

# **Becoming Sound**

**Sonic Fluidity – A Multimodal Practice**

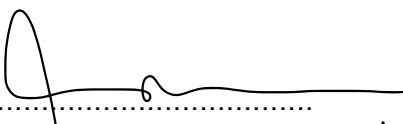
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**DECEMBER 2021**

I hereby declare that this thesis has not been and will not be, submitted in whole or in part to another University for the award of any other degree.

SIGNED:  .....

DATE: 25 Dec 2021 .....

## Acknowledgments

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I would like to thank my supervisor, Antoine Chessex for his analysis, insight, enthusiasm and guidance throughout the process.

Thank you to: Franziska Koch (OOR) & A Frei (OOR) for perspective and collaboration; Jan Schacher for critical exchange and supporting my work; Marcus Maeder for engaging with my work; André Bellmont for his support and advice, Olav Lervik for guidance and encouragement; Serafin Aebli for collaborative partnership and invaluable assistance; Peter Scherer for critical feedback and inspiration; and all the people who have listened and shared ideas with me.

Special thanks to: Thomas Jeker for being equally as preoccupied with music and sound as I am, richly engaging and generously offering great insights to my work.

## Abstract

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In *Becoming Sound: Sonic Fluidity – A Multimodal Practice*, I develop the concept of Sonic Fluidity as a viable practice for exploring malleable perspectives in sound and advocate for a broader, more inclusive approach to contemporary art and sonic practice through the hearing of shared volumes and the sounding out of hidden realms of sonic possibility. In analysing selected sound art works by artists like Christine Sun Kim and Jana Winderen, I explore sonic contexts that engage with different subjectivities and multiple modalities to observe how diverse sensory and artistic processes can frame and resonate sonic bodies through the act of listening to and with others. I reflect on what constitutes a sense of fluidity, how embodiment, situatedness and multisensing might inform and augment creative methodology. I examine different theoretical perspectives for transforming sonic perception into a polyphonic experience of diverse resonances, to uncover what it means to set certain resonances into vibration in order to materialise the invisible, the formless and the abstract. The writing addresses the following questions – What is audibility? How do we amplify the unseen, the unheard and the unknown? What can be done to interrogate and queer the limits of sonic modalities to vocalise otherness? How can sonic sensibility be reconfigured to articulate multidimensional spaces and provoke reconciliation with other worlds? In pursuing non-normative multimodal practices, sonic fluidity becomes the feeling of being inside sound, manifestly present in moments of transformation, ready to traverse plural sonic worlds.

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## Introduction

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The synthesis of space, bodies, object, temporality and imagined narratives is essential to making art. The dance between the world of form and the formless can be elusive and tricky to negotiate.

This MA thesis proposes a practice that employs a joint methodology of 'Sounding Out' and 'Deep Listening'. The main goal is to explore malleable perspectives in sound, what I will refer to as 'Sonic Fluidity', upon which one could negotiate and construct more expansive and sensitive modalities for composition. This written work acts in part, as a counterpoint to my multichannel piece *Alt Human*. It operates as a dialogue to explore the idea of Sonic Fluidity as possible space between this discursive endeavour and the practical work. I hope to parlay this double-articulation into expanded perspectives in sound studies.

I am also interested in examining connections between different practices and knowledge forms, particularly those that frame reciprocal listening and the resonating of bodies within the realms of sonic possibility. The research will also touch on associated theoretical arguments in the field of sound studies that have taken a stab at a broader, more inclusive approach to contemporary art and music discourses.

My main research question for the context of this thesis could be formulated as follows:

What does Sonic Fluidity mean and how does it relate to the process of composition and creating sonic art?

Being sonically fluid is the act of becoming sound. In pursuing Sonic Fluidity,

possible methodologies one might consider are the coupled processes of sounding out and deep listening.

Sounding out and deep listening, jointly practiced, is an exercise in immersion, a multimodal, interdisciplinary creative engagement, geared towards exploring qualities that may be less perceptible. While this suggests a sense of indeterminacy and lower specificity, the practice itself can be highly critical and detail-oriented, awakening one to the essence of what it means to be contextually situated, to really listen, be it to objects, creatures, the surrounding environs, or our human selves.

Sounding out can be considered therefore, as an act of activism and at the core, a tool for manifesting alternative voices, by offering versatile perspectives and methods to expand as well as challenge the role of composition and sound art. The possibility for agency includes creativity and invention, and articulates a politics that powers transformation and the desire to embrace a connected and collaborative world.

Listening to a variety of sound works, to music, the acoustic environment and to poetry, to hear their possibilities and develop a language for what appears impossible, can give much needed plurality to issues of equality, geography, migration, subjectivities and identities. It is also a coherent path to practising collectivity through the hearing of shared volumes.

The act of listening is as fundamental as the act of breathing, just as breath is essential to the act of voicing. In order to pay attention to what sounds to include or exclude, and how to communicate through composition, listening plays a critical part. The dynamics of deep listening and sounding out cannot be separated. It is a continual and ongoing relationship, a sort of feedback loop that

is dynamic, cognitive and intuitive all at once.

The twinned methodology of sounding out and deep listening opens up creative attention to the imperceptible, towards absence or that which is invisible or ephemeral. Conversely, it can also reveal what the psychic hinterland of inner life might sound like. In conjunction, the consideration of our acoustic worlds and sense of space engender important points of reference because how we query our relationship to place, and to other life forms, is through listening.

