nash, 2014).

Wilderness as pristine ecosystem

These are the areas protected as wilderness by public authorities or private entities. In Canadian and US law, wilderness areas are designated and protected through *Canada's Wildlife Act* (1985) and by the *The Wilderness Act* (1964) respectively. The latter defines wilderness as "an area where the earth and its community of life are untrammelled by man... land retaining its primeval character and influence, without permanent improvements or human habitation" (section 2 (c)). Current Canadian and American legislation, therefore, holds on to the understanding of wilderness as the areas of pristine ecosystem that endure in the face of the gradual loss of wild land due to European colonisation and industrialisation. This idea ignores the indigenous Americans who lived in those wild areas previously. Callicott (1991) and Nash (2001) provide a thorough overview of the historical development of the concept of wilderness in relation to conservation philosophy in America. Key thinkers in that historical development include the 19th century transcendentalists Ralph Waldo Emerson and Henry David Thoreau, who introduced the idea of wild nature as capable of providing spiritual gratification; John Muir, the forefather of National Parks at the turn of the 19th-20th Century and philosopher of nature preservation for human enjoyment; Gifford Pinchot who developed a utilitarian philosophy aimed at using natural resources; and conservationist Aldo Leopold, who advanced the land ethic previously discussed (Callicott, 1998).

In Europe, the European Parliament Resolution on Wilderness was adopted in 2009, to protect the remainder of Europe's wildernesses. The Wild Europe Initiative (WEI) that was established following the resolution defined wilderness as "an area governed by natural processes ... unmodified or only slightly modified and without intrusive or extractive human activity, settlements, infrastructure or visual disturbance" (Wild Europe, 2013, p.2). It also introduced the concept of wild areas as those having "a high level of predominance of natural process and natural habitat"(ibid., p. 3). The WEI, therefore, still holds on to an idea of wilderness as devoid of human interaction, although recognising that that ideal is no longer possible for European land. In the UK, although there is no pristine wilderness left, there are wild areas, in particular in the Scottish Highlands and Islands. Scottish Natural Heritage has mapped these areas in its *Core Areas of Wild Land Map* (Scottish Natural Heritage, 2019). Wild land areas are protected under Scottish Planning Policy.

Wilderness as perceived

These are the areas perceived as having "wild characteristics" and therefore difficult to designate (Vannini & Vannini, 2015, p.42). Kirchhoff and Vicenzotti argue that perception of wilderness, although ultimately subjective, relies on "shared intersubjective culturally shaped patterns of interpretation... [that] have been internalised through socialisation and are usually deployed unconsciously" (2015, p.36). They propose that what the different

understandings of wilderness in western European cultures have in common is a perception of it as a "moral counter-word to culture" (ibid.). As a consequence, various understandings of wilderness arise based on different understanding of culture, founded on worldviews that developed in the Enlightenment period and as a response to it. Accordingly, Kirchhoff and Vicenzotti have developed a typology of perceptions of wilderness that comprises: (1) "wilderness as an area of natural ecological conditions", (2) "wilderness as a place of nature's self-reassertion", (3) "wilderness as a place of thrill", (4) "wilderness as a sphere of a-morality and meaninglessness" (2015, p.39-40). The first three types of "wilderness" are explored below due to their relevance to this research:

1. This wilderness is valued either for its perceived wildness or for the balance that natural processes achieve in the absence of human intervention. Wildness, as unregulated growth or behaviour, is seen as a mirror of our "instinctive nature" (ibid., p.39), akin to what the protagonist of *Wild* (2014) introduced at the beginning of this chapter set out to find in her quest.

2. These are the abandoned man-made areas, such as industrial sites or previously cultivated land, where nature has taken over. These areas are also called "new wilderness" in the classification of nature according to human activity (Kowarik, 1991, 2005). In this classification, nature of the first kind or original wilderness is the closest that we currently have to pristine ecosystems; nature of the second kind is the result of agriculture and other land management practices such as forestry; nature of the third kind is the result of horticultural practices, such as gardens, parks, and urban trees; and nature of the fourth kind or new wilderness is the result of spontaneous ecological succession in abandoned industrial sites (ibid.).

3. This is the wilderness of extreme sports that provide an escape from the mundane life. The thrill is perceived as a potential risk, as a genuine experience, or as the ability to overcome wilderness challenges. Thrill as risk is related to Burke's idea of the sublime (Kirchhoff & Vicenzotti, 2015, p.39), which is described in detail in *The Wild in Silence*.

A.4 FROM A PURSUIT OF WILDERNESS TO A PURSUIT OF WILDNESS

Enchantment in wilderness is the vehicle that I propose to trigger an emotional attachment to nature, from which a new conceptualisation of nature (in relation to culture) can emerge to underpin cultural values.

Wilderness at the beginning of this research is understood as an area perceived as a "moral-counter world" to culture (Kirchhoff and Vicenzotti, 2014). Expanding the traditional understanding of wilderness to include what is perceived as wilderness makes the mapping of those areas difficult, as they are highly variable. However, it also has the potential to enable us to find that wilderness far as well as close to home.

According to Kirchhoff & Vicenzotti's classification of perceived wilderness types, what the idea of remote wilderness ("wilderness as an area of natural ecological conditions"), and urban wilderness ("wilderness as a place of nature's self-reassertion") share in common is an appreciation of nature for its self-assertion or wildness (2015). Accordingly, the focus of my research moves from a search for wilderness as a pristine area, which might be difficult to define and find, to a search for wildness as a quality of the urban and rural fabric. For the avoidance of any doubt, from here onwards the term wildness instead of wilderness is adopted in this research. The term wildness is employed both as as an abstract noun and as a concrete noun. As an abstract noun it is employed in its conventional understading to describe the quality of uncontrolled growth (Henne, 3005, p.253). As a concrete noun it is a new usage introduced in this research to describe a piece of land displaying said quality. The term wild, in turn, is used to denote an untamed organism (ibid.).

Nature at the beginning of this research is understood as ontologically encompassing humans. Grammatically, however, and adopting Keeling's proposition, the term is still required to denote the degree of human intervention and varies according to context (Keeling, 2008), and is therefore employed in this research in this sense.

Having addressed why enchantment is adopted for this research, the next section provides the beginning of a listening journey, aimed at developing a sensibility to the environment through sound, conducive to moments of enchantment.

B. journey to enchantment: *learning-to-listen*

Monday, 3rd February 2014
Lovers Lane, Newcastle upon Tyne

Thursday morning. I am walking along Lovers Lane towards the University campus. As I pass Ridley building, the call of a bird intrigues me and I pause to listen. It is not one but many birds that I hear. Their singing or calling is loud. I close my eyes and for a moment I could have been anywhere, in a forest. But then I hear the squeak of the door as it opens, then two girls talking, kids' laughter and screams, the bell of a bike as it negotiates its way through the street, the white noise of the generators at the Royal Victoria Infirmary, cars breaking in the distance and finally, the beep of the traffic lights as they turn green for pedestrians. Those sounds put me in context. Without opening my eyes I know where I am: in the city, walking to work.

Sounds are an expression of the life of a place, an expression of the activities within it. Sound as a positive, as experienced on that February morning, is overlooked in landscape and urban design. This section provides the beginning of a learning-to-listen journey aimed at developing a sensibility to the environment through sound. The section starts with an introduction to how the senses work together in the understanding of the environment, followed by ear cleaning and an introduction to listening.

B.1 MULTI-SENSORIAL INFORMATION

The focus of this work is on listening. However, as listening never happens in isolation and is part of the holistic lived experience of the landscape, it is helpful to provide a short introduction to the interdependence of the senses.

We process information about the environment through the interplay of all the sensory systems that we have – vision, audition, olfaction, and somatosensation (touch, proprioception, and haptic perception). Each system collects and decodes information differently, but in a coordinated manner. For example, to navigate space, the body analyses a large amount of visual, auditory and somatosensory information rapidly. The goal is to determine the body's position relative to the external spatial arrangement and any moving object, through a multi-sensorial interpretation of the information gathered (Bremmer, 2005). The senses are therefore fully integrated, and it is difficult to isolate each sensory experience, as there are complex associations and interplays between the different sensorial systems.

The sensorial interdependence and difference make sense from an evolutionary point of view in terms of the efficient use of resources. In different contexts, one sense might play a primordial role in the understanding of a place, and then another might take over (Rodaway, 1995). It is in instances of low sensorial stimulus when the role and interplay of the senses become clear, such as the one described in the following diary entry:

Monday, 7th April 2014,2am

My baby's cry breaks the silence of the night. Time for a feed. I grab her and hold her with my left arm. She touches my face and cradles in my shoulder, reassured that is me. A dim light coming from the corridor guides me towards it. With my right hand, I touch the edge of the chimney, the wardrobe, the mirror on the wall, the handle of the door. In the corridor city light filters through the window. My pupils dilate until I can make out the outline of the stairs. I move my baby to my right shoulder. With my eyes and the tip of my feet I follow the edge of each step as I move downwards. Slowly. With my left hand I sense the smooth texture of the banister, with my right the warmth of my baby.

Our integrated sensorial system is plastic and can adapt according to the use of each sense, which supports the approach of this research in seeking to enhance my listening. This is evidenced by how in the long-term absence of one sense, the other senses heighten and work together to experience the environment. This is the case of people born blind, for example, who have a heightened sense of hearing, touch, and smell, as well as enhanced memory and language abilities (Bauer *et al.*, 2017).

B.2 HEARING

Our hearing is binaural, as we have two ears on opposite sides of the head. Information regarding a sound is gathered through both ears and transported to the auditory cortex, where it converges to create a binaural representation of the sound. As information arrives at one ear before the other, the slight time delay can serve to identify the location of the sound source (McAlpine, 2005). We are relatively good at hearing where a sound comes from, but not so good at determining distance (Rodaway, 1995), and here is where the other senses come in to play.

The perception of the environment through sound depends on many variables, which the International Organization for Standardization (ISO) groups under the following concepts and relations in ISO 1293-1: "Context, sound sources, acoustic environment, auditory sensation, interpretation of auditory sensation, responses, and outcomes" (BSI, 2014, p. 1). Context includes personal and environmental variables and can influence the auditory sensation, its interpretation, and consequent responses (ibid.). Examples of contextual variables are weather, lighting, other sensorial information, an individual's attitude to the sound source, emotions, perceived control over sound, and activities engaged in. Sound sources, as the name suggests, are the origin of the acoustic environment, where the acoustic environment is understood as "the sound from all sound sources as modified by the environment" (ibid., p. 2). Auditory sensation and interpretation have been covered in the introduction to hearing above.

Responses are "short-term reaction[s] and emotion[s], as well as behaviour, which may change the context" and outcomes are "long-term consequence[s] facilitated or enabled by the acoustic environment" (ibid., p.3). Examples of responses include leaving a space due to annoyance by sounds, and examples of outcomes changes of habits or health implications (ibid.).

Environmental perception through hearing is, therefore, a complex process and has some fundamentally different properties to sight worth discussing. Through the eye, we are presented with a completed image, as we see 180 degrees. We can grasp images rapidly. Hearing puts us at the centre of the aural field, as we hear 360 degrees; it can provide a lot of information, or none at all. On a stormy day, for example, one can get a sense of space as thunder is reflected from adjacent surfaces. On a fine day, however, in the same space, there might be no sound at all. In any case, the information unfolds over time (Hull, 2013).

Sound has not always been second to sight. One of the primary roles of sound has always been that of a warning system. Our ancestors relied on sound to detect and locate predators and prey 24 hours a day, through their movements and calls (Blesser and Salter, 2009). Moreover, today, sound still keeps us alert day and night: it is the sound of my crying baby that wakes me up in the night or a loud siren that alerts me of an incoming ambulance in the middle of the road. The possibilities of sound, however, as we will discover in this research, are much greater than this warning role.

B.3 EAR CLEANING

Canadian composer and educator Raymond Murray Schafer considered ear opening, or ear cleaning, an essential prerequisite to ear train the students of his experimental music module at Simon Fraser University (Schafer, 1967a). Schafer argued that in our ocularcentric culture we have lost the ability to listen. He carried out several exercises with his students for ear cleaning that included being silent for a day to focus on the sounds of others, finding an interesting sound to bring to class, or keeping a soundscape diary to annotate the sounds encountered (Schafer, 1967a).

My ear cleaning path started by actively listening to my surroundings daily in the instances that I was on my own, and therefore quiet. I also started annotating intermittently on my research diary interesting sounds or aural events that I remembered encountering certain days. A passage from my diary is included here:

> **Thursday, 22 May 2014**
> **5pm, clouded, light rain**
>
> I am walking through Campus at the end of the day, umbrella in hand. The rain physical joins all surfaces (man-made and natural) together through its touch and consequent sound. A variety of registers of tapping. Tapping on the light cloth of the umbrella: soft and low pitched. On the deck of the car: hard, low pitched and slight echo. On the leaves of the trees above, soft and high pitched. On the granite paving at Percy Quad: hard and high pitched. It is this last that I enjoy the most. I close my umbrella and listen to the rain for some time. The gentle and regular tapping of the rain. Splashy footsteps. The gurgling of the water as it disappears through a nearby gully.

Over time, I started noticing many more sounds. I also noticed how the focus on sound was altering how I perceived my surroundings. Whereas before I would walk without paying much attention to my surroundings, daydreaming or planning the day, sound brought me to the present and to the specific place I was walking through.

B.4 MODES OF LISTENING

Through attentive listening, I started to become acutely aware and interested in the interaction between sounds. Sound seemed to break all boundaries between the human and the non-human, between the organic and inorganic. It all sounded, and in some cases, very similar, as described in the diary entry below:

Thursday, 15th May 2014
8.30am, sunny and warm

I am walking along Lovers Lane again. A bike passes by, and as it brakes it makes a squeaking noise, squeak, squeak. As I keep on walking, I hear another repetitive sound, this time a bird tweeting, tweet, tweet. Further on, the beep of the traffic lights as they turn green for pedestrians, beep, beep. Beeps, tweets, squeaks, they all sound very similar, but I can distinguish them as I have experienced them in context. I am not so sure I would be able to distinguish them if I experienced them out of context.

Sparked by this interest in sound interaction, I started to record environmental sounds. Armed with advice from James Davoll, technical manager for the school of Arts and Culture at Newcastle University, I learned how to use a basic sound recorder and audio editor to manipulate recorded sounds. A typical field recording taken in the Spring of 2014 concludes this *learning-to-listen* section for the reader to listen to. The field recording is accompanied by a close up photograph intended to expand the information provided through sound.

By recording sounds I was guilty of "schizophonia", a term that Schafer coined to describe the process of recording sounds and playing them out of context (1977/1994, p.256). According to Schafer, when sounds are taken out of context, they lose their identities, as it is their context that affords them meaning and aesthetic value. Today, disembodied sounds with no visible source are an integral part of our lives through radio, TV, music players, and the background sounds to many public places from cafes, shopping centres, and offices.

It is worth noting that both real and recorded sound can be listened to through different modes: causal, semantic, or reduced listening (Chion, 2012, p.134). The purpose of causal listening, the most common mode, is to gain information about the source of the sound, which might be visible or invisible. The purpose of semantic listening is to interpret a message in a code or language. Finally, the purpose of reduced listening, a term coined by Pierre Schaeffer, is to focus on the characteristics of a sound without searching for its cause or meaning (ibid.). Reduced listening requires time and repeated listening to the same sound. To that end, sound needs to be fixed, recorded. Reduced listening is another form of opening our ears and

sharpening our listening, as it requires listening attentively to the characteristics of the sound itself. Schaeffer coined another term related to reduced listening: "acousmatic listening", or listening to a sound without seeing its cause (ibid., p.144). Sound in that instance is the main object of perception, which in turn, encourages reduced listening. However, acousmatic listening can also encourage causal listening, mostly at first, as one tries to locate the source of the sound (ibid.). In this research, I practiced both contextual listening and acousmatic listening of recorded sounds to open my ears and sharpen my listening.

To conclude this section, I would like to focus on a difference between listening in situ and listening to recorded sound. As Altman proposes, "recordings do not reproduce sound, they represent sound. Each recording proposes an interpretation of the original sound" (2012, p. 593). A recording always captures the sound from a specific point or points, the ones that the person doing the recording chooses. Through the process of recording, other sounds are added to the recording such as the noise of the recorder or speakers. The recording is then heard in an environment that is different from the original. All of these factors contribute to making the experience of listening to recorded sound always different from the experience of contextual listening.

Fig. 03, soundtrack 01 - Field recording 01

C. enchantment and beyond:

phenomenology of disenchantment

At the beginning of this research, I proposed how the story of the detachment from nature shares many traits with the story of the disenchantment of the world. Max Weber's version of disenchantment introduced earlier has been the most influential and has several elements, common to other versions of disenchantment, including (Bennett, 2001):

- A sense of longing towards a lost enchanted era where "magic commingled with science, God lived in nature, agency was distributed more widely, and human existence was meaningful by virtue of its location within a larger cosmological order" (ibid., p.63).

- Regarding disenchantment as an inevitable consequence of rapid secularization and scientific development, as science strips the world of meaning by reducing nature to the inert matter of study. For Weber disenchantment is not necessarily negative, as it affords the freedom to individuals to create their values

- In response to disenchantment, a search for enchantment experiences through "mysticism, eroticism" and other alternative practices to escape the meaninglessness of the everyday (ibid., p.64).

Religion also contributes to the narrative of disenchantment, as Western Christian religions idealise the post-earthly world as the transcendental realm, in contrast to the disenchanted earthly life (ibid.).

Bennett, amongst other recent scholars including Saler (2012), Landy and Saler (2009), and Wolch (1996), propose that the world is still enchanted; however, to perceive this, we need to open ourselves up to new forms of enchantment. This research draws mainly on Bennett's version of enchantment, as elucidated below.

Bennett draws attention to the link between the word enchantment and the French "enchanter", where to "chant" is to sing, and to enchant, therefore to "surround with song" (Bennett, 2001, p.6). As introduced earlier, developing this line of thought, I pursue enchantment literally in this research as to spellbind through sound (ibid.). Enchantment, Bennett goes on to say, is a mood induced by a surprise experience that combines a "charming feeling and a slightly off-putting sense of having been disrupted... in a way that engenders an energising feeling of fullness or plenitude" (ibid., p.104). Enchantment is "temporary suspension of chronological time and bodily movement" that can also entail fear; a fear that does not paralyse, as to be enchanted "requires active engagement with objects of sensuous experience" (ibid., p.5). Enchantment cannot be forced or guaranteed as it necessarily entails a surprise encounter; however, a bodily sensibility towards it can increase the chances of it happening. This understanding of enchantment shares traits with Edmund Burke's idea of the "sublime" (1757/2014), as we will uncover through the creative projects.

Bennett proposes two interrelated avenues to enchantment: "to recall alternative stories about the nature of things...and to keep an eye out for contemporary practices and experiences that are anomalous within a world understood to be wonder-disabled" (ibid., p.84). She pursues both avenues to find moments of enchantment in everyday life, drawing

attention to the magic that is already embedded within it. Following the first avenue, her alternative story is one of enchanted materialism, where matter is not inert but lively, which is expanded on later on in this research. Following the second path, she proposes several "sites of enchantment" including "animals who display powers previously thought for humans alone; the captivating dimension of human-electronic interfaces... (or) nanotechnology" (ibid., p.84). This research pursues the second avenue, to then formulate the first avenue, an alternative human-nonhuman story.

Nature and the wild can also be sites of enchantment. Bennett identifies the potential for wonder in both Henry Thoreau's wild and also Bruno Latour's nature-culture hybrids. In Latour, Bennett finds the affirmation that enchantment can take place through modern cultural and hybrid artefacts, and not only in pure nature. With Thoreau, she shares the potential for enchantment as a window to acknowledge non-human agency and induce "an ethical ecologically aware life" (ibid., p.99). Thoreau, through an intense engagement with a nature that constantly surprises him, develops "a kind of sensibility...indispensable to activate his will to resist the lure of social conformity" and to enchantment (ibid., p.93). In accordance, nature and the wild are also pursued as sites of enchantment in this research.

To summarise this section, rational thought is at the heart of disenchantment, as rational thought is at the heart of the detachment from nature. Rational thought, in turn, is sharpened by our visually dominated culture which facilitates abstraction from the world. Rationalism has intensified the abstraction of man from nature and facilitated the bifurcation of the notion of nature into two separate meanings: nature as resource, and nature as the wilderness to escape to. Nature as resource is regarded as instrumental to human needs, and therefore devoid of intrinsic value. Nature as pristine ecosystem in which humans have no place is a cultural construct that prevents us from discovering the positive place we could have in it.

This bifurcated meaning of nature underlies our current cultural values and is the cause of our detachment from nature. This view is supported indirectly by advocates of the NDD theory (Louv, 2005), who propose that we are part of nature, however, not entirely, as we have lost contact with it and need to get out to the natural wildness (in Louv's case) to heal and develop ourselves. This project hypothesises that moments of enchantment in everyday nature could lead to a connection with everyday wildness and a re-joining of the bifurcated meanings of nature in our heads.

D. enchantment and beyond: *beyond nature and culture*

INTERVENTION 1
CONVERSATIONS

This section explores alternative conceptualisations of human's place in/as nature that seek to reconcile the bifurcated meanings of nature as resource and as pristine wilderness, through two creative interventions.

INTERVENTION 1 : CONVERSATIONS

THEORETICAL CONTEXT

One way of rethinking the bifurcated meanings of nature and self is by proposing one entity (either hybrid, or a whole), as discussed previously in A.3, as it is difficult to escape the fact that we live in an entangled human-nonhuman world, that has always been entangled as long as we have been in it. Following the initial critical review of this chapter, this is the position tested through the first intervention, siding with Callicott and others in believing that ontologically we are part of nature and that therefore our cultural artefacts, as the result of evolution, are also nature (1991). However, grammatically we still need the word nature or natural to communicate the degree of human intervention in our everyday lives. This natural shifts according to context, and is, therefore, a "matter of degree" (Keeling, 2008, p.507). For example, organic strawberries are more natural than inorganic ones, but wild strawberries would be even more natural than the first.

CONCEPT

This stance is explored through an initial creative intervention, a collection of "sound conversations" aimed at breaking down the nature-culture divide; sounds that, as described previously, when taken out of context and through acousmatic listening become indistinguishable. Human and non-human sounds that appear similar to the ear were combined to produce these conversations. The recordings were mainly carried out in and around Newcastle and were accompanied by a photograph and short piece of text that expanded the information provided through sound. A selection of the conversations produced is included in the following pages.

Fig. 04 (overleaf) - Sound recording

Fig. 05, soundtrack 02 - Conversation I

Conversation I: Kittiwakes and people

May 2014 I am walking down to the quayside (newcastle) on an early Saturday afternoon recorder in hand, on the lookout for kittiwake songs. I know very little about birds and their songs and calls but the squeak and cry of the kittiwake is easily recognisable. I have been to the quayside many times before but nothing prepares me for what I find, for what I hear. There are countless kittiwakes on the piers of the Tyne Bridge, countless cries, it is extremely loud. How have I missed it before? But they are not the only ones roaring. All in all is an intense, thundering soundscape.

Fig. 06, soundtrack 03 - Conversation II

Conversation II: Traffic and the sea

June 2014. My sister has an intermittent ringing in her ear worsened by stress. When she gets the ringing, she plays relaxing music at night to get to sleep. The roaring of the sea is one of her favourite sounds, as it successfully masks the ringing and she no longer hears it.

As I walk past the A167, the rhythm of the traffic reminds me of her and hear sea.

Fig. 07, soundtrack 04 - Conversation III

Conversation III: Birds and rusty swing

August 2014, Kielder Forest. We follow a trail alongside Kielder Burn that leads to an opening in the forest. At the distance, a play area. Empty. First stop, the swings. The rusty chain squeaks gently with every push.

We leave the play area and follow deeper into the forest. A variety of birds are singing. The rusty chain could happily integrate amongst them.

Fig. 08, soundtrack 05 - Conversation IV

Conversation IV: Waterfall and white noise

October 2014. I am following directions to walk to Lausanne's city centre from one of the residential areas to the east. The shortest route takes you through a narrow forested valley that dissects the city on a north-south direction. I follow the loose gravel path in the middle leading into the forest. As I enter the forest I feel somehow unease. There is no one here, an un-surveilled area within the city. A dense forest with dim light. As I start to hear the constant sound of the water travelling at high speed I know I am walking in the right direction, the river is near. As I get closer to the river the sound of water flowing in cascades masks all other sounds, it is soothing. When I play back the recording that I took by the waterfall the richness of the original sound is lost. In its place, a white nosie, like the many found at the University.

REFLECTION

These conversations became a beneficial exercise to clean my ears, set me off in field recording, and listening attentively to my environment. However, they were less successful in defending the intended theoretical position. In conversation IV, for example, the sound of the waterfall when taken out of context might not be distinguishable from the white noise of the fan extractors at the University, as their meanings and therefore origin is lost in the playback of the recording. However, in context, through causal and acousmatic listening, they are experienced very differently. In the waterfall, I am standing on a narrow timber bridge over it, feeling its force through the vibrations in my body. There is a sense of thrill even in the thought of one of the timber posts that support me collapsing, dropping me into it. The sound of the waterfall mutes every other sound. However, I can hear faint birds in the distance, the movement of the tree canopies above. After listening to it for a while, the sound of the waterfall is not monotonous; it is made up of many different water sounds that the recorded track does not fully capture. In contrast, the white noise sound of the fan extractors at the University is monotonous and drives me to move away from it. The most successful conversations are the ones that did not attempt to blur the human into the non-human, such as conversation III between birds and a rusty swing, where there is a joyful interplay between the human and nonhuman. The sounds are different. However, there is a certain correspondence of one into the other. My initial theoretical position therefore soon became insufficient to explain the human-nonhuman relation as lived. If all were one, I would not experience this sense of joy or playfulness in the difference, in how the human and nonhuman interact and play with one another. This lead me to look at alternative conceptualisations that might address what is experienced, and that go beyond thinking of nature and culture either as one or as two separate opposites.

One alternative proposition is Val Plumwood's ecological self (1993). Plumwood proposes that the self is developed through "interaction and involvement with the other" (ibid., p.153). In her proposition, care for the others is not driven by self-interest, but by a desire for others to thrive. Overcoming self-interest requires recognising commonality and difference with the other in social and ecological communities. Plumwood draws on psychoanalyst Jessica Benjamin to develop her notion of how the self is developed through "intersubjective interaction...an interactive process in which each transforms and limits the other" (1993, p.156). Benjamin calls this interactive encounter the "dance of interaction" (Benjamin, cited in Plumwood, 1993, p.156). In this interactive process, the self is "distinct ... but not hyper separated" (Plumwood, 1993, p.156). The ecological self acknowledges that there are other agencies besides humans, in horizontal relations with them, each agency limiting the other. The ecological self makes room for the other, interacting respectfully with them, being both "transforming and transformed, sustaining and sustained" (Plumwood, 1993, p.164). According to this proposition, in some areas of interaction, humans rule (while still depending on others, and interacting respectfully with them), whilst in others, humans must recognise that others are ruling them. This aspect of Plumwood's proposition, the recognition that commonality and difference are both integral aspects of the relationship between humans and nature, concurred with my findings at the end of this first intervention. The most successful conversations were after all the ones that did not attempt to blend natural and cultural sounds, but rather allowed for both to interact.

Fig. 09- Staging nature at Percy Quad

INTERVENTION 2
STAGING NATURE IN THE MUNDANE CITY

Thank you to Jeff Wilson, David de la Haye, James Davoll, Matt Robinson, Tom Vasey, Ian Walker, Len Wilson, Kerri McMichan and Carol Young for their help in the development of this installation.

THEORETICAL CONTEXT

At the time that I was conceptualising this second intervention, I received an email as detailed in my diary entry below, that drew me to engage with another alternative human-non human conceptualisation that goes beyond nature and culture as two or as one: Jane Bennett's vital materialism (2010).

June 2014

Incoming email, Subject: Lice

"Good afternoon, we have found lice in several children's heads at nursery. Please check your child's head for any live lice or eggs and treat accordingly".

The email continues with advice on treatment. My head starts itching. I read the treatment advice in detail. Chemical versus non-chemical options. Benefits and disadvantages. For the next couple of hours, sitting at my office desk, I cannot stop scratching my head. Have I not been itchy for a couple of days now? I pick my kids up, strap both of them to the double layer pushchair and start the walk home. My daughter Ena is sitting on the seat above. I am keeping a close eye on her dense mass of long hair. As we enter the park, I see a tiny insect jumping in her head. I fail to grab it. It could be anything; it is summer, we are in the park. As soon as we get home, we all check each other's heads. Ena: two jumping lice and eggs, plenty. Alan: one. Miguel: none. Me: one. A quick trip to the pharmacy and we all get treatment that evening, chemical, followed by daily checks, and mechanical combing. It takes a while for my head to stop itching.

This email was not a one-off occurrence, as I found out later. Children's hair and ours are thriving growing mediums for lice. However, they are not the only organisms our bodies support or can support. Our normal body flora consists of millions of innocuous and beneficial microorganisms that happily live in the internal and external surfaces of our bodies. They form a physical barrier on those surfaces, thus providing the first line of protection from

pathogens seeking to attach themselves and thrive on us (Microbiology Society, 2019). As well as this permanent wildlife, we also host a wide range of temporary organisms that come to stay with us causing a variety of illnesses of varying degrees, or as in the case of the lice, itchiness, and discomfort.

Bennett focuses on our normal microbiome, the "alien quality of our own flesh", to defend her theory of vital materialism (Bennett, 2010, p.112). We are not only embodied, she proposes, but rather "an array of bodies," human and non-human (ibid., p.112). Bennett positions her work alongside many others, including that of Freya Matthews, Bruno Latour, Donna Haraway, Tim Ingold, Felix Guattari, and Don Ihde, in pursuing a more sustainable life not for the sake of the environment but "in the name of a vigorous materiality" (ibid., p.111). Whereas environmentalists "are selves who live on earth" and seek to protect and manage their environment ultimately for their own sake, vital materialists are "selves who live as earth", as vibrant matter in active engagement with other vibrant matter (ibid., p.111). Environmentalists seek to leave the smallest imprint on earth. However, vital materialists as co-actants, live and shape their ecosystems daily. Therefore, similarly to Plumwood's proposition, in pursuing a more sustainable way of life in some cases we might need to "back off or ramp down (our) attentiveness", and in others step our actions up dramatically (ibid., p.122).

Bennett describes vibrant matter as:

> *"In lieu of an environment that surrounds human culture... picture an ontological field without any unequivocal demarcations between human, animal, vegetable or mineral. All forces and flows (materialities) are or can become lively, affective, and signalling ... Portions (of the field) congeal into bodies, but not in a way that makes any one type of privileged site of agency" (ibid., p.117).*

Bennett proposes that vital materialism has several advantages over environmentalism, including:

1. *That relations between human and non-human materialities are horizontal and deeply entangled, as opposed to an environment that is perceived as the "substrate of human culture" (ibid., pp.111-112).*

2. *That matter is "vibrant, vital, energetic..." (ibid., p.112), and in that sense akin to one of the historical meaning of nature as generative. Bennett draws here on Spizona's distinction of "natura naturata" and "nature naturans". Natura naturata or natured nature is already created and therefore passive, whereas natura naturans or naturing nature is generating nature and therefore active.*

3. *The vital materiality of humans includes non-humans. Our bodies, as described above are thriving growing mediums to many others. Moreover, perhaps an awareness of this otherness in us would stop us producing and consuming "in the same violently reckless ways" (ibid., p.113).*

Bennett admits that her proposition of thinking of our bodies as more than human, as per the last point above, is difficult to sustain in a culture centred on humans' or God's agency. However, as I wrote this section with a recurrent bacterial infection on my foot that was extremely itchy, I wondered whether perhaps her proposition was not so radical after all, showing potential as an alternative story that also allows for continuity and difference. Two lines of thought were extracted from it at this point:

(1) Vital materialism brings our vulnerability to the forefront. We might be unable to detect the wildlife that we usually carry, but we are indeed aware of it when we become a growing medium for the unwanted. Some unwanted microorganisms only cause mild nuisance, such as the cold viruses that visit most of us every winter or the insects that feed on us during the summer months. Other pathogens bring frightful consequences, and these last expose our vital materiality, our more than humanness, a vulnerability shared with many animals. That shared vulnerability can serve to drive our actions by a desire for others to succeed, as opposed to by self-interest, as Plumwood proposes with her ecological self (1993).

(2) The second relates to the wildness that is bursting the city's seams. It is not only our bodily surfaces that are thriving growing mediums, but also the city's inorganic surfaces that soon become alive with a variety of plant and animal organisms, and at a variety of scales. This vibrant matter that enfolds the rubric of the city is an amalgam of organic and inorganic matter, man-made and natural, designed and self-willed. This envelope is an expression of the nature that taints our cities and of a horizontal human non-human relation. Borrowing Bennett's words "it is futile to seek a pure nature unpolluted by humanity, and it is foolish to define the self as something purely human" (Bennett, 2015, p.116).

This second line of thought, the city's inorganic surfaces as growing mediums, was explored through this second intervention.

PROJECT STATEMENT

"Staging Nature in the Mundane City" was a temporary outdoor installation for the "Landscape, Wilderness and the Wild" conference hosted at Newcastle University at the end of March 2015. The installation took place over two cold and windy consecutive evenings (Thursday and Friday) at an underused space within Percy Quad on campus. The work sought to stage a moment of enchantment with the wild through a multi-sensorial experience engaging sight, sound, and smell. The installation was developed with the help and approval of the Estates Department.

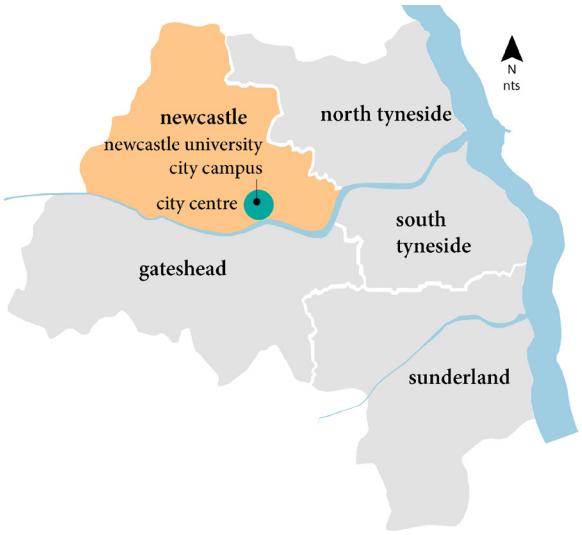


Fig. 10 Newcastle University City Campus location

Fig. 11 Percy Quad location on campus

Fig. 12 Percy Quad site analysis

Fig. 13Percy Quad stone clad wall

The installation featured a six-minute-long projection onto a stone-clad wall, accompanied by an animal soundtrack and the smell of grass and forest. The projector was housed in a theatre room within the English Department facing the wall; the speakers externally adjacent to the projector, and smell blocks were inserted within two bins. The projection was on a loop for the duration of the installation. The installation took inspiration from the many walls in Newcastle hosting a growing number of moss and plants and sought to express the wall as vibrant matter. What would the wall become if we let it be? Over time, the natural environment would act upon its surface. Slowly, it would become the growing media for a variety of animals, become wilder, until we no longer recognise it as a wall. In this imaginary scenario, the wall became capable of supporting life, and the setting for wild animals in the city (Ruiz-Arana, 2015).

Fig. 14-17 Details of walls in and around Newcastle

Sports Centre
Eastview-Cook Building
Dental Hospital
Medical & Dental Schools
Wolfson Building
Royal Victoria Infirmary
City Centre
King's Gate
Northern Stage
Students' Union
King's Road Centre
Armstrong Building

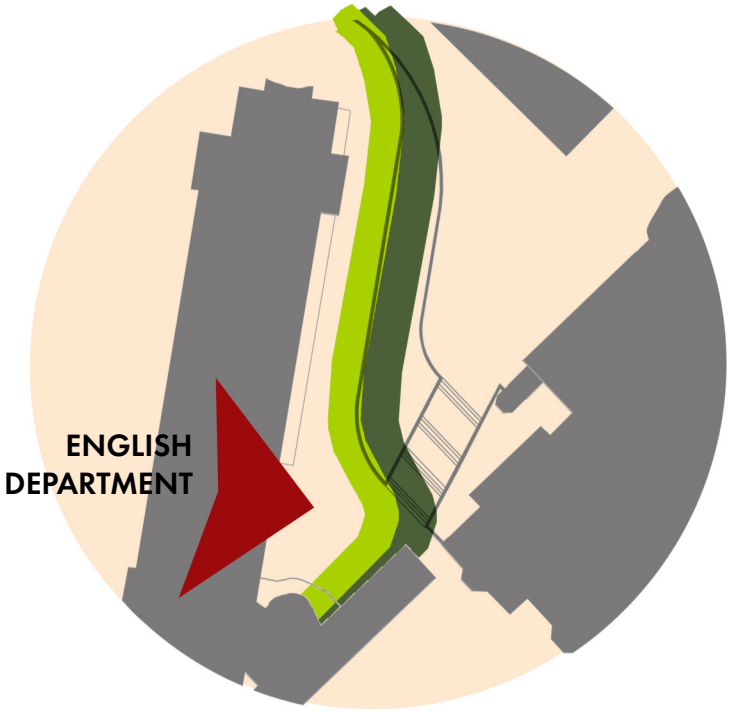


Fig. 18 Location of projector

Fig. 19 Visualisation of projection

The animal soundtrack took its cue from the urban wildness that has arisen spontaneously on the former industrial sites at the mouth of the River Tyne, and the wild animals that they host. The soundtrack was created from my field recordings as well as soundtracks from the British Library sound archive. Smells were included to contribute to the wild experience.

The following videos of the installation can be viewed on the link bit.ly/wildenchantment

Video 01 – Staging Nature in the Mundane City: the video that was projected on the wall
Video 02 – Video recorded during the projection on Friday evening

Fig. 20 Projection Friday evening

REFLECTION

The multi-sensorial intervention successfully brought to life an underused space within the city, and showcased the wall as more than inorganic, as fertile ground for growth. The installation was not advertised outside the conference, and it attracted passers-by as well as conference attendees. Some passers-by came to the space attracted by the soundtrack, others stopped to interact with it on their way home from work, and a group of people gathered in the hall adjacent to the theatre room and opened the window to engage with the piece.

Fig. 21 Passers by trying to locate sounds

Fig. 22 Enjoying the show Friday evening

One of the participants provided written feedback and described the experience as:

"The reality of the cold, alongside the representation of the wild struck me. If I had stayed on the bench, eventually I would have physically suffered. I would freeze next to the endless developments of moss and fog over the wall... As it was, in two minutes I could leave and walk to my own warm, shared shelter in a public building or train ... It [the installation] was synthetic, artificial and there was something magical about this – it was possible to suspend disbelief. The effect was of making the place unreal". (Elizabeth Hall, 2015).

That participant experienced a moment of enchantment, a mixture of pleasure with a certain fear: an unreal encounter or otherworldly experience. This strengthens my experience of enchantment involving an otherness to us. In the unreal experience of the installation, there was a sense of time stopping, of an otherworldly wildness, with the natural and artificial intrinsically linked.

The soundtrack provoked strong emotional responses. For some, as described above, it was an attractor to the piece. For others, however, it interfered with their on-going activity. A group of Ph.D. students using the room in the basement of the building housing the projector complained that the imposed and repetitive wild soundtrack, over their usual environmental ambiance, altered their ability to concentrate. The students did not seek the source of the sound but instead complained by email to their school of sounds of dinosaurs. This highlighted the need to expand my knowledge of sound, which was developed through the subsequent projects.

From these two interventions, and their associated theoretical frameworks, I drew two "ingredients" for an alternative human-nonhuman relation:

(1) From the first intervention and Plumwood's ecological self I took that kinship and difference, emotion and thought, are not opposites but integrated, constituting an essential part of forming the self in relation to the other.

(2) From the second intervention and Bennett's vital materiality, I took the identification and experience of otherness in us, and us in the other, with no firm boundaries in between, as key to developing horizontal relations between humans and non-humans.

These ingredients are further explored through the next two projects.

soundwalking I
let it go

"When will our walk begin? When will it ever end? We cannot remember, and will never know."

(Ingold & Vergunst, 2008, p.1)

Fig. 23 Leslie Street Spit

let it go in context

LET IT GO

In January 2015 we moved to Toronto for a year for my husband Alan's work. "We" is I, Alan and our kids Ena and Miguel, almost 4 and almost 2 at the time.

On Toronto's lakeshore, I discovered an accidental wildness, Leslie Street Spit (also known as Tommy Thompson Park) that became the subject of much of my exploration and research throughout that year and gave rise to two creative interventions: *Audiopostcards Canada and Rewilding the Gardiner Expressway*. This project borrows its title from the Friends of the Spit's "Let it Go" approach to maintenance that seeks to allow the Spit to develop as nature intended. Following this motto, the Friends have ardently defended the Spit from development, and today Toronto and Region Conservation Authority manages the Spit as a public park.

Toronto, however, was much more than Leslie Street Spit and many aspects of our life there influenced the course of this research in unexpected and exciting ways, as will emerge throughout this project. It was in Toronto that the coldest February on record exposed a vulnerability to the elements and the natural world that scared me and reinvigorated me in equal amounts, opening the way to many moments of enchantment. In Toronto, I realised that I was constantly walking whilst listening and that my body (in movement) was my instrument of research and exploration. This led me to adopt the soundwalk as a research method. In Toronto, we were exposed to an urban wildlife that permeated the boundaries of our house and triggered fundamental questions for the future of wilder cities. And so it was that in Toronto the personal and academic became deeply entangled, and the embrace of that entanglement resulted in the project described.

Let it Go is narrated in four sections that trail the threads established in chapter one. Following a summary of the research questions underpinning this project, *in pursuit of wildness* opens up the project, contextualising Leslie Street Spit, the enchantment of the cold, and questioning the adoption and future of wilder cities through everyday experience. A *learning-to-listen journey* follows next introducing the field of acoustic ecology that originated in Canada, and soundscape research leading from this field. The practice of soundwalking is contextualised and put into practice through two soundwalks along Leslie Street Spit and a creative installation, Audiopostcards Canada. *Phenomenology of enchantment* follows next, where the enchantment experienced is analysed through the adoption of Merleau-Ponty's concept of flesh (1968). The last thread, *beyond nature and culture*, is explored through the main creative installation of the project, *Rewilding the Gardiner Expressway*.

QUESTIONS EMERGING FROM *STAGING THE WILD*

Key ideas and questions developed through this chapter in each of the threads are detailed below:

Journey to enchantment

A. In pursuit of wildness:

(i) Can I find wildness in my everyday environment and enchantment within it?

This chapter pursues enchantment in everyday wildness to develop an attachment to it. To that end, I explore an accidental wildness in Toronto's lakeshore, Leslie Street Spit. Unexpectedly, I also find wildness and enchantment in other places through extreme weather conditions and by living in a wilder environment (Toronto) that I am used to (Newcastle). Through this last, I experience first-hand both the joy and the struggle of living with wilder animals on one's doorstep. Wilder, biophilic cities, is one of the solutions that Louv proposes in his book to tackle NDD (Louv, 2005), as described previously. The experience of wilder animals in Toronto leads me to question the future of wilder cities.

Through all the experiences of enchantment, I set out to find their commonalities, to contrast them to those of remote wildness in the next project, *The Wild in Silence*.

B. Learning-to-listen journey:

(ii) What is the role of sound in my engagement with the landscape?

The learning-to-listen journey started with ear cleaning in the previous chapter. This project sets out to unravel the affective role of sound and listening in our perception of and engagement with the environment. When listening attentively in this project and next I practice both causal and acousmatic listening, as introduced in the previous chapter.

(iii) How can sound as a positive element of design permeate the practice of Landscape Architecture?

Through the methodology of the soundwalk, I become aware of the possibilities of sound for Landscape Architects, and the current lack of sound skills and knowledge in practice. This chapter provides the beginning of a guide to sound for landscape architects that concludes this research.

(iv) Could a focus on listening raise the chances of finding enchantment in wildness?

This question is the coming together of (i) and (ii). The purpose is to find enchantment in wildness through listening. Or expressed in another way, listening becomes the means to that enchantment.

Enchantment and beyond

C. Phenomenology of enchantment and

D. Beyond nature and culture:

(v) How can enchantment with the wild (precipitated by sound) lead to reattachment with nature and the formulation of new human-nonhuman conceptualisations?

Staging the Wild introduced two principles for a new human-non human conceptualisation unravelled through enchantment: kinship and difference, from Plumwood's ecological self (1993), and the identification of otherness in us and us in the other, from Bennett's vital materialism (2010). Through the enchantment experienced in this project, I propose that Merleau-Ponty's concept of flesh (1968) can provide the foundation for a re-attachment with the wild and a formulation of a new human-nonhuman relation. This is then elaborated further in the next project *The Wild in Silence*.

A. journey to enchantment: *in pursuit of wildness*

Fig. 24 Ward Island

Sunday 8th February 2015, Toronto
snow

"The ferry to Ward Island runs during winter, let's go", I say. We wrap up warm and walk the 3.5kms to the ferry terminal. With horizontal snow, wind and poor visibility the walk feels endless. My phone guides our navigation, my eyes pointed to the ground. We arrive at Union Station and go in briefly to warm up. "We are almost there; we should start to see the lake soon". Why can't I feel it yet? We walk along Bay Street. Under the railway lines. Under the Gardiner Expressway. Still no sign of the lake. We walk past the last line of tower blocks. "Danger, Falling Ice". We arrive at a small park that leads to the terminal; finally, the water! No queue for tickets. We get into a small ferry with a handful of people. "The Rectory Cafe is closed for the weekend", reads the poster on the wall. Our hopes of warmth gone. I look out of the window, Toronto's skyline getting further away, lost in the misty snow. The ferry touches the blocks of ice covering the lake. A deep crackling sound. "If the ferry crashes we won't last long". An abandoned boat greets us on arrival to the island. Small wooden cottages. Skaters on the lake. Trees, ice and deep snow. We walk the width of Ward Island to the southern shore. I face the vastness of Lake Ontario. Shades of white and blue. Infinity. Freedom.

A.1 THE SPIT: LET IT GO APPROACH

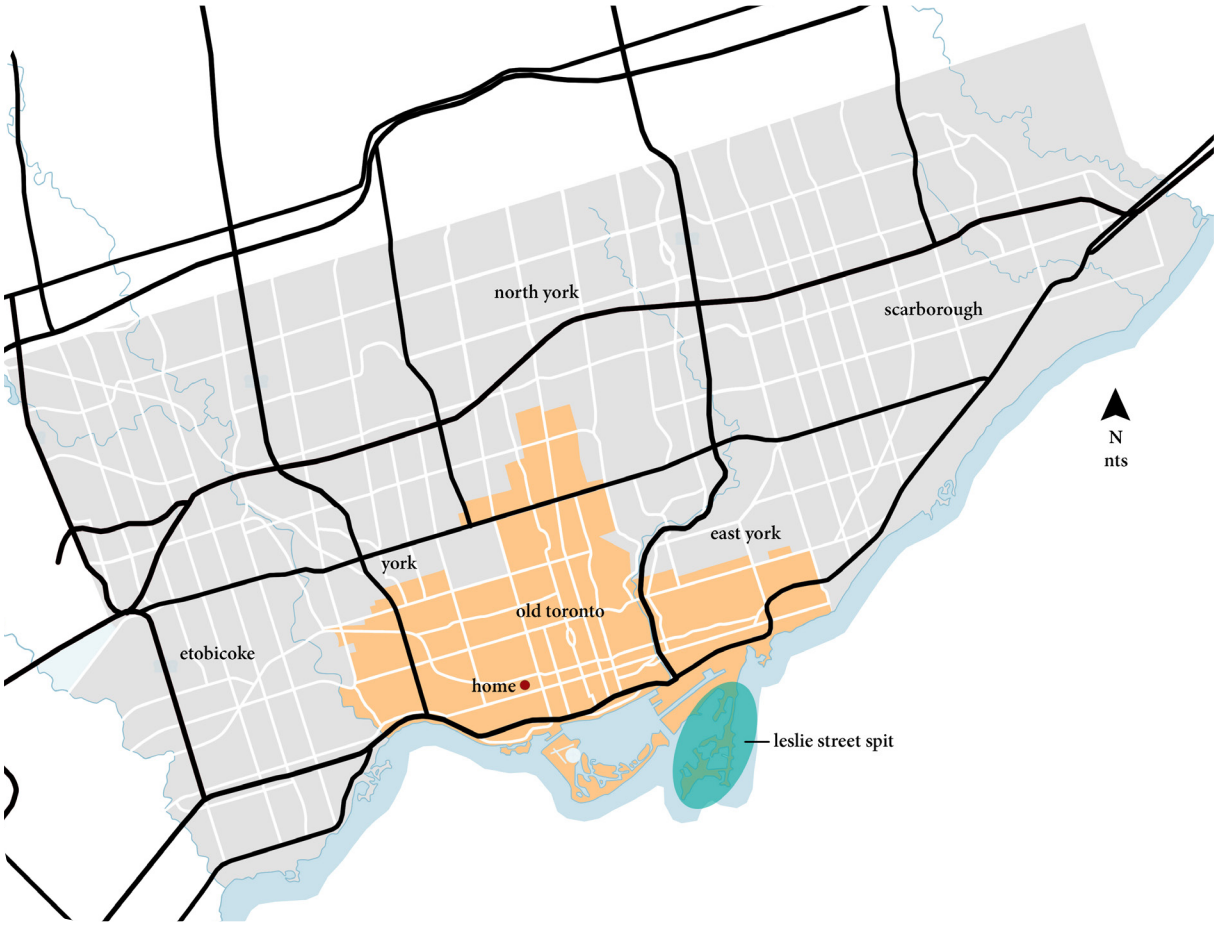


Fig. 25 Leslie Street Spit location in the City of Toronto

Toronto is often referred to as a city within a park due to its current wealth of public parkland and deep ravines. The ravines are mainly undeveloped, and together with the parks create a network of interconnected green spaces that filters through the city, and connects Toronto to Lake Ontario (Wells, 2005). When searching for an urban wildness to explore in detail I was therefore spoiled for choice. However, two aspects attracted me to Leslie Street Spit: location (on the shore of Lake Ontario that I had learned to love), and a very clear man-made origin.

Despite the many developments that have taken and are taking place along the shoreline, the core of the city feels disconnected from the lake. There is no sense of lake until you are very close to it, due (at least in part) to the rail and road infrastructure that physically separates the downtown core and lakeshore. Despite living less than two kilometres north of the lake, it took us six weeks to get to it. We had been very close to it several times without reaching it or even catching glimpses of it. Once we finally got to it, as narrated in the diary entry that introduces this section, I could not get enough of it. Of this sense of escape and freedom that one gets a short distance away from the buzz of a city that is home to three million residents. Tracing the shoreline eastwards, I came across Leslie Street Spit.

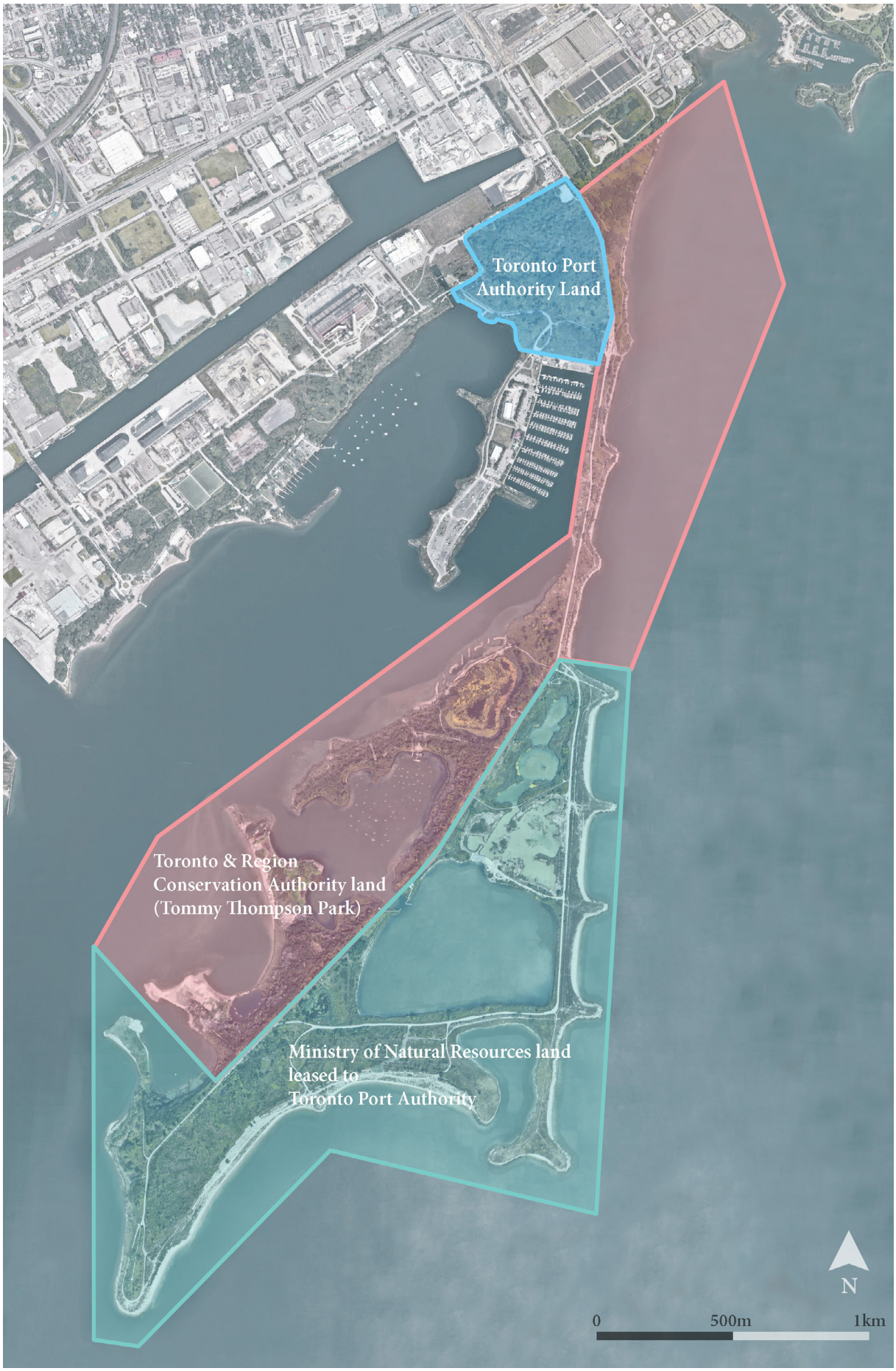


Fig. 26 Leslie Street Spit land ownership

Leslie Street Spit is a five kilometre-long artificial peninsula produced by over 50 years of lake filling. The Spit is also known as Tommy Thompson Park and starts at the base of Leslie Street, close to downtown Toronto. The Spit was originally envisaged by the Toronto Harbour Commission (now Ports Toronto) as an outer harbour headland for port-related facilities in 1959.

By the early 1970s, and with the decline of the shipping industry, the headland was no longer required for port-related facilities, but the Spit continued to expand with the disposal of sand and silt dredged from the nearby harbour, and landfill material from downtown development sites. First, lagoons and sand peninsulas were formed, and then a breakwater was built along the eastern boundary, creating some protected cells (Toronto and Region Conservation Authority, 2018). By the 1970s the Spit had become an accidental wildness through ecological processes, and limited public access to it was allowed. Public interest in the site grew in parallel with its biodiversity, which led to the founding of the Friends of the Spit in 1977. The group aimed to maintain public access to the Spit, and, advocating a "Let it Go" maintenance approach, to halt development of the land, allowing the Spit to continue evolving "naturally" (Carley, 2018). The "Let it Go" maintenance approach is akin to the idea of rewilding conceived as allowing nature a freer hand to trace its own path (Monbiot, 2013).

The Toronto and Region Conservation Authority (TRCA) has managed Tommy Thompson Park since the 1970s. TRCA was responsible for producing the masterplan that they are currently implementing to maximise public and wildlife benefits for the site. TRCA describes its management approach as "Conservation by Design", as the aim is to facilitate the development of habitats through natural ecological succession (Toronto and Region Conservation Authority, 2018). As a result of its origin, the fertility and composition of the soil are very variable and have resulted in a variety of habitats including cottonwood forests, meadows, and coastal marshes, with a rich wildlife that includes cool water fish, small terrestrial and aquatic mammals, migrating birds, butterflies, and insects. The park includes an Environmental Sensitive Area and an Important Bird Area. An onsite bird research station was set up to monitor on-site bird populations as well as providing educational and research opportunities (ibid.). In keeping with the character of the site, public facilities have been kept to a minimum with only three small single-story buildings on site, and one more projected for the entrance. The buildings include an Environmental Shelter, Staff Booth, and Ecological Research Station, and have been designed to blend in with their surroundings and pose no harm to birds (Waterfront Toronto, 2018).

Today, the Spit is open to the public at weekends and after-hours during the week, when it is a car-free environment. During work hours part of the Spit continues to be a landfill site for dredged material, as the different phases of the masterplan are implemented. At a prime location in Toronto's east end, the Spit has successfully managed to resist development pressure, and attracts many visitors for informal recreation and scheduled educational events.

Fig. 27 Ages of the Spit

A.2 HOW TO WILDLIFE-PROOF YOUR HOME: PUBLIC PERCEPTION OF URBAN WILDNESS

Leslie Street Spit, a spontaneous wildness, is representative of a new typology of urban landscapes: "wildscapes" or wilder landscapes (Jorgensen, 2012). As a relatively new landscape typology, aesthetic responses to wildscapes are diverse (Jorgensen and Tylecote, 2007). For example, people with ecocentric views prefer unmanaged landscapes (Groot and Born, 2003), whereas people with Personal Need for Structure and anthropocentric views prefer managed landscapes. Wildscapes can also be perceived as neglected due to lack of regular management or human agency (Jorgensen and Tylecote, 2007; Brun, Di Pietro and Bonthoux, 2017), which in turn can cause anxiety due to fear of crime (Bixler and Floyd, 1997; Jorgensen and Tylecote, 2007). Wildscapes can also be perceived as "inferior (to pristine wilderness) and unworthy of defence" (Plumwood, 1993, p.3), due to the difficulty of separating human and nature agency within them. However, it is this ambiguous combination of cultural ruins and wildness that can make these spaces attractive (Kirchhoff and Vicenzotti, 2014).

Wildscapes also change the way we relate to nature in the public realm as they support wilder animals that have to coexist with humans in the city (James et al., 2009). Through my year in Toronto, a wilder city than Newcastle, I had direct experience of this last. Overall, living in this wilder environment was a positive experience. However, at times I felt powerless and frustrated when confronted with wildlife, making me question the future of wildness in the public realm that I was seeking to defend at the beginning of this research, as I now go on to discuss.

Fig. 28 My backyard in Toronto

HOW TO WILDLIFE-PROOF YOUR HOME

Tuesday 15th September 2015, Toronto
Sunny and warm

"We've got a rat in our kitchen!" shouts my son at the school steps. The teacher gives me a surprised look. "Not a rat, a mouse, in the garden" - I correct and quickly walk away. It is a mouse this time, more than one; in the kitchen or the basement, we do not know where they hide. By now, the rats are gone.

The rats came in the summer to our backyard garden. In a terrace house in downtown Toronto. One morning I was admiring the wildness in our small garden whilst I drank a cup of coffee in the kitchen; the next day my coffee turned bitter as I watched a rat pushing her babies over the fence that separates our property from the neighbours. They had a rat nest in their crumbling shed abutting our garden. "It is normal, nothing to worry about", the tenants next door said when we told them they had rats. Over the next weeks, we saw the rats often, running across the garden, hiding below our deck, day and night. The rats used our sunny garden more than we did, afraid that they would get in if we left the door open. The babies were growing, and their playground spanned several adjoining back gardens. "You need to get rid of them now, otherwise, they will find their way into the house come winter". I read Toronto city's guidance on "how to wildlife-proof your home" ardently. "What or who else will we get come winter?" I wondered. Six weeks later, all the neighbours got together to tackle the problem, and the pest control company that we hired got rid of them. I felt relieved, free from the unwanted invasion of our domain. And yet, I felt unease, remembering the mother rat pushing her babies; babies that grew into unwanted rats. The squirrels, raccoons or skunks that frequented our garden were novel and welcomed surprises, and we had adapted to living with them. They didn't stay; the rats did.

Over the previous months, I had followed with interest and amusements the signs and guidance indicative of living in a wilder city. For example, after a couple of incidents when the contents of our compost bin were spread out all over our front porch by raccoons overnight, we soon learned to

take food waste out only on collection morning. After all, raccoons with their dexterous front paws can open anything. Other examples included the coyote signs in parks advising what to do in case of encountering one, or guidance on how to tackle bears published in May when a bear was found within a residential area north of Toronto. All advice on wildlife-proofing one's home points towards keeping wild animals wild, by avoiding to feed them or leaving food out that they could feed on.

Wild animals were a joy to enjoy from the distance, but these rats were surely pests, looking to invade our home. Or were they? What makes an animal a pest, and another a joy? How are we to share our cities with the urban wildlife that surrounds us as we move towards wilder cities?

In the above passage from my diary, I describe the joy and powerlessness of living with wilder animals. Jennifer Wolch, in her highly influential paper "Zoöpolis" (1996), called for a recognition of all animal life beyond humans and endangered species within a "transspecies urban theory" (ibid., p.23). She called for a re-naturalisation of cities, bringing animals back into them, to recover a lost "sense of wonder and awe for the non-human world" (ibid., p.29). Urban citizens, she proposed, live ignorant of the conditions in which the animals that they eat are raised, and the struggle for survival of urban species. Animals are not objects but subjects with their own needs and realities. In a similar line to Haraway (1991) and Plumwood (1991; 1993), Wolch argues that the similarities and differences of all animals must be recognised, to develop and embrace an ethic of "respect and mutuality, caring and friendship" beneficial to all (1996, p. 27). Interactions and relations with urban animals bring many benefits to humans, from "the development of human cognition, identity, and consciousness, and to a maturity which accepts ambiguity, difference and lack of control" (ibid., p.27-28).

It is not the purpose of this research to provide a detailed study of how we can learn to coexist alongside animals in the city. Therefore, finding an answer to the questions posed above is outside the scope of this work. However, the experience of living in a city with rich urban wildlife, Toronto, created a deep impact on the development of this work and consequently the theme of zoopolis has been introduced here. This experience highlighted the complexities of the urban wildness that I was seeking to validate, and of moving towards wilder or biophilic cities, one of the solutions proposed by Louv to treat NDD, and advocated by many current urban designers and landscape architects, including myself.

A.3 THE COLDEST FEBRUARY ON RECORD

Toronto was much more than Leslie Street Spit, as I will attend to in the next couple of sections. One of the aspects that, unexpectedly, had the greatest influence on the philosophical grounding of this research was the cold temperatures that I experienced: living and surviving the harsh winter. I had lived in the cold before, in Newcastle (UK) and in my hometown of Vitoria-Gasteiz (Spain), where the winter months frequently bring minimum temperatures below 0C, but nothing to the degree of Toronto cold.

February 2015 was the coldest month on record since 1875, with an average temperature of -12.5C and a minimum one of -25.5C, dropping down to -40C with the wind chill factor. Extreme cold weather warnings, issued when the temperature is forecast to be -15C or lower or -20 or lower with the wind chill factor, were in place for 23 out of the 28 days (The Star & Partners, 2015). With these warnings, the recommendation is to keep warm through wearing appropriate clothing and heating the house, and to limit time spent outdoors. The risk of frostnip, frostbite, and hypothermia is high, particularly for children and elders, who are advised not to be outdoors with exposed skin for longer than 10 minutes.

Without a car or a line of public transport to the kids' preschool, at a minimum, we walked there and back every day. The walk would last 15 to 20 minutes, depending on the amount of snow and ice; snow that would not melt for weeks due to the frozen temperatures. Gradually, through many incidents, we became aware of the dangers of the cold, and increased the number of layers that we wore, thus reducing our exposed skin to the bare minimum. Such as the time my son lost his gloves on the way back home and screamed hysterically due to the pain in his hands that I thought he was going to lose them, or the time I fainted from the pain of my hands and feet heating up, and coming back to life, after a twenty-minute walk. At one point, I lost sensitivity in the tips of my thumbs that, to this day, has not returned.

Every morning I would check for weather warnings in fear of what the day (and cold) would bring. On one of these mornings, 19th February, Toronto and I, woke up to harrowing news. A three-year-old boy had disappeared from his grandmother's apartment in the early hours of the morning. CCTV coverage of the entrance to the apartment block showed him wandering away in minimal clothes. The whole city mobilised to try and find him and followed the news closely for any updates. A couple of hours later the little boy was found without vital signs, and unfortunately, nothing could be done to save him. The immensity of this cold was now very palpable and heartfelt: an uncontrollable wildness.

However, there was another side to this weather, extreme joy, enchantment. Despite its dangers, or perhaps due to them, to my bodily awareness of the threat, I felt extremely alive, alert, and in the moment. This "aliveness" took me out to explore our new environment. In one of those explorations, on the family day weekend of 14th-16th February, we decided to go away. On the morning of our trip, we woke up to frozen pipes and left the house early to catch the bus. An extract from my diary shared overleaf, captures an instance of frozen enchantment.

Fig. 29 Niagara Falls

Sunday 15th February 2015
-31.9C (-40C with the windchill)

"Reduced rates. The lower observation deck is closed due to icy conditions, the upper deck and tunnel and portals are still open". Sunday afternoon, family weekend. I am on my own, Alan, Ena and Miguel have stayed in the hotel, unable to stand the cold. I buy a ticket. The lady takes me down on the elevator. "We are going down 45m through the bedrock that backs the fall", she informs me. The elevator door opens. "Wave to the camera when you are ready to come up and I will come and get you". The elevator's doors close. A narrow empty tunnel ahead, panic sets in. " I should let Alan know where I am, just in case". Only I can't. A warning message on my phone: "Temperature - iPhone needs to cool down before you can use it". Ironic.

I follow the narrow tunnel to the viewing portals right behind the falls. Niagara Falls. "The sound is like thunder; the sight awe-inspiring", claims the attraction's website. No thunder; icicles and a trickle of water taping the ice. The falls have lost their voice. The trickling sound enfolds me in the fall, in the block of ice, feeling the water's struggle. Like the falls, I am shutting down. My eyes extremely dry, almost to the point of burning. With each breath, the cold comes deeper in. The ice climbs up my feet, entering my bones, rooting me to the ground.

I walk back along the tunnel, to the upper deck to the side of the falls, which is partially covered. The water with its force is making its way through the ice, icicles, and snow. The mist freezes instantly washing my face, my thoughts. The cadence of the water is hypnotising. "I should go now". I can no longer feel all of my body, I am shrinking. My hands are no longer there. "Just a little bit longer". Voices. Time to go. A wave to the camera and back in the elevator. Back to the artifice of the Table Rock Welcome Centre. With the warmth comes the pain in my hands and feet as they come back to me. With the voices, the everyday.

What this extract describes, what the cold brought for me, was a feeling of not only humility but of being one of the same: a sense of commonality with the environment, of sharing the same essence. I am freezing in the cold, the same way that the waterfalls are freezing. In trying to make sense of this moment of enchantment and shared essence I turned to Merleau-Ponty's ontology of the flesh as described at the end of the project.

Without knowing it at the time, and as we will discover through the following sections, the philosophical foundation for my understanding and engagement for the environment started here, in the cold.

A.4 INTERIM DISCUSSION

Embracing the lack of human control of wildness can lead to its appreciation. This lack of control is what the Friends of the Spit value in Leslie Street Spit, and what Wolch also advocates through *zoöpolis*. Lack of control or wildness can be found in the fabric of the city: in the vegetation and wild animals that inhabit it. Lack of control or wildness can also be found through other means, such as the extreme weather temperatures experienced in Toronto. All of these wildnesses are spaces or instances where human and non-human agencies are entangled. That entanglement can lead to moments of enchantment, such as the visit to Niagara Falls, or wild animals visiting my garden, but also of frustration and powerlessness, such as in the case of the rats in the garden. The embrace of wilder cities, as a cure to NDD or as a response to pressing environmental concerns, is not an easy task as we need to rethink our everyday relations with wilder animals, and the boundaries of one and other. What becomes clear is that many different needs coexist in the city; the needs of many different living organisms, at times competing for space and resources, at times part of shared joy or a shared struggle.

Fear and risk are also obstacles to the embrace of wildness. However, fear and risk mixed with joy, are also an essential part of enchantment as experienced to date, in a similar way to the romantic's experience of the sublime (Burke, 1757). Through enchantment, we uncover a sense of commonality with the world that is discussed further at the end of this chapter.

Another aspect that can lead to the embrace of wildscapes is their multi-sensoriality. Wildscapes introduce a new aesthetic to the public realm, with varying affective responses to them, as discussed. Multi-sensoriality could be key to the acceptance of this new aesthetic, as wildscapes are sensorially enriched. To that end, the affective role of sound in my engagement with an urban wilderness, Leslie Street Spit, is explored through the next two threads.

B. journey to enchantment: *learning-to-listen*

B.1 SOUNDSCAPE

"Why does the MOMA sculpture garden, bastion of High Art, sound like any taxi stand in midtown NYC? Why is an expensive 'quiet' car quiet only when riding on the inside?" (Odland and Auinger, 2010)

As Odland and Auinger propose, the answer to the above questions is that we live in a culture that privileges the eye in decision-making and budget allocation, and the solution is to think with our ears.

Several existing and emerging environmental disciplines think with their ears and their scope of study sometimes overlaps. These include Acoustic Ecology, Soundscape Ecology, Bioacoustics, Ecoacoustics, Sound Studies, and Sound Art. This research draws mainly on the well-established practice of Acoustic Ecology, together with aspects from other disciplines, and therefore it is useful to provide a brief introduction to all of these for context.

ACOUSTIC ECOLOGY is concerned with how we perceive and design our acoustic environment and using environmental sounds for sound composition (Schafer, 1977, Truax, 1999).

SOUNDSCAPE ECOLOGY places itself alongside landscape ecology, as it studies all sounds emanating from a given landscape, including biological, geophysical and human sounds, which together reflect the ecological processes of that landscape (Pijanowski, Farina, et al., 2011).

BIOACOUSTICS is centred around animal communication, including "behaviour, life-history theory, and the physics of sound production by animals" (Pijanowski, Villanueva-Rivera, et al., 2011, p.204).

ECOACOUSTICS is a discipline that investigates environmental sound from an ecological perspective, thus extending the realm of bioacoustics beyond the study of a single species (Krause and Farina, 2016).

SOUND STUDIES emerge from the fields of urban planning, engineering, acoustics, psychoacoustics, and architecture and are concerned with the interdisciplinary study of sound from a cultural and social perspective.

Finally, SOUND ART encompasses a wide variety of artists who use sound in many forms. Among these, there is a growing number of Environmental Sound Artists who actively engage with and integrate the environment within their artwork (Bianchi and Manzo, 2016).

The role that aesthetics and human perception play within the above disciplines can serve to differentiate them (Barclay and Gifford, 2018), as well as to group them. Thus, Acoustic Ecology, Sound Studies and Sound Art would be classified as human-centred inquiries, whereas Soundscape Ecology, Bioacoustics, and Ecoacoustics would seek to de-centre or

remove human subjectivity.

WORLD SOUNDSCAPE PROJECT

It is precisely human subjectivity (lived experience), coupled with its Canadian origin, that drew me to the well-established practice of Acoustic Ecology in the first place. For the origin of Acoustic Ecology, we have to travel to the Western Coast of Canada, to the Simon Fraser University in Vancouver. Here, in the late 1960s/early 1970s Canadian composer and educator R Murray Schafer set up the World Soundscape Project (WSP) research group. The purpose of the group was to study and respond to Vancouver's rapidly changing soundscape, which Schafer felt was getting increasingly noisier, and to get people listening to their acoustic environment. The scope of their first project, Vancouver, was later extended to Canada, and later on to five European villages (Truax, 2018). The group developed the notion that the sounds of a particular locality reflect the identity of that community. Their work resulted in several sound works, sound level measurements, and publications that set out the basis for the field of Acoustic Ecology (Schafer, 1967a, 1967b, 1974; Westerkamp, 1988; Truax, 1999).

As described above, WSP's purpose was to get us to listen to our acoustic environment, and to make us question what cities should sound like, as they believed that our capacity for listening was decreasing as the noise in our lives increased. This likening of modern culture to noise, and the introduction of the lo-fi, high-fi classification of the soundscape described below, has been one of the main critiques of Schafer and WSP's work (Lacey, 2019). Regardless of that criticism, some of their concepts and guidance, as described below, are still highly relevant today and provided the foundation for subsequent research.

In *The Tuning of the World*, Schafer defined a soundscape as an analogue of a landscape; as "any portion of the sonic environment regarded as a field for study" (1977/1994, p.756). He described the soundscape as a "huge musical composition unfolding around us" that we simultaneously listen to, perform and compose (ibid., p.433). Today the terms soundscape is employed by all the disciplines introduced above, with its meaning adjusted to suit the scope and purpose of each discipline, as discussed in detail in the next section.

Aptly, Schafer introduced a musical terminology for the soundscape still relevant today. A soundscape is composed of "keynote sounds, signals, and soundmark sounds" (1977/1994). Keynotes in music define the tonality of a piece, and in the soundscape are the background sounds, not consciously heard. Examples include sounds that result from the geography and climate of a place: "water, wind, forests, plains, birds and animals" (ibid., p.36). Signals are "foreground sounds...listened to consciously" (ibid., p.37), therefore any sound could become a signal when consciously listened to. Included here are "acoustic warning signals" such as bells, whistles, horns, and sirens (ibid.). Soundmarks, equivalent to landmarks, are those unique sounds that form part of a community's identity (ibid.).

Schafer also introduced the terms "hi-fi" and "lo-fi" to assess the soundscape and describe the move from a rural soundscape to an urban one, with the connotation that it was a move

from a good to a bad soundscape (1977/1994, p.127). In a hi-fi soundscape, there is little ambient noise and sounds can be distinguished clearly, it has a "favourable signal-to-noise ratio... and there is perspective – foreground and background" (ibid.). In a lo-fi soundscape, the perspective is lost, and individual sounds can no longer be distinguished from amongst an "overdense population of sounds" (ibid., p.128).

POSITIVE SOUNDSCAPE PROJECT AND SOUNDSCAPE APPROACH

The WSP initiated the field of soundscape research. Within the multidisciplinary field of Sound Studies, soundscape research has taken pace in the last 17 years as a response to the European Environmental Noise Directive (END) 2002/49/EC (European Parliament and Council, 2002) and its implementation by member countries. The END recognised the detrimental effect that environmental noise had on health and well-being, and required all member countries to produce 5-year noise maps and noise action plans aimed at identifying and managing noise pollution. END also recognised the need to protect environmental sound quality where is good and to that end, proposed the identification and management of quiet areas within the urban realm.

Two approaches to soundscape research are of particular relevance to this work: the Positive Soundscape Project (PSP) and the Soundscape Approach (SA). The two approaches share in common that they put human perception first and sound measurements second, and expand the study of urban soundscapes beyond noise. Both approaches understand the soundscape as the "acoustic environment as perceived or experienced and/or understood by a person or people, in context" (BSI, 2014, p.1). The soundscape is, therefore, an analogue of the landscape in so far as landscape is understood in perceptual terms as "an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors" (Council of Europe, 2000, p.2).

The Positive Soundscape Project (Davies *et al.*, 2013) was a UK based inter-disciplinary soundscape study that sought to develop a theoretical model for understanding and classifying soundscape perception beyond good or bad. The project used a variety of quantitative, artistic and qualitative methods, including soundwalks, and concluded that the "distinction between sound and noise is essentially an emotional one" (ibid., p.230). The study developed a model for soundscape perception based on two dimensions of the emotional response: "calmness and vibrancy" (ibid.). Calmness is strongly linked to pleasantness, and vibrancy depends on two registers: "cacophony-hubbub" and "constant-temporal". "Cacophony-hubbub" relates to the number of sound sources and how they mix harmoniously or not, while the constant-temporal relates to the degree of monotony and rhythm. The categories of calmness, hubbub and temporal are related to positive listening experiences, and cacophony and constant relate mainly to negative ones (ibid.).

The Soundscape Approach is a research method guided by two recent publications by the International Organization for Standardization: ISO 12913 Parts 1 and 2, with further

parts to be produced. Part 1 provides a conceptual framework for the term soundscape, and Part 2 describes the requirements for data collection and reporting for soundscape studies focused on the key components of the soundscape: "people, acoustic environment and context" (ISO, 2018, p.2). Part 2 proposes a methodology aimed at bridging the gap between the soundscape as "measured by people" (through soundscape descriptors) and the soundscape as "measured by instruments" (through soundscape indicators) (ibid., p. 4). Soundscape descriptors are therefore used "to describe the perception of any acoustic environment", and soundscape indicators "to predict a descriptor" (ibid., p.1-2). To bridge the gap, the methodology for data collection proposed includes soundwalks followed by questionnaires or interviews of participants and binaural acoustic measurements from which noise indicators (i.e. sound pressure level) and psychoacoustic indicators (i.e. sharpness, tonality, roughness, and fluctuation strengths) can be extracted. The aim is to study people, context and the acoustic environment through the integration of different methods. Part 2 includes a taxonomy of sound sources, sources, and places aimed at standardizing nomenclature (ibid.). The terminology of sounds employed follows Schafer's originally proposed with background sounds (equivalent to keynotes) and foreground sounds (equivalent to signals). Soundscape literature adds a further term, salient sounds, which are equivalent to soundmarks that are listened to attentively (Kang *et al.*, 2016).

Many recent studies have been carried out under the umbrella of the Soundscape Approach. Of relevance to this research are studies that similarly to the PSP have sought to assess soundscape in relation to perceived affective quality. For example, the model based on the descriptors "pleasantness" and "eventfulness" developed by Axelsson (2015) has been shown to encompass the majority of other soundscape descriptors researched to date (Aletta, Kang and Axelsson, 2016). In Axelsson's model perceived affective quality can be assessed according to two descriptors in an orthogonal model: pleasantness and eventfulness, which correlates with the findings of the PSP. Axelsson also adds a further descriptor, appropriateness, which provides additional information, although appropriateness alone is not a measure of soundscape quality (2015). All of these studies aim to develop a theoretical model/s that can be applied to the design of soundscapes, although it is understood that sound is only one of many considerations in design. For example, to design a vibrant space, the designer should aim to facilitate an eventful landscape, with sounds appropriate to the setting, and events harmonising.

The soundscape approach proposes three steps towards soundscape planning: (1) acoustic characterisation, (2) planning and (3) design and optimisation (Kang *et al.*, 2016). These three steps are explained in more detail below:

(1) Acoustic characterisation, requires the characterisation of a place through physical and perceptual data using the methodology detailed above.

(2) Planning, includes the identification of acoustic goals based on current and future functions of the place, history and local culture, the planning of the physical features conducive to those goals, and the anticipation of the perceptual outcomes of them; the development of soundscape predictive models (an area for future research) would be beneficial to that end.

(3) Design and optimisation, includes the identification of design solutions for current soundscape problems such as the reduction of unwanted sounds, and the application of masking techniques.

Examples of the soundscape approach applied to planning and design are still few but include Nauener Platz in Berlin (Kang *et al.*, 2016) and Valley Gardens in Brighton (Aletta *et al.*, 2015). At the Valley Gardens, for example, a soundscape characterisation was carried out before the development of an urban park. Having found traffic noise dominant in the area, the soundscape goal was to reduce this dominance whilst introducing more wanted sounds (ibid.).

It is worth noting that the Soundscape Approach is driven by quantitative data that relates to the physical and perceived characteristics of soundscapes (Aletta, Kang and Axelsson, 2016). To that end, perceived characteristics are numerically scaled (ibid.). Lacey (2019) proposes that in doing so, the soundscape approach has bifurcated from the humanities/artistic approach, which was the original direction of soundscape research. Lacey advocates for a new trajectory for soundscape researchers that brings together artists/designers and urban planners/scientists.

ECOACOUSTICS

Where Lacey advocates for a new integrated approach of interdisciplinary teams for soundscape research from human perception, I propose that a further set of disciplines is essential to add to that mix; the ones considering the soundscape beyond human perception. A further definition of the soundscape is required here to encompass the scope of these disciplines as "the collection of biological, geophysical and anthropogenic sounds that emanate from a landscape and which vary over space and time reflecting important ecosystem processes and human activities" (Pijanowski, Farina, *et al.*, 2011, p.1214).

Several findings from ecological perspectives are essential to interdisciplinary soundscape approaches. The first is the Acoustic Niche Hypothesis (ANH), developed by musician and soundscape ecologist Bernie Krause. Krause observed that in a wide variety of complex soundscapes the vocalisations of animals did not overlap, proposing that organisms adapt their calls to avoid frequency and temporal overlaps with other species that share their habitat, thus finding their acoustic niches. This results in a tuned animal orchestra. The tuning of the animal orchestra, therefore, can be a sign of the health of the ecosystem, as species need time to find their acoustic niches. Consequently, a recently disturbed ecosystem, where the species make up has been altered, would have an out of tune orchestra, and would require time for it to recover and retune (Krause and Hoffman, 2012). Krause also introduced a taxonomy for the soundscape comprising of geophony (geophysical sounds), biophony (biological sounds) and anthrophony (anthropogenic sounds) (ibid.).

Two additional ecological hypotheses complement the ANH in describing how animals change their signals according to their habitat (Pijanowski, Villanueva-Rivera, *et al.*, 2011).

The Morphological Adaptation Hypothesis proposes that animal morphology evolves according to habitat, as morphological changes such as the length of a trachea influence the calls that those animals produce. The Acoustic Adaptation Hypothesis proposes that certain animals can amend their calls to maximise their reach within the habitat that they are in (ibid.).

There are many examples of interdisciplinary projects that use sound to monitor the health of ecosystems and assess change, and that can serve as an example for an interdisciplinary soundscape trajectory. The Biospheres Soundscapes project, for example, includes a large number of interdisciplinary schemes involving artists, scientists, and communities that explore the role of sound to monitor the health and changes of UNESCO's biosphere reserves (www.biospheresoundscapes.org).

B.2 SOUNDWALKING

This research is made out of many miles of walking. I have walked for necessity – to travel from A to B; for pleasure – to discover new places; out of frustration; and to find elusive inspiration. As Ingold and Vergunst describe in the citation that opens this project, however, I cannot remember when I started walking for research.

During my first year, walking was mundane and a part of my daily routine. Walking became more structured when I started field recording, and during my year in Toronto, I realised that walking, together with listening, had become my way of thinking and engaging with my immediate environment, which led me to the adoption of the soundwalk as a method.

The soundwalk, as introduced in the previous section, is widely employed as a qualitative method in different approaches to soundscape research and creative practices.

Soundwalks were part of the exercises that Schafer originally proposed for ear cleaning. In the WSP soundwalks were "explorations of the soundscape of a given area using a score as a guide" (Schafer, 1977/1994, p.598). Soundwalks were carried out in silence, with perceptions of the soundscape discussed at the end.

Today soundwalks can take many forms and, as per their original purpose, aim to bring attention to the acoustic environment through active listening. In guided soundwalk participants are taken through interesting soundscapes in a variety of locations in silence, perhaps stopping at specific points to come together and gather their experiences. Guided sound walks come with a set of limitations, that emerge from being guided and participants' inability to alter the route or comment as they go along (Paquette and McCartney, 2012, p.139).

Soundwalks can also be mediated, with participants listening to a pre-recorded soundtrack, mostly on headphones, whilst walking through a specific environment, thus transforming their usual engagement and experience. For example, Canadian artist Janet Cardiff's site-

specific audio walks guide and immerse participants in a narrative listened to through earphones whilst walking (Cardiff and Miller, 2019).

B.3 INTERIM DISCUSSION

This section started with the Odland and Auinger invitation to think with our ears. Schafer also invited us all to think with our ears when he suggested that we all have a role as composers of the soundscape. It is undoubtedly the case that landscape architects, together with other design professionals, play a primordial role in composing the soundscape, in composing the geophony, biophony, and anthrophony that result from our interventions. For example, by enclosing and opening spaces, we alter the acoustic properties of those spaces: how sound is absorbed or reflected. As another example, different materials, specified as hard and soft, will give way to different sounds. But how many of us think of ourselves as soundscape composers, as "soundscape" architects?

Despite the breadth of research carried out on the soundscape since its original proposition in the 60s from a variety of disciplines as introduced here, the outcomes of that research have not permeated the practice of Landscape Architecture. As this research progresses and my understanding of sound increases, the possibilities of sound for landscape architects become apparent. Landscape Architects play a crucial role in moving from soundscape analysis to soundscape implementation, and integrating ecological concerns into a human-perception driven soundscape approach. At a time when we have become increasingly good at visualising and simulating projected landscapes, we also need to become adept at predicting what those landscapes will sound like. We need to understand how we transform the soundscape through our proposals, to improve it or preserve it. Following Odland and Auinger's proposition, we need to think and design with our ears and understand the benefits that thinking with our ears could bring.

As a first step towards thinking with my ears and becoming a "soundscape" architect, I set out on a learning-to-listen journey. At the start of the journey, the purpose was to clean my ears. This section has highlighted the importance that perceived affective quality has for the evaluation of soundscapes. In the next step of my journey, I adopt the methodology of the soundwalk to understand the affective engagement with the environment that sound triggers and open up to enchantment at Leslie Street Spit. In the process, the soundwalks test the findings of the research to date through lived experience. In these soundwalks, and following Schafer's definition, I use a score as a guide. My scores are mapped walks that incorporate different habitats and ages of the Spit, identified initially through a desktop study. These are not rigid walks, and they allow for improvisation and detours as I go along.

Through the walks, I record the soundscape and landscape through stereo sound recordings, photographs, and videos, stopping at places that catch my attention. Immediately after the walks, and with the aid of the recorded material, I turn my impressions of the soundwalk into a narrative.

The following section takes the reader through the first soundwalk, and an interim discussion arising from it. The focus of this first walk is on listening. A second soundwalk brings together the threads discussed to date, shifting the focus to the role of listening in the pursuit of enchantment in wildness.

Fig. 30 Soundwalk 1 map of route

B.4 soundwalk 1
leslie street spit

NARRATIVE

Saturday, 4th July 2015
Sunny and hot

A hot Saturday morning in early July. Alan and I get off at the streetcar stop on Queen Street East and follow Leslie Street southwards, a wide street with a mixture of low residential properties (northern end), and commercial and industrial units (southern end). A large part of the street is under construction as a new streetcar line is being laid down. No shelter, added to the desolation of an empty construction site, make the 1-mile straight walk towards the Spit entrance endless. At the entrance, we are greeted by a 2m high chain-link fence and a mismatch of street signs more suited to an industrial site than a public park. From the entrance, we follow the straight asphalt road that runs the length of the Spit bisecting it in two. The smell emanating from the asphalt in the heat transports me for a brief moment home to Spain.

Looking for some tree shelter, we take the first pedestrian trail to the west towards the shore, where the gentle breeze amongst the poplar leaves slows us down. Walking along this trail, through the oldest part of the Spit, I soon forget its "unnatural" origin. The building debris is covered by a thick layer of vegetation and lumps of concrete have been eroded at the shore by the action of the water. I immerse myself in nature and its many sounds: the welcome rustling of the leaves, the chirping of the crickets hidden in the tall meadow, the song of the American robins amongst the trees, or the soothing sound of waves breaking against the shore.

Fig. 31, soundtrack 06 Pedestrian trail

But soon enough it is through sound that I am reminded of where I am, in the city. I find myself frustrated by the sound of planes taking off and landing at the nearby Billy Bishop airport, by the music coming from a nearby boat that I can hear but not see, or by the voices of walkers passing by that interrupt my enjoyment (and recording) of the natural environment. In the city, these sounds are one of many; here, in a relatively quiet environment and when I am actively listening, I can hear them clearly and individually. Despite my frustration, I notice a very interesting sound effect, particularly following the roar of the aircraft. Whilst the roar lasts, it masks everything else, but when it stops, it seems that all other sounds are amplified; I can hear them louder, clearer than I did before.

As the trail follows the shore, the tree cover lessens and the meadow increases allowing my aural and visual horizons to expand, with sounds of cyclists swishing past on the road, and further along, views of Toronto's skyline. Several of the ground cover shrubs are in flower, sending strong drifts of flowery smells my way as I walk past. I notice many walkers sporting cameras, and with the panoramic views of the city, I can understand what they may be trying to capture. The trail joins the main road again at a point where the road widens to accommodate a toll, presumably used to control lorry access during the week, a couple of portacabins, and a small one storey building used as Staff Booth and information and nature centre. Looking to avoid the hot asphalt as much as possible, we carry on the pedestrian trail that follows the shore. Here, amongst the shore rubble and meadow, and as we walk south and the age of the Spit diminishes, I can distinguish fragments of building wire, bricks, and concrete blocks, and I cannot help but wonder what type of buildings they might have once belonged to.

The trail crosses the road at a junction where a new road, framed by a post and wire fence, carries on westwards following the breakwater that bounds the three "cells" of the Spit. I realise that I have lost Alan and pause at an interpretation board to wait for him. The board describes the restoration of the first cell, which was "wet capped" once filled, and filled with water to allow natural processes to take place and in time become a wetland habitat. These cells were originally designed to house dredged material from the nearby Inner Harbour and Keating channel, and now cell 1 is bursting with wildlife, with buzzing insects and chirping birds.

Fig. 32, soundtrack 07 Embayment

Alan finds me and we head back to the main road and follow a short pedestrian trail that leads down to the eastern shore of the Spit, to an embayment providing panoramic views of Toronto's skyline. A sign discourages us to walk further as new planting has been carried out recently. A woman is talking loudly on her phone, and frustratingly it does not look like she will be moving any time soon. It is here that I am surprised by the loudness and liveliness of the space. Besides the woman on her phone, many birds in and around the water are particularly vocal. It is busy, busy in sound rather than sight. If I was only looking I might have found this spot quiet and peaceful; as it is, there is a certain dissonance between what I see and what I hear. We stay by the embayment for some time, and once the woman leaves, I am also surprised by how the wide variety of bird songs do not seem to overlap, I can hear many songs clearly. Ring-bill, herring gulls, Canadian goose, and many others that I fail to recognise, each singing within their own acoustic space.

We continue back up to the main road and southwards until we reach another pedestrian trail that heads westwards bisecting cells 1 and 2. Cell 2 is being capped at the moment and it is a stark contrast to cell 1 on the other side of the path. Walking along the path I can choose to look away from cell 2, a site in construction, towards the wildness of cell 1 to my right, but I cannot close my ears. Today cell 2 is relatively quiet, but the leftover construction machinery hints at the loudness of the area during the week.

By now, we have walked in full sun with no shelter for a few hours. The trail leads to the western breakwater where huge piles of rubble obscure the view of the lake. This section of the Spit is taking longer to rewild. I climb up a pile of bricks, feeling their heat radiating upwards through my legs. I pause to look out into the lake, getting lost in its infinity, embraced in the mildest of lake breezes.

In need of some shelter, we head back towards the oldest part of the Spit at a fast pace, along the pedestrian trail that follows the edge of the Spit, back to the Poplar woodland where we set off. Tired and sweating, I let the crunching of my footsteps take over in guiding me towards the exit.

Fig. 33, soundtrack 08 Breakwater

INTERIM DISCUSSION

Following this walk, I reflected on what I had learnt about sound and its role in my engagement with the landscape that could provide the foundation for a guide to sound for Landscape Architects. I had learnt that:

1. Sound provides a sense of space (Schafer 2014), of the dimensions, features, and materials within it. Throughout the walk, moving for example from the relative enclosure of the forest to the openness of the meadow I noticed how my aural horizon expanded, I could hear further out. Through sound, I perceived the features and materiality of the space; for example, the leaves of the trees, or the different ground materials through the crunching of my feet. All of these contributed to what I heard. Therefore, the sound that reached my ears was not the same as the sound at source as it was filtered and transformed as it travelled through space (Blesser and Salter, 2010).

2. Sound expresses the life of that space, the activities, and events that happen within a particular time. Through this walk, I was surprised by the liveliness or eventfulness of the Spit through its many sounds: human, nonhuman, and at times ambiguous. It follows that sound, as an expression of the life of a space, also reflects the health of a habitat. At the embayment, I was surprised by the many bird calls that I could hear, and how I could distinguish them clearly (even though I did not recognise them all). I was listening to an animal orchestra in tune, a healthy habitat, as proposed by the Acoustic Niche Hypothesis introduced earlier.

3. The experience of sound requires time. Sound, as described above, reflects the activities of a space, and those activities take place in time. Therefore, to experience a soundscape, we need to spend time in that space. We cannot read it in an instant, as we might be able to do it through sight. Precisely because sound is time-dependent and an expression of activity, the experience of that soundscape can vary dramatically in a short time. For example, on the walk back, when I retraced my footsteps along the path that followed the lakeshore, I could no longer hear the loud music coming from the boat that I experienced earlier. In its place was the gentle sound of waves breaking on the shore. As another example, the liveliness at the embayment, due to the circadian cycle of singing in birds, could be much livelier if I was to visit at dawn or dusk, the time that the birds are most vocal. A soundscape assessment of the site could, therefore, be a complex task.

4. Sound is extremely difficult to control. As I have experienced through the many sounds coming from outside the Spit, sound respects no site boundaries. The sounds of the Spit also reach far beyond its boundaries, as it is mostly open along its boundary. This can be a positive for design, in the sense that sound connects and embeds a site in its surroundings. However, it can also be a negative, as we cannot control the sound reaching our site from near or far.

5. Sound in design should be regarded as a positive feature,not only as a negative, a noise that needs mitigating. Every landscape intervention regardless of scale will have

soundscape implications: from the choice of pavement materials that change the sound of footsteps, as I have experienced in the walk, to the enclosure of spaces through walls or buildings that will reflect the sound within.

Thinking of sound as positive could imply specifying habitats not only for their ecological value but also for their acoustic value, as I enjoyed in this walk. It could also include the incorporation of sound strategies or sound goals in design. For example, through the walk I observed the amplification effect that followed the roar of the aircraft, a principle employed by sound artists Will Schrimshaw and Jamie Allen for their Acoustic Subtraction installations at Kielder Forest and other locations. Here, they played white noise for a period of twenty minutes and stopped abruptly, to cleanse "the act of listening...by its own saturation" (Schrimshaw, 2010). It seems that there is much to learn from sound artists on the positives of sound.

Sound goals could include the creation of a specific mood/s for spaces in line with proposed activities. For example, overall I would describe the spaces encountered as calm soundscapes with varying degrees of eventfulness. The experience was pleasant, and sounds were for the most part non-intrusive (though not without exception, see 7 below), not overlapping, and appropriate to the context. This concurs with the PSP's model for the perception of a calm soundscape (Davies *et al.*, 2013). Accordingly, for the design of a calm soundscape, we would look at appropriateness to context, intrusiveness, and overlapping of the proposed sounds.

6. The experience of sound is multi-sensorial. By focusing on sound all my other senses seem heightened, and they worked together in my engagement with the landscape. For example, I became acutely aware of drifts of scents that came and went through my walk: the scents of the flowering shrubs, the meadow in the sun, the hot asphalt, and my own bodily smells and those of others. The relation between sound and sight was particularly relevant for experiencing the complexity of the Spit, with sound expanding the information that sight provided, and at times, through that expansion, providing contrasting information to it. For example, sound exposed the crickets in the meadow that I could not see, but sound also brought to the foreground man-made sounds that at times contrasted with the apparent wildness of the space, such as the loud music coming from a boat, the swishing cyclists or the bricks beneath my feet. I conclude this walk with a feeling that somehow sound revealed the "truth" of the space, in this case, its man-made origin. Or as Voltaire put it, that "God has put truth into your ears and error into your eyes" (Voltaire, cited in Schafer, 2014, p.7). Sound revealed what sight managed to hide. The relationship between sight and sound has intrigued and inspired many visual and sound artists and was explored in my practice through the *Rewilding the Gardiner Expressway* intervention that concludes this project.

7. Sound provides a direct engagement with the landscape, which triggers an emotional response to it in a way that sight does not. This concurs with the proposal that the affective response to a soundscape is more important than the acoustic properties of it in classifying it as positive or negative (Axelsson, 2015). Throughout the walk, I had engaged with many sounds even if I did not want to do so, such as the aircraft sounds, or people chatting and

"spoiling" my recordings. And those sounds did trigger a response: irritation at first, and then powerlessness; these were sounds out of my control, if I wanted to keep on listening to the environment, I needed to allow all sounds in. This concurs with soundscape studies that conclude that our affective response to the soundscape depends on the perceived level of control over it and the appropriateness of the sound sources (ibid.). After all, the sounds that were irritating in this walk, such as people's voices, would be welcome elsewhere in the city.

This direct engagement is because in listening there is a direct contact between source and perceiver (Blesser and Salter, 2009), a contact that I cannot prevent: the sound waves emitted by the source reach my skin and ears, and I cannot close them at will. This readiness to hear has an evolutionary purpose, as by not been able to close them, our ears were always alert to any warning signs, even in the dark (Feld, 1996). This means that through sound, we are constantly engaged with our surroundings. The eye also receives light waves, the difference is that these are not produced directly by the object but reflected from it. As we have control over what we see, we can focus on and close our eyelids, choosing whether to engage or not. A further difference between sight and sound of relevance to the emotional connection to the landscape is that sight exposes the surface of objects. We see their external envelopes, whereas sound can expose the interior of those objects (Ong, 1982).

As a summary, the emotional response to sound can be attributed to three aspects:

- The exposure to sound is constant as, without 'earlids', we cannot control when or what to listen to. Our affective response to sound therefore depends on the degree of control and the appropriateness to the context that we perceive.
- Sound provides a direct engagement between subject and object.
- Sound exposes the invisible: objects and places hidden from view, as well as the interior of objects, animals, and persons. Thus sound can directly connect "the interior of a person to the interior of another" (Blesser, 2009, p.2).

This direct and emotional connection that sound offers points me to the next three reflections:

8. How I feel about a sound might differ from what others feel about it, as it varies according to context and appropriateness, but also my individual characteristics, such as hearing ability, mood, etc. Therefore, what is noise for me, unwanted sound, might be music for others. For example, the loud music coming from a boat near the shore frustrated me, but whoever was on that boat must have been enjoying it as they kept the music on. Judgements about sound vary according to context and individuals, which concurs with current guidance by the International Organization for Standardization (BSI, 2014; ISO, 2018).

Referring back to Schafer's typology of sounds introduced in the previous section, the keynotes and soundmarks I identify on my walks might differ from those perceived by others, as they very much depend on what I am focused on. For example, on this walk, the main keynote was my footsteps, accompanying me throughout this walk, and providing a backdrop to all other sounds; while the soundmarks I experienced were both positive and

negative: the singing of the birds at the embayment, and the ubiquitous aircraft sounds.

9. We might not be able to clearly classify a soundscape as good or bad, due to contextual and individual variations, but we can look at theoretical models of affection to try and predict overall how those soundscapes will be perceived, and plan our interventions accordingly. After all, we cannot forget that sound affects others (nonhuman and human) as well as us. Sound affects the many living organisms we share our environment with, as attested by recent studies looking at the effects that sounds have on others. For example, airport noise influences the timing of birdsong (Dominoni *et al.*, 2016) and, plant roots' ability to locate water is also affected by ambient noise, as roots rely on acoustic vibrations as well as soil moisture to locate water (Gagliano *et al.*, 2017). The exposure to unwanted sounds can also have detrimental effects on our health, precisely due to the active nature of listening (European Parliament and Council, 2002).

10. Our emotional response to the landscape has an effect on our actions.
For example, on the walk, I wanted to stay longer by the embayment. However, the woman speaking on her phone was interrupting my enjoyment of the space and I decided to leave sooner than I had initially wanted. This concurs with guidance on how soundscape conditions human response (BSI, 2014).

I conclude this discussion by reflecting on what a soundscape is. My understanding of the soundscape that emerges from this and previous soundwalks is centred on the interaction between the environment and myself. The soundscape is neither just medium (acoustic vibrations) nor a mental construct (as proposed by the current ISO definition) but formed in our being in and interacting with the environment. This concept of the soundscape is akin to Cobussen's understanding of it as inseparable "from one's embodied experience" (2009, p.6). It is a dynamic interaction in which both the soundscape and living beings are constantly transforming one another. We alter the soundscape by making sound in it, by transforming it through our activities and interventions, and the soundscape alters our activity as a response to the experience of it (ibid.).

This discussion demonstrates that there is much to be gained from understanding sound and thinking with our ears, precisely due to the direct and emotional response that sounds triggers. The next section describes a creative intervention where I sought to express through sound my experience of Leslie Street Spit. Following the intervention, a second soundwalk is narrated to explore how the direct and emotional response to sound can trigger enchantment, and what that enchantment reveals about our engagement with the landscape.

INTERVENTION 3
AUDIOPOSTCARDS CANADA

BRIEF

In September 2015 I responded to a call for Audio Postcards curated by CASE (Canadian Association for Sound Ecology). The selected Audio Postcards were to form an exhibition on the Canadian soundscape, as well as feature in several live events. The brief for the postcards was to "create or capture an aural image of a place, moment, or region of Canada" in up to two minutes (Randolph, 2015). The postcard submission was to be accompanied by an artist statement and an image.

By the time the call came out, my field recording skills had improved considerably. This was due in part to practice, and in part to the knowledge gained through reviewing the work of sound artists and field recordists. With regards to practice, I had recorded abundantly on my walks, my listening had sharpened and as a result, my sound recording was more selective. With regards to sound artists and field recordists, for this work, I was inspired by a particular artist, Hildegard Westerkamp, and a particular piece, "Kit's Beach Soundwalk" (1989). Hildegard Westerkamp is a Vancouver based radio artist, sound ecologist, and composer. Through her compositions she critiques her sonic environment, opening the way for "acoustically balanced sound existences" (Westerkamp, 2019). Westerkamp directs listeners' attention to particular aspects of the aural environment, and in turn, invites those listeners to listen attentively to and critique their aural environments.

The following section reviews "Kit's Beach Soundwalk" as a practice background to the creation of my audio postcard.

CONTEXT
HILDEGARD WESTERKAMP - KIT'S BEACH SOUNDWALK (1989)

In "Kit's Beach Soundwalk", Westerkamp invites us to listen to a beach in Vancouver through her ears. The 9m 42s composition mixes field recordings with her voice to guide the narrative of the work. The piece starts at Kitsilano Beach. Through her voice, Westerkamp describes her immediate calm environment on a wind-still January morning. However, through sound, the listener soon becomes aware of the sounds of the city that contrast with the calmness portrayed, which she describes as a spectacular view. There is a dissonance between what we hear and what she describes. Immediately after, she addresses the sounds of the city describing them as not interfering, except when one tries to focus on the tiny sounds of the beach, such as those of the barnacles feeding. The interference of the sounds of the city becomes even more apparent when it stops when she takes us to the studio and filters those sounds out. For the rest of the piece, we are immersed in the high-frequency sounds of the barnacles. As we listen, the sounds become varied, and she presents them as the sounds of her healing dreams, opening our imagination to the many things that these sounds become in her dreams, and the many things that they could become in ours. Energised, she returns to the sounds of the city, that she now describes as a monster that she can face and play with.

Fig. 34 Leslie Street Spit

There are several aspects that I take from this composition to guide my own:

- *The dissonance between the visual and the aural, which corresponds with the dissonance that I wanted to transmit as experienced in the old part of the Spit. There I was immersed in nature, however, sound extended far beyond what the eye could see revealing the invisible, the soundscape of the city.*

- *The powerful narrative embedded in her composition that allows her to direct listeners to her response to the soundscape, whilst allowing listeners to create their own responses to the piece. In a short space of time, over 9mins, she directs her listeners' attention to an unbalanced soundscape, and the joy that opening our ears up to tiny sounds, those of others, could bring. In an even shorter space of time, 2 minutes, I also wanted to lend my ears to the listeners, guiding them through the sounds of the Spit where the natural and artificial juxtapose. At times the natural and artificial juxtapose harmonically, at times stridently, revealing a truly entangled environment full of surprises.*

- *Ultimately through her composition, Westerkamp advocates a more balanced soundscape where one can hear the tiny voices. In doing so, implicitly she is also proposing a more balanced human-nonhuman relation where the human does not overpower other humans and the nonhuman.*

CONCEPT

Through my audio postcard, I wanted to invite listeners to listen and think critically about human and non-human agency in this space. The piece brings to the forefront the wildness of the Spit, and how it is juxtaposed with its human origin and context. This is a space where human agency is also very palpable (and audible), at times taking a step back, at times filling the aural space. Whereas in the city intrusive sounds seem inevitable, even unnoticeable, in this space one questions them. And in doing so, one questions human agency. When the wildness that one perceives is energising and full of joy, perhaps we should allow more of it.

My artist statement for the audio postcard described the intention behind the piece:

> *"On a hot Sunday morning at the end of August, I set up for a walk along Leslie Street Spit, recorder in hand, to escape the heat of the city. Leslie Street Spit is an accidental wilderness on a man-made headland in Toronto's lakeshore, originally intended as an outer harbour for the city in the late 50s. Still a landfill site, the Spit is open to the public at weekends. Walking along one of the pedestrian trails off the main entrance, the oldest section of the Spit, one could forget its man-made origin. The rubble, hidden below a thick layer of vegetation, has been rounded off at the shore of the Spit by the action of the water. Here I immersed myself in nature and its sounds; but sound was also the reminder of where I was, within the realm of the city. Sound blurred the entangled natural and cultural boundary of the Spit. Footsteps, voices, the sound of planes taking off and landing, mixed with the chirping of the crickets, the birdsongs,*

and the waves, providing a rich and somehow relaxing soundscape to listen to. I took sound recordings and photographs along that walk. Whereas the photographs capture many features of the Spit, it is sound that showcases its richness by bringing the invisible into proximity. This audio postcard aims to grasp the essence of the Spit as both man-made and natural and transport the listener to that hot Sunday morning." (Ruiz-Arana, 2016).

The piece starts with a harmonic juxtaposition and mixture of human and non-human sounds recorded inland within the old part of the Spit. As listeners accompany me towards the edge of the Spit, the harmonic relation turns to one of tension, between the force of the laps of the water and the white noise around it, two voices juxtaposed without mixing.

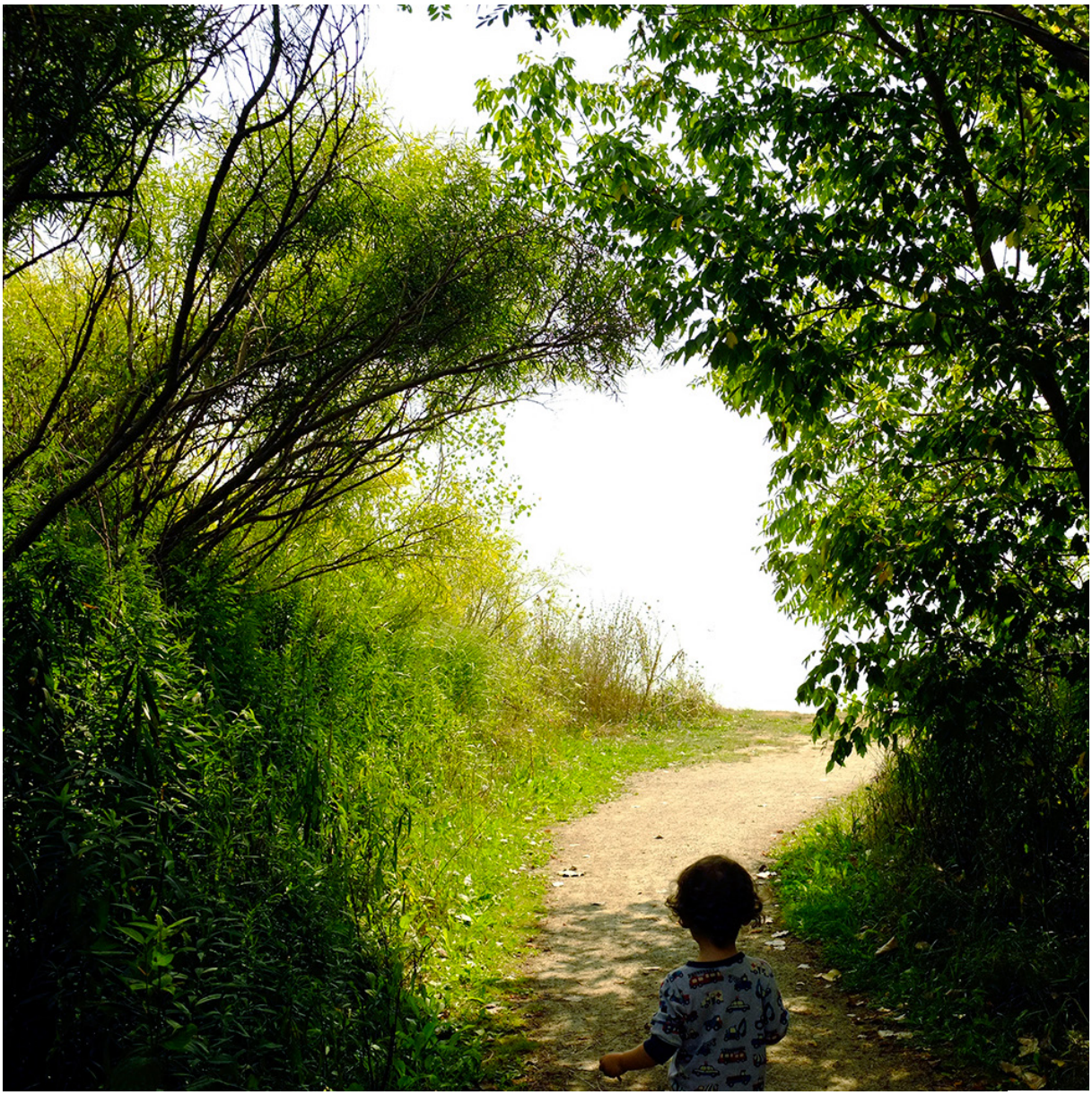


Fig. 35, soundtrack 09 - Leslie Street Spit Audio Postcard

THE EXHIBITION

Leslie Street Spit was one of sixteen soundtracks selected by jurors for the exhibition that launched online on World Listening Day 2016 (9th July). The project was funded by the Canada Council for the Arts and accompanied by a series of launch events in Vancouver, Yellowknife, and Edmonton that showcased the exhibition on its own or alongside a soundwalk. The online exhibition can be accessed in the following link http://audiopostcards.soundecology.ca.

INTERIM DISCUSSION

The audio postcard as a sound composition and narrative

Once the exhibition was launched, to reflect on my work I reviewed the other postcards, as well as the interviews with the jurors, included within the exhibition (Kinnear et al., 2016). Within the interviews, the jurors provided insightful comments regarding the adjudication of the works. The jurors scored the works according to several categories that included recording quality, the relationship between recordist and location, and compositional structure of recordings. Some jurors commented on how some recordings were firmly grounded in their setting, whereas others invited acousmatic listening, a term introduced in Staging the Wild to denote the mode of listening to a sound without seeing its source (Chion ,2012, p.144) . Jurors valued the inclusion of musical elements such as an emphasis on rhythms and repetition (for example the sounds of the crickets), the sense of space conveyed through the piece (through left and right channel), transporting you to a place, the inclusion of an emotional connection of the recordist within the piece, the telling of a story through the piece, or how the recordist invited their listeners into and out of the place depicted. They also valued an element of surprise or anticipation and a certain dissonance between what is heard and the story told through the statement (ibid.).

Other aspects that I gained from the review of the other postcards and that of my own included:

(1) The relation between sound and image. Sound extends and enriches the images that accompany the postcards, providing an insight into what is happening in and around that place at that time.

(2) The power and repercussions of the dissonance between sight and sound. With regards to power, sound can add an element of surprise by extending the picture, or contradicting what is depicted within it. In the case of my postcard, the photograph depicts a peaceful, empty path enclosed by dense vegetation. Sound showcases the invisible: footsteps behind the photo, the crickets within the meadow, birds amongst the trees' canopies or kids' voices. With regards to repercussions, one cannot close the ears at will. When we reach the shore, there is the sound of an unidentified white noise mixed in with that of an aeroplane. Whereas in the studio sounds can be filtered out, as Westerkamp does to direct our attention to the

tiny sounds, in the environment, one cannot do so. I cannot stop the white noise. Sound, therefore, needs to be an integral part of urban and landscape design.

(3) Sound to capture and transmit emotion. One of the postcards, Beach Rub, does this successfully. In the soundtrack, we experience artist Leah Abramson's reaction to finally capturing orcas when they come to rub on the beach at Bere Point. Through her statement, we find that this was her 12th attempt at trying to capture them. Through her voice and breathing included within the audio, we experience and share her surprise and excitement. She includes herself within the piece, as does Westerkamp, to share and guide an intimate moment and narrative.

In the next soundwalk, the learning-to-listen journey and pursuit of wildness are threaded together, where enchantment in wildness is sought through attentive listening.

Fig. 36 Soundwalk 2 map of route

B.5 soundwalk 2
leslie street spit

NARRATIVE

Saturday, 26th September 2015
Warm, mild breeze

Last Saturday of September, early afternoon. The journey to the gates of the Spit has been long, as streetcars are not running the full length of Queen Street East. Slightly later than planned but I am here now, hoping to walk the length of the Spit to the lighthouse. Shortly to the right, I stop at an interpretation board that backs the Spit's main car park to check the map of the Spit. On the board there a few signs: an advert for the bird walks organised through the Spit, a sign reminding me that no dogs (or other pets) are allowed on the Spit as they pose a danger to the site's wildlife, and another advising that the Spit is regularly treated with an herbicide to target invading dog-strangling vine. These signs, together with others experienced on previous walks, hint at the fact that despite the "Let it Go" aesthetic treasured by the Friends of the Spit, the site is actively managed. By the board, a golf cart is waiting to shuttle club members of the Aquatic Park Sailing Club that is located halfway down the Spit, as during weekends and holidays motorised access through the Spit is restricted.

Two sounds grab me right by the board and put me at ease: that of the waves breaking at the shore, and the stridulations of the crickets. Although I cannot see the source of either, I am soon overcome by a calmness that will accompany me for the duration of the walk. The waves and the crickets are the keynotes of today's walk; the reference point around which all other sounds modulate, and the metronome for my feet. I take the first pedestrian trail to the east, as per my previous walk, to follow the shoreline. I can see the waves now, the lake water is rougher than last time, jumping over the rubble, mesmerising to see and hear, to feel. The colours in the meadow are turning into shades of yellow, orange and brown against a predominantly green backdrop; the trees still in leaf. It is surprisingly warm for this time of the year, I take my jacket off. It is also relatively quiet, a subdued affair compared to last time: fewer walkers and cyclists, fewer planes, fewer birds, fewer insects other than the crickets. And I am alone.

Fig. 37, soundtrack 10 Baselands

I continue along this trail until the Environmental Shelter, barely visible from the distance as it is partially sunk in the ground. The shelter was the result of a recent architectural competition and is fully open along the south facade, the only closed section of the building been the compost toilet. I sit along the amphitheatre seat attached to the northern wall, looking towards the wetland habitat of the first cell. My sound recorder is always a conversation starter, and soon enough I start chatting to one of the members of the Friends of the Spit who happens to be seated beside me. He is curious about what I might be doing. He describes the wetland habitat in front of us and we discuss how natural it seems. As we talk, birds come in and out of the buildings, singing, and I notice the nests in the ceiling. This is a building permeable and welcoming to wildlife, unlike my home, where certain animals, such as the rats are not welcome. We talk about the "non-designed" feel of the Spit and he tells me how that is what he likes about the Spit, its "naturalness". "Come back in the winter, for the snowy owls", he says before walking off.

When I had previously spoken on the phone to John Carley, co-chair of the Friends of the Spit, he had explained the same thing, how their members valued the Spit due to its perceived naturalness, and how they had consequently adopted the motto "Let it Go" to let nature take its course. When I explained that I wanted to use the Spit as a site for creative research he was quick to point out that over the years they have discouraged any physical interventions within the Spit. They had also successfully halted many development attempts, and only allowed the minimum interventions to make the site accessible to all and suitable for education, such as paths and three small buildings. The Spit is certainly not your average contemporary park; with no play areas, no cafes or other facilities that we nowadays deem necessary for the success of a park. The Spit is also programmed differently; no temporary events, festivals or markets that could attract crowds to the site. In their place, nature and education events such as the bird walks advertised at the entrance. This is reflected in the users and activities that I see on a day like today and previous walks: walkers and cyclists, bird watchers and photographers, on their own or in pairs or small groups.

Fig. 38, soundtrack 11 Main road

I follow on my journey and join the main road. For the next kilometre, I walk along this wide road, on a straight line. I can see no-one ahead of me, no-one behind me. I have lost my phone signal. For a moment I wonder, what if something happens to me? I carry on. The walk is monotonous in sight, not much to see, a wooded boundary to the right and open views of the wetland in construction (cell 2) to the left. The aural takes over the visual in my engagement with the landscape. My footsteps are the loudest against a backdrop of crickets. As there is nothing to see I concentrate on those crickets. Walking at the same pace. Soothing, joyful. I pause by the timber pedestrian bridge at the end of the road to listen. The soundscape expands: a bird call punctuating the subtle call of the crickets, running water, the bridge clicking, a propeller plane in the distance, and my breathing mingled in. I am now completely at ease. Despite being on my own, I no longer feel any threat.

After the bridge, the asphalt road continues passing over a variety of habitats including a wet meadow and a wooded area. I follow a narrow path into this wooded area, where I can hear the calls of the blue jays; the wind is picking up and the young stems are swishing and dancing with it. On my return to the main road, I see the lighthouse at the end of it, over a promontory. I climb up to it. To the west, panoramic views of Toronto. I take out my camera and take a few postcard-worthy photos. To the south and east, endless views of the lake water. At the eastern edge of the Spit large piles of rubble guard the shore of the lake. I head back along the main road, without stopping for three kilometres until I reach the embayment where the lively call of the birds had taken me by surprise first time around. I approach the embayment following a different path along the southern edge of it. I get close to the water and marshland vegetation. A calmer soundscape today. Canadian geese, gulls, and cormorants are some of the birds that I can distinguish.

Back to the main road, I decide it is time to leave. From here it is a straight walk until the entrance gates. As I leave the Spit, I am faced with a long journey back home, and all that I can think of is how I wish that I could take the crickets on this next journey with me.

Fig. 39, soundtrack 12 Walk back

INTERIM DISCUSSION

I conclude this walk reflecting on (1) how listening precipitates an engagement with the landscape and (2) what enchantment through listening uncovers of the story of the Spit, and my experiencing of it.

1. Listening and the engagement with the landscape

The soundscape is dynamic, therefore subject to seasonal and yearly change. As described through the walk, this second walk is much calmer in sound than the previous one, with less activity, and fewer animal and man-made signals throughout.

The soundscape, in so far as it reflects the activities and rhythms of that landscape at any one time, is also in constant flux. Direct engagement with the soundscape through this walk brings to the fore two interesting reflections: that (A) sound provides engagement with the landscape in the absence of visual stimuli, or enriching poor visual stimuli and that (B) I engage not only with my ears but my full body.

(A) This is the case for example during the 1km stretch of the walk along the monotonous main road, where the aural takes over the visual in the engagement with the landscape. This is also the case walking through the areas in construction, yet to rewild. Here, sight fails to spot any signs of life but the aural penetrates these spaces, and enlivens them. In these places, the Spit could be perceived as abandoned, a ruinous landscape, however, sound makes them exciting and intriguing, sensorially enriched, all in all, more acceptable, which is a potential application for design.

(B) Through the walk, I described how two sounds caught my attention at the entrance and accompanied me throughout: the stridulating of the crickets and the sound of the waves breaking at the shore. These sounds had an immediate calming effect on me. The stridulating of the crickets, in particular, became the metronome for my walk. My walking legs and my body followed the rhythm set by the crickets and I sensed that even my heartbeat was also synchronising with it. Unbeknownst to me at the time, the calming effect of listening to crickets was discovered and employed during the Tang Dynasty in China by the royal family, who would keep and carry crickets on walks. The practice was later extended to the general public and it was recently re-enacted digitally by artist Lisa Hall for her *Walking with Crickets* series (Hall, 2016).

Through the walk, I also become aware of my sound making, and of how I change what I hear and what others hear through my walking, breathing, moving, coughing.

2. The enchantment through listening and the Spit

Through this and previous walks, familiarity and difference both played a part in inducing enchantment at the Spit, as I will argue next.

With regards to difference, sound brings the richness of the Spit to the foreground, engaging the listener in its wildness, that here is experienced as an escape from the city, a sort of "moral counter-world to culture" (Kirchhoff and Vicenzotti, 2015) that facilitates enchantment. Through this experience as a contrast to culture, I understand why the Friends of the Spit defend the wildness of the Spit so ardently. The wildness of the Spit, as I have described, started accidentally, however, as frequent signs have reminded me on this walk the site is actively managed. The current management and maintenance regime of the Spit could be described as a case of active rewilding, where the aim is to preserve, restore and enhance the current wildness, allow for public access and enjoyment, and respond to challenges as they arise, such as the use of herbicide to treat invading dog-strangling vine, but ultimately prioritising natural processes. The resulting aesthetics for the Spit is unusual for a park, as rubble, bricks, and wires poking out confer a sense of abandonment and if one was to disregard the subtle signs of maintenance, even lack of care. Listening attentively triggers enchantment in this wildness as through its richness, the layering of sounds provides joy and engagement in areas with an aesthetic that could be perceived as abandoned and untidy, as described in 1A. One could wonder if the Spit is being actively managed, and if it is man-made in origin, why halt overt cultural interventions? The answer to this question is that it would no longer feel counter-worldly, a welcome escape from the buzz of the city. Following the same argument, this moral counter-world to the city also tells us that not everything in the city needs to become wildness, not every landscape should have the same end, otherwise it would no longer feel counter-worldly.

With regards to familiarity, as I engage through listening in this wildness, in time, sounds start becoming familiar. Sounds that I might have once perceived as anonymous, such as "a" birdcall, become identifiable. The birdcall becomes the call of a cormorant, for example, bringing comfort and familiarity to this wildness. This wildness is then not experienced as distant but rather as closeness; as a sense of intimacy that I last experienced in the frozen waterfalls. Therefore, through sound, I experience familiarity, in the closeness felt. Through sound, I also experience difference, as a contrast to culture. What this richness in listening at the Spit advances is the potential for a new relationship with the wild in the public realm, where the wild and the human are not separate entities but intermingled and part of one another, in different forms, without becoming a monotonous one, allowing for both familiarity and difference.

Enchantment in the freezing temperatures, and enchantment through listening here at the Spit share in common that familiarity and difference experienced. Enchantment exposes a familiarity and closeness to the non-human, where we feel one of many, that can be the start of a land ethic that shifts agency from humans to a more equal relation amongst us and other living organisms: a more equal relation in line with Leopold's "land ethic" (1949), Plumwood's "ecological self" (1993), and Bennett's "vital materiality" (2010). Enchantment also provides a temporary retreat from the everyday, as was the case of the cold, or from the city, as it is the case here at the Spit. A difference that is necessary to develop the incipient land ethic introduced above, as it is precisely this difference experience that drives the Friends of the Spit to defend the wildness of the site. This preliminary finding is developed further in the last thread of the chapter, *Phenomenology of Enchantment.*

C. enchantment and beyond:
phenomenology of enchantment

The wildness at the Spit is a result of accidental ecological succession (passive rewilding) followed by active management to provide the setting for natural processes to take place (active rewilding). The result is a site full of contrast; with older parts of the Spit perceived as wild, and newer parts still in construction. Through sound in particular, as an expression of the life of the Spit, this is a place where one can experience nature in action, growing (in the newer parts of the spit), evolving (in the older parts), and even struggling (along the eastern boundary where ecological processes have been slow). At the Spit human action is experienced as well, both directly, through the many man-made sounds that permeate its boundaries, through its materiality, and the human activities that take place within; and indirectly, through the many signs that reveal that the park is being managed. The wildness, nature in action, is experienced, as I have discussed, as both difference and familiarity. It is experienced as a "moral counter-world to culture" (Kirchhoff and Vicenzotti, 2015), and an escape from it, but also revealing in that experience a closeness and proximity, a sense of commonality between us and our surroundings.

C.1 FLESH

In this research, I propose that Merleau-Ponty's notion of "flesh" can help make sense of that feeling of being connected in experience to the wildness around me, whilst experiencing it as different to me: a wildness experienced at the Spit, at the frozen waterfalls, and through the urban wildlife. This section introduces the ontology of Merleau-Ponty's later period and the key concepts that provide the theoretical foundation for this work. The commonality experienced in enchantment, I argue, is a reflection of being "flesh of the world", while the difference in enchantment is through being "my flesh". The concept of "flesh" is then developed further through the next project *The Wild in Silence* and distilled in the concluding discussion.

THE VISIBLE AND THE INVISIBLE (VI)

At the time of his death in 1961, Merleau-Ponty left unfinished a manuscript, that together with other contemporary works including *Signs* (1964b) and *Eye and Mind* (Merleau-Ponty, 1964a), aimed at expanding and refining his philosophy of embodiment to overcome the dualisms of subject/object, human/nature and mind/body.

The unfinished manuscript was published posthumously as "The Visible and the Invisible" (translated into English by Alphonso Lingis, 1968), and included a chapter titled "The Intertwining – The Chiasm" that introduced the novel concepts of "flesh" and "chiasm". The incompleteness of the manuscript, coupled with the ambiguity of the concept of flesh introduced therein, has resulted in a variety of interpretations of flesh. Despite these different variants of the concept of flesh, it has been and is currently embraced by environmental thinkers as it is "suggestive of a very real engagement with the world and with oneself as a fully immersed bodily being" (Brook, 2005, p.353). The ontology of the flesh is therefore capable of breaking down the dualism that underpins current human-nonhuman relations,

providing the foundation for a new relationship with nature. As such, it also encompasses key aspects of Val Plumwood's "ecological self" (Plumwood, 1993) and Jane Bennett's "vital materialism" (Bennett, 2010), as encapsulated below:

- The capacity to encompass in the movement of perception both kinship and otherness, emotion and thought, (central to Plumwood's proposition);

- The identification of otherness in us, and us in the other, with no firm boundaries in between, the key to developing horizontal relations between humans and non-humans, (as per Bennett's proposition).

ÉCART, FLESH AND CHIASM

"We see the things themselves, the world is what we see." (Eng. trans.1968, p.3)

With this opening Merleau-Ponty introduces the notion of perceptual faith central to his proposition. Perceptual faith is our "unjustifiable certitude of a sensible world common to us that is the seat of truth with us" (Eng. trans. 1968, p.11). Perceptual faith is the assurance that through perception we apprehend the world as it is. In Merleau-Ponty's terminology, the sensible world is the visible, while sense itself (thought and ideality) is the invisible. The goal of this, his last, work is to uncover the relationship between the visible and the invisible through perceptual faith. For Merleau-Ponty, perceptual faith and the paradoxes that arise in the exercise of it in daily life are "the starting point for developing an alternative account of perception, the world, intersubjective relations, and ultimately being as such" (Toadvine, 2016, p.1).

The first paradox of perceptual faith is that perception has its "own perspective" (Eng. trans. 1968, p.10), as what I sense, I always sense through my bodily senses and it is, therefore, my private world. Private worlds communicate, but that communication does not resolve this dilemma of perception. "The thing itself...is always for me the thing that I see. The intervention of others...adds to it this other enigma: of the propagation of my own most secret life in another... The communication makes us the witness of one single world, as the synergy of our eyes suspends them on one unique thing. However, in both cases, the certitude...remains absolutely obscure" (Eng. trans. 1968, p.11). That thing that we both see is both in the world and is formed in each of our perceiving bodies. The other reinforces the paradox of perception in that I can sense what the other senses only through the experience that I am having or have had; therefore, my perception is both general and my own. Behind the thing that I see, beyond the other, there is a hidden world that I do not have access to.

The second paradox of perceptual faith is the reversibility of my body as sensible and sentient, and therefore both passive and active, and object and subject, but never at the same time. Merleau-Ponty illustrates this reversibility through the following example of touch:

> *"If my left hand is touching my right hand, and if I should suddenly wish to apprehend with my right hand the work of my left hand as it touches, this reflection of the body*

> *upon itself always miscarries at the last moment: the moment I feel my left hand with my right hand, I correspondingly cease touching my right hand with my left hand. However, this last-minute failure does not drain all truth from that presentiment I had of being able to touch myself touching."* (Eng. trans. 1968, p.9).

The body is both sensible, and sentient, with each side, informing the other but not superposing into one another, as "two segments of one circular course which goes above from left to right and below from right to left, as one sole movement in two phases" (Eng. trans. 1968, p.138). In this circularity, the sensible body is part of the whole of the sensible, and therefore of the world. The body is, therefore "a sensible for itself" or an "exemplar sensible" (Eng. trans. 1968, p.135). As a sensible, it is a thing of the world that unites us with it, passive, and as a sentient an active subject that "communicates to the things upon which it closes over (its) identity without superposition" (Eng. trans. 1968, p.135). My hand, to be able to touch it needs to be tangible itself, and that extends to my whole body. Like two sides of the same body that inform one another and are therefore inseparable, this bodily conception defies the classic dichotomies of self-other, subject-object, and active-passive.

Merleau-Ponty proposes that these paradoxes or dilemmas of the perceptual faith do not pose a problem in the exercise of our daily life, it is only when we try and explain or theorise them that it leads us to confusion. In trying to do so, "we take experiences that are divergent yet co-given (me-and-not-me, self-and-body), and drive them into oppositions (subject/object, mind/matter, active/passive)" (Hass, 2008, pos. 1949).

Merleau-Ponty's late concepts of flesh, chiasm, and *écart*, stem from these two paradoxes.

So far, we have seen that perception presents us with the world as it is, but through our own individual perspective; that those individual perspectives communicate and extend beyond one another; and that our body is both a thing of the world (sensible) and not a thing (sentient), the same as other bodies.

Merleau-Ponty introduces the concept of flesh to describe the element of being where body and world, sentient and sensible, communicate in perception, where they "reciprocate one another and we no longer know which sees and which is seen" (Eng. trans. 1968, p.139). In this communication, we envelop and unveil the world, and in turn, we are enveloped and unveiled by it. Merleau-Ponty describes this intertwining through the example of two mirrors facing one another and producing two sets of multiple images. Each set of images contains the other set and therefore does not belong to either of the surfaces, but together they form "a couple more real than either of them" (ibid.). The seer is both embedded in what he sees and is seen from outside and so his "activity is equally passivity" (ibid.). My flesh is ultimately the envelope of my perception. Therefore, if perceptual faith presents us with the truth, flesh, as the locus of perception, is the "locus of an inscription of truth" (Eng. trans. 1968, p.131).

"The presence of the world is precisely the presence of its flesh to my flesh... I am the world and...I am not it" (Eng. trans. 1968, p. 127). I am the flesh of the world, the visible, because

my sensing body can also be sensed, and therefore, I sense the sensible from within. I am also not the world (I am my own flesh), in that to sense it there needs to be that gap, a difference from the world, to allow me to sense it. This corresponds with Plumwood's proposition of a need of proximity and distance, and with my experience of familiarity and difference. Distance is required because I need to sense the other as different to me to sense it. I envelop the visible with my flesh without fusing with it "because a sort of dehiscence opens my body in two, and because between my body looked at and my body looking, my body touched and my body touching, there is overlapping or encroachment, so that...the things pass into us as well as we into the things" (Merleau-Ponty, Eng. trans. 1968, p.123). This gap is filled by the flesh "as the place of emergence of a vision, a passivity that bears an activity – and also the divergence between the exterior visible and the body" (Eng. trans. 1968, p.272). The dehiscence or split between the two sides of my body, and between my body and the world, is therefore not an opposition but a "separation-in-relation" (Hass, 2008, pos. 1959) that allows for perception to take place. Merleau-Ponty refers to this separation as *écart* and proposes that the body is not simultaneously sentient and sensible, as there is a hiatus between the two. The reversibility between sentient and sensible, subject and object, without separation, concurs with Bennett's proposition in the sense that there are no clear boundaries between categories but a passing from one to the other, which allow us to identify ourselves in the other, and sense an otherness in us. This is also the experience at the Spit where wildness and man-made, me and other, entangle without fusing.

Flesh is therefore unveiled in perception, through the interaction of me and the world. Flesh is "that region of being that is comprised of the intertwined layers of body and world" formed in perception, in the intertwining of sensible and sentient, visible and invisible (Salamon, 2006, p.101). In perception, in flesh, I apprehend the other, as well as me in my engagement with the other (ibid.).

Merleau-Ponty describes flesh as an "'element,' in the sense that it was used to speak of water, air, earth, and fire... a general thing, midway between the spatio-temporal individual and the idea, a sort of incarnate principle that brings a style of being wherever there is a fragment of being" (Eng. trans. 1968, p.139). Flesh is not matter, mind or substance but "an 'element' of Being." (Eng. trans. 1968, p.1).

Flesh has thickness. We see things through our sensing body, and at the same time, we see those things in their places. This is due to the thickness of the flesh that, as we have discussed, enables the communication "between seer and the thing" and "is constitutive for the thing of its visibility as for the seer of his corporeity" (Eng. trans. 1968, p.135).

Flesh also has reversibility. With the account of one of my hands touching the other, Merleau-Ponty introduces the reversibility of one's own body. The handshake, he proposes, is also reversible. I touch and can sense myself touched. My world and that of the other communicate due to our shared anonymous perceptual faith.

Between body and world, sentient and sensible there is an écart, filled by the flesh in perception, as mentioned above, and with a movement of passing from the one to the other.

Merleau-Ponty terms that movement chiasm. The chiasm is a movement of circular reversal, as described above for the two sides of the body: one single movement in two phases. The chiasm is "an exchange between me and world, between the phenomenal body and the objective body, between the perceiving and the perceived" (Eng. trans. 1968, p. 215). There is also a chiasm between mind and body, where mind is "the other side of the body", hidden and anchored in it but not an objective thought of it; there is a "body of the mind, and a mind of the body and a chiasm between them" (Eng. trans. 1968, p.259).

THE THREE INTERPRETATIONS OF FLESH

Whilst Merleau-Ponty insists that the flesh is not "matter" (Eng. trans. 1968, p. 139, 146), he refers to flesh as "my flesh" (ibid., p.114, 127, 148) or a "carnal adherence" (ibid., p.142), and refers to "carnal relations" (ibid., p.84) or "thickness of the flesh" (ibid., p.135) opening the way to various interpretations of the concept.

Hass (2008) proposes that Merleau-Ponty employs the term flesh with three senses: "as carnality and physicality of ourselves and our relations in the world" (pos. 2104), as "reversibility" (pos. 2118), and as "an element of being" (pos. 2125). These different senses of flesh have been described in my introduction to flesh above starting from flesh as an element, flesh as thickness, and flesh as reversibility. The three senses are not incompatible with one another, nor interchangeable, nor the only interpretations of flesh. Flesh is, therefore, a complex concept with a "number of dimensions" that can express "the fact that experience, thinking, language, the self and its relations with others, are inescapably carnal" (ibid., pos. 2151). Flesh in this research is employed as an element of being or essence.

VISIBLE, INVISIBLE AND EXPRESSION

Merleau-Ponty concludes his chapter "The Intertwining – The chiasm" with what he describes as the most difficult task, describing the relation or passing from the invisible to the visible, from the thought to the sensible, which is not its opposite but "its lining and its depth" (Eng. trans. 1968, p. 149).

Thought is a "sublimation of the flesh" (Eng. trans. 1968, p.145), a three-dimensional relationship with oneself, the world, and the other, and "brought to appear (not to birth) directly in the infrastructure of vision" (Eng. trans. 1968, p.145). That is, to think, we must see or feel. Merleau-Ponty proposes that creative expression (literature, music, the passions) provides the passage from ideas (the invisible) to the visible. The ideas of creative expression, unlike scientific ideas, "cannot be detached from the sensible appearances" (Eng. trans. 1968, p.149) and therefore "they could not be given to us as ideas except in a carnal experience...they are in transparency behind the sensible, or in its heart" (Eng. trans. 1968, p.150). The creative expression "does not give us the idea itself; it is but a second version of it, a more manageable derivative" (ibid.).

CRITICISM OF FLESH

In the adoption or review of Merleau-Ponty's notion of flesh, criticism has emerged from several perspectives. Three objections to flesh are discussed below due to their relevance to this work.

The first concerns the reversibility of flesh as a closed structure (Irigaray, 1993) or as indifferent reciprocity "where the terms are indifferently read from left to right and right to left" (Levinas, cited in Hass 2008, pos. 2022). Hass (2008) defends flesh against said criticism of "symmetry" and "indifference" (pos. 2024). With regard to indifference Hass argues that *écart*, the dehiscence that Merleau-Ponty proposes as necessary to perception, is precisely difference, and without that difference, the chiasm and perception cannot take place. With regard to symmetry, the problem lies in some of the descriptions that Merleau-Ponty offers to describe chiasm, as two hands touching, or two halves of an orange (Hass, 2008). However, he also offers other examples where he emphasises that chiasm is not symmetrical, for example with the example of vision where he describes how binocular vision is of another order than the sum of two monocular images.

The second concerns the anthropomorphism of nature (Bannon, 2011). The ontology of flesh draws on human perceptual experience, with the danger of anthropomorphising nature, or restricting nature "to what can appear to the human senses" (Toadvine, 2009, p.51). To overcome this anthropomorphism, Toadvine "appeals to the reflexivity of flesh...with the intention of showing that human expression is a variety of natural meaning without being reducible to it" (Bannon, 2011, p.333). However, this leads to the second anthropomorphism in that man is "the measure of all things, more precisely, our body [is] the measure of reality" (Barbaras, cited in Bannon, 2011, p. 335). However, I propose that this criticism can be turned around into the potential of flesh. The power of grounding flesh in perception resides in the opposite connection, in that the commonality my experience reveals rewilds me. I do not project my perception of nature into nature, but rather through the perception of it and of me through it, I find the common ground with it. This aspect is developed further in *The Wild in Silence*.

The last objection concerns the "inability to draw normative conclusions from the ontological arguments" (Bannon, 2011). As we have described above, there is a multiplicity of possibilities stemming from Merleau-Ponty's ontology of flesh. Toadvine argues that no ethical principles or responsibilities are immediately derivable from Merleau-Ponty's ontology, instead the aspiration is that "an 'ontological shift' in our perception of the world can alter our ethos by shifting our sense of what is and how we experience and interpret our relations with things" (Toadvine, 2009, p.134). I concur with Toadvine in proposing that this limitation is, in fact, another potential. The appeal of flesh stems from its capacity to make us rethink our relationship with the world and with ourselves, and from promoting an attachment to the world and ourselves. From that attachment, we are more likely to develop care and a set of values stemming from that care.

FLESH AND THE SENSES

This work proposes that listening can be the vehicle for enchantment with the wild. In the Visible and Invisible, Merleau-Ponty is mainly concerned with demonstrating the reversibility of touch and vision in perception, which he describes at length. He also describes the reversibility of the touch-vision system. For this last, he proposes that since it is the same that "sees and touches, visible and tangible belong to the same world" (Eng. trans. 1968, p. 134). Merleau-Ponty proposes that the two views (the visible and tangible) are complete but not superimposable (ibid.).

Merleau-Ponty does not treat the audible and hearer until later on in his work when it comes to the expression of the invisible in the visible, "the second positivity" of flesh (Eng. trans. 1968, p.149). Music, voice, and language take a primordial role in expression. It is now that he describes the reversibility in sound when he proposes that "between sound and meaning, speech and what it means to say, there is still the relation of reversibility, and no question of priority, since the exchange of words is exactly the differentiation of which the thought is the integral" (Eng. trans. 1968, p.145). The reversibility of sound and listening in Merleau-Ponty's philosophy is elaborated in the next project, *The Wild in Silence*.

THE POTENTIAL OF FLESH FOR THIS RESEARCH

In the instances of enchantment experienced I felt a connection with the environment and others because I shared something with it/them. For example, at Niagara Falls, I experienced a shared vulnerability with my surroundings, we were all affected by the cold in the same way, freezing little by little. Or at the Spit with the crickets where I shared the rhythm of their stridulating. Or even with the rats, when I saw the mother rat pushing her babies the same way I protect mine. It is not that the whole world is the same as me, made out of the same material; but that there is a common essence expressed in a distinctive form, apprehended in perception. I cannot know the experience of the other, certainly not the experience of the nonhuman, but I can feel that communal essence, by being "flesh of the world".

In the instances of enchantment experienced I also felt a distance, either as an abstraction from my mundane life (at Niagara Falls) or from the city (at the Spit). I am, after all, my own flesh. Flesh in this work is understood as an element of being or essence revealed in perception and formed of layers of me (my flesh) and world (flesh of the world), that enables the communication between me (sentient) and world (sensible). The flesh of the world is the common essence apprehended in perception, as I am also flesh of the world as I am sensible for others. Behind the flesh of the world is my own flesh, enfolded by it, also apprehended in perception. The gap that opens up between me and world in perception, and that is filled by the flesh does not oppose the sides it separates but rather forms a "separation-in-relation" (Hass, 2008, pos.1959). On the other side of the flesh of the world, at the limit of my sensing, is the flesh of others. This is developed further with the findings of the next project, *The Wild in Silence*.

D. enchantment and beyond: *beyond nature and culture*

INTERVENTION 4
REWILDING THE GARDINER

Thank you to Liz Lecky, Trish Boon, Rebecca Carbin and John Carley for their help in the development of this installation.

BRIEF AND CONTEXT

The Scotiabank CONTACT photography festival (scotiabankcontactphoto.com) is an annual event featuring Canadian and international artists in a range of venues across the city. The festival includes Core Exhibitions, Featured Exhibitions and Open Call Exhibitions. This last invites lens-based artists and venues to come together to produce exhibitions for the festival. In November 2015, I submitted a proposal for a multi-media exhibition to Evergreen Brickworks to produce an Open Exhibition for the festival the following May. The work, entitled "Rewilding the Gardiner Expressway", combined photographs, soundtracks, and video and featured the spaces underneath the Gardiner Expressway and Leslie Street Spit. The piece aimed to create moments of enchantment in these abandoned spaces by immersing "the viewer into the calm and chaos of nature as it takes over the spaces under the Gardiner" (Ruiz Arana, 2016a).

Evergreen Brick Works (https://www.evergreen.ca/evergreen-brick-works/) is a former brick factory and quarry recently transformed by Evergreen into a public open space and community and cultural hub that houses offices, temporary exhibitions, and events, markets, outdoor learning, and recreation. With regard to art exhibitions, the Brick Works hosts work that aligns with Evergreen's core themes of urban sustainability through nature, cultural engagement, community connections, and heritage. My work targeted the themes of nature, community, and industrial heritage. It targeted the themes of nature and community as it sought to use wildness to connect the community to the underused, leftover spaces underneath the Gardiner, and in doing so introduce a new aesthetic to the public realm and question the future of these spaces. It targeted the theme of industrial heritage as it used the spontaneous ecological succession of a former industrial site, Leslie Street Spit, as the precedent for rewilding. "Rewilding the Gardiner Expressway" was accepted for exhibition. The following section takes us through the making of the exhibition, the concept for the work, exhibition period and discussion.

Fig. 40 Under the Gardiner

CONTEXT: THE GARDINER EXPRESSWAY AND LESLIE STREET SPIT

Over the spring and summer months, I became very familiar with the spaces underneath the Gardiner expressway. To reach the lakeshore from home, no matter which route I took, I had to walk underneath it. Reaching the Gardiner Expressway became synonymous with an awareness of being close to Lake Ontario.

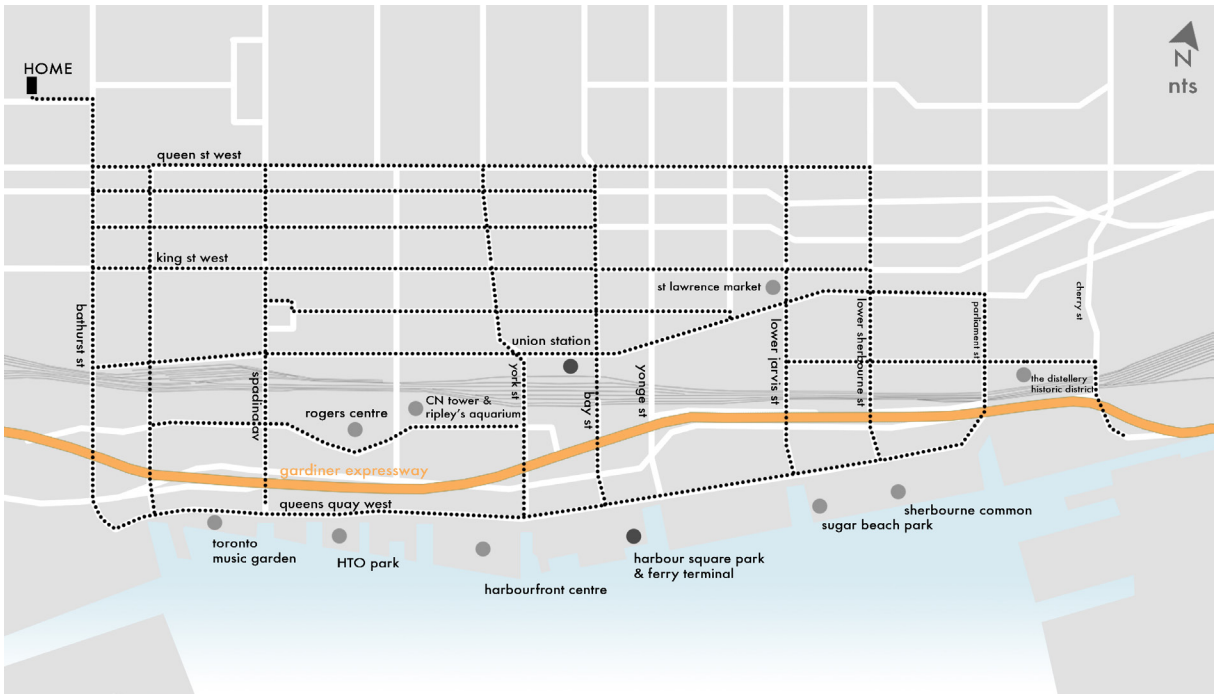


Fig. 41 Routes from home to the lake

The Gardiner is a municipal expressway that runs parallel to the shore of Lake Ontario serving traffic in downtown Toronto. The road, built in the 1950s and 1960s, is elevated as it passes the downtown core of the city, leaving a network of roads and underused spaces underneath that disrupt the connection between city and lake. The shoreline of Toronto ran along Front Street (inland from the Gardiner) during the 19th century. With the industrialisation and densification of Toronto in the 20th century, the city extended its borders south onto the lake through landfill, and in the process, lost its direct connection to the lake (Chan, 2013).

In Mid-June Toronto City Council voted on the future of the Gardiner Expressway east of Jarvis Street for a length of around 2km. Here, the structure had deteriorated to the point of needing urgent attention. Three options had been the subject of a heated debate. The first option was a hybrid solution that kept the Gardiner elevated up to the Don Valley Parkway, rebuilt the crumbling deck, and was replaced by a ground level boulevard east of the Don Valley. This solution would impact journey times of 10% of commuters and was the most expensive. The second option entailed the removal of the elevated road east of Jarvis Street and its replacement with a ground level tree-lined boulevard. This option was the most economic, would result in the opening up of new public spaces, and would impact journey times of 26% of commuters. The third and final option entailed keeping the Gardiner

as it is and repairing it as required. This option would have the least impact on current traffic and sat in the middle in terms of cost (CBC, 2015). The first option described was approved "based on a greater emphasis on the Environmental Assessment transportation and infrastructure study lens" (Toronto City Council, 2015).

I was surprised by a decision that seemed to favour traffic flow in place of urban development and cohesion, at a time when the lakeshore is experienced as removed from the city. It seemed like a missed opportunity to reconnect city and lake, and give public use to the vast leftover spaces at a prime location.

On one of my trips to the lakeshore following the council's vote, I imagined my own future for the spaces that would remain under the Gardiner. As I crossed underneath the Gardiner on its intersection with Dan Leckie Way, I found a large leftover and isolated space filled with pebbles. For a moment, I was abstracted from my surroundings. The pebbles were a reminder that this area had once been underneath the water, part of the lake, as had all the spaces underneath the Gardiner. I paused to admire the pebbles and imagined the water coming back towards its original alignment along Front Street. The water, rubbing against the pebbles, would slowly rewild the space, triggering the development of a spontaneous wildness, similar to the process that I had observed at Leslie Street Spit. This imaginary project sought to bring a lake experience closer to the city, and a "let it go" wild aesthetic to the urban realm that would open it up to a "moral counter-world" (Kirchhoff and Vicenzotti, 2015). As a precedent for rewilding this project studied the wildness at Leslie Street Spit.

Fig. 42 Location of Gardiner Expressway and Leslie Street Spit in the City of Toronto

Over the summer months, I came to admire the Gardiner in places, despite the sense of desolation and isolation deeply ingrained in these spaces. For example, when the light filtered through the never-ending arches, it created an illusion of infinity similar to the one at the edge of the Lake looking towards the deep blue water. Over the summer months, I was also surprised by the varying sound experience of those spaces. Whereas the murmur of the traffic and its echo under the structure are constant, the experience of sound varies. In the places where the Gardiner is higher or is surrounded by open spaces as opposed to buildings, the sound of traffic dissipates. In the places where the structure is lower and surrounded by buildings, the volume is high and dominant over the rest of the soundscape.

Fig. 43 The Gardiner Expressway at Lower Jarvis Street

THE BENTWAY: A NEW URBAN LANDSCAPE

Following my exhibition submission to Evergreen Brickworks, a project entitled "Under the Gardiner" (later on renamed as "The Bentway") was announced to transform a 1.7km stretch of underused land under the Gardiner into a new urban landscape. The initiative was funded privately to be designed and implemented by Toronto City Council in collaboration with Waterfront Toronto, landscape architects Public Works, and urban designer Ken Greenberg. The 1.7km stretch runs from Strachan Avenue to Spadina Avenue (The Bentway, 2016). The project was therefore immediately west of the area included within my exhibition, overlapping at Dan Leckie Way and up to Spadina Avenue.

After my return from Toronto, I followed the design of the scheme closely as I was excited by the prospect of transforming an area that I had felt needed urgent address and curious to find out the outcome of it. The design of the project included key features such as a multi-use trail, a large amphitheatre, outdoor rooms for different uses and community and art programmes, and a skate trail (Waterfront Toronto, 2016).

The first phase of the project was completed in the summer of 2018 and included the stretch from Strachan Avenue to Fort York Boulevard. Along this stretch, the Gardiner runs quite high, and the humming of the traffic overhead dissipates quickly. The Bentway is programmed throughout the year by The Bentway Conservancy, to include art exhibitions, markets, performances, a skate trail, and other events. A second phase further east is currently been developed (The Bentway, 2016).

Although not the wildness that I had imagined, this was a positive urban outcome for a road infrastructure set to stay.

PHOTOGRAPHS, SOUND AND VIDEO

Photographs, sounds, and video were used in conjunction to immerse the viewer in these spaces. The photographs present the wildness of the Spit and the architecture of the Gardiner in a frozen moment and time. The soundtracks expand the image, add information to it and seek to draw the listener in, engaging them in these reimagined spaces. Sound reveals the activities and life of the spaces and the invisible. Sound also reveals the acoustic properties of the Gardiner, its echo, and the flow of the traffic (Ruiz Arana, 2016a).

In the development of the work, the photographs came first, which might seem contradictory in this journey that sought enchantment through sound. Listening in my soundwalks, however, had an interesting side effect, of relevance here. As sound engaged me in the here and now, all my other senses heightened, including sight. I noticed details that I could have missed had I not paused to listen, details that I wanted to capture. Armed with a second-hand camera, I resumed an interest in photography alongside the sound walks that gave rise to this work.

The photographs for the exhibition were developed using an overlaying technique used by Urban Explorers (Urbex) photographers. Urbex photographers photograph abandoned buildings and locations, frequently trespassing to gain access to them. In many cases, the spaces photographed are simultaneously very light (close to light sources such as windows) and dark (away from them). To maximise the details of the photographs, and include both the light and darkness, a technique frequently used is the overlaying in postproduction of photographs taken consecutively with varying exposure times. The result is a vibrant image (Schreck, 2013). The spaces underneath the Gardiner are also simultaneously light and dark: light at the edges of the structure, dark elsewhere. For my photographs, I overlaid photographs of varying exposures taken underneath the Gardiner with a tripod, with photographs of Leslie Street Spit.

The pairing of the spaces at Leslie Street Spit with those under the Gardiner to create the photographs was sparked by my experience of those spaces. For example, walking underneath one of the vegetation tunnels at the oldest part of the Spit, enclosed by it, I was brought back to the enclosure created by the arches at Lower Jarvis Street, to the illusion of a never-ending structure. Therefore, whereas the walk underneath the Gardiner is linear, the parallel walk that the viewer takes along Leslie Street Spit is not (Ruiz Arana, 2016c).

Fig. 44 Photograph locations under the Gardiner Expressway

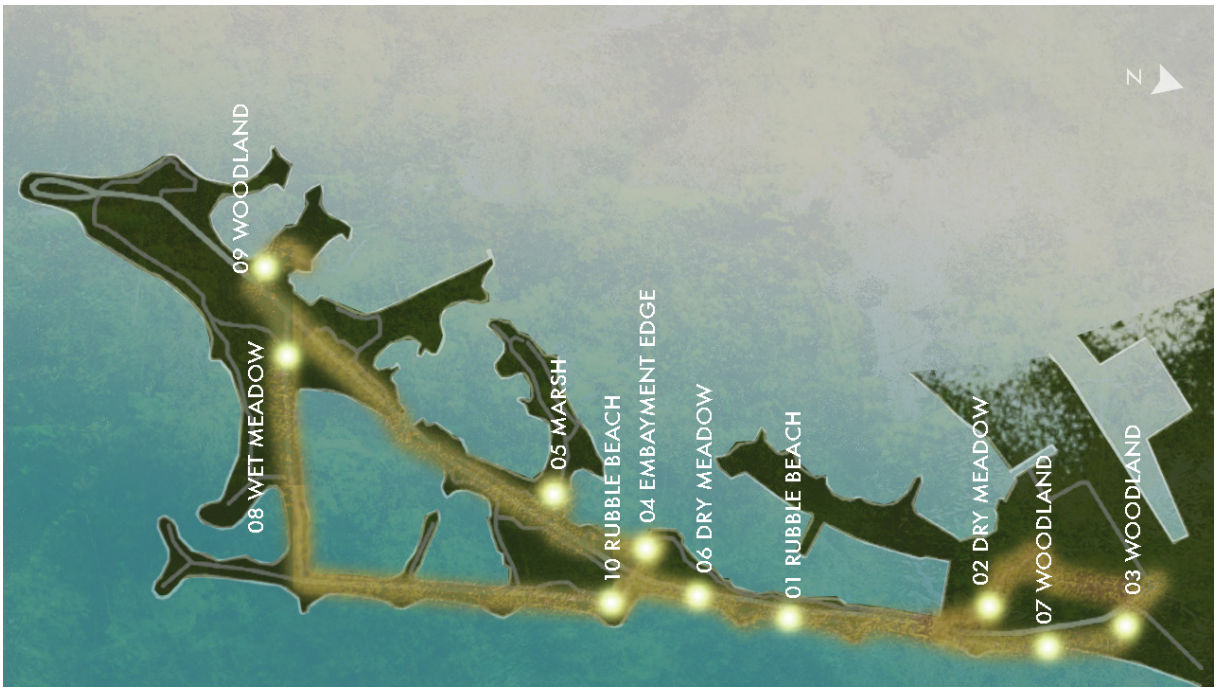


Fig. 45 Photograph locations along Leslie Street Spit

The soundtracks were created after the images and used field recordings taken on my visits to Leslie Street Spit and the Gardiner. Whereas the images "reveal the architecture of the Gardiner" and frame a moment in time of imagined wildness, the purpose of the soundtracks was to immerse the visitor into these imagined spaces (Ruiz Arana, 2016a). Through sound, the viewer becomes aware of the activities that are taking place in that space and that time. In that sense, the soundtracks expand the information of the photographs and invite the visitors into them (ibid.).

To develop the soundtracks I took inspiration from Chris Watson's soundtrack for the painting "The Cornfield" by John Constable. In 2009, Chris Watson, alongside other artists, was invited to select a painting in the National Gallery to make a soundtrack for a gallery painting. The purpose of the project was to slow down viewers and get them to engage with the paintings. Watson built the soundtrack from what was visible in the painting, and also from what was hinted at. For example, from the reflection of a drinking pool, he imagined the stream that fed it, that he could not see but could hear. Another example is the trees and clouds that he could see in the woodland edge and the variety of birds that he imagined in them. Watson employed a sound perspective to draw people into the soundtrack, as the painting draws the viewer in from its periphery towards a point in the centre. A sound perspective was defined as the "distance between the source of the sound and the microphone" (Watson, cited in 'Painting in Sound', 2012).

Following Watson's piece, the intention behind my soundtracks was to present the visible and the invisible and to draw people in from the general soundtrack to the details within it.

The video was developed last. The purpose of it was to reveal the original spaces and sounds under the Gardiner and their transformation.

The work was based on numerous walks taken alongside Leslie Street Spit and the Gardiner Expressway, where I captured the spaces in photo, video, and sound. The visits to Leslie Street Spit took place during the summer and early autumn on weekends. The visits to the Gardiner were carried out during weekdays outside of rush hours, in September.

A selection of photographs and soundtracks are included in the following pages. All images and soundtracks, together with the video (Video 03 - Rewilding the Gardiner) showcased at the exhibition can be accessed in the following web page:

www.rewildingthegardiner.com

Soundtracks and video 03 can also be accessed in the link bit.ly/wildenchantment.

Fig. 46, soundtrack 13 Photograph 02 Spadina Avenue

Fig. 47, soundtrack 14 Photograph 04 York Street

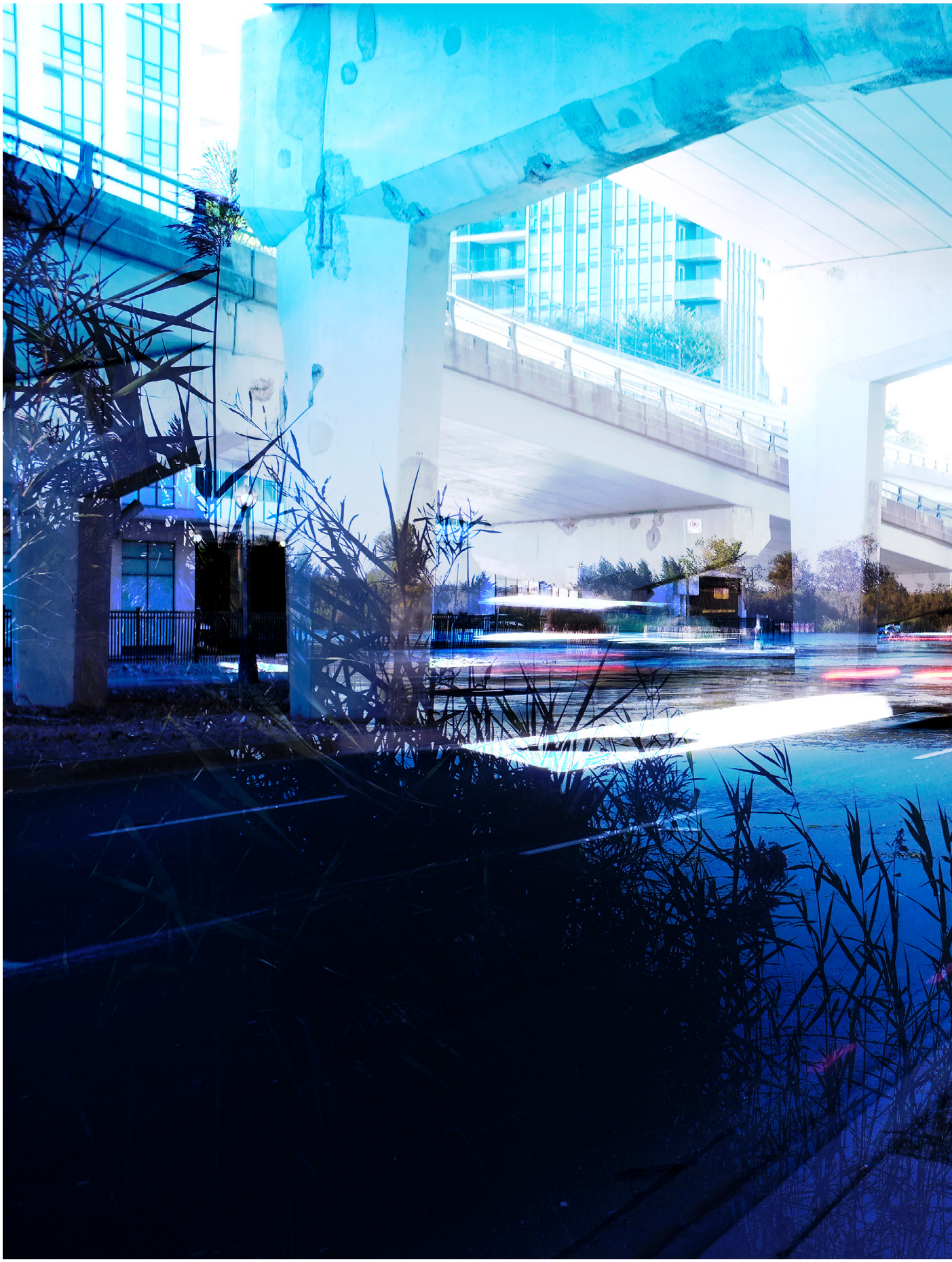


Fig. 48, soundtrack 15 Photograph 05 Yonge Street

BE PATIENT
DRIVE WITH
CARE
50

Fig. 49, soundtrack 16 Photograph 06 Yonge Street

Fig. 50, soundtrack 17 Photograph 07 Lower Jarvis Street

GARDINER
EXPWY
WEST
St. Lawrence
Market

Fig. 51, soundtrack 18 Photograph 10 Cherry Street

THE EXHIBITION

The exhibition took place at The Kilns, Evergreen Brick Works, from the 1st to 31st May 2016. In the run-up to the Contact Festival, "Rewilding the Gardiner Expressway "was featured as "one to watch" on several websites, including Now Toronto (Schechter, 2016), Art Toronto (Anderson, 2016) and World Landscape Architect (Ruiz Arana, 2016b).

The photographs were printed at A1 size and mounted on kapa board. Each photograph had a QR code next to it through which the soundtracks could be accessed. Visitors were invited to bring their headphones to experience the sounds. The video was played on a loop on a screen and speakers housed within one of the tunnels of The Kilns. The exhibition was mounted by Evergreen Brick Works, and for the first three weeks, I followed visitors to the exhibition through photographs posted on Instagram, and by tracking the visitors to my website to experience the soundtracks. I returned to Toronto for a week at the end of May to experience the work and for its dismantling.

"Rewilding the Gardiner Expressway "was later exhibited at Buro Happold's London office in Newman Street, from October 2016 to September 2019.

Fig. 52 Rewilding the Gardiner exhibition at the Kiln, Evergreen Brickworks

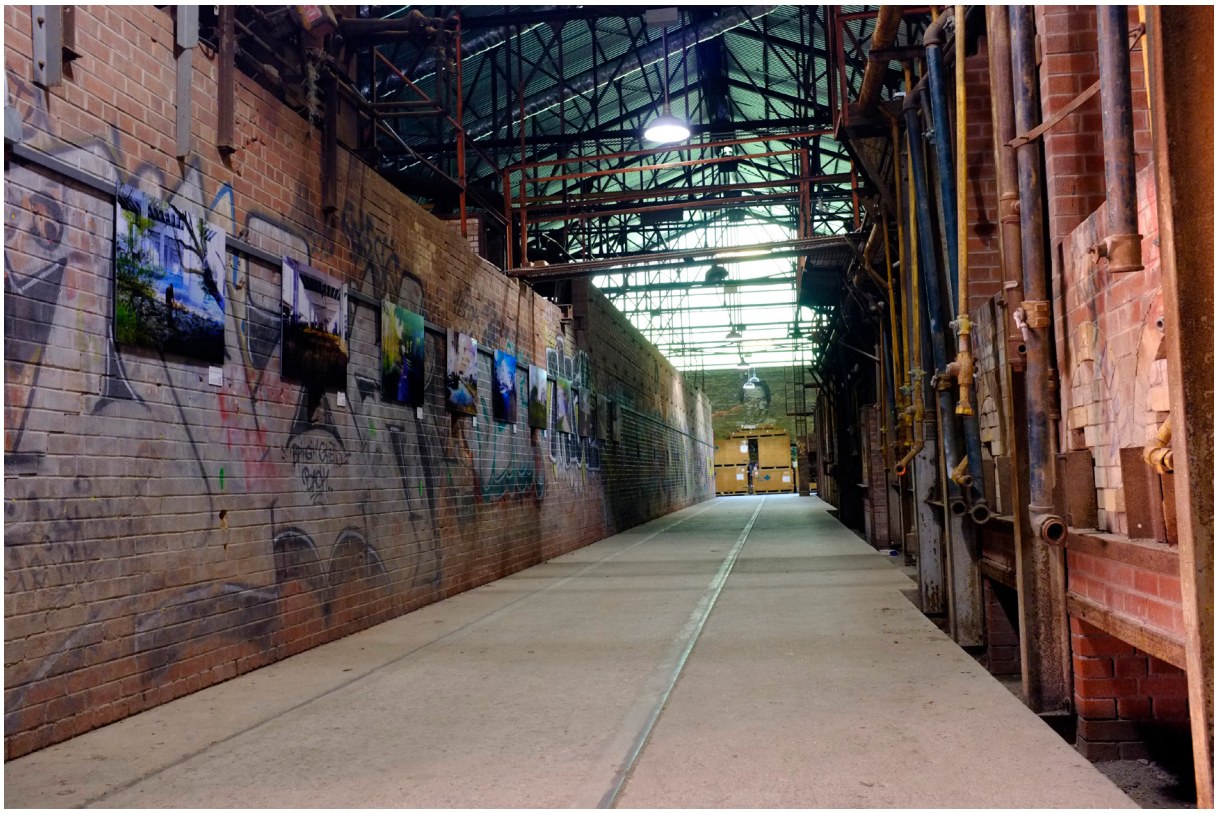


Fig. 53 Photographs corridor, Rewilding the Gardiner exhibition at the Kiln, Evergreen Brickworks

Fig. 54 Visitors enjoying the photographs, Rewilding the Gardiner exhibition at the Kiln, Evergreen Brickworks

Fig. 55 Visitors entering the video corridor, Rewilding the Gardiner exhibition at the Kiln, Evergreen Brickworks

Fig. 56 Monitor and speakers playing video, Rewilding the Gardiner exhibition at the Kiln, Evergreen Brickworks

INTERIM DISCUSSION

Following my experience of the exhibition, I reflected on its successful aspects and those that were not so successful:

Successful aspects include:
1. Integrating wildness into the built environment to open it up to a "moral counter-world" (Kirchhoff and Vicenzotti, 2015) – The exhibition successfully re-created the vibrancy of Leslie Street Spit, showcasing nonhuman agency in a positive light, and inviting its enjoyment by visitors. It was a defence of the Spit's "Let it Go" aesthetic. The Let it Go aesthetic at the Spit has been criticised for the contradiction in ardently halting development and overt human signs, whilst actively maintaining the space (Chan, 2013). However, through my visits to Leslie Street Spit, I came to agree with the Friends of the Spit's stance. There is no contradiction in giving nature a freer hand, whilst still actively managing a space within the urban realm. Perhaps there are places within the public realm where landscape architects can become "wildscape" architects; providing the setting and light guidance that allows nature to do its own thing. At Leslie Street Spit, this alternative management approach provides a welcome contrast to the many recently developed parks and spaces along the lakeshore. This type of maintenance and planning that gives a freer hand to nature shows that there is beauty in letting go, in letting others thrive, and that we do not have to control everything. By embracing nonhuman agency, we bring to our awareness that we are not the only agents in the city, and that we need other agents to survive and share joy and sorrow with. In experiencing this communality whilst abstracting ourselves from the urban fabric, we open ourselves up to many moments of enchantment. To express nonhuman agency and the joy to be had from it, the images that I created were purposively vibrant; a vibrancy that was welcomed by visitors that I spoke to, Evergreen Brick Works staff, and staff at Buro Happold.

2. Through sound, the spaces were transformed from monotonous to eventful and dynamic, in the process animating underused spaces. The use of headphones, together with the images, successfully created immersive, intimate experiences that drew people in, opening up the way to many interpretations/engagements with the landscape

3. This project can be seen as launching an approach of auralisation – it demonstrates how soundtracks can be produced to present imagined landscapes, and how they can be used in conjunction with images.

Less successful aspects:
1. The drawback to asking people to scan a code and bring their own headphones was that many people chose not to listen to the sound pieces. The images posted on Instagram of people beside the photographs far outnumbered the number of visitors that my soundtrack web page received. This could be due to the fact that some people just stumbled upon the exhibition, as Evergreen Brick Works is a popular place, or that listening to soundtracks, even if they are short, takes time.

soundwalking II
the wild in silence

"Not speaking and speaking are both human ways of being in the world." (Goodman, 1972, p.15)

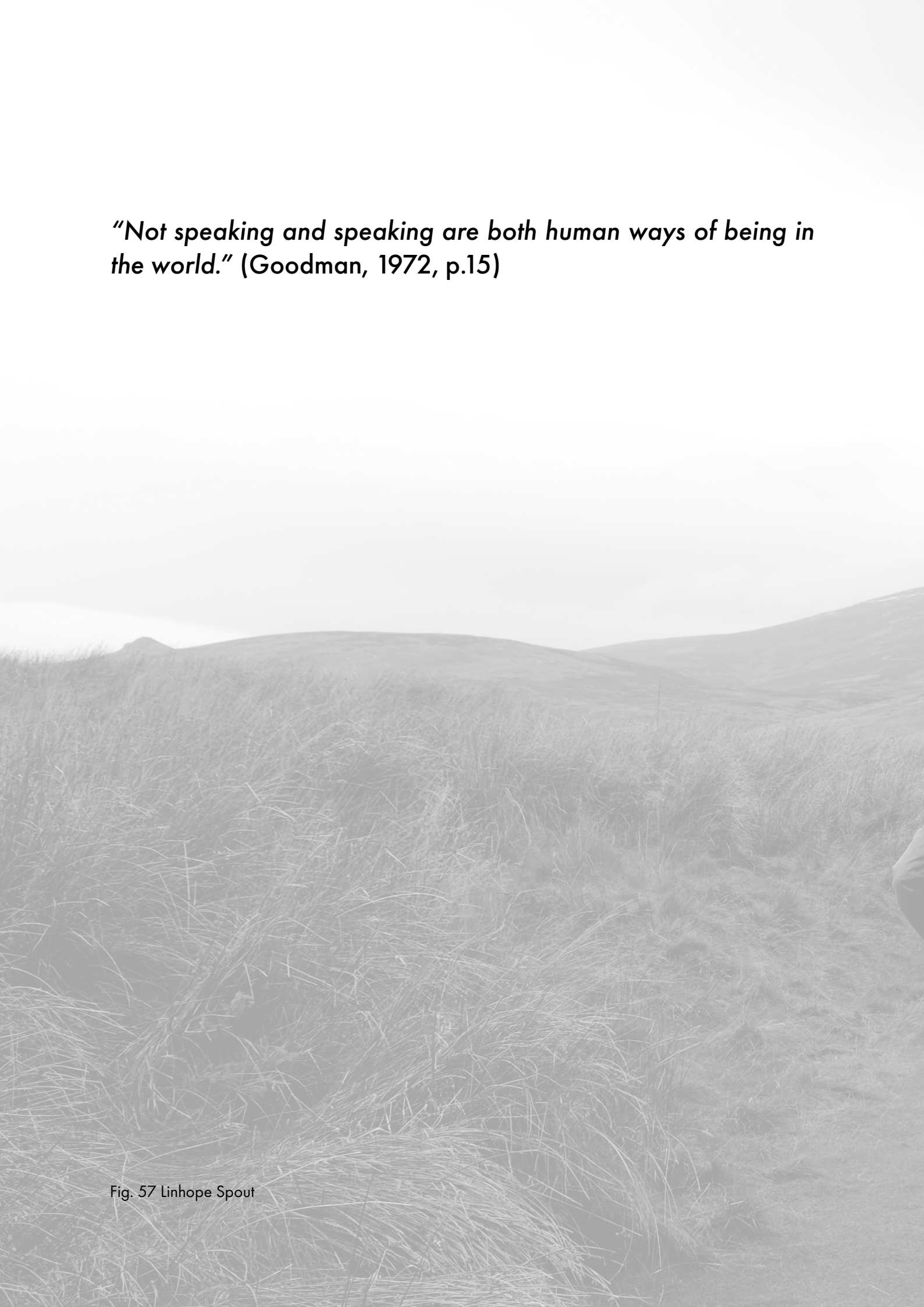


Fig. 57 Linhope Spout

the wild in silence
in context

Saturday 23rd January 2016
Cloudy and rain

Late afternoon. We are at the Great North Museum, sheltering from the elements. It has rained frequently since we came back from Toronto. My three year old asks me whether it is always night in Newcastle. It feels like it. We head to the mouse house of the museum, a children's room with a partition wall that hides a narrow space accessible only through two small openings intended for children. We are not the only ones sheltering from the rain and the room is heaving with children. My kids get into the mouse house part of the room and I sit in a corner. It is loud. Very loud. Kids' laughs, cries and screams echoing against the surfaces of the room. My head fills with noise.

THE WILD IN SILENCE

An abridged version of this chapter has been published as The Wild in Silence in issue 7 (Sound + Environment: Sense of Place) of the Interference Journal (Ruiz Arana, 2019a).

In January 2016 I found myself longing for silence, for an escape somewhere remote and quiet with space to think. This longing was ultimately precipitated by noise, a wish to evade an everyday urban environment that I suddenly perceived as extremely noisy. However, underneath the noise, there was a personal and academic restlessness: a move from Toronto back home to Newcastle, and a mid-point Ph.D. crisis caused by disenchantment.

My learning-to-listen journey had been successful to the point that I now perceived my everyday environment as extremely loud; a loudness that was unwanted. One instance in particular, as described in the entry from my diary that opens this section, was the tipping point that triggered this longing for silence.

In parallel to this noisiness was disenchantment with my surroundings triggered by the move from a wild urban environment to one perceived as un-wild by comparison. There were no towering trees to greet me every morning outside my window, no squirrels to count on our way to school, no freezing temperatures to induce alertness and no wild animals hiding behind the bushes and making me wonder whom I would encounter today and whether I would need to wildlife-proof my house again. I started to doubt whether I could find enchantment in this everyday wildness again, as I no longer seemed to be able to experience any wildness at all. This led to a mid-point Ph.D. crisis that left me wondering "what next?", and whether I had missed something in the pursuit of everyday wildness in place of remote and pristine wilderness.

In trying to solve this restlessness I turned to Northumberland National Park (NNP), an hour's drive from home. NNP is identified as one of the most tranquil areas in the current tranquillity map for England (CPRE, 2007). If there was somewhere close by where I could find the silence and remoteness that I was seeking, I argued, it would surely be there.

The tranquillity map for England (CPRE, 2007), as we will uncover later on in this chapter, was developed according to a qualitative and quantitative methodology that identified and mapped positive and negative factors in the landscape perceived to contribute to tranquillity. Among these factors, both visual and aural, the absence of an apparent human influence in the landscape scored highly (Jackson *et al.*, 2008). This reveals a paradox in the understanding and mapping of tranquillity in that we define and protect tranquillity through and for human experience; however, what we value in tranquil landscapes is the absence of the human.

Intrigued by this paradox in the mapping, and its parallels with the definition and protection of pristine wilderness, I engaged in this project, *The Wild in Silence*, to question our presence in tranquil landscapes, and in the process, re-enchant my life. The project was funded by the Newcastle Institute for Creative Arts Practice and carried out at Northumberland National

Park in the autumn and winter of 2016-17 through the methodology of the soundwalk developed in the previous project. This project concluded with a temporary installation, *Silent Landscapes*, at one tranquil site that signified our presence in that landscape.

The objectives and questions of the project emerged from the methodology of the tranquillity mapping, the findings of *Let it Go*, and the overarching aim of the research, as detailed below.

AB. Journey to enchantment:

Two objectives or questions emerged from the following aspects of the methodology of the mapping: the inclusion of positive sound factors in the assessment of the landscape and the turning of the subjective experience of tranquillity into a set of objectively weighted and mapped factors. These two aspects gave rise to the following objectives and questions:

- *Sound and silence in the pursue of tranquillity*

How do sound and silence trigger tranquillity? To explore this question, this project carried on from the findings on affective engagement through listening with the landscape of *Let it Go*. In this project, the focus shifted from sound to silence, and its capacity, as part of the experience of the landscape, to induce tranquillity.

- *The validity of the tranquillity map*

Through this project, I wanted to find out whether turning the subjective experience into objective factors could still lead to tranquillity. To explore this question, I explored the most tranquil areas as mapped to test the validity and purpose of the mapping.

C. Enchantment and beyond: Phenomenology of enchantment:

In the previous project, I uncovered how through enchantment in wildness we experience a connection with the nonhuman, which was unpacked through Merleau-Ponty's concept of flesh. In this chapter, I develop this further by questioning:

- *What does the experience of enchantment in this remote landscape reveal of wildness?*

- *Is the experience of enchantment in the tranquillity of remote wildness comparable to that of everyday wildness?*

D. Enchantment and beyond: Beyond nature and culture:

As discussed, tranquillity in these remote landscapes is protected from and for human experience; however, what is appreciated in the landscape as conducive to tranquillity is the absence of the human. I therefore questioned:

- Do we have a place in this remote landscape and tranquillity?

The Wild in Silence narrates the making of the research project and its findings in relation to the questions posed above. The project unfolds in two sections. The first section, the *journey to enchantment*, is the coming together of two previous threads, a *pursuit of wildness* and a *learning-to-listen journey*, as wildness and sound had interwoven at the end of the last project through seeking enchantment in wildness through sound. Sound and wildness are also interwoven in the methodology of the mapping of tranquillity, as we will discover. The section starts by contextualising NNP, tranquillity, and mapping. Next, and following the same format as *Let it Go*, a descriptive narrative is developed from field notes taken during two of these sound walks and used to discuss the engagement with the landscape through silence, and the instances of enchantment encountered. In between these two soundwalks, I reflect on why I was driven to the waterfalls of the park, and the wildness encountered through them.

The second section, *enchantment and beyond*, opens up with a contextualisation of the phenomenology of enchantment encountered. The temporary installation that concluded this project is then narrated to defend our presence in tranquil landscapes. The section concludes with an interim discussion on the wildness uncovered through enchantment, and our presence in these remote landscapes and tranquillity.

AB. journey to enchantment

AB.1 NATIONAL PARKS, TRANQUILLITY AND TRANQUILLITY MAPPING

NATIONAL PARKS

National Parks in England are designated for the conservation and enhancement of their "natural beauty, wildlife, and cultural heritage" and for "promoting opportunities for the understanding and enjoyment of the(ir) special qualities by the public" (*Environment Act 1995*, s.61). Out of the 15 National Parks in Britain, Northumberland National Park (NNP) is the least populated and visited, and draws visitors for its tranquillity and internationally recognised dark skies (National Parks, 2017).

The primary land use of NNP is upland hill farming, which coexists with other uses such as the military operations of the Otterburn Training Area, commercial forestry and tourism. These land uses are the result of the ownership and landscape of the park. The majority of the publicly owned land belongs to the Ministry of Defence (23%) and Forestry (19%), with the remaining publicly owned land belonging to the National Trust and National Park Authority (Northumberland National Park Authority, 2016, p.9).

The landscape that we experience today in the park is the result of physical and human influences. Physical influences consist of the underlying geology laid out 400 million years ago and subsequently modified by the effects of glaciation and climate. Human influence started with the hunters and gatherers of the Mesolithic Age and has been continuous since, evolving to include settlements and infrastructure, vegetation clearance, cross-border fights and raids, land use management, and more recently conservation activity (Julie Martin Associates, Alison Farmer Associates and Countryscape, 2007).

Those influences have resulted in a landscape that encompasses a wide variety of character types, with five of Natural England's (159) National Character Areas included within the Park: the Cheviots to the north, an area of "smooth, rounded hills" (Natural England, 2013c, p.3); the Cheviot Fringe to the northeast, a "tranquil, undulating, lowland landscape, framed by the Cheviots" (2013b, p.3); Border Moors and Forests to the centre, an "extensive, sparsely populated upland plateau, with long-distance views and a strong sense of remoteness and tranquillity" (2013e, p.3); the Northumberland Sandstone Hills to the east, a "series of flat-topped ridges which provide panoramic views of the Cheviots and the coast" (2013a, p.3); and finally the Tyne Gap & Hadrian's Wall to the south, a "narrow, distinctive corridor centred on the River Tyne" that provides long-distance views of "pastoral landscapes" to the east and urban landscapes to the west (2013d, p.3).

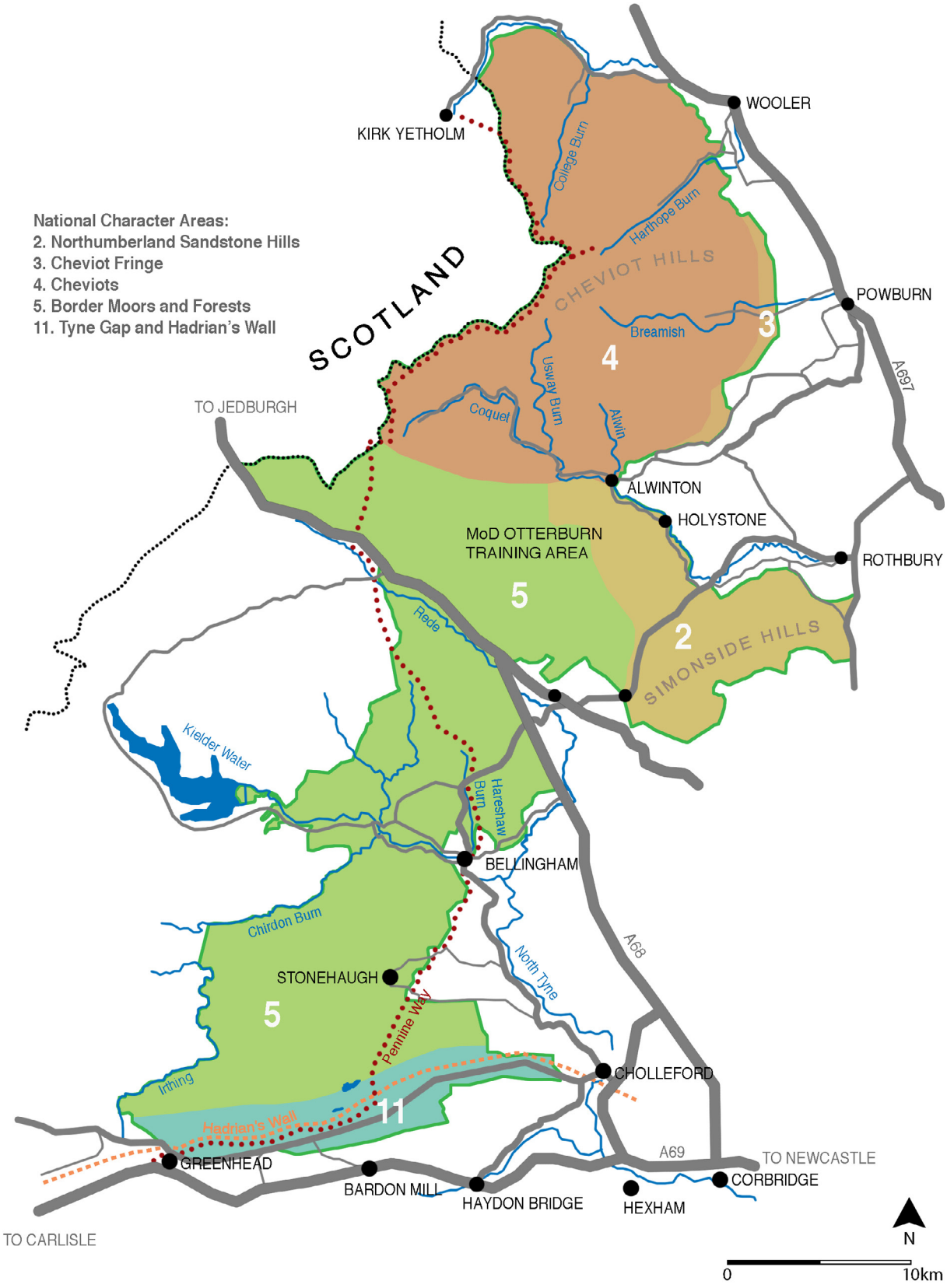


Fig. 58 NNP National Character Areas

TRANQUILLITY AND TRANQUILLITY MAPPING

Tranquillity in a landscape is considered a special quality that supports the designation and protection of that landscape. This is the case for the National Parks, where tranquillity is deemed to contribute to their natural beauty (Natural England, 2011). Tranquillity, as previously discussed in the introduction to NNP, is one of the main attractors for its visitors, and is also a term frequently used to describe its landscape. However, as a highly subjective experience, tranquillity is extremely difficult to define, and a testament to that is the fact that there is currently no agreed guidance on how to identify or manage it (Hewlett, 2018). The tranquillity map for England commissioned by the Campaign to Protect Rural England (CPRE) in 2006 provided a turning point in the research on tranquillity as when mapped, it sought to develop a new methodology that moved away from expert-led judgements and accounted for the subjective in the experience of tranquillity. Up to that point, tranquillity had been mapped quantitatively, based on distance away from negative factors, such as roads or industry (MacFarlane, Haggett and Fuller, 2005). The following section provides an overview of this new methodology for mapping, as it has not been superseded and for the majority of the country this is still the current tranquillity map. Subsequent in-depth studies of tranquillity in the landscape, such as the *Broadly Engaging with Tranquillity* project at the Dorset Area of Outstanding Natural Beauty, have also built on this methodology, uncovering similar results (Hewlett, 2018). As another example, a further study commissioned by NNP Authority to gain a better understanding of tranquillity at a local level (King, Mowbray and Butcher, 2011) concluded that changes to the original tranquillity scoring for the area would be slight, and did not provide an alternative way of mapping tranquillity.

In 2004, the CPRE commissioned a pilot study at NNP and the West Durham Coalfield to develop a new methodology for mapping tranquillity that moved away from expert-led judgements on tranquillity and accounted, as mentioned above, for the subjective in the experience (MacFarlane, Haggett and Fuller, 2005). Up to that point, and with a similar approach to the development of noise maps for urban environments, tranquillity had been mapped quantitatively. The first to develop the concept of tranquillity maps was Simon Rendel of ASH Consulting who in 1995 produced the Tranquil Area maps for England, commissioned by the CPRE and the former Countryside Commission. Tranquil areas for these maps were determined quantitatively based on the distance away from negative factors such as roads or development (Rendel, 1996). In 1995, Bell introduced a new positive and qualitative factor in the mapping of tranquillity for the Forestry Commission: the perceived naturalness of the environment (Bell, 1999), that already hinted at including the subjective in the mapping.

The CPRE pilot study used Participatory Appraisal (PA) consultation to gather people's feelings on tranquillity, thus acknowledging the subjective in tranquillity assessments. Through PA consultation, positive and negative factors that contribute to tranquillity were identified and grouped into three themes: landscape, people and noise. Those factors were then weighted and linked to Geographic Information System (GIS) data to produce the maps of tranquillity.

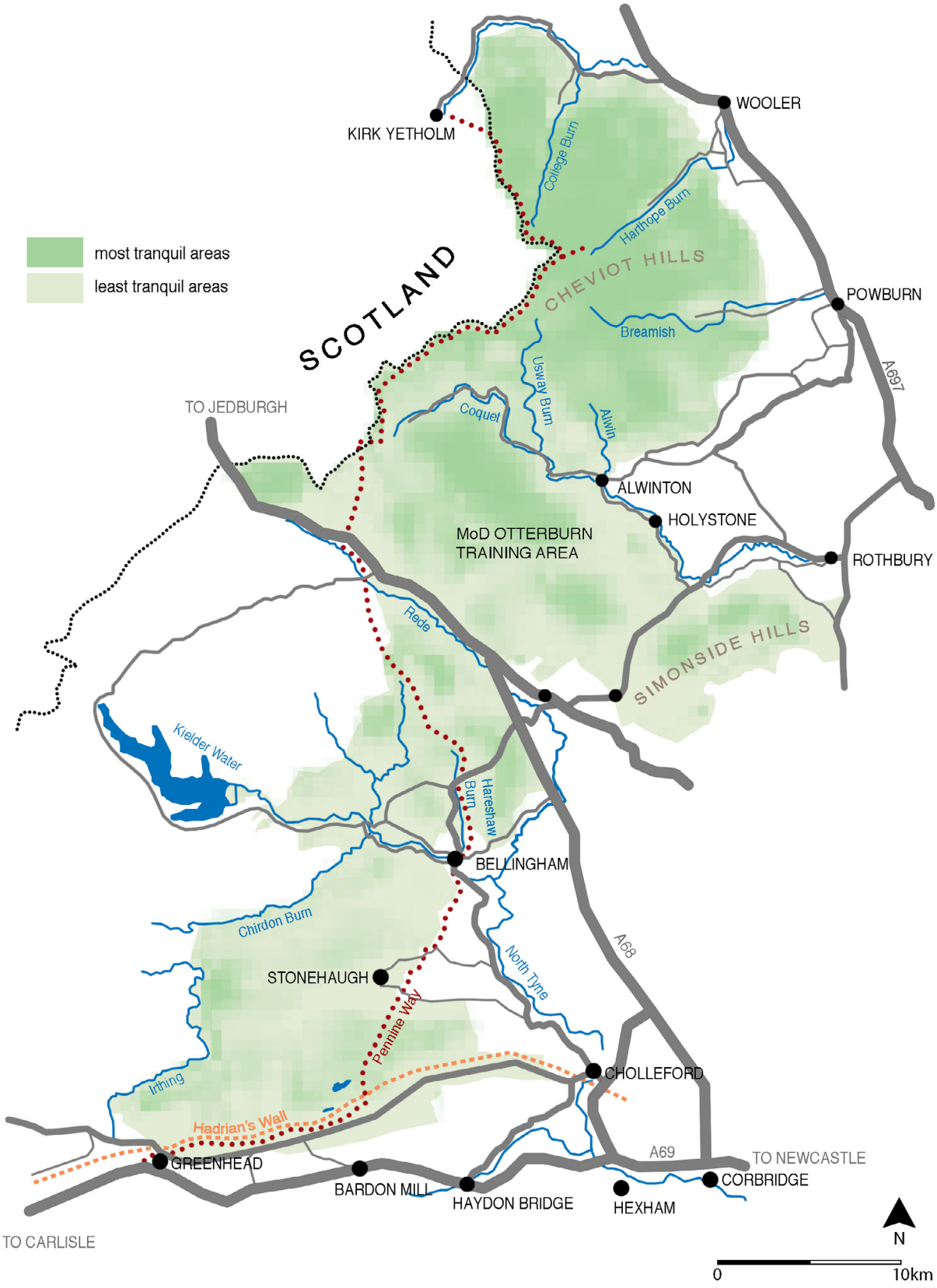


Fig. 59 NNP Tranquillity Map 2004

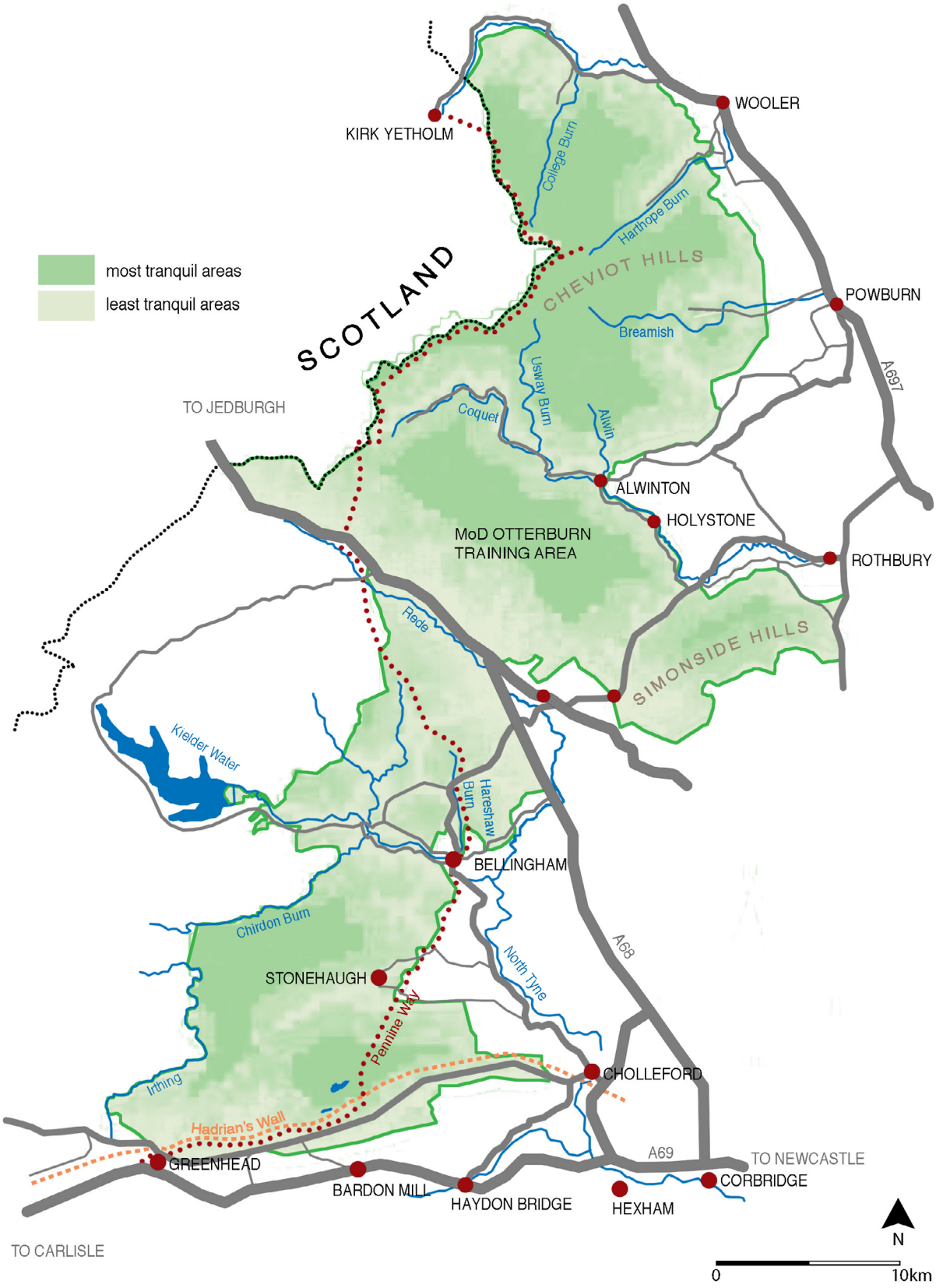


Fig. 60 NNP Tranquillity Map 2011

The subjective experience, therefore, was transformed into objective factors that could be mapped. This pilot study concluded that relatively tranquil areas "are characterised by a low density of people, minimal levels of artificial noise and a landscape that is perceived as relatively natural, with few overt signs of human influence" (MacFarlane, Hagget and Fuller, 2005, p.49). p.49).

The pilot was rolled out to the rest of England in 2006, and the current tranquillity map and accompanying report were produced. Through public consultation that built on the findings of the pilot, visual and aural factors that enhance and detract from tranquillity were established. The factors identified, as per the pilot, were then weighted and linked to GIS data to produce the maps. What characterises these factors, and what is therefore valued about the landscape in judgments on tranquillity, is the apparent absence of the human, and the perception of these landscapes as natural or wild. For example, positive visual factors identified in the study included a natural landscape or wide-open spaces, and positive aural factors included birdsong and silence. Similarly, negative visual factors identified included lots of people or overhead light pollution; and negative aural factors included high altitude aircraft, and trains and railways. To produce the map, the study area, England, was divided into five hundred metre squares, and each square was given a tranquillity score according to the presence of those factors identified. The score of each square was then compared with the rest of the squares to produce the maps. The resulting map is therefore of relative and not absolute tranquillity. The report that accompanied the map argued that even though the experience of tranquillity may seem highly subjective, there are places with specific factors (both visual and aural) where one is more likely to experience it (Jackson *et al.*, 2008). The tranquillity map for NNP was subsequently reviewed in 2011, with the findings corresponding to the 2008 map (King, Mowbray and Butcher, 2011).

From this review of the mapping, tranquillity is understood as a calm and peaceful state of mind induced by engagement with the landscape; a landscape perceived as natural, wild and quiet.

NATURE, WILD AND SILENCE

As described above, tranquil landscapes are those perceived as natural, wild and quiet. Consequently, a search for tranquillity is also a search for those qualities in the landscape. Before embarking on the soundwalks of this project, the following section clarifies how those terms are understood within the maps, and employed in this project.

In *Staging the Wild* I described how notions of nature, the wild, and wilderness are subject to different interpretations. In the tranquillity mapping method, the term nature or natural is employed to denote the absence of human influence or action. In *Staging the Wild* I also discussed how the term wild is employed to denote an untamed organism, and wildness as an abstract noun to describe a "wild appearance" or uncontrolled growth (Henne, 2005, p.253), and as a concrete noun to describe an area presenting uncontrolled growth. It is worth noting that the terms wild and natural (as employed in this project) are not

interchangeable. Although wild implies growth or development outside of human control, it can nevertheless have a human origin, as we will uncover.

The aural factors conducive to tranquillity, such as birdsong or the sound of water, imply that it is the absence of human sounds that induces tranquillity, not the absence of all sound. The absence of human sounds in the landscape is akin to the concept of natural quiet as defined by acoustic ecologists such as Gordon Hempton, who describe it not as an absence but as "the presence of everything", as "a sound, many, many sounds" (Hempton and Grossmann, 2009, p.2), the sounds of nature free from human intrusion.

Finally, in the context of this project, silence is mainly used to denote "quietness or stillness" in the landscape, as opposed to the "absence of all sound" (OED, 2019b) that as an absolute phenomenon has no place in the landscape (Filimowicz, 2007). After all, as long as there are vibrations, there is sound. My longing for silence, therefore, in the landscape of NNP, is a longing for quietness. In this I concur with the aural factors conducive to tranquillity mentioned above; however, at the start of this quest for silence, I differ in limiting those quiet sounds to the non-human. The word silence is also used with two other connotations. Firstly, as a noun to denote choosing to be quiet, not to speak, to listen "to another speak, catching the drift and helping him be clear" (Goodman, 1972, p.15). In the case of this project, this means choosing to be quiet to listen to another speak or make a sound, whether human or nonhuman, animate or inanimate. Secondly, as a verb, silence is employed to denote the act of causing someone or something "to cease speaking" (OED, 2019c).

PLANNING THE SOUNDWALKS

My soundwalks were pre-mapped routes that followed Public Rights of Way, National Park pathways and open access land. The routes aimed to incorporate a variety of habitats identified through a desktop review of existing mapping, landscape character, and National Park documentation. Through my initial walks, I aimed to cover all five landscape character areas of the NNP.

Another influence in planning the soundwalks was Andrew Miller, head of programmes and conservation at the NNP Authority at the time, whom I meet on a couple of occasions throughout the project. The purpose of our meetings was to gain permission for the installation that concluded the project, but also to gain insights and knowledge about NNP. In these meetings, we discussed the places that I had visited, and he would suggest others that I might want to explore next. A crucial factor, and limitation, in the planning of the soundwalks, was time. Being at the time a mother of two young children, I was restricted to day walks to allow me to be at home in the evenings.

My planned soundwalks, as for the *Let it Go* project, were not rigid walks and allowed for improvisation and detours. The detours were in many cases, unavoidable and the result of poor visibility, getting lost, or land management operations such as tree felling at the time of the visit.

WALKS:

1. Sycamore gap & Crag Lough I
   03.07.16 am, wind & light rain
2. Barrowburn, Middle Hill & Barrow Law I
   11.09.16 am, sunny & windy
3. Houseteads Fort, Hadrian's Wall & Pennine Way I
   02.10.16 pm, sunny & windy
4. Pennine Way I 03.10.16
   08.10.16 pm, partially cloudy & windy
5. Darden Lough I
   09.10.16 am, partially cloudy & windy
6. Simonside & Tosson Hill I
   29.10.16 am, partially cloudy, cold & windy
7. Linhope Spout I
   13.11.16 am, light rain & cold
8. College Valley & Hethpool Linn I
   27.11.16 am, morning fog, ice, light rain
9. Selby's Cove I
   16.12.16 am, morning fog, rain & cold
10. Hareshaw Linn I
    10.03.17 am, sunny
11. Tosson Hill I 19.03.17
    19.03.17 am, heavy rain & strong wind
12. Ushway Burn & Davidson Linn I
    31.03.17 am, sunny & very windy

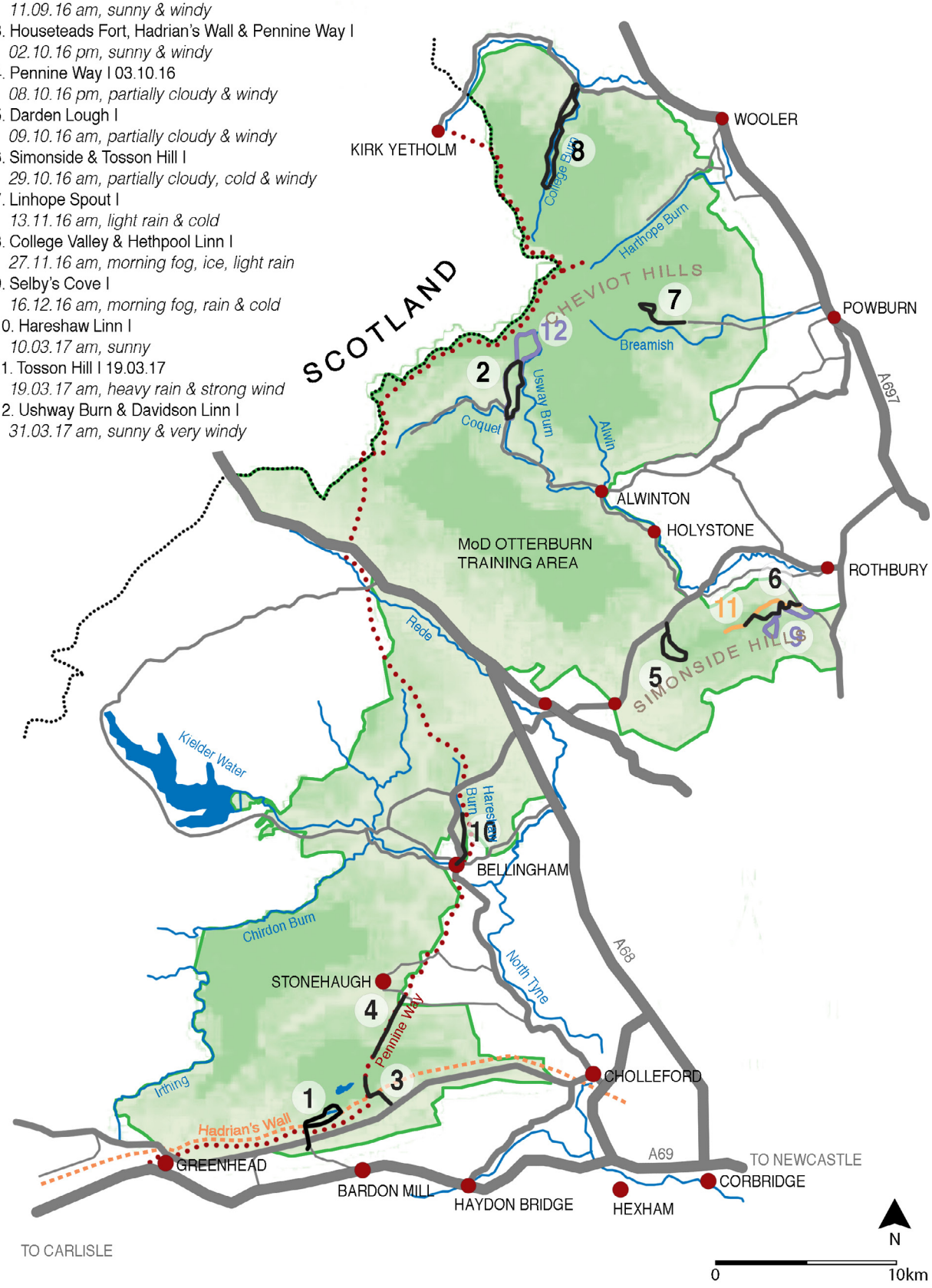


Fig. 61 NNP tranquillity map 2011 with main soundwalks carried out

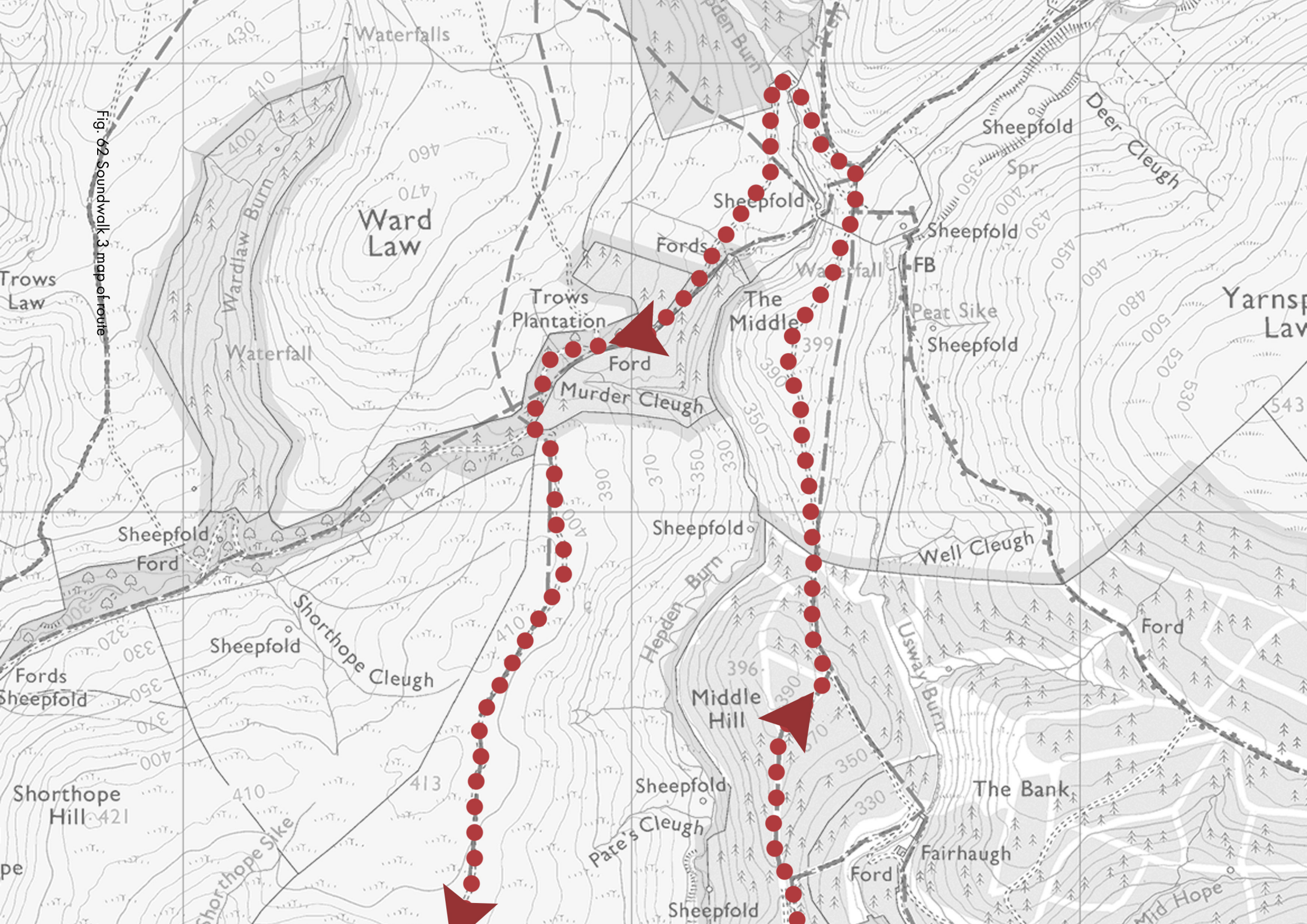
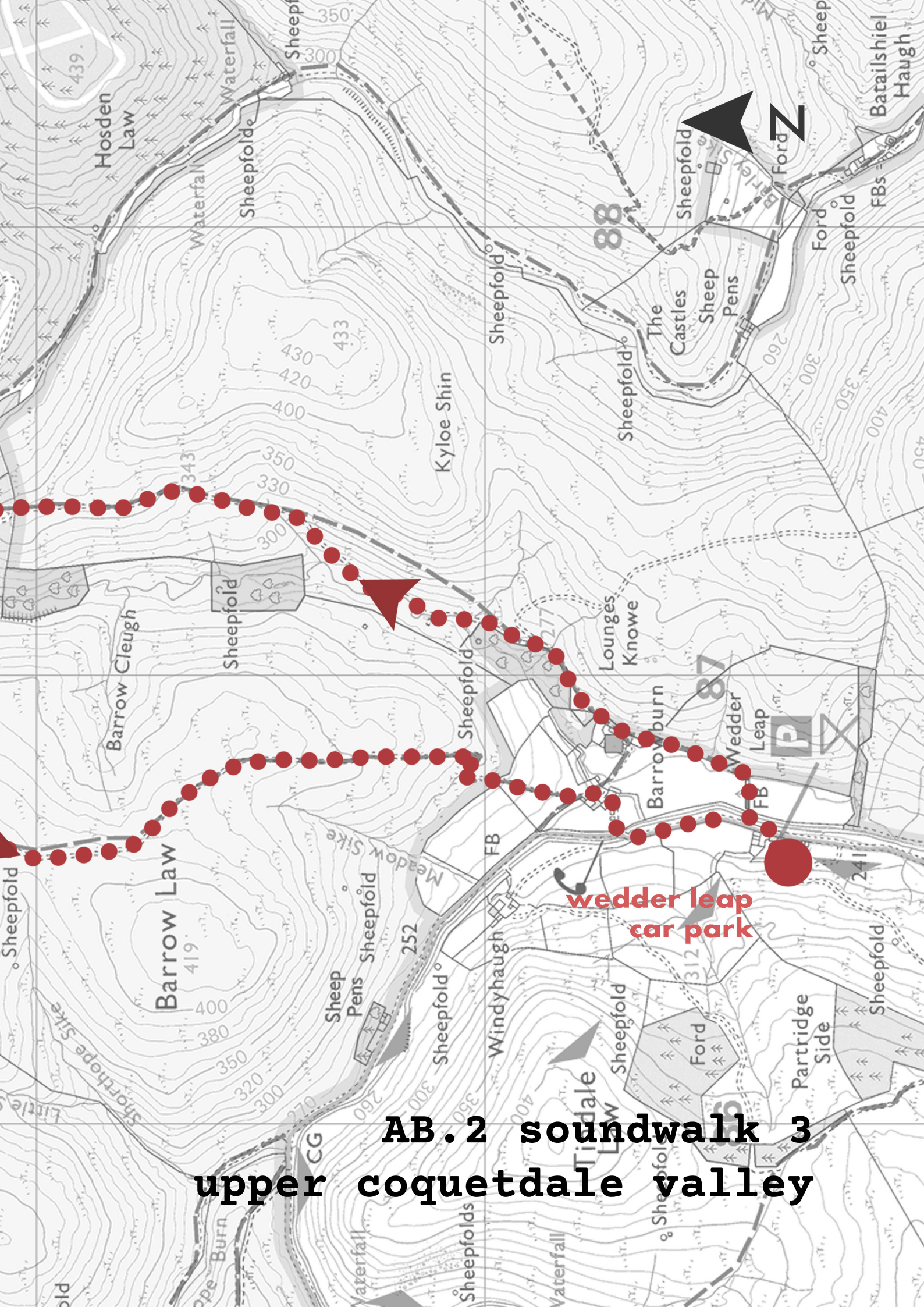


Fig. 62 Soundwalk 3 map of route


wedder leap
car park
AB.2 soundwalk 3
upper coquetdale valley

NARRATIVE

Sunday 11th September 2016
Sunny, 14°C

My first walk in the Cheviot Hills area takes me from Barrowburn in the Upper Coquetdale Valley to Hazely Law and back, a five-mile round walk. A sunny Sunday morning in September. The narrow and winding Coquet Valley opens upon arrival to the small car park at Wedder Leap, providing endless views of rounded hills. Today there is no firing programmed at the Ministry of Defence's Otterburn Ranges south of the Coquet River. The apparent calmness of the valley is interrupted by the roaring of a vehicle, and soon enough a farmer on his all-terrain vehicle appears behind Askew Hall, a former dance venue for the valley adjacent to the car park. The roaring continues for some time, resonating through the valley, long after I lose track of the farmer.

I cross the road and the Coquet River over a narrow timber bridge, the clicking of the gate being a reminder that I am now entering private land. To my left, one of the few tree groups of the valley, a line of towering conifers, soughs in the breeze and provides a visual referent in the landscape. I continue northwards, following a rough stone wall that bounds the base of the steep slopes of Shillhope Law. The sheep greet me on my way: "baa, baa". I arrive at a couple of buildings that belong to Barrowburn Farm: the former stone-built school, now a camping barn; and the Deer Hut, the original schoolhouse, now a holiday cottage. As I exit the farm curtilage, over the bounding stile, I cross paths with a few people: "Good morning, good morning". After crossing the stile, the ascent starts following a gravel track. Silence. No wind, little vegetation, no sheep, no people. Just me, my footsteps, my breathing, the brushing of my clothes, and an endless blue sky. The ascent turns into a descent, and the path opens up, offering vantage views over a small valley.

Fig. 63, soundtrack 19 Stonewall at Shillhope Law

Fig. 64, soundtrack 20 Hepden burn

A sound of water trickling down the hill, hidden, slows me down: Hepden Burn in the distance, slicing the landscape on its way. I get closer and sit on the rocks that edge the burn for a while, listening to the slow running water. Here, by the water, in the embrace of the valley, quietness gives way to many sounds. But soon enough a loud baa startles me, inviting me to carry on with my walk.

I get up and follow the track uphill as it turns and narrows with the climb. My boots crunch the loose gravel, “crunch, crunch, crunch, crunch”, setting the metronome for the hike. As my breathing gets heavier, I pause to look down the valley. The wind is picking up, slowly, rustling the tall grasses and ferns. The rustling starts and stops, starts and stops. I sit down, enclosed by the vegetation, listening to this quiet and intermittent song. With my hands, I feel the moisture of the soil, the brushing of the ferns; with my ears my breathing as it slows down, and tingling in my earlobes.

I continue the climb, unable to see what is waiting for me above the steep slope. Could I hear a motorway? As I climb some more, I realise that the motorway is, in fact, the edge of the closely planted conifer forest, soughing in the wind. I cross another stile and enter this forest at Middle Hill. As I enter, the quietness and darkness engulf me, it is eerie. The dense canopies mute the songs of the birds above. I become acutely aware of all my bodily sounds, and my slightest movements, echoing back at me. The forest is sensing me, but I cannot sense it back. I walk as fast as I can, following the shortest track up Middle Hill and back down to exit the forest at its northern edge.

After the forest, I welcome the vast openness of a barren hill. I start the climb following a narrow grass path on the steep slope to the east. The wind is getting stronger, and at times, I struggle to keep my balance. In the quiet of the hill, I wonder what humans have silenced. Human action might not be overt, but it is latent in the vegetation cover or lack of it, in the use of the land. But human activity has also been silenced, as the population in these valleys has significantly decreased since medieval times, as attested by the structures and buildings that remain in the landscape.

As I continue the climb my view expands, and with it, my ears. Tired of the rise I make my way back following the military road that leads to Barrow Law, an extremely exposed hill where the strong wind whooshing in my ears makes for an uncomfortable, and what seems like an excessively long, descent back to Barrowburn Farm and the car park.

Fig. 65, soundtrack 21 Middle Hill

INTERIM DISCUSSION

This walk gave rise to several thoughts regarding the engagement with sound in search of the natural, quiet and wild, in the pursuit of tranquillity.

THE NATURAL AND THE WILD

With regards to the natural, the walk took me through a complex landscape where many signs (both visual and aural) indicated how human action and nature have been entangled for centuries. This was apparent in the quiet and barren hills, for example, that are the result of centuries of grazing; in the abandoned buildings or those that have changed use and are a testament to a greater past population; or in the uses of the land that coexist today, such as commercial forestry, farming and military training. The natural and the human were therefore extremely difficult to separate. However, despite this entanglement, the physical isolation of this landscape facilitated an abstraction from the sensory overload of the city. This abstraction, in turn, triggered an attunement to the environment; an environment that although entangled, provided a contrast to my everyday surroundings, and a sense of wildness. As well as physical, the isolation here was also technological, with no phone reception of any kind, forcing me to be in the moment, without distraction, disturbing my sense of time.

THE QUIET

With regards to the quiet, in this landscape that is both natural and human, it was difficult to think of the quiet as only natural. For example, reflecting on Hempton's definition of natural quiet introduced previously, he considers "all form of domestic animals' noise when recording Earth's living music" (2009, p.106). Hempton would find the sounds of sheep and, cows also present in this landscape, a form of manmade noise. However, natural sound did induce a sense of tranquillity during this walk, in particular, the sound of running water. This corresponds with the findings of the current tranquillity map, where natural sounds feature heavily in the positive aural factors that people associate with tranquillity. A possible explanation as to why we enjoy certain natural sounds can be found in the biophilia hypothesis developed by Wilson in the 80s that proposes we have an innate affinity with nature and other living organisms since our hunter-gatherer times (Wilson, 1984). The sounds of running water, for example, would have indicated a biodiverse and fertile environment; while birdsong would have indicated a space free of predators (Benfield, cited in Nayar, 2017).

In the quietest instances of this walk I heard a surprising amount of sounds, inducing tranquillity, and inviting me to stay. For example, sitting by the burn listening to the running water, or later on enclosed by the groundcover of the valley, what I initially perceived as one sound, the sound of water or moving vegetation, over time, became multiple distinguishable sounds. These were not only exterior but interior sounds as well, such as that of my breathing or footsteps. I realised that I was listening, but that I was also making sound for others to hear.

This concurs with what Voegelin describes as the "beginning of listening" precipitated by silence where the interior and exterior soundscapes mingle, as one is "listening and sound making" (2010, p.83). And it is interesting that even in this quietness, in this "beginning of listening", the human and the non-human become entangled (ibid.).

The quiet however was not always synonymous with tranquillity, as highlighted by the experience at Middle Hill forest. Here, in the enclosure of the conifer plantation, my presence was amplified. The dense conifers were muting all sounds except for my own. I was no longer listening and making sound, just making sound, making this silence less tranquil and eerier.

SOUND AND SILENCE IN THE PURSUE OF TRANQUILLITY

One of the questions or objectives of the project was to find out how the soundscape of a natural environment could create a sense of tranquillity, which I will now discuss through the experience of this walk. In the landscape of the walk, as described, the natural and human were deeply entangled; however, I felt a physical and technological abstraction from my everyday life. In this abstraction, I experienced quiet instances that enabled a dialogue of inside sounds (my own) and outside sounds (the environment). Those sounds that I engaged with were mainly non-human and perceived as wild, such as the sound of running water, and that engagement precipitated a connection with the environment that induced tranquillity within me and lured me to stay.

Therefore, there were two stages to this engagement through sound:

1. The experience of a quiet landscape where both inside and outside sounds were audible, and I was simultaneously listening to external sounds and those of my own making.
2. Entanglement with the environment precipitated by that internal and external dialogue of sounds. In the dialogue of sounds and silences, of listening and sound making, I became aware of my presence in the landscape for others to experience. Hence, by experiencing the landscape, I was also an integral part of it.

Sound and silence, sounding and listening to the other speak/sound, can, therefore, induce tranquillity as they can trigger engagement with the environment. That engagement, as discussed above, unfolds gradually through time.

AB. 3 WATERFALLS

Over the next few months, I walked through many mapped tranquil areas of the Park. I was particularly drawn to the hills and the valleys in the Cheviot Hills and the Simonside Hills and became fascinated with the waterfalls in the Park: Linhope Spout, Hareshaw Linn, and Davidson Linn. Standing in front of the waterfalls, I let the roar of the water get hold of me and wash away all my thoughts, all my worries.

Unbeknownst to me at the time, the romantic poet Samuel Taylor Coleridge also developed a fascination for waterfalls during one of the darkest years of his life: 1802-3. In that particular year, depressed and lovesick, Coleridge embarked on many erratic walks through the Lake District (Macfarlane, 2009). Each walk would last for days, and through these walks, through the energy of the waterfalls and walking in the wild, his suffering began to lift, and he was restored. Reviewing Coleridge's letters, poems and journey entries of the time, Macfarlane suggests, "the self-willed forms of wild nature can call out fresh correspondences of spirit in a person" (2009, p.209). Through the wild waterfalls then, Coleridge's wild nature was revealed and energised.

Similarly, on my part, the experience of the waterfalls was invigorating, with the force of the water somehow seeping through my body and getting hold of it. And I recall these instances of enchantment, paradoxically as instances of silence. This experience concurs with Voegelin's proposition that thunderous sounds are not "the dialectical opposite of quiet sounds and silence. Rather they achieve a similar sense of quiet by deafening you to anything but themselves" (2010, p.49 n8). Voegelin supports her argument with Merleau-Ponty's philosophy of perception where the body is both sensible and sentient, with reversibility between those two halves, that in touch and sight is a circular movement, as described in the previous project. In noise and listening, however, one is simultaneously sensible and sentient (Voegelin, 2010). This is the case in the waterfalls where the energy and vibrations of the water run through my own body in a similar way to how Coleridge must have experienced them. The difference between noise and quiet then is that in noise I cannot hear myself, as in the case of the waterfalls that with their roar muting my own sounds; whereas in silence, as previously discussed, I "hear myself listen" (Voegelin, 2010, p.79).

Stepping away from the waterfalls, my ears opened; there was acuteness to listening, to sensing, precipitated by the contrast with the noise, and the wildness that was now flowing through me. The intensity of this experience lured me to come back to the waterfalls again and again. The purpose of the next soundwalk is to describe in-depth and reflect on the wildness found through the enchantment of the waterfalls and other instances of it.

Fig. 66, soundtrack 22 Hareshaw Linn

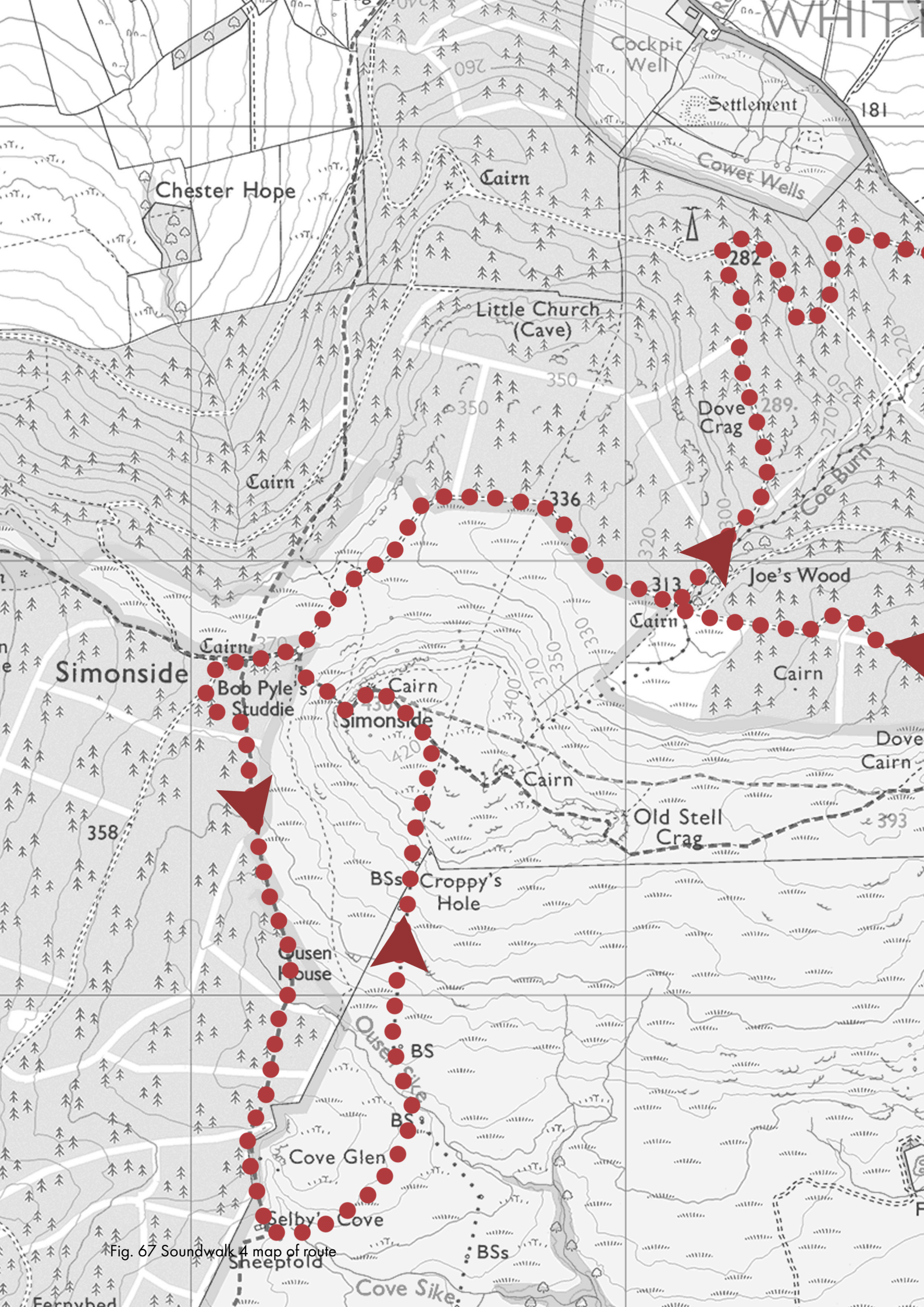
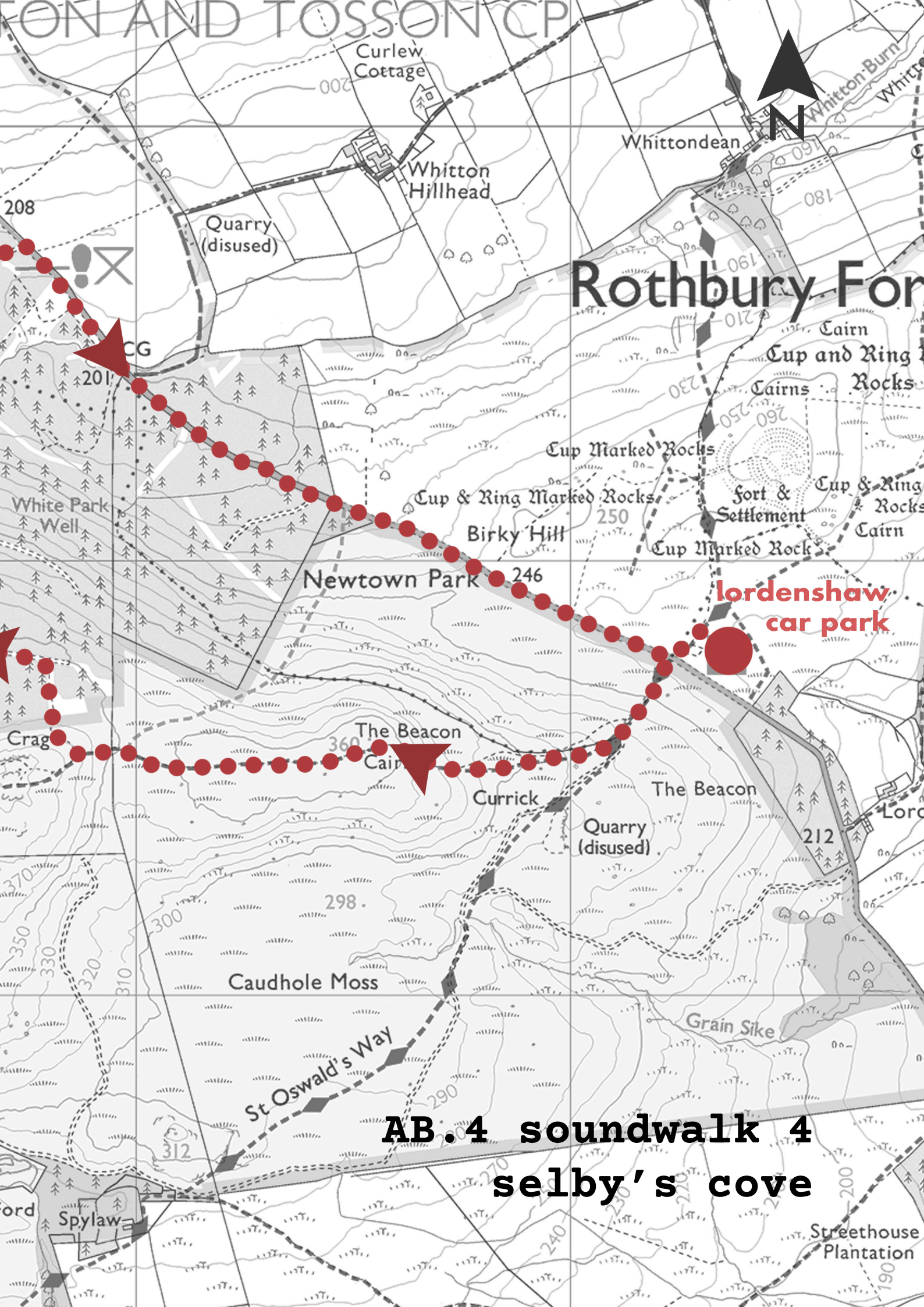


Fig. 67 Soundwalk 4 map of route



AB.4 soundwalk 4
selby's cove

NARRATIVE

Friday 16th December 2016
Fog, drizzle, 3°C

The second walk takes me from Lordenshaw car park to Selby's Cove in the Simonside Hills and back. A cold Friday, mid-December. The fog hasn't cleared when we arrive at the car park. There are two of us today. We join St Oswald's Way and start the ascent towards the Simonside Hills. The path is partially paved making the rise easier. The fog is clouding my eyes and cleansing my ears; I can barely see, but I can hear near and far the faintest calls of the birds flying by, and the walls of conifers sounding in the wind in the distance. There are tales of dwarfs in this landscape, the Duergar, that would lure people to their deaths in the hills, and with clouded eyes, I understand how this could happen.

As we climb, the wind picks up, joining all the little sounds together, and keeping us close to the ground. The shushing of the wind is interrupted intermittently by aircraft sounds that perforate the fog, extremely noticeable and irritating. Once we reach the ancient cairn at the Beacon, we head west on a levelled path, tired of climbing in the strong wind. Interestingly, as we walk, I no longer notice the aircraft sounds, perhaps there aren't any, or maybe I have gotten used to them.

Fig. 68, soundtrack 23 Beacon cairn

Fig. 69, soundtrack 24 Simonside forest

We enter Joe's Wood, covered in young conifers and tree trunks, and follow the path that hugs the bottom of Simonside. The distinctive ridge of the hills is barely visible, a dense mass cut into the fog.

We arrive at another conifer forest that seems to have been cleared recently. All is quiet here, ghostly, with tree stumps and tree trunks scattered all around in shades of brown and orange. And we get lost. "Let's go back the way we came," he says, "before it starts getting dark." Lost in the cold, harsh forest, I do not feel a commonality with nature, rather quite the opposite, rejected by it and detached from it. But it is in the intense focus of the task ahead, in the extreme sensing of the landscape to find our way out that every other thought in my mind is suppressed.

We cross the forest towards the hills. Walking is extremely hard amongst the trunks and stumps, and my legs are soaked, cold and tired. Eventually, we find one of the low posts that mark the narrow path that should lead us to Selby's Cove. The posts are infrequent, disappearing with the trail amongst the overgrown vegetation, making walking arduous. The experience emphasises the remoteness of this landscape, and for the first time, I wonder whether I might be looking for tranquillity in the wrong place, too far from home.

“We don’t have time, let’s go back,” he says. The sound of water coming from a small stream locates me back on the map. We carry on and arrive at Selby’s Cove. As if by magic, the fog starts to lift, revealing an endless dry valley tinted in red. The wind has teamed up with the mist and is rising, dancing with the ground cover on the way. I sit down, our struggle to get here soon forgotten. As the ferns enclose my legs, I can no longer distinguish between the wetness of the ground and that of my own body, between the rhythm of my breathing and the whispers of those ferns. Enfolded by inside and outside soothing sounds and silences, a sense of peacefulness overcomes me. In the process, a part of me is silenced, my individual, cultural self, and I find a common essence with the wildness that I am sensing.

Fig. 70, soundtrack 25 Selby's cove

INTERIM DISCUSSION

WILD BEING OR PRE-REFLECTIVE LIFE

Following this walk, I reflected on the enchantment found at Selby's Cove alongside other remembered moments. In these instances, a connection with the environment, precipitated by a dialogue with it, silenced a side of me, making these experiences challenging to describe. This inner silence was the conclusion of a deep entanglement with the landscape. In this last walk, for example, getting lost heightened my senses in trying to find a way through the forest. This heightened sensoriality culminated in a release of my struggle once we reached Selby's Cove and a sense of anonymity that corresponds with what Merleau-Ponty describes as the anonymous, pre-reflective life, which he describes as:

> "*At the very moment when I live in the world and am directed towards my projects, my occupations, my friends, or my memories, I can close my eyes, lie down, listen to my blood pulsing in my ears, lose myself in some pleasure or pain, and lock myself up in this anonymous life that underpins my personal life.*" (1945/2012, p.167)

From the enchantment of Selby's Cove, I reflected on the enchantment of the waterfalls. Both in the roar of the waterfalls, and the quietness of the valley, the deep entanglement with the environment leads to a sense of anonymity as described above, removal from the everyday concerns of life and a closer connection to nature and the senses. This anonymity revealed through enchantment is discussed in further detail in the section *enchantment and beyond*.

THE VALIDITY OF THE TRANQUILLITY MAPPING

Testing the validity and purpose of the tranquillity mapping was one of the objectives of the project, as in the methodology of mapping the subjective experience of the landscape is turned into a set of objective factors.

Following this last walk and reflecting on all previous walks, I concluded that the experience of these mapped tranquil places varied in time and did not always lead to tranquillity, highlighting the complexity of its mapping. These varied experiences were due to external factors including weather conditions, seasonal changes and human activity that affected the soundscape, as well as my individual responses to it. This concurs with the findings of *Let it Go* that highlighted how the response to the soundscape varies according to context and the predisposition of the individual. With regard to external factors, for example, on my return to Barrow Burn on an extremely windy day, the subtle sounds of the ground cover were no longer there, and previous instances of tranquillity were lost. Further along at Middle Hill, the core of the forest had been felled, and the experience was no longer eerie. With regard to individual responses to the landscape, the maps took me to places with little sensorial engagement for me and therefore not experienced as tranquil, such as extremely bare hills

and vast conifer forests that I perceived as artificial environments. These varied experiences demonstrate that the experience of the landscape is holistic: multi-sensorial, dynamic and temporal, and therefore difficult to fragment into individual map-able factors.

The holistic experience of the landscape was reinforced by the fact that I was drawn to certain places and not others. No two places with the same landscape components were experienced identically. For example, I was attracted to the waterfalls, but not to all of them equally, with the journey there and back playing an essential role in the experience. Therefore, although we might be able to map those components that induce tranquillity, as the methodology for mapping claims (Jackson et al., 2008), the holistic, multi-sensorial lived experience is lost in the mapping.

An alternative form of mapping that allows for individual and cultural understandings of these tranquil places might be more appropriate to retain the holistic, lived and multi-sensorial experience of tranquillity and supplement the objectively produced maps. This sensorial mapping could build on initiatives developed for urban environments, such as Tranquil Pavement London (Tranquil City, 2019) or Hush City Map (Radicchi, 2019). Tranquil Pavement London mapped tranquil areas in London through a combination of GIS mapping of objective and subjective data. Objective data included noise and air pollution measurements, and subjective data was crowdsourced by inviting people to add their lived experience of tranquil spots directly onto a map on a website with an image and description, or through social media. Hush City Map is a worldwide initiative and app where users can map quiet spots by adding a photo, a thirty-second sound recording, and answering a questionnaire mainly centred on the experienced soundscape. The app provides a decibel measurement from the sound recording that is added to the entry.

These two initiatives are good examples of how individual, holistic responses to the soundscape can be retained in the mapping and could be developed even further into a "story map": a map that tells "stories about places" and "admits fear, love, memory, and amazement into its projections" (Macfarlane, 2009, p.140). Such a map would collect stories of lived experiences of tranquillity for readers to relive and relate to, to find their tranquillity. The benefit of the story map over the two initiatives mentioned above would be the ability to narrate not only individual spots but also journeys to places that add to the experience of tranquillity, and not only the soundscape but also the multi-sensorial experience of that journey.

A shortcoming of the current mapping, therefore, stems from the loss of the layers of the lived experience of tranquillity that as previously discussed is multi-sensorial, dynamic and temporal. A further shortcoming stems from promoting the absence of the human in the landscape. The latter could prevent us from uncovering the inner wildness described in the last soundwalk. We experience this wildness by being a part of those tranquil landscapes, which ultimately defends our place in them. Holding these remote and isolated non-human landscapes as ideals of tranquillity might also prevent us from experiencing that tranquillity closer to home. Our place in these tranquil places is defended further through the installation that concludes this project.

Despite the shortcomings of the mapping discussed above, the tranquillity maps play an important role in inviting us to think through our ears, as positive aural factors are at the heart of the mapping. In doing so, tranquillity maps place sound at the heart of landscape designation, and therefore protection and management. As described in the introduction, tranquillity is a term frequently used in landscape designations, such as National Parks. In the mapping of that tranquillity, aural factors are given the same importance as visual factors, raising awareness of the importance of sound in the perception of natural landscapes. Consequently, these maps invite those agencies and professionals involved in the protection, management, design, and maintenance of these landscapes to explore the aural of the landscape through attentive listening methods, thus allowing them to understand the consequences or impact on tranquillity if changes are to be made to the soundscape. This, in turn, can encourage those professionals to listen attentively to other landscapes for their design and management. For the public, sound and silence can trigger a deep engagement with the landscape opening the way to moments of enchantment.

C. enchantment and beyond:
phenomenology of enchantment

C.1 ENCHANTMENT, WILD BEING AND THE SUBLIME

This project found that sound can trigger a deep engagement with the landscape, and moments of enchantment. In the interim discussion of the first soundwalk, I described how that engagement unfolded in two consecutive stages. The last walk revealed a third and final stage that is now added to the previous two. Therefore, the engagement with the landscape through sound unfolds gradually in three consecutive stages:

- Firstly, in a quiet environment, faint external and internal sounds are audible. A quiet environment that is also isolated, such as the NNP, contributes to a suspension of time an abstraction from everyday life.

- Secondly, a connection with the wildness of that environment is established through a dialogue of interior and exterior sounds and silences (Voegelin, 2010), through intense sensing and being sensed.

- Thirdly, the connection with that wildness around us leads to the permeability of my own body, and a moment of enchantment. Through that permeability, I experience a commonality with the environment, a removal from everyday concerns of life, and anonymity and wildness within me.

This process for arriving at enchantment shares aspects with Merleau-Ponty's anonymous life (1945/2012) or wild being (1968), as, respectively, introduced previously and elaborated below; as well as Burke's experience of the sublime (1757/2014), discussed below.

MERLEAU-PONTY'S WILD BEING

Merleau-Ponty proposes that the wild being is "ontologically prior to the personal self" (Trigg, 2012, p.146). This results in a perceptual faith that is common to us all, as introduced in the previous project. The brute world is anonymous, without individual identities, untouched "by science and by reflection"; a world we are invited to "interrogate...without presupposing anything" (Merleau-Ponty, Eng. trans. 1968, p.156). This is a difficult task as one is tempted "to construct perception out of the perceived, to construct our contact with the world out of what it has taught us about the world" (ibid.). Merleau-Ponty proposes that starting from present perception we should "try to understand how the universe of knowledge could be constructed" (ibid., p.157). Therefore, we should build our knowledge of the world from the wild being. In agreement with this proposition, I propose that from the anonymity and common essence experienced through enchantment we are better placed to build a relationship with the others. Attachment to nature can stem from that common essence experienced, from being flesh of the world. Once we establish an affective attachment, we can then distance ourselves, and through reason and judgement, make decisions based on our understanding of our place in this world. This is elaborated further in the concluding discussion.

BURKE'S SUBLIME

In "A Philosophical Enquiry into the Origin of our Ideas of the Sublime and Beautiful", originally published in 1757 and revised in 1759, Burke introduces his theory of the sublime (1757/2014). There are two components to Burke's theory: an "aesthetic" component, and a "moral" component (Binney, 2013, p.5). The aesthetic component comes first. When confronted with an object that escapes the limits of what the subject is capable of experiencing, the subject is suspended in fear. The subject becomes aware of the limitations of his "sense experience", which triggers sympathy (ibid.). Through sympathy, the subject relates to the object. Sympathy, in turn, motivates "moral action", the moral component of the theory (ibid.). The subject, through reason, decides the best course of action to take.

It is worth noting that for Burke, sense experience is common to all people, as "the conformation of their organs are nearly, or altogether the same in all men, so the manner of perceiving external objects is in all men the same " (1757/2014, p.7). Consecutively, the pleasures and pains triggered by sense experience are also similar to us all (ibid.).

Burke, like Merleau-Ponty, proposes that sense experience comes prior to moral action. Sense experience is anonymous, common or comparable to all, in line with Merleau-Ponty's perceptual faith. In the experience of the sublime, we apprehend something that escapes us, obscure, that we cannot fully apprehend, and that triggers a sense of fear and an acknowledgement of our own limitations. This is similar to my process of arrival to this inner wildness, when I sense for example, that I am susceptible to the elements like any other thing in the landscape. In that sensing, I am one of many, and my wild being is outside my control. In this shared susceptibility I feel a strong connection to the others and nonhuman, in line with Burke's sympathy. Through this strong connection, I can then reflect and guide my actions accordingly. This argument is developed further in the concluding discussion.

D. enchantment and beyond: *beyond nature and culture*

INTERVENTION 5
SILENT LANDSCAPES

Thank you to Andrew Miller and Mark Bolton (NNP Authority) and Scott and Catherine Iley for their help and support in the realisation of the installation.

BRIEF AND CONCEPT

This project culminated with the installation of a temporary structure at one of the most tranquil areas of NNP. The aim of the structure, titled "Silent Landscapes", was to signify our presence in the landscape and tranquillity and defend our place in it, having already done so through the reflection of the last walk. It also sought to act as a visual and acoustic frame, inviting passers-by to stop, listen, look, and in doing so, be in the place and moment.

CONTEXT: SOUND AMPLIFIERS

To develop a structure that would act as a visual and acoustic frame, I firstly reviewed passive sound amplifiers, both historical and contemporary. The purpose of the review was to research geometries and materials that successfully amplify sound without the use of technology.

The historical review included medical aids such as the stethoscope, Pinard horns, and ear trumpets; and military aids such as acoustic mirrors and giant ear trumpets. The historical review also included entertainment objects such as phonographs or gramophones and megaphones. Except for the acoustic mirrors, what all other instruments share in common is the conical geometry that collects sound waves and directs them either towards the narrow end (ear trumpets) or the wider end (megaphones), depending on how the instrument is used. With regard to materials, wood, metal, papier-mâché and waxed cardboard had been used successfully for the various instruments. I decided to pursue this conical geometry, as it would also serve as a visual frame.

The development of the structure happened alongside the walks, prior to choosing a site. What became apparent through those walks was the difficulty of transporting and installing a big structure in these remote sites. Instead of one big structure, I decided early on to make the structure out of smaller sound amplifiers that would allow me to install the structure by myself, and also mould the structure to its location and landform.

When it came to choosing the material for the smaller structures, I looked at the materials of the precedents mentioned above, and considered the value of these against their cost and potential for reuse or recycle. I started to make cones out of different materials such as clay or papier-mâché. One of the first large cones that I did was made out of papier-mache, one of the materials used to make phonograph cones. I used a traffic cone as the mould and when finished, I discovered that the traffic cone was much better at amplifying sound

Fig. 71 Physical model for Silent Landscapes

than the papier-mâché one. This made me realize that I could use an everyday object with sound-amplifying properties, which would be a cost-effective solution with the potential for reusing the objects at the end.

Fig. 72 Making a papier-mâché cone with a traffic cone base

I turned to everyday objects used in the construction industry and decided to use waxed cardboard cones used for bolting down in situ concrete foundations. Waxed cardboard was also one of the materials used for making phonograph cones. I bought a box of small bolting cones and developed a typical model of the structure that could be adapted to respond to the site.

In the development of the structure, I started taking cones on walks to test their acoustic properties, a cone at a time. The cones sang in the wind. The wind echoed in the cones. The cones did amplify sound, although the amplification was hard to notice with the tiny sounds. However, what the cones did was invite me to listen to these tiny sounds. The cones made me focus on listening, and in turn, I heard more. I realized that this was also the main purpose of the structure: to invite us to listen attentively, and in doing so engage in the place, at the moment.

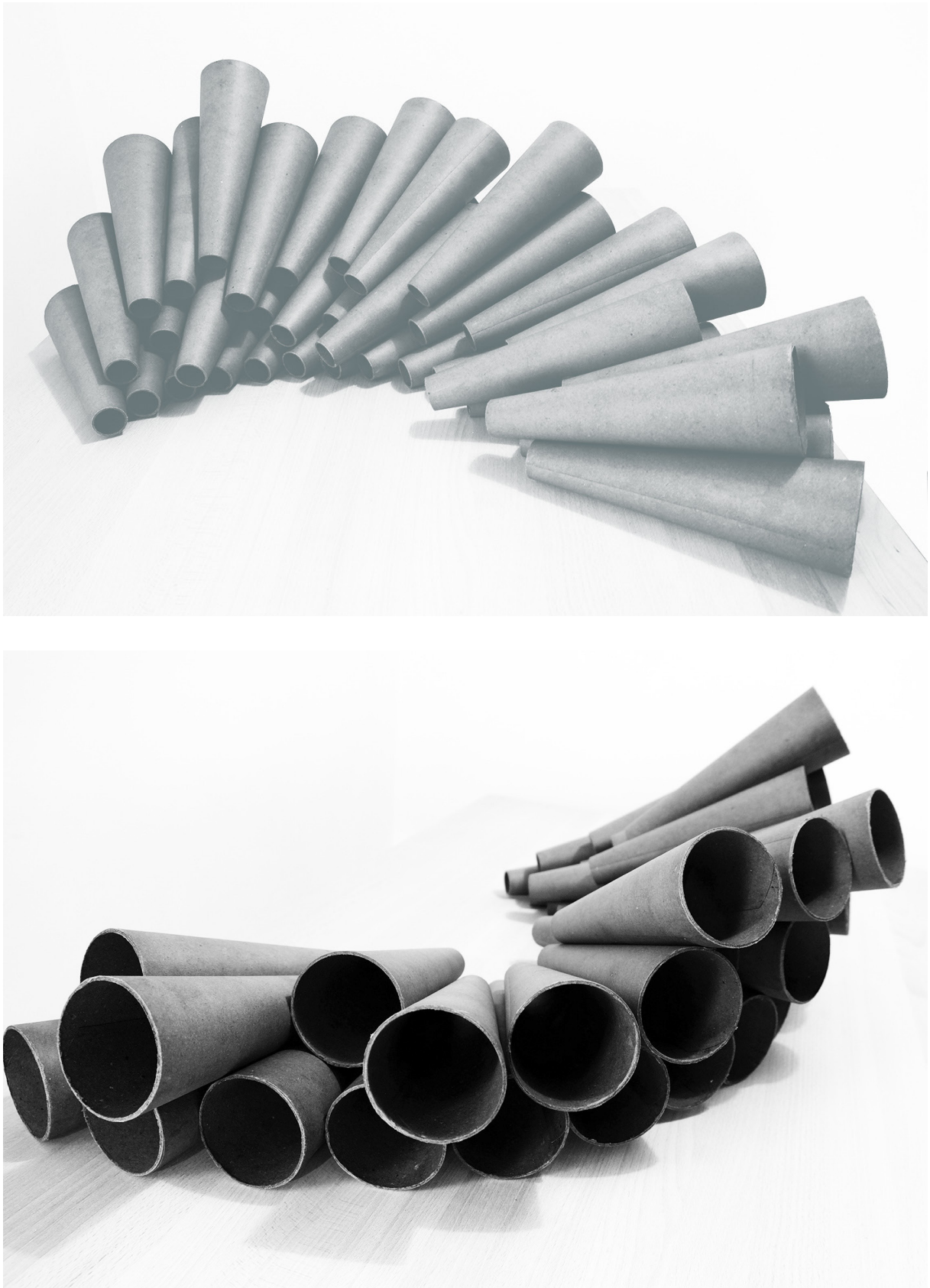


Fig. 73 & 74 Physical model made out of small bolting cone

CONTEXT: SITE SELECTION

I shortlisted four sites that had enchanted me and to which I had been drawn again and again, including Barrowburn Farm and Selby's Cove, which featured on the sound walks described earlier.

The following videos of the journeys featuring the shortlisted sites can be viewed in the link bit.ly/wildenchantment *:*

Video 4 - College Valley (shortlisted site in minute 00:50)
Video 5 -Linhope Spout (shortlisted site in minute 03:45)
Video 6- Barrowburn Farm (shortlisted site in minute 02:04)
Video 7- Selby's Cove (shortlisted site in minute 04:22)

I discussed these potential sites with Andrew Miller to find out the ownership of the land and the potential attitude of landowners towards the installations. All the sites selected were on private land, with the exception of Barrowburn Farm, which made this the obvious choice.

The land belongs to the Ministry of Defence (MoD) and is leased out to the Ileys, a young family of sheep farmers who had recently moved to the farm at the time of the installation. I went to meet them before the installation to discuss logistics, exact location, and timing of the installation. On this visit Mark Bolton, Park Ranger for the NNP Authority accompanied me. Scott, the farmer, had read my installation proposal and it had roused his curiosity. He described how since they had moved to the farm, it was the different sounds of water around them that induced a sense of tranquillity in them. We walked to the chosen location. Scott was worried about the noise that he made as part of his daily working life and how that could affect the installation: from the electricity generator that feeds the farm to his daily trips in his All-Terrain Vehicle to check on the sheep. As we were discussing sound, tranquillity, and noise in an isolated working farm, a firearm operation went off at the MoD land south of the Coquet river filling our aural space with a thunderous short-lived noise. Both his description of his farming practice and the firearm operations were a reminder of the extent of human activity on this remote landscape.

We also discussed whether to put a temporary fence around the structure. Scott was worried that the sheep might rub against the structure and damage it. I was not keen on fencing the structure as the installation was only going to be temporary, so instead we agreed to slightly raise the structure, through the use of pallets, to make it more difficult for sheep to topple.

Fig. 75 Visualisation of Silent Landscapes at College Valley by river

Fig. 76 Visualisation of Silent Landscapes at top of Linhope Spout

Fig. 77 Visualisation of Silent Landscapes at Selby's Cove

Fig. 78 Visualisation of Silent Landscapes at Barrowburn Farm

CONSTRUCTION

The structure was built on-site on the afternoon of the 14th July (2017). Ranger Mark met me at the farmhouse and helped me carry all the equipment to the exhibition site and arrange the pallets on the floor. I was then left on my own, six months pregnant and with no phone reception. I slowly built the structure by gluing and screwing the waxed cones to the pallets, and one another. The sheep kept their distance. The midges, however, stayed very close. After four hours, I had almost completed the structure. Concentrating on the slow manual process, and trying to keep the midges at bay, I forgot about time. In the distance, as I saw a figure coming down the gravel path (it was my partner, Alan), I realized that I had seen no one since Mark had left and that the installation, therefore, would be experienced by few. Suddenly very hungry, we packed up and finished the structure in the earlier hours of the 15th July.

The finished structure provided a visual and aural frame of the valley. Visually, the structure directed visitors to the long-distance views of the valley on either side of the structure. Aurally, the structure echoed the sound of the nearby burn. More importantly, the structure interacted with the environment, as we do when we are in it. For example on Saturday morning, the structure was tapping to the rhythm of the rain. Later on in the afternoon, the structure was singing in the wind, signifying our presence and sound making in that landscape and tranquillity.

Fig. 79 Silent landscapes in construction

how to find silent landscapes

parking:

Wedder Leap car park OS grid reference NT 866 103

directions from car park to installation:

Head north out of the car park along the road and cross the small footbridge over the River Coquet shortly after. Follow the dry stone wall north to the Old School. Exit the farm gates and follow the gravel track uphill and down to the valley, the installation is located by the Hepden Burn.

soundwalk Saturday 15th July

Join us on a 5 mile round walk as we put sound amplification to the test, enjoy open views across the Coquet Valley and experience the hay meadows in bloom. Kids welcome. The walk will start by the installation at the Hepden Burn.

Book your free place for the walk
by email to **u.ruiz-arana@newcastle.ac.uk** or Eventbrite
https://barrowburnfarmsoundwalk.eventbrite.ca

listen to the **sounds of silence** *at one of the most tranquil areas of Northumberland National Park*
from **15th - 22nd July** *and*
join us for a **soundwalk on Saturday 15th July 2pm**
to mark the opening of the installation

SILENT LANDSCAPES

a sound installation by Usue Ruiz Arana
15-22 July at Barrowburn Farm, Northumberland National Park
project funded by and supported by

Newcastle University
Institute for Creative Arts Practice

Northumberland National Park

School of Architecture, Planning and Landscape
Newcastle University

SOUNDWALK

To mark the opening of the installation I organised a soundwalk on Saturday afternoon. It rained non-stop in the morning and the wind grew quite strong in the afternoon. The weather stopped half of the participants coming on the walk, so there were five of us in total plus a dog. The walk was a 5-mile circular walk that started on the site of the structure and followed the route of my first soundwalk. The walk took us through different habitats and terrains, including a conifer plantation uphill that was being felled at the time, upland hay meadows in flower, and an extremely windswept hill. We walked in silence and stopped at a few places throughout the walk to talk about the soundscape. On completion of the walk one of the participants described how through the walk, away from the noise of the city, he had increasingly become aware of sound, many sounds against a tranquil backdrop, as well as his presence marked by the rhythm of his breathing, particularly whilst ascending steep hills.

Fig. 81 Participants of the soundwalk

Fig. 80 (overleaf) Poster advertising Silent Landscapes

Fig. 82, soundtrack 26 Silent Landscapes by the meadow

Fig. 83, soundtrack 27 Silent Landscapes by the river

Fig. 84, soundtrack 28 Silent Landscapes: through the listening cones

Fig. 85, soundtrack 29 Silent Landscapes by the river

Fig. 86 Silent Landscapes from above

Fig. 87 Silent Landscapes poster

INSTALLATION

The installation was on for a week. Ranger Mark, visited on Sunday, a sunny day, and observed a few visitors who were attracted to the structure. He also stood by the structure and took some recordings of it through his phone. Other people visited and sent me photographs of the structure in the sun.

The next Friday morning, as I was getting ready to travel back to the farm to dismantle the structure, I received a phone call from Mark. He was at the farm, where he had come alerted by Scott. Overnight, the sheep had eaten the structure and there was very little left of it. I was due to travel to Barrowburn that evening to dismount the structure. Now there was no need for it. No need to recycle the cones either. I had been worried that the structure would not survive the rainfall. Scott had been worried about the physical damage that the sheep might cause. The sheep had decided to eat it.

Not fully ready to let go of the tranquillity at Barrowburn, I stayed at the farm one more time on the last weekend of August and went out for two final soundwalks on my own at dusk and dawn.

Fig. 88, soundtrack 30 Hepden burn valley at dusk

Fig. 89, soundtrack 31 Hepden burn valley at dawn

REFLECTION

When I discussed the fate of the structure with various people I received similar responses: that it was a beautiful ending for the piece, or that it was even the right end for it, as the site had returned to silence. However, this return to silence only highlighted the complexity of the landscape and our presence in it. It was true that the site returned to its relative silence through the action of the animals. However, those animals, the sheep, were there because of human activity. Since the landscape had been subject to farming, the sheep had shaped that landscape, eaten away the vegetation, silencing it in the process.

Following the installation, and its ending, I reflected on our presence in this tranquil landscape. Are we not allowed to make sound, just as any other animals do? We make sound at a small scale, and a large scale, directly and indirectly. At a small scale, we make sound through our bodies and voices as we live and move in the landscape. In this soundscape, those small sounds seem to be heightened against a quiet backdrop and we become more aware of the sounds that we make. We are not only listening, but also sound-making, there. At a large scale and directly we make sound through our machines and technology: the farmer's all-terrain vehicle resounding through the valley as he approaches the installation, or the firing of the artillery south of the river that for a brief moment consumes all aural space. Indirectly, we make sound through how we have shaped and still shape the landscape: the sheep that eat away the vegetation and in the process alter the soundscape, or the dense conifer plantations whose boundaries sound in the distance.

By being in this quiet landscape we learn that we listen and sound. In listening and sound making we find extreme joy, but we also become aware of the extent of our sound making. As one of the participants on the soundwalk reflected, away from the noise of the city you hear more, and you hear yourself more. Becoming aware of our sound making makes us question it. Not in the sense that we should not make sound at all, as all our activities create sound. But in the sense of how we should make sound. We can then take back home the question of how we should be making sound and apply it to our immediate surroundings.

D.1 INTERIM DISCUSSION

HUMAN PRESENCE IN THE TRANQUIL LANDSCAPES

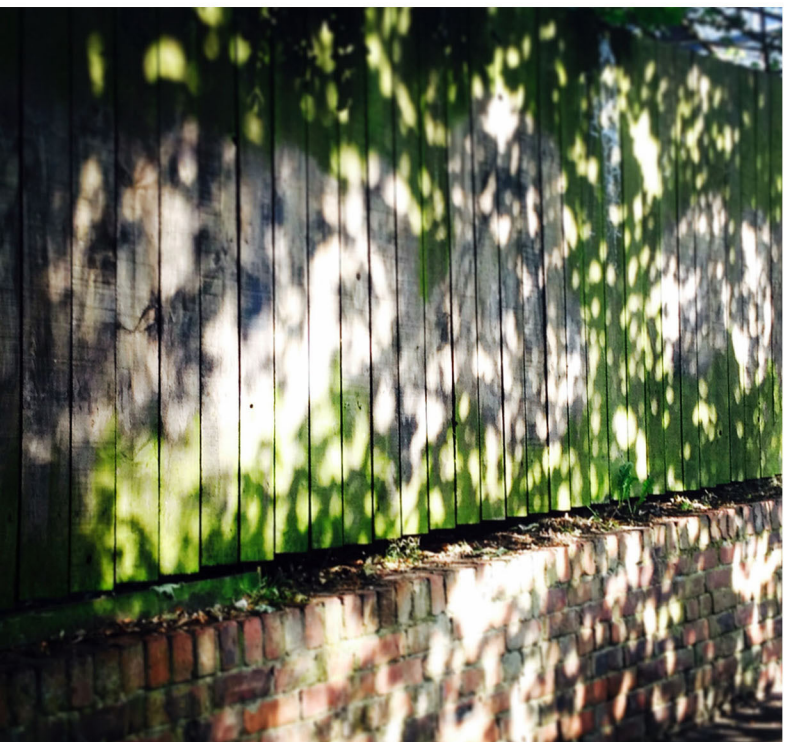
One of the objectives of the project was to find out whether we have a place in these tranquil landscapes. In the context of the mapping, nature was understood as separate to culture; however, the tranquillity maps were developed on the basis of human experience.

As discussed through the walks, in the landscape of NNP it can be challenging to separate the non-human from the human. This involvement is experienced at different scales: from the human scale, making sound in the environment whilst listening, like any other animal in the landscape; to the large-scale, experiencing, for example, the barren hills, grazed for centuries. However, in these remote and quiet landscapes, one still finds a sense of wildness, a wild appearance experienced as an untamed and energising otherness to the everyday. This wildness is perceived externally in the environment, in the force of the waterfalls, the density of the fog or the soothing wind, and more importantly, internally in the anonymity found in correspondence with the environment. The title of this project, *The Wild In Silence*, stems from this last interior wildness found in the silencing of my individual and cultural side.

Our place in these tranquil landscapes is defended through their potential to reconnect us to a sense of wildness that in turn makes us reconsider the entanglement that we have had with nature for centuries. This rediscovered wildness connects us to the landscape and reminds us of "the world we did not make... and can teach profound feelings of humility and respect as we confront fellow beings and the earth itself" (Cronon, 1996, p.23). From that established connection, and as Plumwood advocates through her ecological self, we drive our actions by a desire for others to flourish (1993).

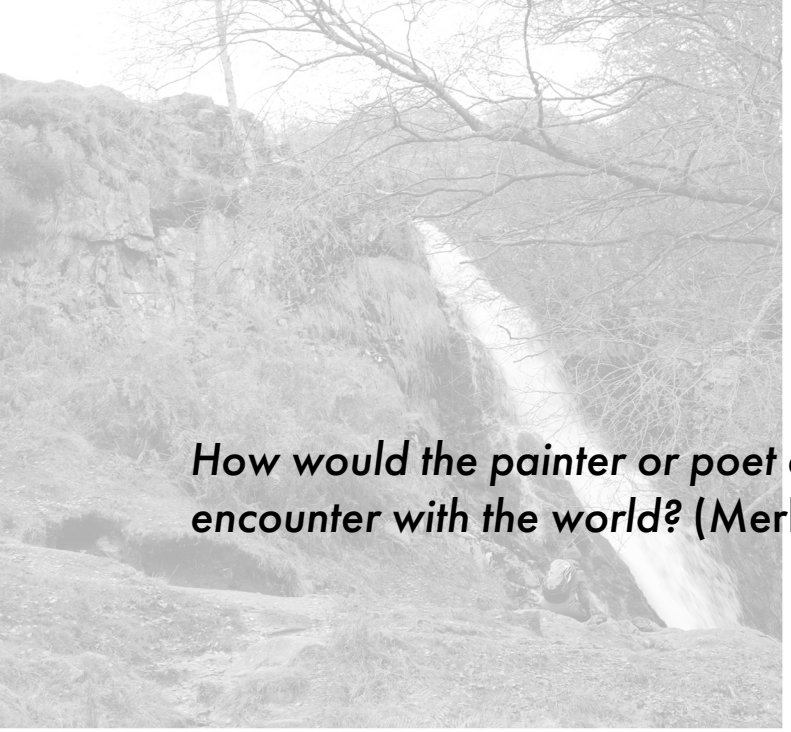
REMOTE WILDNESS VERSUS EVERYDAY WILDNESS

Two questions were posed at the beginning of part C of this project: What does the experience of enchantment in this remote landscape reveal of wildness? And is the experience of enchantment in the tranquillity of remote wildness comparable to that of everyday wildness? The first question has been addressed above, finding that enchantment reveals an inner wildness. This inner wildness reminds us of the world that is outside our control and that includes us, which, in turn, leads us to value and care for those landscapes; care and value that, I propose, we can then apply to our immediate landscapes. The second question, raising a comparison of enchantment in everyday wildness versus remote wildness, is addressed in the concluding discussion, following a thorough review of all enchantment experienced.



walking back

How would the painter or poet express anything other than his encounter with the world? (Merleau-Ponty, 1964, p.56)



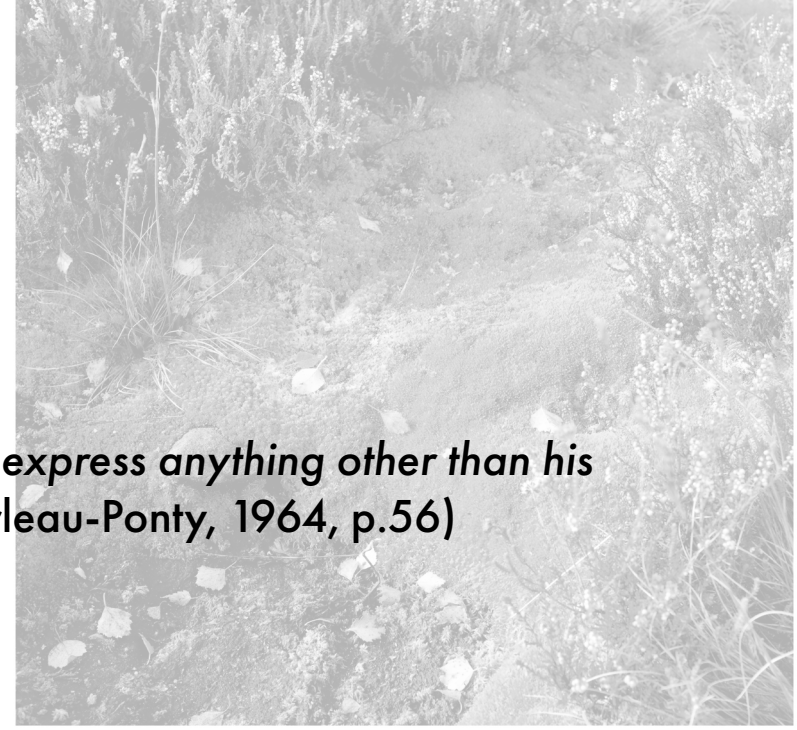
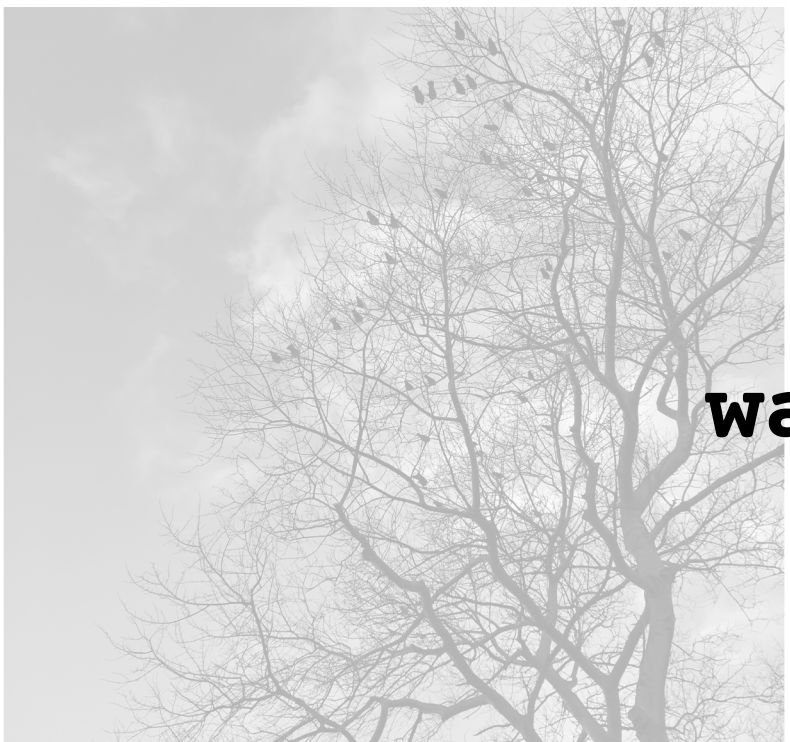


Fig. 90 From Northumberland National Park to Newcastle upon Tyne



walking back
in context

WALKING BACK

So it seems that at the end of this journey I have reached the very beginning of it: the knowledge or foundation that enables me to retrace my steps and say "now I get it" or "it all makes sense". This chapter retraces those steps walking back from the silence of Northumberland National Park, to the everyday world of my Newcastle life, via the cold and wild of Canada. Merleau-Ponty illustrates his retracing of steps through a description of being in love. It is only once I realise that I am in love that I can look back and recognise those symptoms that I experienced previously as those of being in love (Romdenh-Romluc, 2014). Therefore, it is once I acquire this self-knowledge that I can make sense of the thinking that happened before it. On my own journey back, I address the over-arching questions posed at the beginning of the research and remembered overleaf.

Back at the start of this research, I was caught up in a paradox whereby my immediate surroundings and practice (as a Landscape Architect) were getting wilder, yet a lost connection with nature or Nature Deficit Disorder was deemed universal, in need of urgent address, and the underlying cause of the current environmental plight, as argued in chapter one. The root of this lost connection with nature, however, was not new, but originated at the moment when humans started intervening in the environment and regarding it as an instrument for their benefit. At this point, the concept of nature bifurcated into nature as resource, and nature as pristine wilderness to escape to. This bifurcated understanding of nature implicitly carries an instrumental view of nature based around a dualistic account of humans and nature, and of a "divided self", whereby the uniquely human is the rational and stands as a contrast to the emotional and bodily self (Plumwood, 1991, p.10). The uniquely human is seen as superior to the other side of the self, and therefore superior to nature as well (ibid.). In turn, this polarisation also extends to wilderness, that to be regarded as "genuinely natural", must exclude the human, to the detriment of new wilderness, the kinds of wildness that I was observing, which is regarded as inferior, as it is tainted by us (Plumwood, 1993, p. 162).

In parallel to the detachment from nature that heightened during the scientific revolution and onset of capitalism at the end of the Renaissance period, the world became disenchanted, as everything was knowable through reason. The primacy of rational thought is therefore at the heart of the detachment from nature and the disenchantment of our lives and is heightened by modern ocularcentrism that facilitates our abstraction from the world.

Through this research, I have sought to cultivate moments of enchantment with the wild as a vehicle to reconnect with nature. To that end, I connected to the literal meaning of enchantment as spellbinding through sound and worked with sound as a creative research method. The aim was to develop a sensibility to and correspondence with the non-human through those moments of enchantment, re-joining bifurcated understandings of nature, and providing a window towards conceptualising a horizontal human-nonhuman relation. In doing so, this research sought to find joy in our everyday environment, to regard the wildness around us of equal importance to the remote wildness that we so cherish.

With that aim in mind, this research has followed two strands to address the overarching questions and objectives proposed within them. Strands and questions are summarised below, and addressed backwards in the discussion:

JOURNEY TO ENCHANTMENT:

A. **A pursuit of wildness**
Where can we find wildness?

Is enchantment in urban wildness comparable to that or remote wildness?[1]

B. **A learning-to-listen journey**
How do we engage with our surroundings through sound?

Is sound a trigger to enchantment?

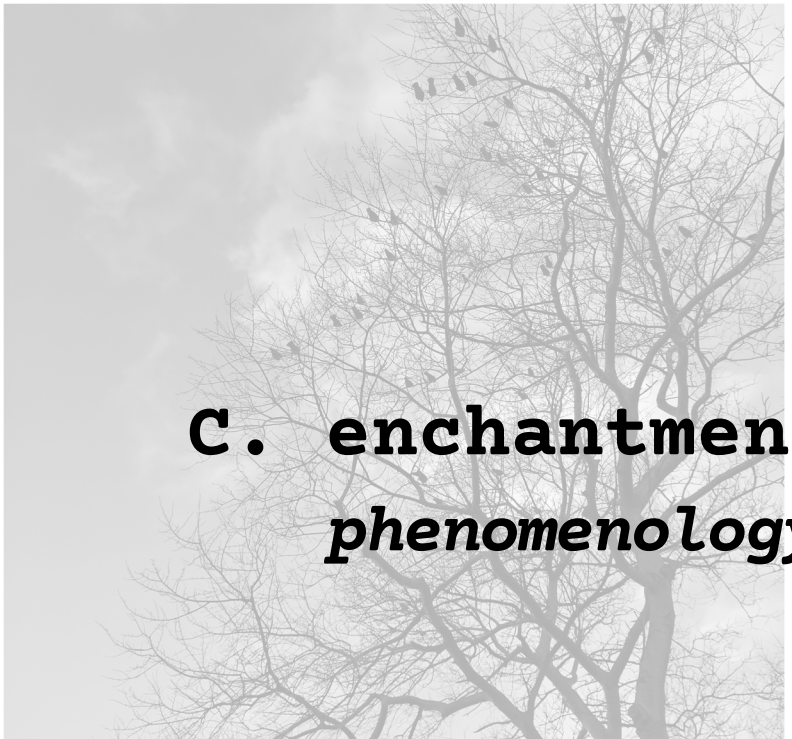
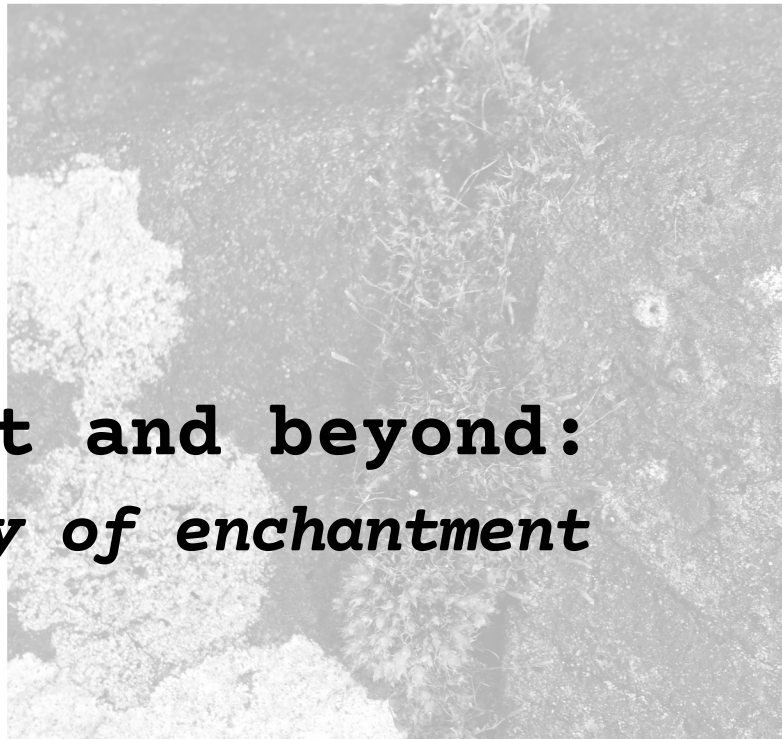
Could enchantment through sound lead to the acceptance of the new aesthetic that spontaneous wildness brings to the urban realm?

ENCHANTMENT AND BEYOND:

C. **A phenomenology of enchantment**
How is enchantment experienced phenomenologically?

D. **Beyond nature and culture**
How can we develop an alternative human-nonhuman relation from that experience to reconnects us with nature and guide our actions?

1 Note the substitution of the word "wilderness" with the word "wildness" in these questions, following the adoption of the word wildness as a concrete noun in this research to denote an area of land displaying uncontrolled growth, as detailed in page 28.

C. enchantment and beyond:

phenomenology of enchantment

HOW IS ENCHANTMENT EXPERIENCED PHENOMENOLOGICALLY?

Revisiting key moments of intense joy and amazement experienced throughout this Ph.D., the following section uncovers the phenomenology of enchantment with the help of Merleau-Ponty's ontology. The moments of enchantment discussed include those triggered by silence and sound at Northumberland National Park (NNP), and by the cold at Niagara Falls.

My journey ended in silence: in the exposed, bare, and isolated hills of the Upper Coquetdale Valley of Northumberland National Park. Here, in silence, and following a deep engagement with the environment, I experienced moments of enchantment and extreme sensing that revealed a wild being (Merleau-Ponty, 1968) where my personal self was suspended. This wild being opened me up to myself, the other, and the non-human and it is from this openness that I made sense of the moments of enchantment that had brought me here as described next.

Silence, as discussed in *The Wild in Silence*, triggered enchantment in three stages. First, in a quiet environment, my listening sharpened. My aural horizon expanded, I could hear far out; the edge of the distant conifer forest, for example, soughing in the wind. Faint sounds were now audible, outside and inside: outside, for example, those of the ground cover singing in the wind, and inside, those of my own body, such as my breathing and movement. Silence enabled the passing from sentient to sensible. As sentient, I listened to the sounds of the environment and those of my own making. As sensible, I was making sounds audible for others to hear. At times I was also simultaneously sentient and sensible as I was listening to the sounds of my own making.

Secondly, sounds and silences triggered a deep engagement with the environment. In listening and sound-making I felt very present, in the moment and place. At times sensing a strong connection with the environment and at times connected whilst disconnected, such as when lost in the forest. In these instances, there was a mixture of fear, powerlessness, and lack of control, mixed with an even stronger acuteness to listening, and sensing, in trying to find cues in the environment that would enable a way out of it. Sensing an environment that extended beyond me and that I was not able to comprehend in full, triggered fear and powerlessness.

Lastly, deep engagement brought me to unexpected moments of enchantment. For example, the force of the waterfalls that first caught me by surprise, or the calmness of listening to Hepden Burn at Barrowburn Farm. On these occasions, time stopped. I was suspended in a moment of extreme sensing. In those moments of extreme sensing, I lost a sense of time and my individual self, which were suspended in favour of a sense of anonymity, corresponding to Merleau-Ponty's anonymous, pre-reflective life (1945/2012) or wild being (1968), and the commonality experienced with the sympathy proposed by Burke, as discussed in detail in *The Wild in Silence.*

As discussed previously, Merleau-Ponty proposes that the wild being is the foundation of our knowledge, and therefore the brute world is prior to the bifurcation of subject and object (1968, p. 222). I arrived at this wild being intuitively, without looking for it, before discovering this aspect of Merleau-Ponty's philosophy. However, this brute world, in a similar vein to Merleau-Ponty's proposition, was for me the beginning of making sense of my being in the world, which I will attend to next.

In the instances of experiencing wild being, such as at Selby's Cove where I did not fully know where my body ended and the world started, whether I was sensing or being sensed, any boundaries between me and the world dissolved. As sensible, I was part of the world, my flesh part of the flesh of the world. My body was vulnerable to the rain, damp and wind, like any other element of the landscape; my legs and feet rooting to the ground. As I was part of the world (sensible), and also sensing it (sentient) I was sensing the sensible "from within" (Merleau-Ponty, Eng. trans. 1968, p.123).

However, in the exchange between me and the world, the boundary in between was not always so permeable. When I became aware of my body, the sentient, I was no longer the flesh of the world, as discussed previously: a gap opened up through which I could regard my immediate environment as distinct from me, and perceive it. This was particularly palpable for example in the silence of the dense conifer plantation of my first walk, or when lost in the felled forest of my second walk, when I became very aware of my own being. This gap is also there in enchantment, but diminishing to the point that it blurs the boundary between the two.

At Northumberland National Park, silence was the gap necessary for perception, and therefore the trigger to arrive at enchantment and the wild being. Silence was the hinge that enabled the passing from sensible to sentient, and from personal self to wild being, in the three stages described above. In enchantment, my body was permeable to my surroundings enabling a flow of sensing. In these instances, the gap necessary to perception diminished to enable permeability between me and the world. I sensed a commonality with it, not fully aware of where my body ended and the world began. At NNP, silence triggered the chiasm that enabled me to become a sensible part, flesh, of the world.

From the experiences described above, we can conceptualise flesh in this research as an "element...of being" (Merleau-Ponty, Eng. trans. 1968, p.147) that encompasses "carnality" (Hass 2008, pos.2104) and "reversibility" (ibid., p. 2118). As an "element of being", flesh is the common essence of the things of the world. It is the point where I am permeable to the world, communicate with it and sense a commonality and connection with it, as I have described through enchantment. As I perceive and communicate through my body, flesh is inevitably carnal or material. It is through the carnal flesh of my body that I sense the effect of rain, damp and wind. It is also this carnality of my body that allows the passing into wild being, in the sense that my functioning body is analogous to that of others that are subject to the elements as I am, or that are also capable of perceiving the way that I can perceive. Flesh in this research is reversible, as in communicating with the world I am at times sensible and at times sentient, with circularity and a gap between these two aspects of

my body, and simultaneity in listening and enchantment, as described above. My body as sensible belongs to the flesh of the world, as in order to sense I also need to be able to be sensed. My body as sentient is the invisible part of my flesh. Behind the flesh of the world is, therefore, my flesh, invisible to the other, and on the other side, is the flesh of the others, invisible to me.

WATERFALLS, FREEZE, SENSING

Between sensible and sentient, there opens a gap that enables me to regard the other as different to me and sense it, as I have discussed previously. Merleau-Ponty illustrates this gap with the example of the touching hands described earlier. In the moments of enchantment, however, I have described how sensing and being sensed was of such intensity that the passage between being sensible and sentient was no longer distinguishable. In this exchange, we uncover the flesh of the world as the element of being where body and world communicate, where they "reciprocate one another and we no longer know which sees and which is seen" (Eng. trans.1968, p.139).

In chapter one, I introduced the "dance of interaction" idea (Benjamin, cited in Plumwood 1993, p.156) when discussing Plumwood's ecological self (1993). The "dance of interaction" is the encounter between subjects where one "transforms and limits" the other (ibid.). In enchantment, the "dance of interaction" became a close embrace: an embrace of sensible and sensed, indistinguishable at the point of contact, encapsulated in the flesh of the world.

Having discussed silence as a trigger to enchantment and the wild being, I attend next to the experiences of the waterfalls in Northumberland National Park and Niagara Falls to discover whether or not they concur with the findings to date.

In Northumberland National Park, I was particularly drawn to the many waterfalls, where paradoxically I also found silence. Silence, here, was however not acoustic but that third stage of silence described above where my personal self was suspended in favour of wild being. In these instances, the roar of the waterfalls enchanted me. I sensed the force of the water flowing through my own body, vibrating with it and energising it on its way. In this case, the trigger to enchantment is noise (as opposed to silence), and in enchantment one is still simultaneously sentient and sensible, concurring with the findings to date of permeability between me and the world. In my own enchantment by the waterfalls, caught up in extreme sensing, the gap between sensible and sentient diminished, dissolving the boundary in between, and I was simultaneously sensible (vibrate-able) and sentient (listener to the roar). Voegelin, as discussed in The Wild in Silence, proposes that this simultaneity to sensible and sentient is exclusive to listening (2010). In the flesh of the world, however, Merleau-Ponty proposes that as an element of being where body and world communicate they become indistinguishable (1968), thus implying simultaneity. This is the case in enchantment, in extreme sensing, where the simultaneity of sound that Voegelin proposes extends to the other senses, as I will now argue with regard to the freezing cold of Niagara Falls.

On the freezing February afternoon at Niagara Falls described in *Let it Go*, the thundering

roar of the falls was muted. I sensed the struggle of my body and was caught up in the struggle of the falls. It was an instant of shared vulnerability, the falls were shutting down, and so was I. Although at the front of the falls the water was still finding its way down at high speed amongst the ice, to the back, the falls were frozen, with small amounts of water trickling down and tapping the rock. The falls were still functioning, but not to full capacity. In a similar vein, I was functioning, but my body was not performing as usual. Precisely because it was not performing, I became extremely aware of it. I could feel my eyes as they burnt, as they had lost their moisture. I could no longer feel my hands or feet, except in the sense that they were not performing what I was asking them to do. The fine-motor skills of my hands, for example, were gone, as I could not switch on the side button of my sound recorder. I could feel each breath I took as the cold air ran down my throat to fill my lungs touching me on its way. I was extremely aware of the sensibility of my body, and that of my environment, all embraced by the cold, all in the flesh of the world. In this extreme experience I was sensing (the environment and my body) and sensed (touched by the cold air for example) and the experience was of such intensity that any gaps between sensing and sensed seemed to disappear. In this extreme sensing of my body, I felt joy, mixed in with a genuine fear of the cold. This fear was not paralysing in the sense that, despite the perceived danger, I was entranced by this cold, in the moment, far away from the mundanity of my life, as per the enchantment of silence and the waterfalls of Northumberland National Park.

The trigger to enchantment was sound at NNP (silence and noise) and cold at Niagara Falls. Enchantment in both cases brought joy and fear, and a feeling of connection to my surroundings (animate and inanimate).

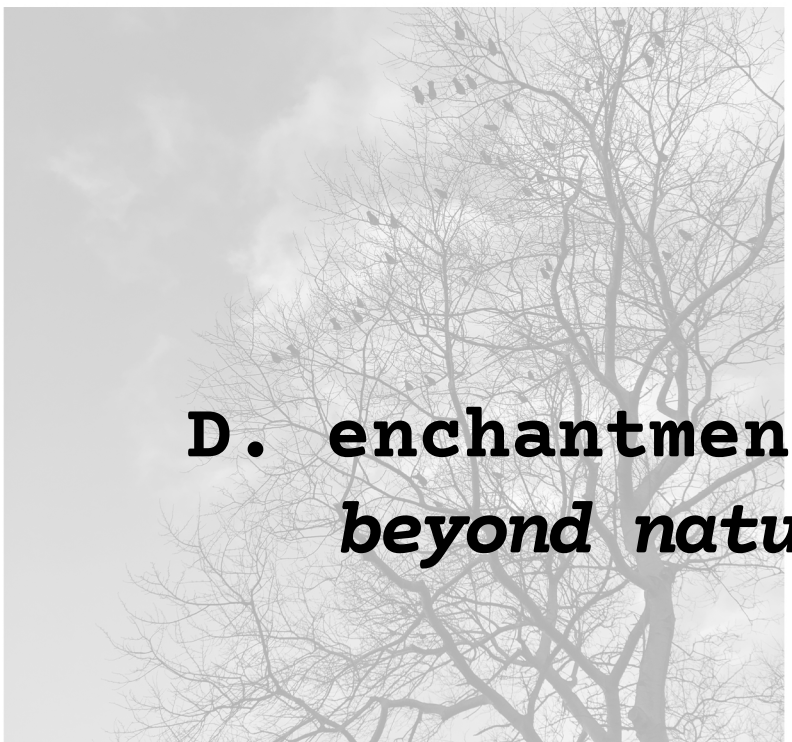
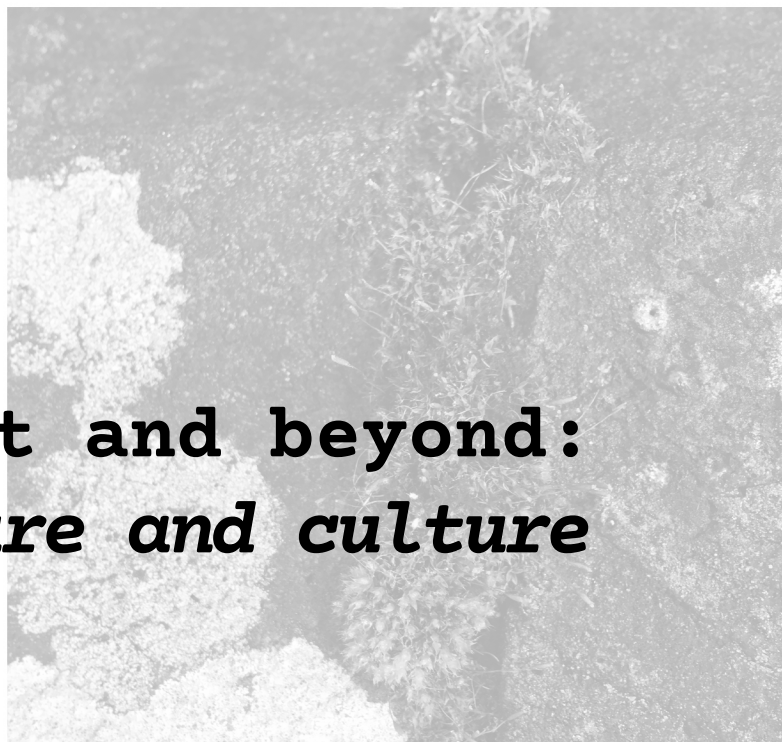
The three stages to arrive at enchantment through silence that I have proposed can now be extended to the following to encompass the characteristics of all my experiences of enchantment:

1. A surprise encounter with wildness - for example, the force of the waterfalls of Northumberland National Park or the intensity of the cold at Niagara Falls. An openness to the environment increases the chances of the surprise encounter happening. In my case, the openness to the environment was facilitated by attentive listening through the soundwalks.

2. Intense sensing and body awareness mixed with a certain sense of fear that does not prevent the enjoyment of the experience. This intense sensing invites us to be in the moment, and interact and engage with the environment around us.

3. Intense joy achieved through the permeability of one's own body, not knowing where the body ends and the environment begins, which leads to a suspension of time and personal self and a sense of commonality with the surroundings.

Surprise, fear, intense joy and suspension of time concur with Bennett's phenomenology of enchantment (2001) with which this research was introduced, and also with Burke's theory of the sublime (1757/2014), as described in *The Wild in Silence*.

D. enchantment and beyond:
beyond nature and culture

HOW CAN WE DEVELOP AN ALTERNATIVE HUMAN-NONHUMAN RELATION FROM THE EXPERIENCE OF ENCHANTMENT TO RECONNECT US WITH NATURE AND GUIDE OUR ACTIONS?

The following section discusses the journey beyond enchantment. Once I have addressed how enchantment enables access to our wild being and the flesh of the world, I will now turn to where we can go from there. How do we build a horizontal human-non human conceptualisation from the attachment triggered in enchantment?

Prior to addressing the value that enchantment plays in this research (in bringing together the bifurcated meanings of nature in our head, and valuing the everyday wild in the same way as the remote), let us a remind ourselves of the purpose of enchantment for Bennett (2001) and of the ecological self for Plumwood (1993). These are the two alternative human-nonhuman conceptualisations that I engaged with through this research.

In enchantment, Bennett finds the potential to develop an ethics of generosity towards others, supported by her view of the world as vibrant matter. She summarises her proposition as follows "enchantment is a feeling of being connected in an affirmative way to existence; ... and, in so doing, reminds us that it is good to be alive. This sense of fullness encourages the finite human animal, in turn, to give away some of its own time and effort on behalf of other creatures " (Bennett, 2001, p.156). Through enchantment, she proposes (and I concur), we feel a connection to the other. This connection, in her proposition, is strengthened in the belief that we are all (us and things) vibrant matter in different arrangements. This vibrant matter theory, in turn, informs her code of ethics (ibid.). In Bennett's enchantment emotion and reason complement one another towards the pursuit of the ultimate goal: an enacted ethics of generosity towards others. Emotion (as lived through enchantment) is the driver to enact the code of ethics developed through reason. This concurs with Burke's theory of the sublime where sense perception comes first, then sympathy towards the other, and lastly moral action driven by the sympathy that has been established (1757/2014).

Plumwood, through her ecological self model, tells us how we need both affinity and distance from the others to establish meaningful, non-hierarchical relationships with them. Without distance, we do not identify them as different from us, and therefore with different needs to ours, running the risk of extending our needs to them. Without affinity, we cannot establish a bond, a connection. In such a connection, Plumwood advocates that emotion and reason are not separate elements, but two distinctive parts of one whole, communicating and integrating creatively. As Plumwood argues, to move away from a rational and instrumental view of the world we do not need to abandon reason, but rather "install another, less hierarchical, more democratic and plural identity in its place" (1993, p.189).

The concept of "flesh" has the potential to overcome the key dualism introduced at the beginning of this research as the culprit responsible for our detachment from nature, emotion,

and reason, and to encompass relevant aspects of Plumwood's and Bennett's propositions, as I will now address.

As explored in *Let it Go*, the flesh installs itself in the gap that opens up in perception to enable the passage between the sensible and sentient. This gap, however, does not oppose the sides it separates; it opens up to enable the passing from one to the other. In this model, emotion and reason are not two opposite sides, but two interrelated sides with a gap that enables communication, which concurs with Plumwood's proposition.

Once we access the wild being through enchantment and experience the world from within, we develop an attachment to it. A sympathy, as Burke calls it in his theory of the sublime (1757/2014), or "a feeling of being connected in an affirmative way to existence" as Bennett describes it (2001, p.156). From this attachment, we develop care for the nonhuman. Through reason and judgment, each of us can then act following a set of moral values that we formulate from that attachment and care. Emotion and reason are therefore interlinked in our actions and judgements on the nonhuman, which concurs with Plumwood's proposition and need for distance and proximity. In proximity, through emotion, we develop a connection; in the distance, through reason, we judge and act to respect that connection established. Emotion and reason are interlinked parts of the flesh. In enchantment, emotion is the driver to sense a commonality with the other/s. This, in turn, triggers, in the aftermath of enchantment, a desire to act for the benefits of others.

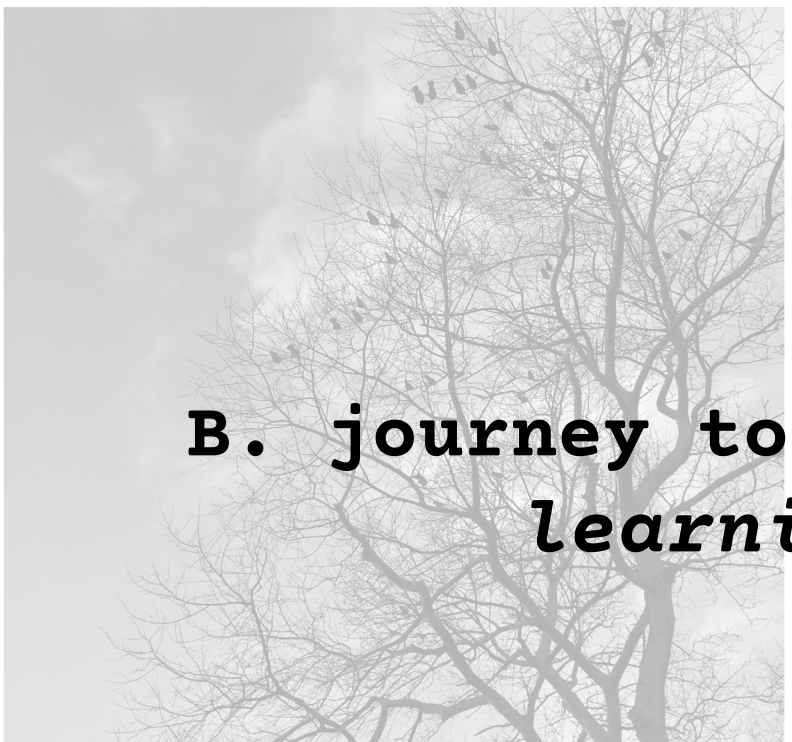
My lived experience of enchantment encompassed those key aspects of Bennett and Plumwood's propositions, within the fabric of Merleau-Ponty's flesh. Enchantment opened the door to an emotional connection with my surroundings and myself, establishing the foundation for a renewed understanding of self in relation to others and the non-human world, as I will attend to next.

In enchantment, as described above, the gap that opens up in perception minimised to enable communication. In these instances of extreme sensing, where I no longer knew whether I was sentient or sensible, any boundaries between me and my surroundings blurred. As a wild being, suspended in time, I sensed a commonality with others and things. This commonality is the affinity of Plumwood's non-hierarchical relation, the connection of Bennett's enchantment, and the sympathy of Burke's sublime.

Through enchantment, I propose, we reach our wild being or wildness. In this wildness, we sense how we are all in the same boat, subject to the same flows and currents, we are flesh of the world. For example, our bodies are freezable (as described at Niagara Falls), and we share our environment with wanted and unwanted animals that want to thrive as we do (as was the case with the wild animals of Toronto).

Emerging from enchantment provides us with the distance that enables us to see the others (human and non-human) as having different needs to ours and to formulate a set of moral and cultural values stemming from it; I am my flesh. In the aftermath of enchantment, joyful and energised, we see the non-human through renewed eyes. We understand

that we share with others and things more than we thought and that we are no longer the masters of earth controlling everything but rather a small part of something bigger that is alive, changing, and full of wonder, and that we want to protect from harm. We also see ourselves through renewed eyes. We understand that, in a culture that values the individual, we are more than our individual beings, not subjects but inter-subjects with a communal wild being. We are a moment in time amongst many similar moments that have come before and that will come after. Therefore, the alternative human-nonhuman conceptualisation proposed in this research is founded in the understanding that we are our own flesh and the flesh of the world (our wild beings), and that our knowledge of us and the world is built in the interaction and communication between our flesh, and the flesh of the world. This rediscovered understanding of self, the others, and the non-human, coupled with the joy to be had in sensing this commonality, can drive us to be more considerate towards others and demand change. It is no guarantee that enchantment as a vehicle to our wild beings will lead us to act differently, but it is more likely that we will, having experienced immense joy in the connection with the others sensed through it.



B. journey to enchantment:
learning-to-listen

IS SOUND A TRIGGER TO ENCHANTMENT?

HOW DO WE ENGAGE WITH OUR SURROUNDINGS THROUGH SOUND?

COULD ENCHANTMENT THROUGH SOUND LEAD TO THE ACCEPTANCE OF THE NEW AESTHETIC THAT SPONTANEOUS WILDNESS BRINGS TO THE URBAN REALM?

Having covered in the previous section how sound can be a trigger to enchantment, thus answering the first question, this section aims to answer the other two interrelated questions posed above.

Through the *Let it Go* project, and in particular, the soundwalks along Leslie Street Spit, I unravelled the affective role of sound in our perception of and engagement with the environment. Sound, I proposed, provides a direct engagement with the landscape, triggering an emotional response to it in a way that sight does not. Through the experience of Leslie Street Spit, I also argued that sound provides an engagement with the landscape in the absence of visual stimuli, or through enriching poor visual stimuli, and that such engagement did not only implicate my ears but my full body. Through sound, I engaged with the "let it go" aesthetic of Leslie Street Spit, which I came to love. Therefore, sound contributed to my affective engagement with the new aesthetic that the spontaneous wildness of the Spit brought to Toronto.

Listening and sound, however, did not only lead to the engagement with urban wildness, in line with original purpose of this research, but influenced the way I considered and engaged with my surroundings in both my professional and personal life. Through listening I discovered immense joy in my surroundings, opening up the way for others to do so as well.

The project's influence on listening in my professional practice has been translated into the Guide to Sound for Landscape Architects that concludes this research. The project's influence on listening in my personal life is addressed below.

ENGAGEMENT WITH MY EVERYDAY

Developing a sensitivity to my everyday world through sound happened gradually. At first, because I was not used to it, listening required a real effort of focus. However, it soon became effortless and almost involuntary, and part of my everyday life.

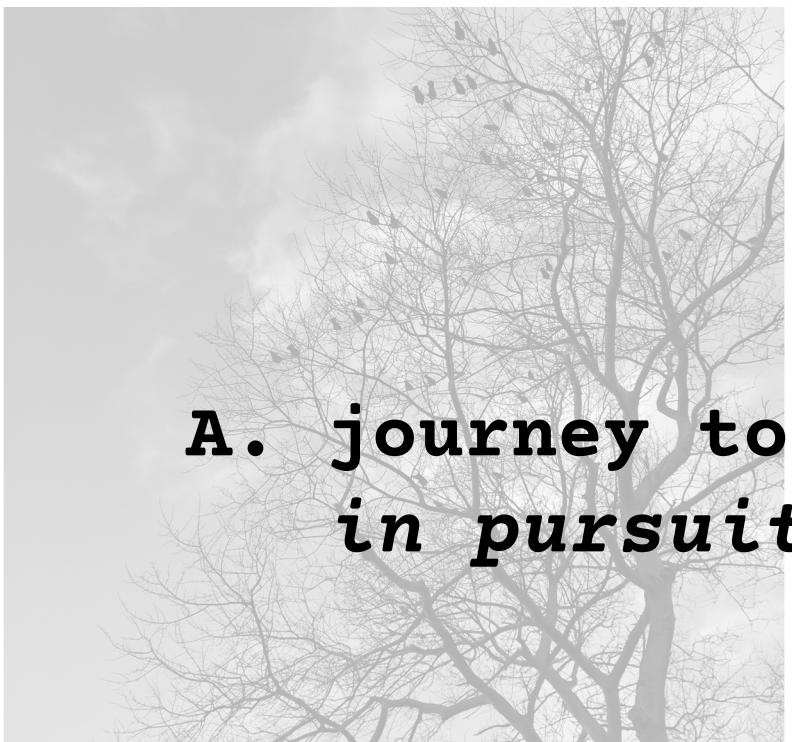
Early on, I noticed two aspects of sound that had a great influence upon the way I perceived: the first was that through listening, I became alert to my surroundings; and the second that

attentiveness to sound triggered attentiveness to the other senses. Both aspects contributed to experiencing many moments of intense joy. Through listening attentively, for example, I experienced incidents that I might have missed before, such as the dancing of colourful dried leaves against the pavement. Sound itself also provided joy: for example, listening to the soothing tapping of the rain on the pavement provided a moment of respite to the business of the day. Attentiveness to the other senses was brought about by the alertness that attentive listening triggers, and by the fact that, as discussed previously, listening requires time. As I was slowing down to listen, I smelled, touched and saw more; accessing little details that I might have missed previously.

Sound provided variation to the mundane routes that I continued to walk throughout this project. These were repetitive, everyday routes leading from my home to various destinations including school, nursery, work office, library, university, and back. For example, the sound of moving leaves amidst a thick bush followed by a fast movement made me wonder what animal could hide behind it; or multitudes of corvids crowding and cawing from a mature tree overtopping a nearby road.

Sound also triggered enchantment at home. This became particularly noticeable and welcome during my last maternity leave (in the autumn and winter of 2017-18) when I spent more time than usual at home with a small baby. Sound became the source of surprising moments of gratification. I recall for example the tapping of sleet against the glass after walking the kids to school, the wind howling in the middle of the night in the attic and making its way into my dreams, the satisfying taps and blobs of an egg in boiling water, or the anticipation of the coffee rising through the cafetière. Sound became the door to connect to the outside world as well, as the many sounds of the activities and inhabitants of the street permeated in the different rooms, and there was a pattern to those activities and sounds. For example, the sounds of the birds singing in the early hours of the morning, followed by those of a busy street around school drop-off, and then again at pick-up time; the distant sound of children laughing in the school grounds at the end of the road at break times; the steps of the postman reaching the door; the odd scraps of conversation and footfall throughout the day; delivery vehicles coming and going to the end of the cul-de-sac street; the occasional tooting of a horn; or the rumble of the distant metro at regular intervals throughout the day.

Inevitably, sound was not always a source of joy, as it also brought awareness to the many unwanted and loud sounds of my neighbourhood, and supported the argument for urban designers, architects, and landscape architects to develop an awareness and understanding of sound in their work.



A. journey to enchantment:
in pursuit of wildness

WHERE CAN WE FIND WILDNESS?

IS ENCHANTMENT IN URBAN WILDNESS COMPARABLE TO THAT OF REMOTE WILDNESS?

The purpose of this research was to cultivate moments of enchantment in wildness in order to re-join the bifurcated meanings of nature (nature as resource, and nature as pristine wilderness to escape to) within a particular context: the urban fabric. In turn, re-joining those bifurcated meanings would result in revaluing the everyday wildness around us on equal terms with the remote and isolated wilderness. The questions posed within this thread, and that I will now address, were conducive to that end.

I explored two main landscapes in depth over the course of the research: Leslie Street Spit (Toronto) and Northumberland National Park. Leslie Street Spit was a new area of wildness that developed spontaneously in a man-made peninsula. Northumberland National Park was a remote area of wildness: not a pristine wilderness, as the cultural has been an integral part of the landscape since Mesolithic times; nevertheless, a remote and isolated landscape valued for its tranquillity and isolation. I will now compare experiences within both landscapes as well as with other mundane landscapes explored.

At Northumberland National Park, I embarked on a journey in search of silence and enchantment through it: in search of isolated wildness as a contrast to everyday wildness, and in search of silence as a contrast to sound (as the vehicle to enchantment). Through silence and sound, as discussed previously, I found many moments of enchantment that energised me and reminded me, borrowing Bennett's words once again, that it "is good to be alive" (2001, p.156).

Reaching these places was a journey in itself. It required driving for an hour at minimum, and through roads that would get narrower, rougher and more dangerous, as the destination was approached. After the car journey, the walk would start, in a variety of terrains and under different weather conditions. Sometimes, I encountered joyful experiences early on in the walk, while in other cases, these would follow arduous ascents or immersion in strong winds and rain. Along with the attentive listening, the journey to these places and the wildness sensed along the way contributed to the experience of enchantment itself. With regard to the journey, the gradual isolation (physical and technological), physical fatigue and sensorial alertness were major contributors. With regard to wildness in this landscape, this was sensed in a variety of ways: for example through the meteorological conditions such as the strength of the wind or rain, the thickness of the fog, or in the brightness of the sun; through the nature of the terrain, through the endless undulating hills of Upper Coquetdale, or the sharp ascents of the Simonside Hills; or through the wild growth or natural agency experienced such as the force of the waterfalls, or the thickness of vegetation preventing me from walking. All in all, this wildness contributed to triggering a certain sense of fear and vulnerability during the journey, and abstraction from my everyday life: a suspension

of time and personal sense of self that had already set in before the enchantment took place. One could say that a process of preparation was undergone, which brought about a readiness and openness of the body to enchantment. The result was a surprise encounter that uncovered my inner wildness or wild being in enchantment, as discussed. Interestingly, I had to venture far from home in order to find wildness in the most unexpected place: within me. This unexpected discovery is what gives the title to this research: the enchantment of the wild. Ultimately it was my inner wildness that facilitated the enchantment. The wildness that I had been looking for was within me all along, and I had to go far out into remote wildness to find it. Once I had attained this inner wildness, I realised that I had experienced it before, as I will now go on to consider.

Reaching Leslie Street Spit was also a journey in itself. It involved a streetcar ride of half an hour, followed by a twenty-minute walk to the entrance of the Park. The journey to the entrance contributed to the experience in the sense that this was not a Park I could get to and from at will, it required time and planning to get to. Once at the Spit, the journey through it and the wildness sensed along the way, also contributed to the experience of enchantment. With regard to the journey, the sense of isolation (physical and also technological), abstraction from my everyday life, the physical fatigue and the sensorial alertness were here also major contributors to the experience. The sense of isolation was paradoxical as through sight and sound I was constantly connected to the city, although physically I was getting further away from it. With regard to wildness, in this landscape it could be sensed in many ways: primarily in the realisation that this place was full of life (plants and animals) and that it was growing uncontrolled and at will (at least initially), and also through the meteorological conditions (the force of the sun, the wind driving waves against the shore, or the snow in the winter). There was still a feeling of fear and vulnerability brought about by sensing the wildness and by not knowing what or who might be around the corner, and this was intensified in the absence of other people. Before the enchantment itself occurred, the onset of a suspension of time and personal self induced an openness of the body to enchantment.

In more mundane situations not all the components listed above were present: in some, there was no journey, and in others no sense of isolation. I would like to discuss two of these: the encounter with the rats in my backyard (although not strictly enchantment), and the cold temperatures.

With regards to the rats, there was no journey or sense of isolation: the rats were present in my backyard, readily accessible. However, the sensorial alertness and wildness sensed were still there. Any movement of leaves or rustling heard would alert me to their presence, and their wildness was very palpable. The rats were thriving; the rat babies were babies no more. Fear and vulnerability were also there: fear that the rats would enter inside the house come winter, and would attack my own babies. Although I did not feel enchantment with regard to the rats, I did so with some of the other animals likewise considered pests – such as squirrels, skunks or raccoons – through sensing their freedom, and aliveness; through sensing many lives intersected with my own.

With regard to the cold, in some instances, there was no journey or sense of isolation either, however, the sense of abstraction from my everyday life was there. Every day was an experience out of the ordinary, and full of surprises. Every time I stepped out of the house, on that freezing February, I felt extremely vulnerable to the cold, which triggered the alertness necessary to survive: alertness to the potential effects of the cold on my body and the bodies of my children. Every exposure to the cold was extremely invigorating, precisely through the alertness triggered in my body, and the experience of having survived the day. The wildness here was meteorological, the uncontrollable coldness that would greet me every morning. Again, there was a suspension of time and personal self in the sense that at times, nothing mattered, other than surviving the moment.

Readiness and openness of the body, combined with a sensed wildness externally and more importantly, internally, was present in all instances of enchantment experienced. I would like to attend next to how readiness and wildness combine with the three stages proposed earlier in the pursuit of enchantment. Firstly, listening attentively triggers alertness to the environment, it forces us to be in the moment and in doing so it can heighten the other senses. Secondly, once we are open to our surroundings, we are also open to the wildness within them. We sense the agency of others or vulnerability to the elements. Thirdly and lastly, the wildness in the environment calls out to the wildness within us. There is a suspension of time and personal self that unleashes our wild being and we sense a connection with others.

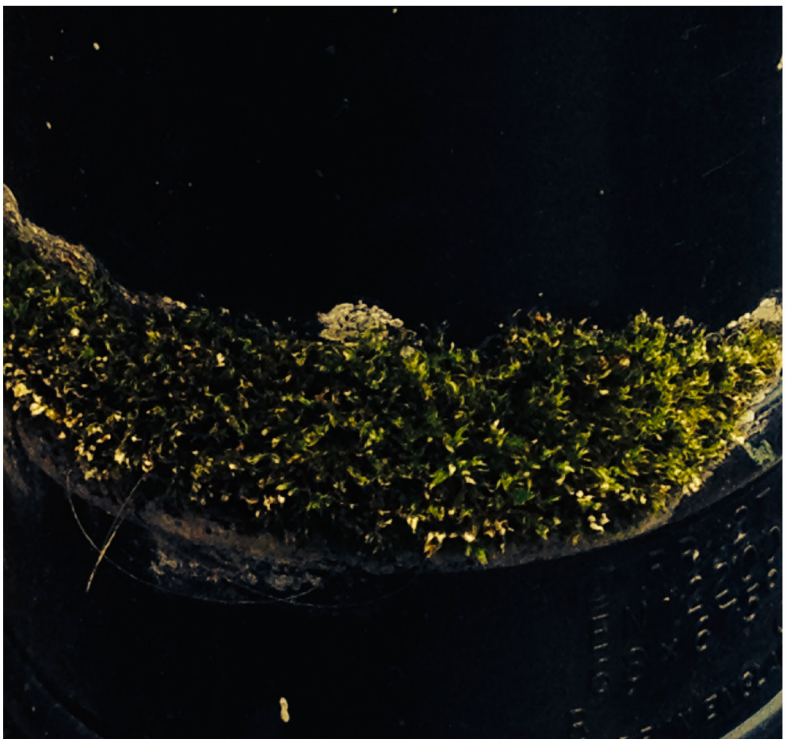
The wild was therefore present in all instances of enchantment experienced. The wild, however, was not only out there, as I presupposed at the beginning of this work, but more importantly within me. An anonymous, wild being that felt a strong connection, commonality and vulnerability with the surroundings.

As I have argued through this work, enchantment with the wild is not exclusive to remote wildness but can happen right on our doorstep, as experienced in Toronto, triggered by the cold; or on Leslie Street Spit, triggered by sound; or even at home, triggered by the wild animals that I was trying to keep at bay. All that is required for enchantment to happen is to be open to it and to develop a sensitivity to it. As I have argued throughout this research, sensitivity can be channelled through attentive listening, acting as a vehicle for being present and in the moment.

To conclude this discussion, I would like to reflect on how moments of enchantment in urban wildness can be conducive to validating that wildness. Today, cities are still environments where the human and non-human (uncontrolled) live as separate domains, and enchantment in urban wildness presents the opportunity to bring the human and non-human together. This coming together is not without challenges, as I have recognised through the experience of the rats in Toronto, and that does not mean that all urban landscapes should turn into wildscapes either, as I argued through Leslie Street Spit. However, finding joy through enchantment in urban wildness means that we are more likely to find solutions to the challenges that we face along the way. In those moments of enchantment, we sense a connection to our surroundings. In the aftermath of enchantment, we might rethink this wildness in the city not as a "weed" that needs to be removed from a controlled environment, but as a weed that needs to be

cultivated within ourselves. We open ourselves up to more moments of enchantment, and in turn, value and protect our environments for their capacity to evoke wonder, but also for the connection with the other that we feel through them. We move away from trying to control everything around us, in favour of giving nature a freer hand in the embrace of wildness in the city.

BE PATIENT
DRIVE WITH
CARE



concluding remarks

Fig. 91 From Northumberland National Park to Newcastle upon Tyne

concluding remarks

WALKING FORWARDS

This research has developed and answered the questions posed at the beginning. In the process, it has also formulated other questions opening the way for future areas of investigation, as detailed below.

SOUNDSCAPE ARCHITECTS, WILDSCAPE ARCHITECTS

Throughout this research, I have talked of Landscape Architects mostly as Soundscape Architects and also as Wildscape Architects. As Soundscape Architects we place a crucial role in shaping the soundscape of our lives (and the lives of others), and in turn, facilitating (or obstructing) moments of enchantment. As Wildscape Architects, we are in an enviable position to decide the future of the wildness around us, and together with other professionals develop a set of urban design principles that give a freer hand to nature, treat all animals as worthy of protection, and facilitate an urban fabric where the human and nonhuman coexist to mutual benefit and enjoyment. The two aspects are intrinsically linked, as placing a higher value on sound will contribute to the acceptance and embrace of those wildscapes that are sensorially enriched, as I have argued throughout this research.

With regard to the journey towards becoming Soundscape Architects, the guide to sound that concludes this research provides the foundation for that journey and identifies areas for future research and development.

With regard to the journey towards becoming Wildscape Architects, the enviable position that Landscape Architects hold in the shaping of wildness in cities comes with a set of responsibilities as identified in this research and summarised below.
Firstly, the embrace of wildness in cities is a difficult task; a difficulty that is currently not addressed in Landscape Architecture practice. Many current Landscape Architecture schemes propose a wilder future for our cities, highlighting the many benefits that this brings, such as contributing to the health and wellbeing of their users, increasing biodiversity, or mitigating climate change. The conflict inherent in the embrace of that wildness, however, is seldom addressed. With regards to conflict, there are two aspects identified in this research that I would like to address here: the contact with wild animals, and the experience of wildness as a counter-world to culture. With regard to wild animals, as I have shown in this research, enchantment in everyday wildness opens the way to moments of intense joy, and the acceptance of a wilder aesthetic. However, it also opens the way to moments of conflict and frustration, as demonstrated through the experience of the rats in Toronto. Embracing wildness invites us to rethink all wildness as worthy of care, all animals, including "pests", as worthy of protection. This last issue comes with many challenges and is an area identified for future research and development. Interestingly, towards the end of this work, I came across the work of the architect Joyce Hwang, an advocate of urban wildlife and the director of the practice Ants of the Prairie. Through her practice, Hwang is exploring ways in which humans and animals might co-habit or share buildings in the city, for example, by housing animals in building facades (Hwang, 2017). This, together with other nascent research, challenges the traditional approach to wildlife-proofing our homes and might pave the way for cities that

better integrate the human and nonhuman. With regard to the experience of wildness as a counter-world to culture, in this research, I have sought to validate urban wildness through enchantment. However, I have also realised how enchantment in wildness is experienced as a counter-world to culture, questioning whether if wildness was commonplace in the public realm it would still be experienced as counter-worldly, an aspect that future wildscape architects should consider and develop further. Within the public realm, there might be places where humans take a step back and allow for nonhuman agency to thrive, and there might be others where humans take a step forward without negating nonhuman agency.

Secondly, as landscape architects we frequently seek to back our proposals with research and science, aiming to demonstrate objectively the value that nature and wildness have for us, the nonhuman, and the planet. However, whilst doing so we also need to allow intersubjective emotion to permeate our practice. Siding with Merleau-Ponty once again, it is from this last, the intersubjective emotion that we build our knowledge of the world, as the science that we hold as the absolute truth today will be refined by the findings of tomorrow. Reason and emotion, as I have argued, do not have to be mutually exclusive, but can work together in the development of any scheme.

Lastly, the literature that accompanies Landscape Architecture proposals frequently employs phrases such as "working with nature" or "facilitating contact with nature". In this research, I have defended the uses of the words "nature" and "natural" grammatically to express the degree of human intervention. However, landscape architects need to be careful that phrases such as the ones introduced above do not promote an instrumental approach to, or hyper-separate us from, nature. With regards to working with nature, landscape architects need to consider whether they are working with nature, or as an integral part of nature, allowing for both proximity and distance to others and the nonhuman, as I have argued. With regard to facilitating contact with nature, landscape architects need to question the origin of our detachment from it, as I have sought to do in this research, to provide solutions that target the source of the problem and not its symptoms. As I have proposed, we need to encourage access to the wildness within us, as it is this wildness that holds the key to reimagining our place in nature. To enable this, this research invites Landscape Architects to cultivate moments of enchantment in wildness of their own and develop a set of ethical principles founded on emotion and reason to underpin individual and collective Landscape Architecture practice and actions.

SILENCE VERSUS SOUND, WILDERNESS VERSUS WILDNESS

Throughout this work, the *learning-to-listen* and *pursuit of wildness* journeys became deeply intertwined. In that intertwining, the protection of silence or the quiet in the landscape and the protection of wilderness have also been shown to go hand in hand, as elaborated below.

Back in *Staging the Wild*, I discussed cultural change versus behavioural change for environmental action. In line with the leverage point system proposed by Meadows

(Meadows, 1999), current environmental initiatives, such as paper recycling, are targeted at shallow leverage points and result in superficial change only. Although they can have a ripple effect, they will not result in major change. To trigger cultural change, deep leverage points need to be targeted (Ives & Fischer, 2017).

Interventions in the soundscape, I argue, can also be evaluated on a leverage point system. The protection of quiet areas, that are also isolated and devoid of human presence, is an intervention at a shallow leverage point. Although, as I have proposed, it invites professionals and the public to think with their ears in these landscapes, and might have a ripple effect by encouraging thinking with the ears in other contexts, the effects on the overall soundscape will be superficial, or slow. To improve all of our soundscapes, we need to target deep leverage points. We need to make thinking with our ears an integral part of our professional and personal lives. Sound should be an integral part of the training and practice of design professionals, the formulation of national and local policies, and countryside and urban planning. We should strive to achieve good soundscapes all around us for our benefit and the benefit of other living organisms that are also affected by sound: good soundscapes throughout, and not only quiet soundscapes.

Similarly, striving to protect remote wilderness or wildness would be an intervention at shallow leverage points. It invites professionals and the public to regard the non-human as worthy of defence in those landscapes and might have a ripple effect by encouraging environmental action elsewhere. However, the effects on the health of the planet would be superficial. We need to regard the nonhuman in all our points of contact, as an essential part of a mutually beneficial relationship.

To conclude this section, and think forward to what kind of relationship to others (both the non-human and the human) we develop from here, I would like to refer to the words of two women whose work has greatly influenced my own: Val Plumwood and Jane Bennett. Plumwood puts forward a relationship of mutual transformation, whereby in some areas of land, humans dominate, in some others human-nonhumans co-dominate, and in others, non-humans dominate. In all cases "a respectful and mutual relationship must also leave a space for the other" (Plumwood, 1993, p.164). Along a similar line, Bennett suggests that we should not aspire to leave any footprint on the earth, but rather to rethink the footprint that we leave. In some areas, we should hold back and let others be, and in some others, we should actively change the environment as others do (Bennett, 2011).

The defence of our place in remote landscapes and wildness stems from a position of realising that we do not have to dominate it all; an understanding that there are some places where we are not masters but co-agents, and others where we are just visitors.

RE-ATTACHMENT TO NATURE

In the opening pages of this research, I was caught up in a paradox whereby my immediate surroundings and practice as a Landscape Architect were becoming wilder, yet a surge of academic and non-academic works declared that we had lost contact with nature to the detriment of our physical and mental health, and the health of our planet. Children and young adults, in particular, were suffering from Nature Deficit Disorder (Louv, 2005), a disorder that had developed in the space of two decades.

NDD and the broader idea of a need to connect with nature, I proposed, still perpetuate an instrumental view of nature, as in asserting that humans need to connect with nature, they imply that one way or another that humans are not part of nature; as is also implied by defending the need to restore contact with nature on the grounds of its benefit to humans' physical and mental development. They also propose that the disease is relatively new; yet the health of our planet has deteriorated as a consequence of the actions of those adults who were supposedly connected to nature, while it is the "disconnected" young people, controversially, who are demanding change. In turn, the solutions to the lost contact with nature have focused more on treating the symptoms rather than getting to the root of the problem. For example, to improve physical and mental health, children, and adults are encouraged to spend time outside in nature, and environmental education programmes have also been developed. The root of the problem, the underlying set of cultural values that continue to regard nature as instrumental, remains unaddressed.

Changing cultural values, as opposed to behaviour, is a complex task as I have addressed in this research. However, it is not an impossible task, when one considers for example, how women's rights have changed in the course of the last century. We, therefore, need to strive for cultural change.

The avenue pursued in this work to propose a more horizontal human-nonhuman relation as the basis for a change in cultural values has been one of enchantment and emotional attachment. Proof of the power of emotion to drive environmental change is the effect that documentaries such as "Our Blue Planet" (2017) and "Drowning in Plastic" (Watt-Smith, 2018) have had on plastic consumption. These documentaries showcased the extent of plastic pollution and damage to a wide variety of creatures and were charged with emotion, moving viewers to tears and consequently to action.

Enchantment was pursued in this research precisely on the inspiration of one of the advocates of NDD, Richard Louv, who describes many moments of enchantment in his childhood, along with those of other environmentalists who have been inspirational in sending many on environmental pursuits (2005). However, that enchantment is not central to the solutions that he seeks for the problem.

This work has sought an emotional attachment to wildness inside and outside of us, as the foundation for re-attaching to nature, and for rethinking our relationship with it from within. It is the wildness within us, I have proposed, that holds that key to reimagining our place in

nature. The problem behind NDD is not that we have lost contact with a nature that is outside of us, but that we have lost contact with our wild being or inner wildness, the anonymous life that underpins our personal life, and that is part of the flesh of the world. The solution, in turn, is to enable ways to access it, enchantment being one of them. The wildness that we need contact with is therefore within us and we can reach it near and far, as discussed throughout this research. We do not need to encourage contact with nature, but rather, we need to rethink ourselves as nature.

THE ENCHANTMENT OF THE WILD: A journey into wildness through listening

The opening pages of this research gave an account of how the protagonist of *Wild* (2014) embarked on a journey into the wild of the Pacific Crest Trail. After years of self-inflicted abuse, she abstracted herself from her mundane life, and through the hard and joyful times of the journey, she integrated into the environment and became strong in the process.

In the opening pages of this research, I also embarked on a journey: a journey into wildness through listening in the pursuit of enchantment. The purpose of this journey was to interrogate our detachment from nature. Enchantment, I proposed, could hold the key to valuing everyday wildness on a par with remote wildness, enabling reattachment to nature right at our doorstep. Listening attentively to the environment, in turn, could open myself to that enchantment.

Our commonality with and attachment to the others, human and nonhuman, can be argued scientifically, for example, through the theory of evolution or by analysing and comparing our genetic makeup with other species and organisms. Our commonality with others can also be argued ontologically, as Bennett proposes through her vital materialism (2010). This research journey has taken this second ontological path, building on Merleau-Ponty's concepts of wild being and flesh (1968). Through this journey, I have developed an overarching argument. I have argued that reconnecting with our inner wildness or wild being is key to our reattachment with nature, and for sensing our commonality with the others. Therefore, the wildness that we need to reattach to is not only outside of us, as I presupposed at the beginning of the work, but more importantly within us.

The brute world that we belong to as wild beings pre-exists the separation between subjects and objects. It is a world where we are all anonymous beings, prior to the emergence of individual selves, where we sense a common essence with others and our surroundings. It is the world that we access through a perceptual faith that is common to us all (humans). We are all capable of perceiving the same world. After all, we share our sense organs, because our bodies originally functioned similarly, before cultural and individual differences set in. It is, therefore, a timeless perception, that others before us, and others after us will also be able to sense similarly. The wild being is a mode of being that runs parallel to our personal life and that we can retrieve through, for example, enchantment – as was the case in this

research – where we are temporarily suspended in time and from our mundane life. As both personal self and wild being, we are at once self and non-self; a subject and a thing of the world; our flesh, and part of the flesh of the world.

The power to access the anonymous being stems from exposing our more-than-humanness, what in us is not exclusively human, and that we share with the others. This power exposes our vulnerability and shows that we are one of the many components of the earth and that we should act accordingly moving forward to a more egalitarian future. In enchantment, through our wild being, we develop an affective attachment to everything around us that we also experience in us. Re-emerging out of enchantment, coming back into our personal selves, we develop a care for the other that stems from having sensed our common essence, and we can shape our values and actions accordingly.

This argument has built gradually from the findings of each of the chapters as follows:

In *Staging the Wild* I began a journey into wildness and a learning-to-listen journey. Through the first, I explored my everyday surroundings in Newcastle upon Tyne. Through the second, I started to develop a sensibility to the environment through listening. By reflecting on the installations that emerged from those everyday environments and that incipient sensibility I concluded that enchantment in wildness entails a counter-worldly or abstracted experience. From that enchantment I drew two key ingredients for a human-non human relation that moves beyond nature and culture as two:

1. Commonality and difference, which are integral aspects of our relationship with others. We need commonality to overcome self-interest and establish an emotional connection, and we need difference to see the other's needs as different from our own (Plumwood, 1993).

2. Identifying an otherness in us, and us in the other, with no firm boundaries in between that is key to developing horizontal relations between humans and non-humans (Bennett, 2011).

In *Let it Go*, through soundwalks in a spontaneous wildness of Toronto, I discovered that through listening I became deeply engaged and immersed in that wildness, opening the way to moments of enchantment. In *Let it Go*, I also found that surprise encounters with everyday wildness could trigger intense moments of enchantment, affirming the thought that mundane wildness holds the key to our re-attachment to nature. As per *Staging the Wild*, these moments were counter-worldly and at times fearful encounters with wildness. These moments inspired a concluding installation where I defended that there is scope for affording nature a freer hand in the public realm. By embracing nonhuman agency, we bring to our awareness that we are not the only agents in the city and we open ourselves to many joyful moments. Additionally, in *Let it Go*, I turned to Merleau-Ponty's concept of flesh and wild being to make sense of the enchantment encountered to date (1968).

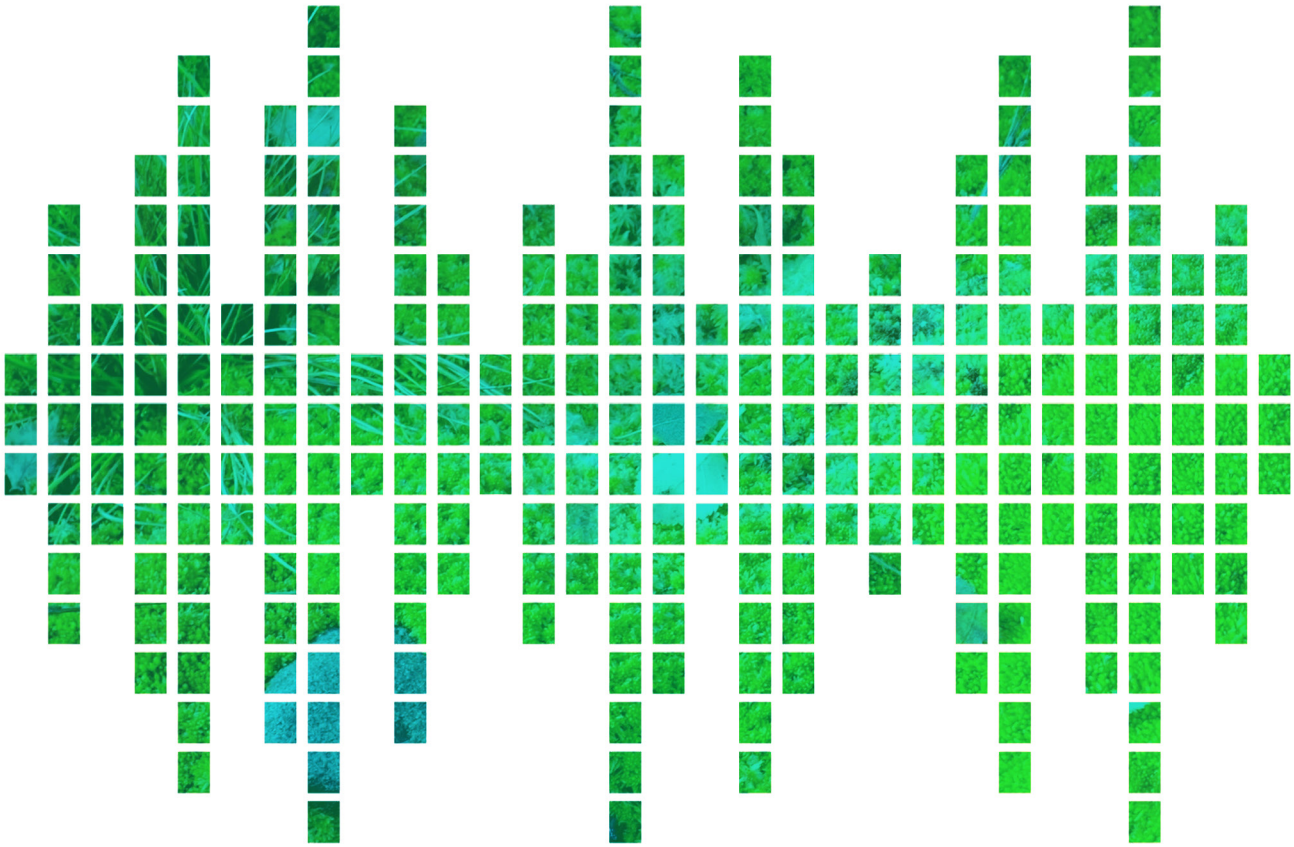
In *The Wild in Silence*, back from the wildness of Toronto and immersed in an environment

that I now perceived as noisy, I was unable to find enchantment within my everyday surroundings. In search of an escape somewhere isolated and quiet, I turned to the remote tranquillity of Northumberland National Park that I explored soundwalking. Through the quietness in the landscape and the wildness experienced within it, I was once again abstracted from my mundane life, in deep connection with my surroundings and enchanted. In deep connection, I realised that I was an integral part of the landscape, a subject for others to sense. Surprisingly, the wildness that I experienced in enchantment was within me, a wild being (Merleau-Ponty, 1968) revealed through the abstraction of time and personal self, and in community with my surroundings. My wild being exposed my more-than-humanness and enabled an emotional connection with the other. These two aspects correspond with the more-than-humanness and commonality identified in *Staging the Wild* as key for an alternative human-nonhuman relation. The installation that concluded this chapter interacted with the environment as we and other animals do when we are in it, expressing the earlier realisation that we are an integral part of the landscape, and thus defending our presence in remote and isolated landscapes.

In *Walking Back*, reflecting on the access to my wild being at Northumberland National Park, I concluded that I had been exposed to this inner wildness via all previous moments of enchantment, in both everyday and remote wildness. The silence, isolation, and wildness of Northumberland National Park reminded me of how to reach it. This inner wildness, I argued, can remind us of the world that is outside our control and that includes us, which, in turn, leads us to value and care for it. Care and value that, I proposed, we could apply to the wildness within us, around us and far from us.

Fig. 92 Guide to Sound cover

THINKING WITH MY EARS



GUIDE TO SOUND FOR SOUNDSCAPE ARCHITECTS

INTRODUCTION

This guidance borrows its title from an article by composers and sound artists Bruce Odland and Sam Auinger: "Hearing Perspective (Think with your Ears)". In the article, Odland and Auinger questioned, *"Why does the MOMA sculpture garden, for example, sound like any taxi stand in midtown NYC? Why is an expensive 'quiet' car quiet only when riding on the inside?"* (2010). The answer to those questions, they propose, is that we live in a culture that privileges the eye in decision-making and budget allocation, while the solution they propose, is to think with our ears.

Canadian composer and educator Raymond Murray Schafer, like Odland and Auinger, also invited us to think with our ears when he proposed that we all have a role as composers of the soundscape (1994). The soundscape is the "acoustic environment as perceived or experienced and/or understood by a person or people, in context" (ISO, 2014, p.1). It is undeniable that landscape architects, together with urban designers, architects, and engineers, play a primary role in that composition. Through our design and management interventions, we compose the geophony (geophysical sounds), biophony (biological sounds) and anthrophony (anthropogenic sounds) of the landscape (Krause & Hoffman, 2012). But how many of us think of ourselves as soundscape composers, as "soundscape architects"?

Landscape Architects mainly consider sound as noise to be mitigated. Sound as a positive feature is seldom thought of, except in the creation of sensorial landscapes that seek to include features that target all the senses. In the last twenty years, landscape architects have become increasingly good at visualising and simulating projected landscapes. During that same period, considerable research has been carried out on soundscapes from a variety of disciplines to improve our acoustic environment and think of sound beyond noise to be mitigated. This wave of research was triggered by the Environmental Noise Directive (END, Directive 2002/49/EC) and its implementation by member countries. The END required the identification and management of noise pollution and the protection of good environmental soundscapes in the form of quiet areas. A subsequent technical guide was produced to help identify quiet areas and included the soundscape approach as a suitable methodology to that end (European Environment Agency, 2014). The soundscape approach builds on the field of acoustic ecology that started in the 60s (see for example Schafer, 1994; Truax, 2018; Westerkamp, 1988) and researches the soundscape first through human perceptions, and afterwards by acoustic measurements. Soundscape approach research has culminated in the publication of ISO 12913 Acoustics: Soundscape parts 1 (Definition and conceptual framework, 2014) and 2 (Data collection and reporting requirements, 2018) with further parts to be developed.

Despite the breadth of research on soundscape, active consideration of sound has not permeated the practice of Landscape Architecture. Landscape Architects lack the skills and knowledge to assess existing soundscapes, predict how those soundscapes will be altered through their designs, consider sound as an active part of the design process or envisage what their projected landscapes would sound like.

In response, this is the beginning of a guide aimed at training future "soundscape architects". The guide concludes a six-year-long learning-to-listen journey carried out through soundwalks, creative interventions, and collaboration in design projects. The guide has been drafted so as to enable its being read independently from the core of the thesis, and for this reason, readers of the thesis will encounter within the text descriptions and references to authorities already cited. The guide provides the foundation to incorporate sound into practice and identifies areas for future research and development. The advice draws on a variety of interrelated disciplines concerned with the study of sound and the environment, including Acoustic Ecology, Sound Studies, Bioacoustics and Ecoacoustics, and Sound Art.

The guide starts with general recommendations, followed by practical advice applicable to each stage of the life of a project. The advice is not exclusive to each stage but intended to be read in conjunction to provide an overall foundation on sound for landscape architects and other design professionals. The advice is put into practice in the Appendix through a project example, *High Street Glasgow*, undertaken as part of OOBE Landscape Architects.

The stages described below follow the stage classification detailed in the Landscape Institute's "*The Landscape Consultant's Scope of Services*" (2018).

GENERAL RECOMMENDATIONS

Classifying and assessing a soundscape is a complex task, as judgments on sound are ultimately individual and vary according to context (Aletta and Kang, 2018; Aletta, Kang and Axelsson, 2016; Blesser and Salter 2010; Kang *et al.,* 2016; Payne, Davies and Adams, 2009; Sun *et al.,* 2019). Despite this complexity, as soundscape architects, we must train our ears to develop an understanding of how we alter soundscapes, and how users might perceive those soundscapes.

The first step towards training our ears and becoming a "soundscape architect" is to learn-to-listen attentively. To listen, we need to open our ears, a process that Schafer described as ear cleaning (1967). Schafer carried out several exercises with the students of his experimental music module at Simon Fraser University to clean their ears. These included being silent for a day to focus on the sounds of others, finding an interesting sound to bring to class, or keeping a soundscape diary to annotate the sounds encountered (Schafer, 1967, 1994). We can easily incorporate these or similar exercises into our daily routines to open our ears. For example, suitable exercises could include focusing on a specific sound every day on our walk or commute to work, keeping a diary of particular sounds that we have enjoyed or that might have surprised us at the end of the day or recording environmental sounds to develop a sound library. Through these exercises, we can unfold how our immediate soundscapes alter throughout the day and in time.

Participating in or organising soundwalks is also a useful starting point for listening attentively. Soundwalks can take many forms and aim to bring attention to the acoustic environment. In a guided soundwalk participants are taken through interesting soundscapes in a variety of

locations in silence, perhaps stopping at specific points to come together and gather their experiences. Soundwalks bring attention to the acoustic properties of different spaces and the unique sounds of a particular place. ISO 12913 Part 2 provides guidance on the methodology of the soundwalk including the collection of data. Through soundwalks, we uncover the "soundmarks, keynote sounds, and signals" of the soundscape (Schafer, 1994, p.37), also described as "salient, background and foreground sounds" (Kang *et al.,* 2016; ISO, 2018). "Soundmark sounds" are the sound equivalent of landmarks and are unique to a place or community; "keynote sounds" are background sounds, and "signals" foreground sounds that one listens to attentively such as warning sounds (sirens, horns, etc.) (Schafer, 1994, pp.36-7).

Listening attentively is harder than it sounds, as it implies welcoming the unwelcome, being open to all sounds. When one gets frustrated with unwanted sounds, with noise, one stops listening. Listening means "staying with the sound for a time no matter what reactions it may elicit in us" (Westerkamp, 2015). If we try to shut out unwanted sounds, we become frustrated, as we cannot shut our ears, therefore our body is "still perceiving" (ibid.).

Once we have learned to listen attentively, we can actively consider sound throughout all the stages of a project, as detailed below.

STAGES 0 AND 1: STRATEGIC DEFINITION, PREPARATION AND BRIEF

During the initial stages of a project, landscape architects carry out the site and contextual analysis and help firm up the brief for the new development.

A soundscape assessment and characterisation of the site should be carried out at this stage. Sound has traditionally been considered during the site analysis in terms of noise that might need mitigating, for example, in a site close to a busy road. Soundscape assessment, however, should not only be concerned with noise and sound measurements but start from human perception, as research suggests that a reduction of sound levels does not automatically translate into an improvement to life quality (Kang *et al.*, 2016).

The soundscape assessment can be carried out through a combination of methods such as soundwalks, sound recordings, and review of noise maps and quiet area maps. Sound recordings can be used as archives, to extract sound measurements if required, or to form the basis for auralisations as described later.

The purpose of the soundwalk is to collect information on the parameters that influence the perception of the soundscape: environment (1); sound sources (2) and user attitude and perceptions (3) (BSI, 2014).

(1) **Environment**

The environment alters the sound as it travels through it, and it also influences how far a sound can be heard. Acoustic space, defined by how far a sound can be heard, does not correspond with physical space. The geometry of the spaces, materiality and weather conditions will affect the experience of sound, and therefore should be included as part of the assessment. With regard to the geometry, depending on whether spaces are enclosed or open, sound waves will be reverberated or travel far beyond the site. With regard to the materials, whether hard or soft, these will alter the degree of absorption of sound waves. With regard to the weather conditions, for example, the degree of moisture and wind also affect sound.

(2) **Sound sources**

Sound is an expression of the activities and events that happen within the space and in the vicinity (Blesser and Salter, 2010), and can, therefore, give us a lot of information about the character of the site and what is happening around it. Those activities and resulting sounds can be classified first into background, foreground and soundmark sounds, and then into sounds that are human in origin (for example technological, voices or result of movement) or nonhuman (water, wind, etc.). ISO Part 2 includes a taxonomy of places, sound sources,

and sources which is a useful starting point to capture points 1 and 2. However, with regard to categories of place, the assessment should include additional information regarding geometry and materiality. When recording sound sources is also important to record their topology – the spatial reach where that sound can be heard.

With regard to recording nonhuman sound sources, it is important to realise that sound is also an expression of the health of a habitat. The soundscape of a habitat takes time to develop, as the Acoustic Niche Hypothesis (ANH) suggests (Krause and Hoffman, 2012). ANH proposes that organisms adapt their calls to avoid frequency and temporal overlaps with other species that share their habitat, thus finding their acoustic niches. The tuning of the resulting animal orchestra, therefore, can be a sign of the health of the ecosystem, as species need time to find their acoustic niches. Consequently, temporary or permanent habitat disruptions (such as tree removal and subsequent replanting) could have considerable soundscape implications. A recently disturbed ecosystem, where the species make up has been altered, would have an out of tune orchestra, and would, therefore, require time to recover and retune (Krause and Hoffman, 2012). When recording natural sound sources, therefore, one should consider the richness of a habitat and the age of it, as they will have an effect on the soundscape.

(3) Users perception/affective response.

Descriptors are employed to record the affective response to a soundscape. Examples of these include: pleasant, chaotic, vibrant, uneventful, calm, annoying, eventful, monotonous (ISO, 2018). Two other aspects are important to record as well, due to their influence on the affective response to the soundscape: the perceived degree of control over the sound sources, and the appropriateness of the sound to the context (Axelsson, 2015).

The soundscape assessment can be illustrated through a map capturing the above information, supported by recordings and images. Constraints and opportunities can be extracted from the assessment to inform the soundscape concept or goals at the next stage.

STAGE 2:
CONCEPT DESIGN

This stage involves the preparation of concept design proposals for the site. Concept proposals indicate the potential uses and activities that will feature in the array of spaces proposed, and they might involve alterations and expansions to existing habitats, or the introduction of new habitats.

During this stage, a soundscape concept should be developed in line with the overall concept for the site and stemming from the opportunities and constraints identified in the soundscape assessment.

With regards to the soundscape concept, there are several considerations:

(1) Soundscape mood

The concept for the soundscape could be to create a mood to match the aspirations for the space. For example, as part of the design of an urban square, the goal could be to create a vibrant soundscape. To do so, we can look at theoretical models of soundscape perception, such as the one developed as part of the Positive Soundscape Project. This model proposed that a vibrant soundscape is one with a suitable number of sound events, that are perceived to harmonise with one another, and with a degree of variation over time (as opposed to monotonous) (Davies et al., 2013). This brings us to the next consideration.

(2) Proposed activities and uses

Proposed activities and uses should be thought of as sound sources, and considered in relation to the acoustic properties of the spaces proposed, and their appropriateness to the context. As discussed previously, the acoustic environment will alter how the sound sources are perceived. For example, if we propose an enclosed space bound by hard surfaces, such as a courtyard, sound waves will be reflected, creating an echo. If that same space is enclosed by soft surfaces, vegetation, sound waves will be absorbed. Sound absorption by plants will vary across the seasons (in the case of deciduous planting) and with the growth of the plants. Judgments on sound are ultimately individual and vary according to context, the perceived degree of control over and appropriateness of the sound, as discussed. Therefore, we should think about the potential ways those sounds might be experienced, and how they might affect the behaviour and activities of the people experiencing those spaces. Accordingly, some sound sources (activities) might be able to share an acoustic space, and it might be beneficial to do so, for example, to create vibrancy. However, others might need isolating.

With regards to the opportunities and constraints identified in the analysis, there are two considerations:

(1) Soundscape constraints

The analysis might indicate unwanted sounds that might need to be mitigated or masked. Mitigation could take place through the introduction of hard or soft barriers such as walls, building orientations or planting. Masking can happen through the introduction of positive sounds that take away the focus on negative sounds. An example of this last could be the introduction of water features or planting that will attract a variety of birds in spaces close to roads to mask the sound of traffic flow. Additionally, in aiming to mitigate negative sound, other living organisms that share the development site should also be considered. Sound affects not only us but also the many living organisms we share our environment with, as attested by research looking at the impact of sound on others. For example, airport noise influences the timing of bird song (Dominoni *et al.,* 2016) and plant roots' ability to locate water is also affected in the presence of noise, as roots rely on acoustic vibrations as well as soil moisture to locate water (Gagliano *et al.,* 2017).

(2) Soundscape opportunities

In the case of monotonous soundscapes perceived negatively, the opportunity would be to introduce a variety of sound sources in line with the overall concept for the project. The amount and type of sound sources will depend on whether the aim for the space is to create a calm or eventful soundscape. To this end, habitats could be thought of and introduced as soundscapes to be experienced and enjoyed, as natural sounds are the source of much enjoyment, in particular, the sound of water or birdsong (Nayar, 2017).

The last aspect to consider is Environmental Impact Assessment that, if required, is also initiated at this stage. Landscape Architects are responsible for producing the Landscape and Visual Impact Assessment (LVIA). The landscape assessment considers impacts on the existing landscape character of the site during construction, after completion, and off-site, and proposes mitigation measures to minimize significant impacts. The visual impact assessment considers how existing views and visual amenity will be affected by the development, and again recommends measures to mitigate or reduce impacts. Landscape architects, therefore, consider visual effects at length. Noise is a separate chapter of the environmental statement, carried out by engineers to consider the repercussions of construction and operational noise of the development, and based on objective acoustic measurements. Landscape architects are not required to regard the impact of the development on the existing soundscape(s), even though, as discussed, habitat disruptions can have major effects. As Landscape Architects we need a better understanding of soundscape impacts and their magnitude to expand our LVIAs to include sound. A robust methodology for soundscape assessment, characterisation and simulation needs to be developed and adopted to that end.

STAGES 3 AND 4: DEVELOPED AND TECHNICAL DESIGN

Once the concept design has been agreed, the proposals are developed into a final design, and the materials detailed. A set of technical drawings and specifications are produced, as well as visualisations aimed at illustrating and selling the proposed scheme. Visualisations are used for a variety of purposes, including planning applications, client presentations, community engagements, and marketing.

An important aspect to consider at this stage is the emotional role that sound plays in the engagement with the landscape. Sound provides direct involvement with the landscape, which triggers an emotional response to it in a way that sight does not. This direct engagement is because in listening there is direct contact between the source and perceiver (Blesser and Salter, 2009), a contact that we cannot prevent. The sound waves emitted by the source reach our skin and ears, and we cannot close them at will. This readiness to hear has an evolutionary purpose as, by not being able to close them, our ears were always alert to any warning signs, even in the dark (Feld, 1996). Through sound, therefore, we are always engaged with our surroundings. The eye also receives light waves; the difference is that these are not produced directly by the object but reflected from it, and we have certain control over what we see, as we can focus on and close our eyelids, choosing whether to engage or not. There is a further difference between sight and sound of relevance to the emotional connection to the landscape: sight exposes the surface of objects, we see their outer envelopes, whereas sound can expose the interior of those objects, the invisible (Ong, 1982).

The direct and emotional connection that sound offers with the landscape has applications throughout all the design stages. During the design stage, there are three aspects to consider.

(1) Detailing of materials

The first aspect concerns the detailing of materials. In the concept stage, we considered the acoustic properties of spaces and the uses that those spaces might host. At this stage, we consider the materiality of these spaces in detail. Soft and hard materials will alter how those spaces are perceived. For example, planting might soften the sound of an area, as it absorbs sound, as described previously. Additionally, planting will also provide joy; through for example the sound of crackling leaves or moving grasses in the wind. Hard materials will also elicit a variety of responses, as different materials give way to different sounds. An example of this last is how different footsteps sound according to the pavement material walked on.

(2) Presentation of proposals

The second aspect concerns the presentation of our proposals. When sound provides a sense of space and a direct and emotional response to the landscape, why not sell our

proposals through the ears? To that end, auralisations could be used in conjunction with visualisations or on their own. Collaboration with acoustic engineers would be beneficial to that end.

(3) Active use of sound

The last aspect concerns the active use of sound or sound strategies as part of the design. To that end, sound artists can be the source of advice and inspiration. Sound strategies could be linked with the choice of materials as described above, or in the arrangement of spaces. For example, a sudden change from a loud environment to a quiet one can have a sound amplification effect, a principle used by sound artists Will Schrimshaw and Jamie Allen for their Acoustic Subtraction installations at Kielder Forest (UK) and other locations. A similar principle could be incorporated into the design of a site to bring attention to specific sounds.

STAGES 5 AND 6: CONSTRUCTION, HANDOVER AND CLOSE, AND IN USE

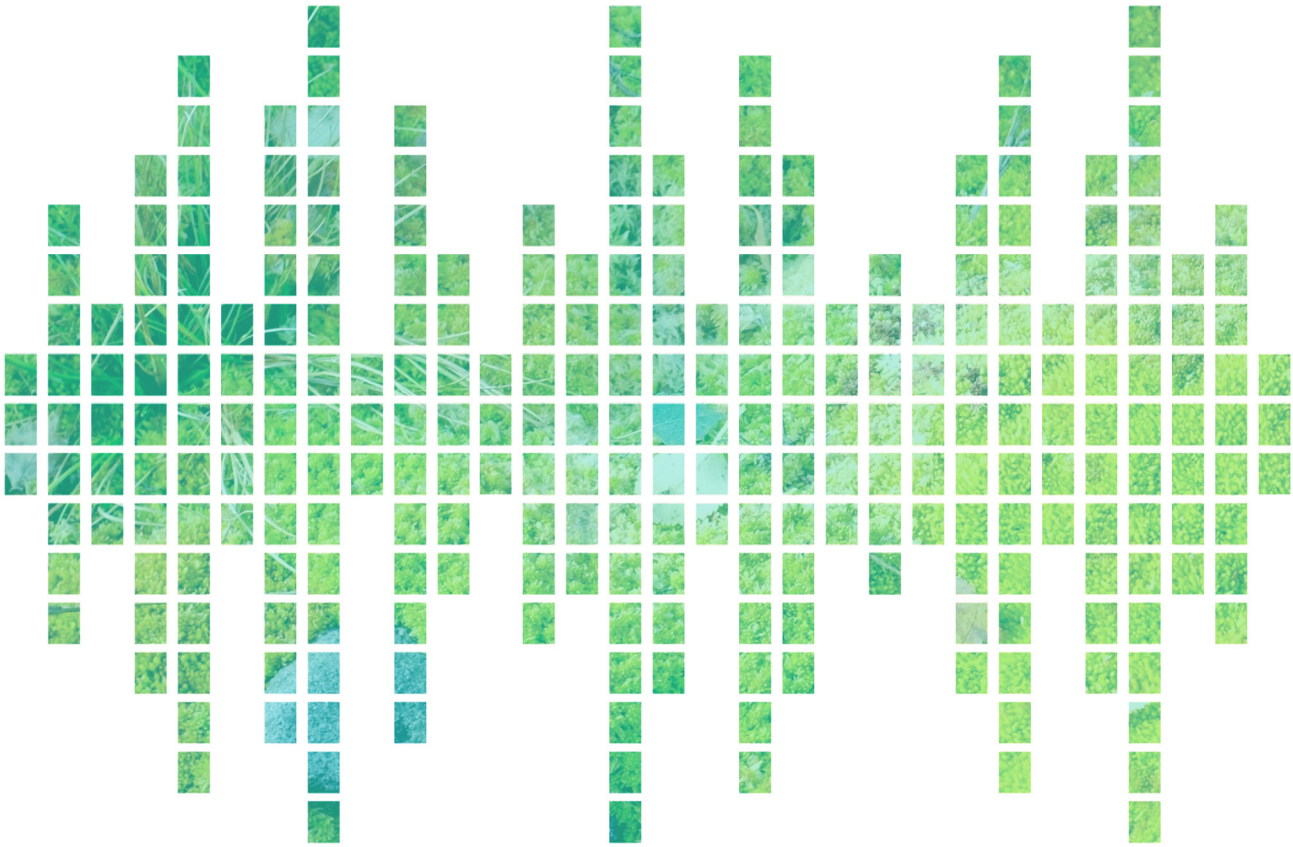
During the construction and post-construction stages of a project, sound can be used to monitor the health and changes in a habitat, as discussed, but also on our journey towards becoming soundscape architects. Monitoring and recording how the soundscape of a site and of our designs evolve throughout the day and in time will help us to predict what future soundscapes will sound like, with applications at all stages of a project. The development of a sound library is beneficial to that end. Such a library will take time to develop, and would be enriched by collaboration with other landscape architects and professionals.

CONCLUSION

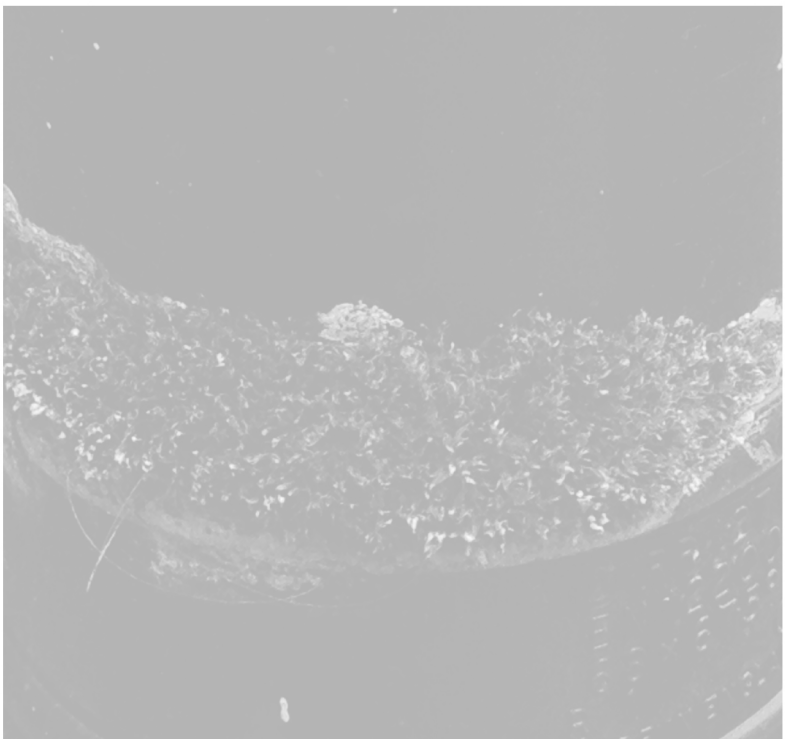
Sound in landscape and urban design should be considered a positive and central element of any proposal, and not only a negative feature, a noise that needs mitigating. Sound as a positive can be thought of throughout the life of a project in terms of activities bringing life to a space or as an expression of a healthy habitat. The development of future soundscapes or alteration of existing ones can include the application of sound strategies and can be presented through auralisations on their own or with the help of visualisations.

The journey towards becoming "soundscape architects" will require time, collaboration with other professionals, and the development of a new set of design tools, skills, and knowledge. Those skills and knowledge should be an essential part of the training and development of all landscape architects engaged in the management and development of meaningful landscapes. To that end, a standard approach that relates to existing working practices, such as that introduced in the foregoing Guide, is required to accompany landscape architects on their journey.

The project included in the Appendix, *High Street Glasgow*, undertaken as part of OOBE Landscape Architects, sought to put into practice this guide.



BE PATIENT
DRIVE WITH
CARE



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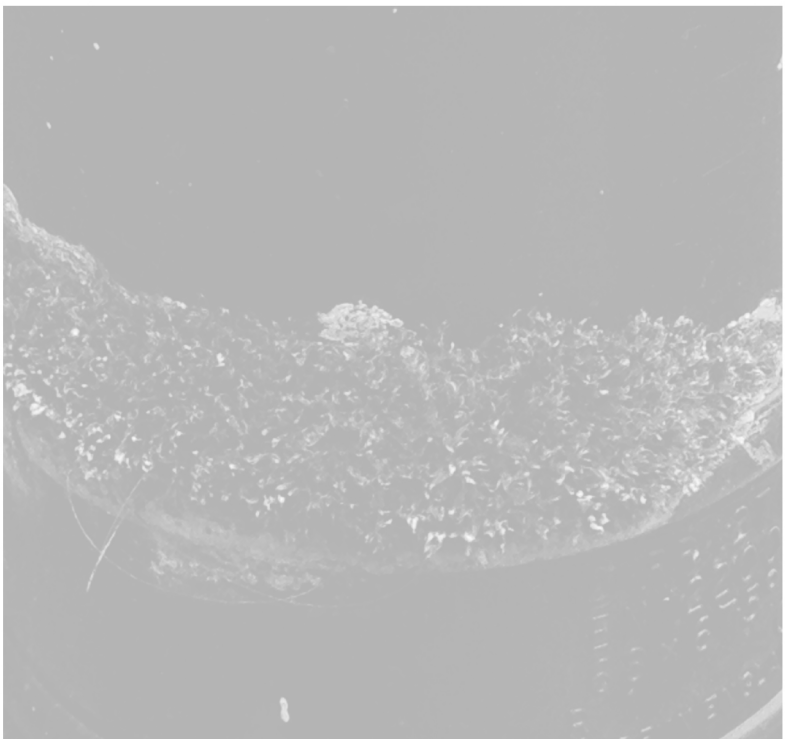

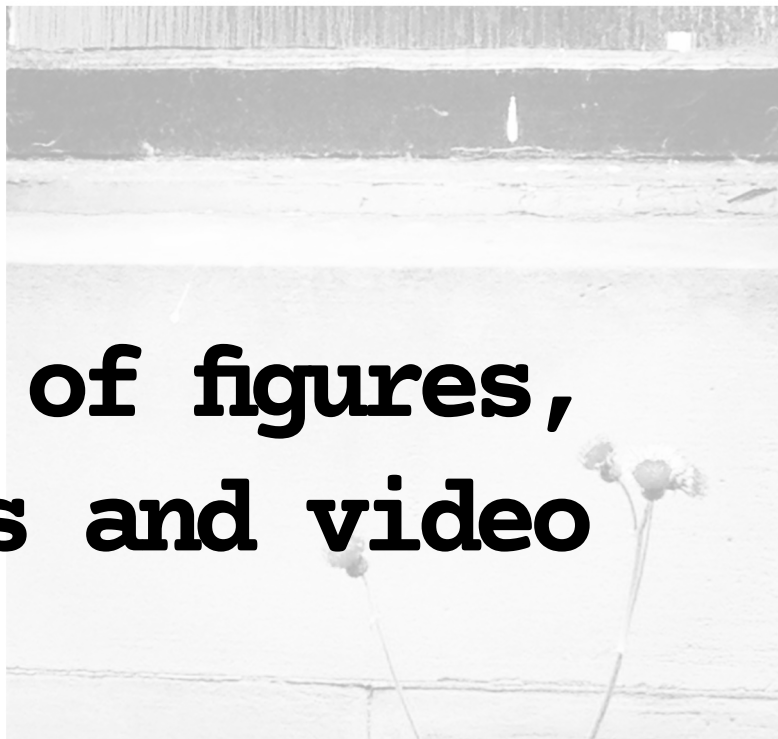

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40	Under the Gardiner	Usue Ruiz Arana, 2015
41	Routes from home to the lake	Usue Ruiz Arana, 2019 Base drawing adapted from Toronto road and administrative map ID 69431855 © Rainer Lespiewski, Dreamstime.com
42	Location of Gardiner Expressway and Leslie Street Spit in the City of Toronto	Usue Ruiz Arana, 2019 Base drawing adapted from Toronto road and administrative map ID 69431855 © Rainer Lespiewski, Dreamstime.com
43	The Gardiner Expressway at Lower Jarvis Street	Usue Ruiz Arana, 2015

Figure Number	Title	Author and copyright
44	Photograph locations under the Gardiner Expressway	Usue Ruiz Arana, 2019 Base drawing adapted from Toronto road and administrative map ID 69431855 © Rainer Lespiewski, Dreamstime.com
45	Photograph locations along Leslie Street Spit	Usue Ruiz Arana, 2015 Base drawing created from aerial image © Google Earth, 2015
46	Spadina Avenue	Usue Ruiz Arana, 2015
47	York Street	Usue Ruiz Arana, 2015
48	Yonge Street	Usue Ruiz Arana, 2015
49	Yonge Street	Usue Ruiz Arana, 2015
50	Lower Jarvis Street	Usue Ruiz Arana, 2015
51	Cherry Street	Usue Ruiz Arana, 2015
52	Rewilding the Gardiner exhibition at the Kiln, Evergreen Brickworks	Usue Ruiz Arana, 2016
53	Photographs corridor, Rewilding the Gardiner exhibition at the Kiln, Evergreen Brickworks	Usue Ruiz Arana, 2016
54	Visitors enjoying the photographs, Rewilding the Gardiner exhibition at the Kiln, Evergreen Brickworks	Usue Ruiz Arana, 2016
55	Visitors entering the video corridor, Rewilding the Gardiner exhibition at the Kiln, Evergreen Brickworks	Usue Ruiz Arana, 2016
56	Monitor and speakers playing video, Rewilding the Gardiner exhibition at the Kiln, Evergreen Brickworks	Usue Ruiz Arana, 2016
57	Linhope Spout	Alan Connor, 2016
58	NNP National Character Areas	Usue Ruiz Arana, 2019 National Character Area information adapted from (Natural England 2013b; Natural England 2013c; Natural England 2013e; Natural England 2013d; Natural England 2013a) Base drawing created from 1:250 000 Scale Colour Raster [TIFF geospatial data], Scale 1:250000, Tiles: nt_clipped,nu_clipped,ny_clipped,nz_clipped, Updated: 19 April 2018, Ordnance Survey (GB), Using: EDINA Digimap Ordnance Survey Service, <https://digimap.edina.ac.uk>, Downloaded: 2019-07-16 22:43:08.797

Figure Number	Title	Author and copyright
59	NNP Tranquillity Map 2004	Usue Ruiz Arana, 2019 Tranquillity information adapted from figure 11 (MacFarlane et al. 2005) Base drawing created from 1:250 000 Scale Colour Raster [TIFF geospatial data], Scale 1:250000, Tiles: nt_clipped,nu_clipped,ny_clipped,nz_clipped, Updated: 19 April 2018, Ordnance Survey (GB), Using: EDINA Digimap Ordnance Survey Service, <https://digimap.edina.ac.uk>, Downloaded: 2019-07-16 22:43:08.797
60	NNP Tranquillity Map 2011	Usue Ruiz Arana, 2019 Tranquillity information adapted from figure 2 (King et al. 2011) Base drawing created from 1:250 000 Scale Colour Raster [TIFF geospatial data], Scale 1:250000, Tiles: nt_clipped,nu_clipped,ny_clipped,nz_clipped, Updated: 19 April 2018, Ordnance Survey (GB), Using: EDINA Digimap Ordnance Survey Service, <https://digimap.edina.ac.uk>, Downloaded: 2019-07-16 22:43:08.797
61	NNP Tranquillity Map 2011 with main soundwalks carried out	Usue Ruiz Arana, 2019 Tranquillity information adapted from figure 2 (King et al. 2011) Base drawing created from 1:250 000 Scale Colour Raster [TIFF geospatial data], Scale 1:250000, Tiles: nt_clipped,nu_clipped,ny_clipped,nz_clipped, Updated: 19 April 2018, Ordnance Survey (GB), Using: EDINA Digimap Ordnance Survey Service, <https://digimap.edina.ac.uk>, Downloaded: 2019-07-16 22:43:08.797
62	Soundwalk 3 map of route	Usue Ruiz Arana, 2019 Base drawing created from 1:25 000 Scale Colour Raster [TIFF geospatial data], Scale 1:25000, Tiles: nt81_clipped, Updated: 19 August 2019, Ordnance Survey (GB), Using: EDINA Digimap Ordnance Survey Service, <https://digimap.edina.ac.uk>, Downloaded: 2019-10-31 16:02:32.169
63	Stonewall at Shillhope Law	Usue Ruiz Arana, 2016
64	Hepden burn	Usue Ruiz Arana, 2016
65	Middle Hill	Usue Ruiz Arana, 2016
66	Hareshaw Linn	Alan Connor, 2017
67	Soundwalk 4 map of route	Usue Ruiz Arana, 2019 Base drawing created from 1:25 000 Scale Colour Raster [TIFF geospatial data], Scale 1:25000, Tiles: nu00_clipped,nz09_clipped, Updated: 19 August 2019, Ordnance Survey (GB), Using: EDINA Digimap Ordnance Survey Service, <https://digimap.edina.ac.uk>, Downloaded: 2019-10-31 16:27:54.182

Figure Number	Title	Author and copyright
68	Beacon cairn	Alan Connor, 2016
69	Simonside forest	Usue Ruiz Arana, 2016
70	Selby's cove	Usue Ruiz Arana, 2016
71	Physical model for Silent Landscapes	Usue Ruiz Arana, 2016
72	Making a papier-mâché cone with a traffic cone base	Alan Connor, 2016
73 - 74	Physical model made out of small bolting cones	Usue Ruiz Arana, 2016
75	Visualisation of Silent Landscapes at College Valley by river	Usue Ruiz Arana, 2016
76	Visualisation of Silent Landscapes at top of Linhope Spout	Usue Ruiz Arana, 2016
77	Visualisation of Silent Landscapes at Selby's Cove	Usue Ruiz Arana, 2016
78	Visualisation of Silent Landscapes at Barrowburn Farm	Usue Ruiz Arana, 2016
79	Silent Landscapes in construction	Usue Ruiz Arana, 2017
80	Poster advertising Silent Landscapes	Usue Ruiz Arana, 2017
81	Participants of the soundwalk	Usue Ruiz Arana, 2017
82	Silent Landscapes by the meadow	Usue Ruiz Arana, 2017
83	Silent Landscapes by the river	Usue Ruiz Arana, 2017
84	Silent Landscapes through the listening cones	Usue Ruiz Arana, 2017
85	Silent Landscapes by the river	Usue Ruiz Arana, 2017
86	Silent Landscapes from above	Usue Ruiz Arana, 2017
87	Silent Landscapes poster	Usue Ruiz Arana, 2017
88	Hepdben burn valley at dusk	Usue Ruiz Arana, 2017
89	Hepden burn valley at dawn	Usue Ruiz Arana, 2017
90	From Northumberland National Park to Newcastle upon Tyne	Usue Ruiz Arana, 2014-2017
91	From Northumberland National Park to Newcastle upon Tyne	Usue Ruiz Arana, 2019
92	Guide to Sound cover	Usue Ruiz Arana, 2019
93	High Street Glasgow visualisation	OOBE Ltd, 2017
94	High Street Glasgow location	OOBE Ltd, 2017

Figure Number	Title	Author and copyright
95	High Street Glasgow soundscape analysis daytime	Usue Ruiz Arana, 2019 Base drawing created from OS MasterMapÂ® Topography Layer [TIFF geospatial data], Scale 1:1000, Tiles: ns5964_clipped,ns5965_clipped,ns6064_clipped,ns6065_clipped, Updated: 18 May 2017, Ordnance Survey (GB), Using: EDINA Digimap Ordnance Survey Service, <https://digimap.edina.ac.uk>, Downloaded: 2019-11-04 20:56:37.551
96	High Street Glasgow soundscape analysis evening	Usue Ruiz Arana, 2019 Base drawing created from OS MasterMapÂ® Topography Layer [TIFF geospatial data], Scale 1:1000, Tiles: ns5964_clipped,ns5965_clipped,ns6064_clipped,ns6065_clipped, Updated: 18 May 2017, Ordnance Survey (GB), Using: EDINA Digimap Ordnance Survey Service, <https://digimap.edina.ac.uk>, Downloaded: 2019-11-04 20:56:37.551
97	High Street Glasgow soundscape concept	Usue Ruiz Arana, 2019 Base drawing OOBE Ltd, 2017
98	High Street Glasgow listening pods tracing culverted Molinburn	OOBE Ltd, 2017
99	High Street Glasgow sculptural trumpets acting as aural and visual landmarks	OOBE Ltd, 2017
100	High Street Glasgow planting tracing flow of Molinburn over ground	OOBE Ltd, 2017
101	High Street Glasgow landscape masterplan	OOBE Ltd, 2017
102	High Street Glasgow visualisation	OOBE Ltd, 2017

SOUNDTRACKS

Soundtrack number	Title	Author and copyright
01	Field recording 01	Usue Ruiz Arana, 2014
02	Conversation I: Kittiwakes and people	Usue Ruiz Arana, 2014
03	Conversation II: Traffic and the sea	Usue Ruiz Arana, 2014
04	Conversation III: Birds and rusty swing	Usue Ruiz Arana, 2014
05	Conversation IV: Waterfall and white noise	Usue Ruiz Arana, 2014
06	Pedestrian trail	Usue Ruiz Arana, 2015
07	Embayment	Usue Ruiz Arana, 2015
08	Breakwater	Usue Ruiz Arana, 2015
09	Leslie Street Spit Audio Postcard	Usue Ruiz Arana, 2015
10	Baselands	Usue Ruiz Arana, 2015
11	Main road	Usue Ruiz Arana, 2015
12	Walk back	Usue Ruiz Arana, 2015
13	Spadina Avenue	Usue Ruiz Arana, 2015
14	York Street	Usue Ruiz Arana, 2015
15	Yonge Street	Usue Ruiz Araba, 2015
16	Yonge Street	Usue Ruiz Arana, 2015
17	Lower Jarvis Street	Usue Ruiz Arana, 2015
18	Cherry Street	Usue Ruiz Arana, 2015
19	Stonewall at Shillhope Law	Usue Ruiz Arana, 2016
20	Hepden burn	Usue Ruiz Arana, 2016
21	Middle Hill	Usue Ruiz Arana, 2016
22	Hareshaw Linn	Usue Ruiz Arana, 2016
23	Beacon cairn	Usue Ruiz Arana, 2016
24	Simonside forest	Usue Ruiz Arana, 2016
25	Selby's cove	Usue Ruiz Arana, 2016
26	Silent Landscapes by the meadow	Usue Ruiz Arana, 2017
27	Silent Landscapes by the river	Usue Ruiz Arana, 2017
28	Silent Landscapes through the listening cones	Usue Ruiz Arana, 2017
29	Silent Landscapes by the river	Usue Ruiz Arana, 2017
30	Hepden burn at dusk	Usue Ruiz Arana, 2017
31	Hepdben burn at dawn	Usue Ruiz Arana, 2017

VIDEOS

Video Number	Title	Author and copyright
01	Staging Nature in the Mundane City	Usue Ruiz Arana, 2015 All images by Usue Ruiz Arana Sounds: Termites , termites activity movement freesfx.co.uk/sfx/termite Butterfly, Mike Koenig at soundbible.com/1322-Butterfly.html Bee, Finalcutking sweetsoundeffects.com/insect-sounds/ Meadow grasshopper (Chortippus parallelus), The British Library Board, sounds.bl.uk/Environment/British-wildlife-recordings/022M-W1CDR0001492-0300V0 Crickets, crickets chirping at night freesfx.co.uk/sfx/insects Birds in park , Usue Ruiz Arana Wood pigeon (Columba palumbus), The British Library Board, sounds.bl.uk/Environment/British-wildlife-recordings/022M-W1CDR0001376-0600V0 Kittiwake (Rissa tridactyla), The British Library Board, sounds.bl.uk/Environment/British-wildlife-recordings/022M-W1CDR0001426-1800V0 Dogs, animal dogs large breed freesfx.co.uk Red fox (Vulpes vulpes), The British Library Board, sounds.bl.uk/Environment/British-wildlife-recordings/022M-W1CDR0001494-1600V0 Grey squirrel (Sciuridae), The British Library Board, sounds.bl.uk/Environment/British-wildlife-recordings/022M-W1CDR0001531-2700V0 Common dormouse (Muscardinus avellanarius), The British Library Board, sounds.bl.uk/Environment/British-wildlife-recordings/022M-W1CDR0001420-2300V0 Tawny owl (Strix aluco), The British Library Board, sounds.bl.uk/Environment/British-wildlife-recordings/022M-W1CDR0001523-0800V0 Bat (M. nattereri) by Dr Stuart Parsons bristol.ac.uk/biology/research/behaviour/batlab/downloads/echolocation/ Fallow deer (Dama dama), The British Library Board, sounds.bl.uk/Environment/British-wildlife-recordings/022M-W1CDR0001444-1700V0 Grey wolf (Canis lupus) sounds.bl.uk/Environment/Early-wildlife-recordings/022M-1CS0070755XX-0300V0

Video Number	Title	Author and copyright
02	Video recorded during the projection on Friday evening	Usue Ruiz Arana, 2015
03	Rewilding the Gardiner	Usue Ruiz Arana, 2016
04	College Valley	Usue Ruiz Arana, 2016
05	Linhope Spout	Usue Ruiz Arana, 2016
06	Barrowburn Farm	Usue Ruiz Arana, 2016
07	Selby's Cove	Usue Ruiz Arana, 2016
08	High Street Glasgow auralisation	OOBE Ltd, 2017 Video and soundtrack by Usue Ruiz Arana, 2017, with sounds by Usue Ruiz Arana except for the following: A dog barking close recording by Felix Blume, 199261, freesound.org Bicycle ride commuting, by 13gkopeckak, 378901, freesound.org Bike bell by otbtechno, 134688, freesound.org Laughas by lorelya, 377137, freesound.org

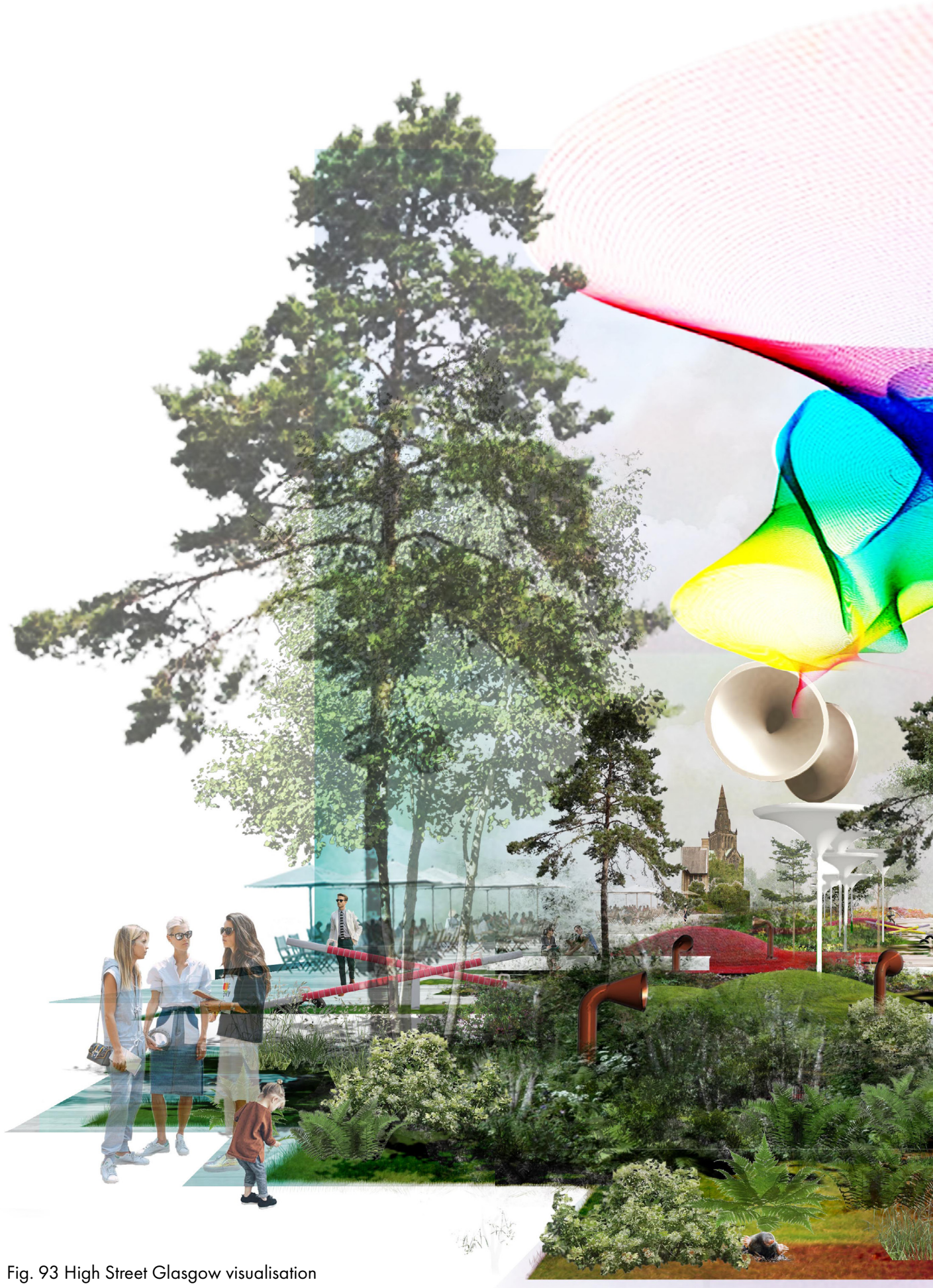


Fig. 93 High Street Glasgow visualisation

APPENDIX:
HIGH STREET, GLASGOW

BRIEF

In the spring of 2017 OOBE was invited to participate in a design competition for the public realm associated with a new residential development in Glasgow by the Get Living Group. The proposed 7.5-acre site for the new neighbourhood was located close to the city centre to the east of the Merchant city, in an area currently undergoing regeneration.

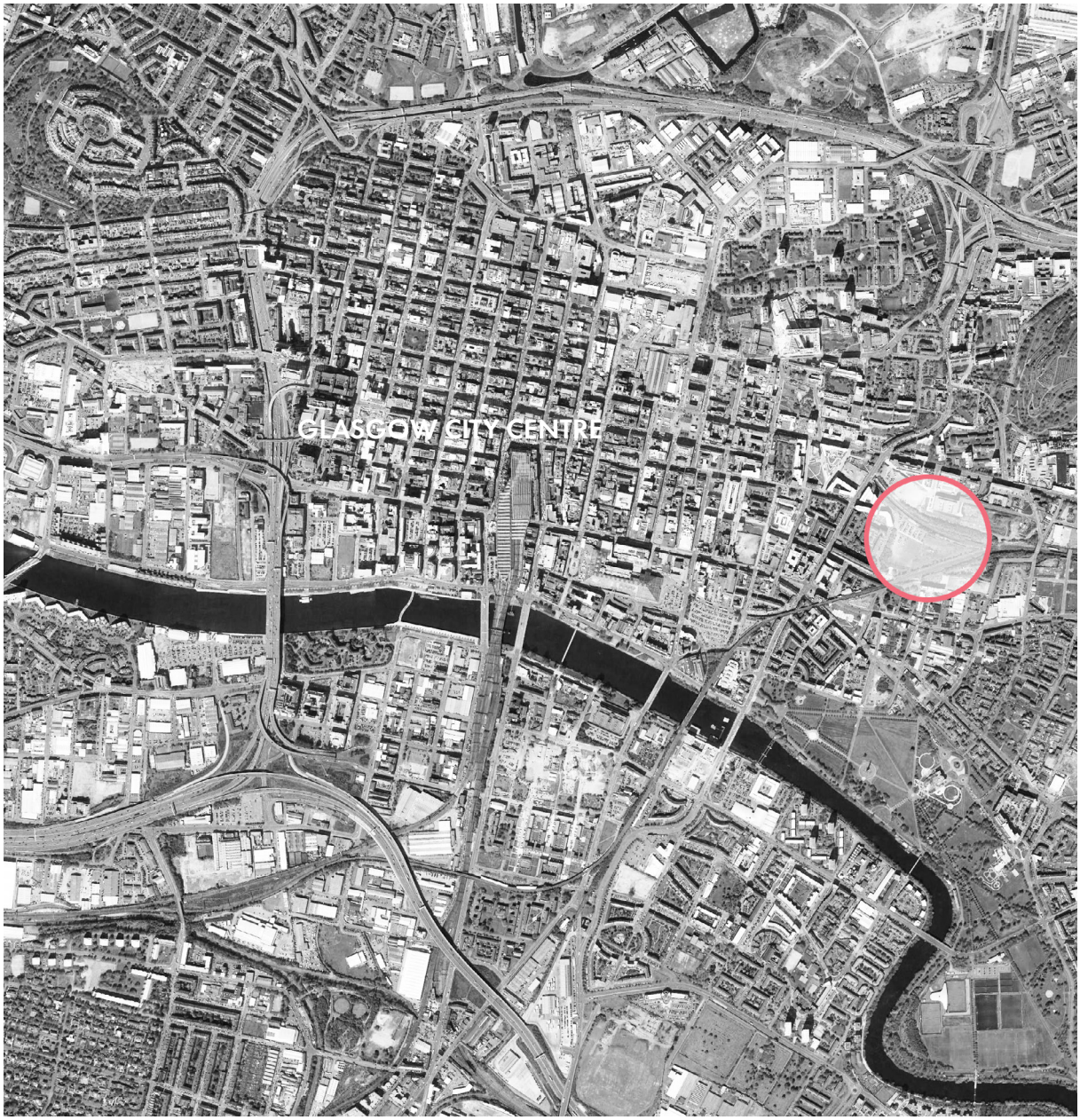


Fig. 94 High Street Glasgow location

At the time of the competition, the architects, Stallan-Brand, had progressed the architectural design to outline design stage. The main public realm element was a square at the centre of the development, and enclosed by the new development almost in its entirety, creating a secluded environment for residents to enjoy. I was part of the design team for the scheme, and the design of this public square is used to illustrate this guide.

STAGES 0 AND 1

Soundscape assessment:

With regards to the environment, the site is currently an open space used as a car park. It consist mainly of tarmac surrounded by low shrubbery. The site is bounded by the railway line to the north and east, a residential development to the west, and a main road to the south. The area is mainly flat, with adjacent sounds filtering into the space, and sounds emanating from the site dispersing quickly. Sound sources within the site include occasional vehicles coming in and out of the space, birds flying through the site, insects buzzing in the low shrubbery, ocassional steps and voices of people, and the vegetation moving in the wind. Sound sources outside the site heard within it include birds, vehicles circulating in the vicinity roads, and occasional steps and voices of people.

With regards to affective response to the existing soundscape, overall the soundscape of the site can be classified as uneventful and monotonous.

The soundscape assessment is illustrated overleaf through two soundscape analysis drawings that capture the daytime and evening assessment of the site.

STAGE 2 CONCEPT DESIGN

The soundscape analysis had concluded that the existing soundscape was monotonous and uneventful. As a response, the concept for the soundscape, illustrated through a drawing overleaf, sought to develop a vibrant landscape (in sound and activity), with a variety of sound events that could coexist with one another. As described previously, the public realm will be enclosed by buildings except for the northern and southern ends. The main activity space was developed at the centre of the site, where the space is at the most enclosed, to contain the sound of activity within the site, with quieter spaces developed alongside the avenue that emanates from the square in both directions. The geometry of the spaces enclosed by the buildings would result in soundwaves being contained within the site and reverberating. To avoid the sounds of the activity echoing too much within the public realm, we proposed a soft landscaped centre that would absorb sound, as well as tie in with the overall landscape design, as detailed in the following section.

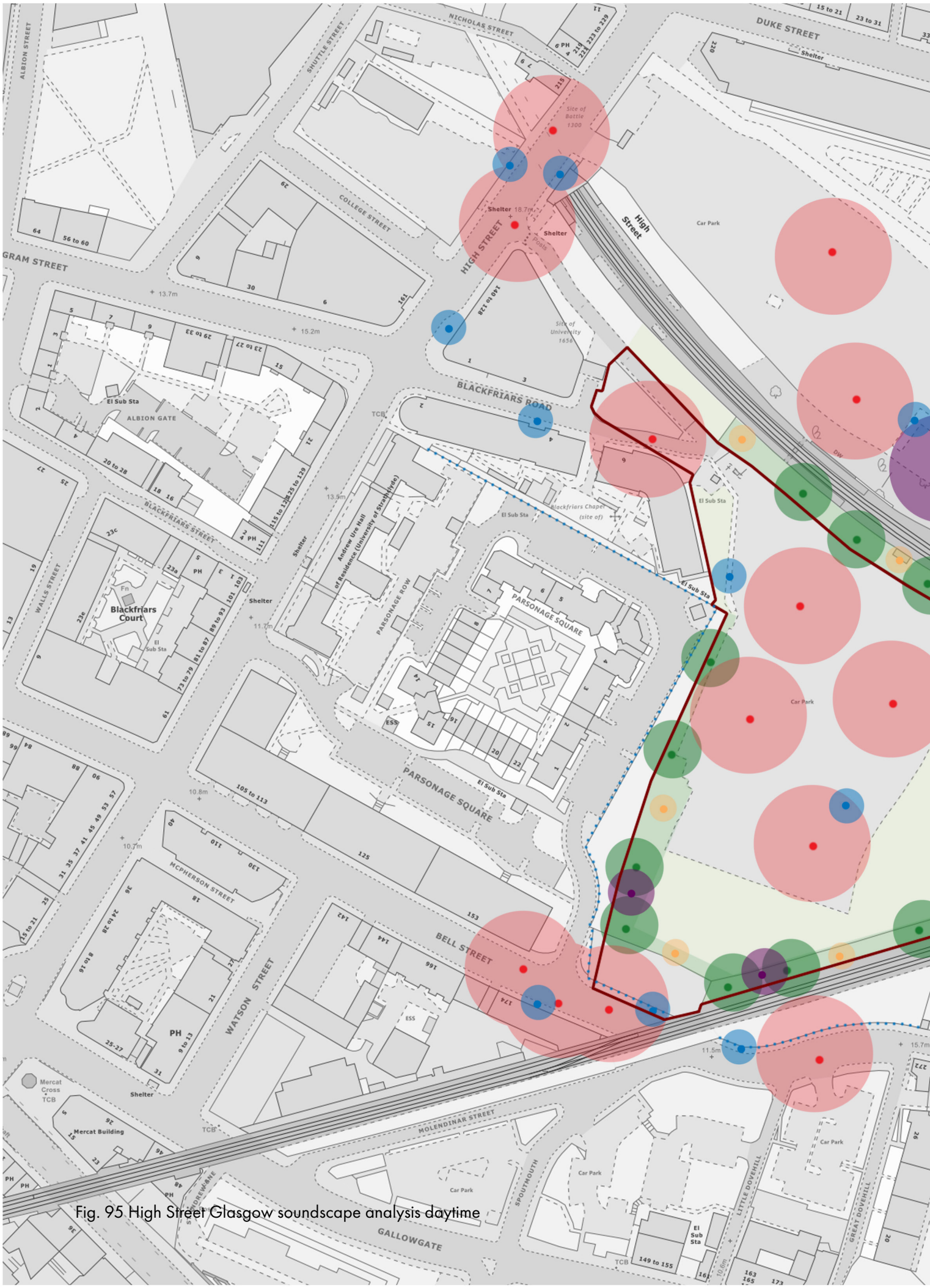


Fig. 95 High Street Glasgow soundscape analysis daytime

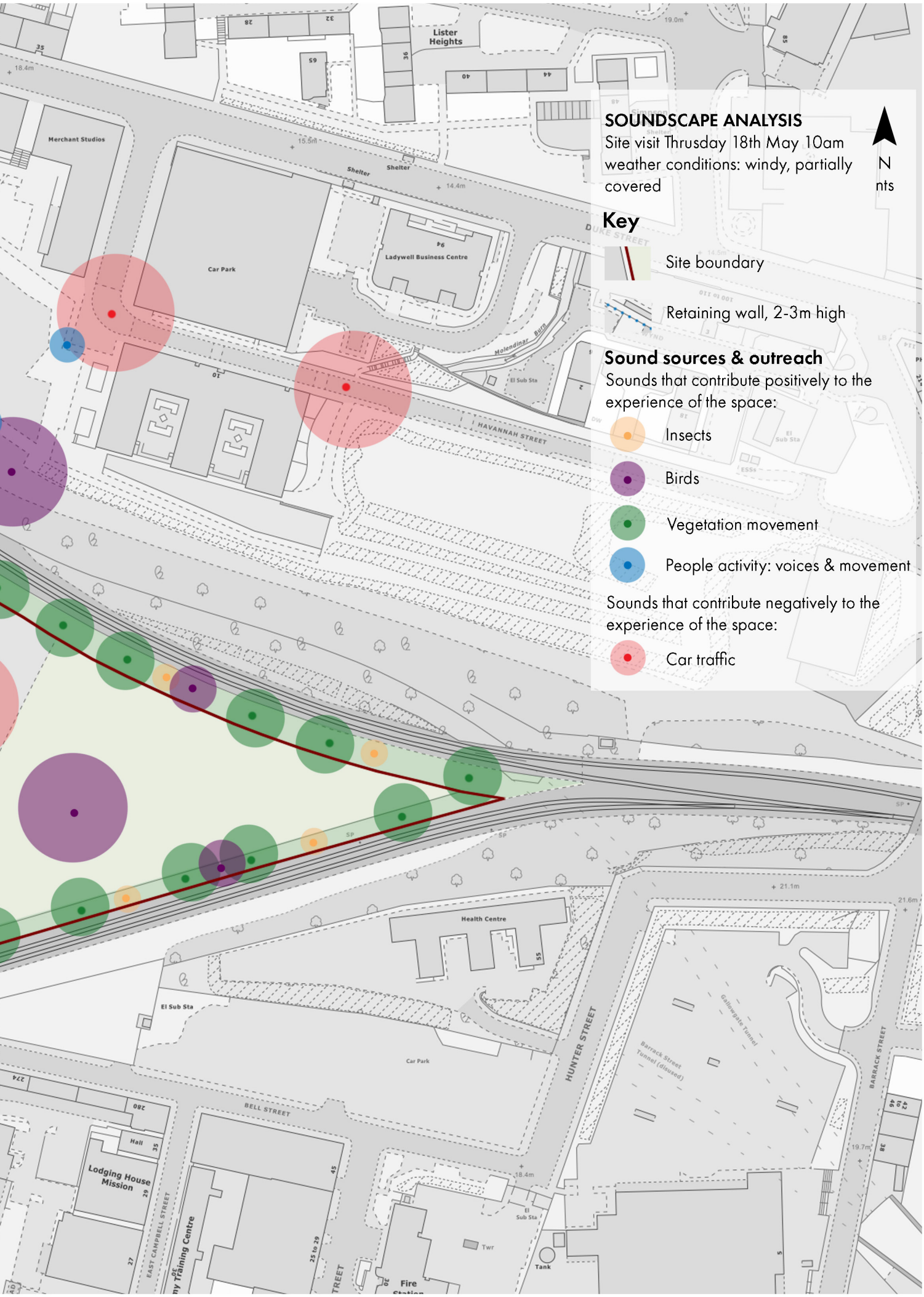

SOUNDSCAPE ANALYSIS
Site visit Thrusday 18th May 10am
weather conditions: windy, partially covered
N
nts
Key
Site boundary
Retaining wall, 2-3m high
Sound sources & outreach
Sounds that contribute positively to the experience of the space:
Insects
Birds
Vegetation movement
People activity: voices & movement
Sounds that contribute negatively to the experience of the space:
Car traffic
Lister Heights
Merchant Studios
Car Park
Ladywell Business Centre
Molendinar Burn
HAVANNAH STREET
Health Centre
El Sub Sta
HUNTER STREET
BARRACK STREET
BELL STREET
Lodging House Mission
Fire Station
Tank

Fig. 96 High Street Glasgow soundscape analysis evening

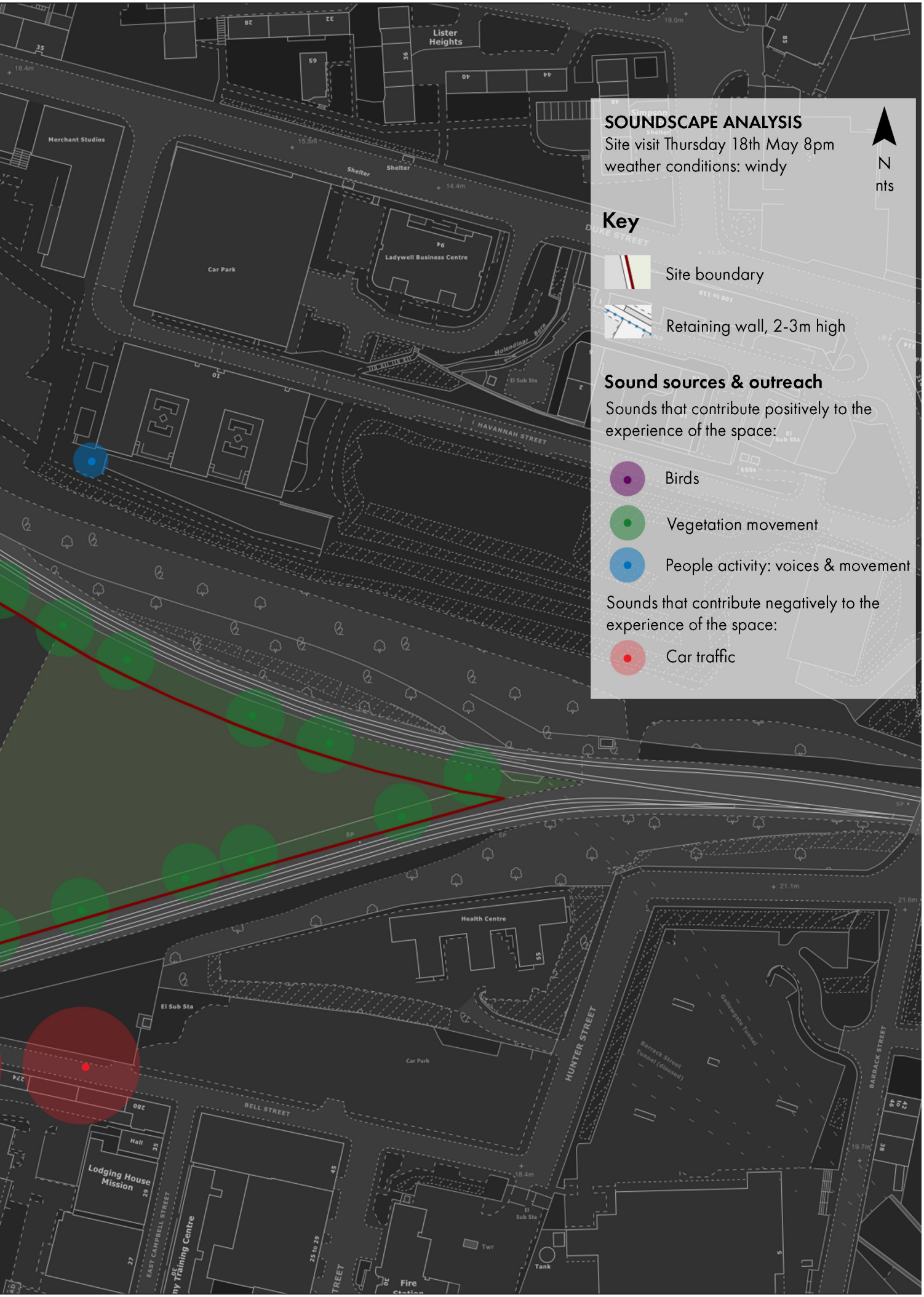

SOUNDSCAPE ANALYSIS
Site visit Thursday 18th May 8pm
weather conditions: windy
N
nts
Key
Site boundary
Retaining wall, 2-3m high
Sound sources & outreach
Sounds that contribute positively to the experience of the space:
Birds
Vegetation movement
People activity: voices & movement
Sounds that contribute negatively to the experience of the space:
Car traffic
Lister Heights
Merchant Studios
Car Park
Ladywell Business Centre
Shelter
Shelter
HAVANNAH STREET
Molendinar Burn
El Sub Sta
Health Centre
Car Park
HUNTER STREET
BARRACK STREET
Barrack Street Tunnel (disused)
Gallowgate Tunnel
BELL STREET
Lodging House Mission
Hall
EAST CAMPBELL STREET
Fire
Tank
Twr

Fig. 97 High Street Glasgow soundscape concept

SOUNDSCAPE CONCEPT
PUBLIC SQUARE AND CENTRAL STREET

1. Vibrant core of development - multiple soundscape events that harmonize. Sounds to be contained within the site through the building enclosure

2. Quiet and eventful spaces - with a vegetation core to absorb sound reverberated from hard vertical and horizontal surfaces and vibrant core, and to support a rich wildlife

3. Aural and visual landmark - to aid with wayfinding and circulation, provide a gateway to the development, and express the history of the site

STAGES 3 AND 4 DEVELOPED AND TECHNICAL DESIGN

With regards to the active use of sound in design, sound was used as an integral part of the landscape proposals for the scheme. The site was steeped in history, which presented an opportunity to express the rich history in the landscape and develop a sense of place for this new neighbourhood. The Molinburn river run culverted underneath this proposed square, dissecting the site on a north-south direction. The Molinburn provided essential water for the mills and craft industry in the area, and shaped the development of the local landscape and built environment around it. I came up with the idea of exposing the burn through sound in the landscape. I proposed several listening pods alongside the length of the culverted river where residents and the wider community could listen, through hydrophones, to the water flowing underneath the site. Over ground, drifts of planting would trace the flow of the river and sculptural trumpets would act as landmarks. By exposing the river, I argued, the rich history of the site would also be exposed.

The active use of sound is illustrated through the following drawings.

Fig. 98 High Street Glasgow listening pods tracing culverted Molinburn

Fig. 99 High Street Glasgow sculptural trumpets acting as aural and visual landmarks

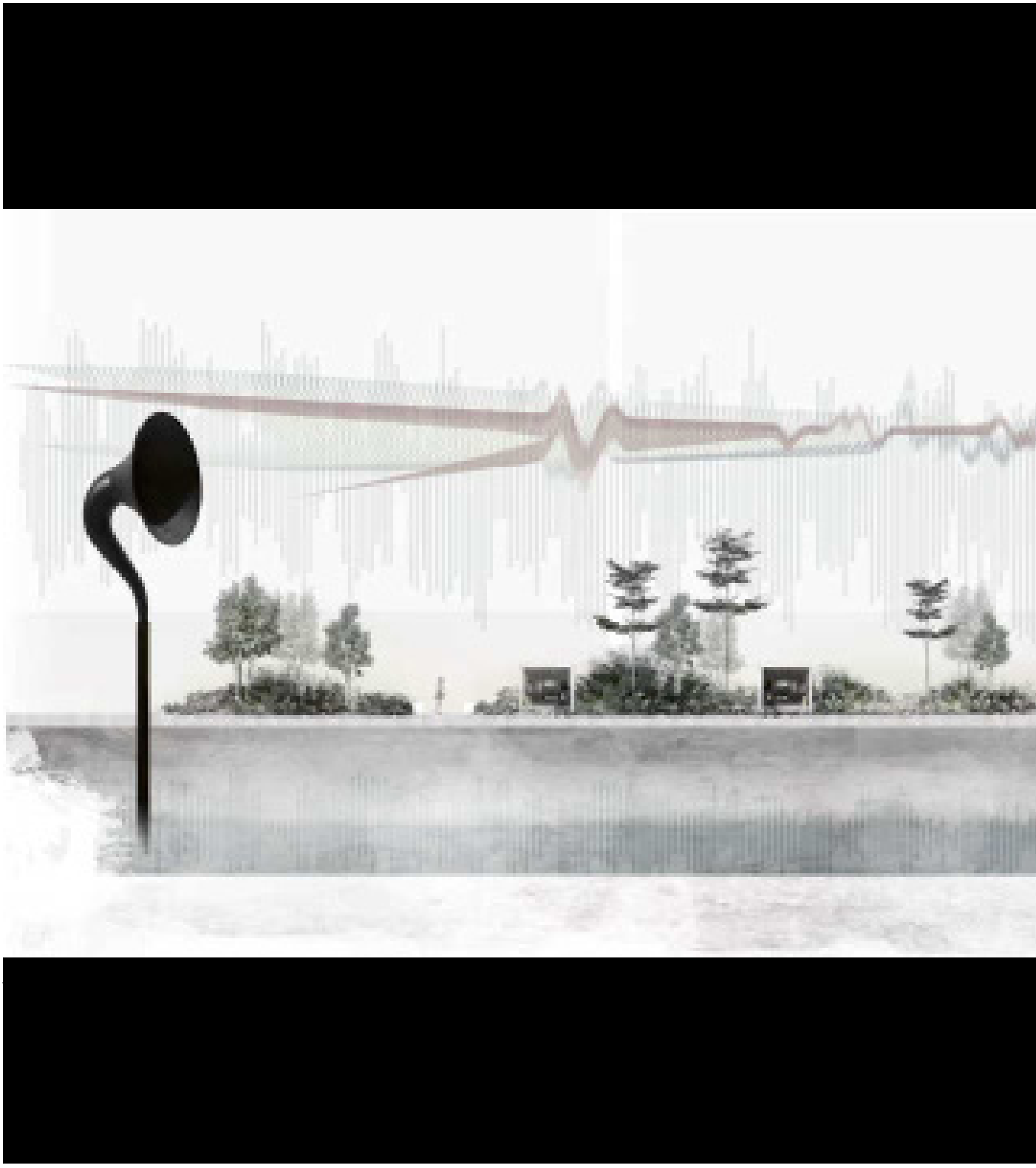
Fig. 100 High Street Glasgow planting tracking flow of Molinburn over ground

Fig. 101 High Street Glasgow landscape masterplan

BELL STREET

STAGES 3 AND 4 DEVELOPED AND TECHNICAL DESIGN

Auralisations: OOBE were invited for an interview and I took the opportunity to develop an auralisation of the public square, alongside visualisations that were developed by other members of the team. The auralisation (Video 8) can be accessed by clicking on the image below and in the link bit.ly/wildenchantment.



The auralisation showcases the morning soundscape of the public square, as the user of the space traverses the square. A visualisation of the scheme is included overleaf.

STAGES 5, 6 AND 7: CONSTURCTION, HANDOVER AND CLOSE, AND IN USE

Unfortunately, we were unsuccessful in the competition and our proposals were not realised, and I have not had the opportunity to follow the evolution of the soundscape. However, the production of the auralisation for this project was the start of a soundscape library that I continue to develop.

Fig. 102 High Street Glasgow visualisation