In one sense, this involves interrogating the relationships between sound and its conduits, whether it is the self, space, material objects or the body, or that which is ambiguous, illusive, phantasmal, unseen and latent such as shadow, breath, ether, interim sites, or interstices of both time and place. By extending the periphery, we can explore fluid sonic identities of different subjectivities and belonging to diverse sonic terrains. We actualise a sense of what lies in between, at transitional junctures, or in intermediate states when we sound out these margins, and in doing so, are presented with an imaginary complement to deeper states of being, while strengthening our political and artistic purpose.

In my compositional and sound art practice, I am drawn to the uncanny, the imperceptible, and the otherworldly, but I also frequently work with objects, either as source material or sounding bodies in of themselves. My processes involve voice manipulation, synthesis, electronics, field recordings and prepared objects. In practice, I have explored intermediate spaces and listened to various acoustic environments, motivated by creative curiosity that cuts across a range of sonic intersections in art, psychology, myth, politics and space. While I have often activated objects and vibrate material for their sonic potentiality, I have become increasingly interested in *anima* – the breath, spirit, the vital force, the soul – what



one might interpret as the subconscious, the submerged world within us.

I intend to present a case for exploring shapeshifting entities in sound, to reflect on what constitutes a sense of fluidity, what can be done to embody and embrace otherness, ambiguity and anomaly, and how this might inform artistic modes and augment one's methodology. And in saying this, I believe the endgame is to ignite inventiveness but also to probe, question and review the larger implications of sound practices while casting a spotlight on the interplay between aesthetical curiosity, creative strategies and everyday life.

Apart from contextual fields, one could artistically interpret many possible sites or conduits for sound, such as the landscape, the elements, objects, the moving image, architectural space, industrial systems and more. By conduits, I refer to pathways, channels and containers through which sound can travel.

In this thesis, which is by no means an exhaustive study, I propose four specific resonating conduits for discursive analysis, alongside with a close reading of compositional works that exemplify these five areas of sound production:

*Existential resonance, Body resonance, Transformative resonance, Vocal resonance, and Bioacoustic resonance.* These five fields of exploration are divided into three areas of inquiry in relation to “The Body & Situatedness”; “The Breath & Voice as Sonic Material”; “The Creatures & Transmuting Otherness”.

The works of Margaret Chardiet (Pharmakon), Christine Sun Kim, Jana Winderen and as well as my own octophonic work for Ekko Festival Bergen 2021<sup>1</sup> shall form the sonic contexts for examining sounding out and deep listening as a conjoined methodology of enquiry into sonically fluid ways of composition and thinking about sound.

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<sup>1</sup> <https://ekko.no/en/artists/vivian-wang>

My aim is not to advocate the sole purpose of mining environments, materials or elements of life as a utility-oriented means for composition. The purely functional aspect of sound and music is not a focus of this research. Rather, I hope to engage our collective sonic being as well as our conscious selves in making connections and establishing mechanisms that go beyond industry and pure aesthetical concerns. To explore different modalities is to open up discussion and possibility. To take bigger steps towards building sonic kinship with the larger art community involves framing these discussions around collaborative, responsive, inquisitive, ethical and integrative approaches that are underpinned by non-normative, decolonised values of art creation.

## “Listen with all your holes open”

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This indelicate phrase, uttered by American music critic Byron Coley who wrote often for *Forced Exposure*, an independent magazine founded in the 80s, is perhaps a fitting invocation of new perspectives toward sound. To begin, we might ask certain fundamental questions. What is sound, how do we sense and perceive it, what does sound do to us and how does it resonate with our being?

## “Express a dream sound”<sup>2</sup> – Deep Listening as Activism

Pauline Oliveros says, “Walk so silently that the bottoms of your feet become ears.”<sup>3</sup>

Oliveros proposed what has become a philosophical cornerstone of listening practice within contemporary music discourse. Oliveros exalts deep listening as a strategy to “expand consciousness of sound”<sup>4</sup>, a way for people to be fully engaged in how sounds interacted, and to employ a situated attention to heighten one’s awareness of the dynamic interplay between our surroundings, vibrations and anthropogenic sounds. *Sonic Meditations* outlined a set of 25 text-based instructions that was designed to provoke intentional, creative responses. What is more, it was a masterstroke that subverted norms of musical understanding that initiated a new way of thinking and responding to sound, and resulted in a groundbreaking departure from prevailing sonic methodology of that time.

In 1988, with two others — trombonist and composer Stuart Dempster and vocalist and composer Panaiotis — Oliveros, with her accordion, descended into

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<sup>2</sup> Pauline Oliveros, *Anthology of Text Scores* (Deep Listening Publications, 2013), 192.

<sup>3</sup> Pauline Oliveros, *Sonic Meditations* (Smith Publications, 1971), “Meditation V”.

<sup>4</sup> Kerry O’Brien, “Listening as Activism: The ‘Sonic Meditations’ of Pauline Oliveros,” *The New Yorker*, December 9, 2016. <https://www.newyorker.com/culture/culture-desk/listening-as-activism-the-sonic-meditations-of-pauline-oliveros>

a decommissioned cistern beneath Fort Worden State Park in Washington State. Dubbed informally as the 'Cistern Chapel', this extraordinarily cavernous space had a famed 45-second reverberation time and was one of many site-specific composed improvisations by the trio.

Further projects by the collective, also known as the Deep Listening Band, which included the development of surround sound systems; explore what Dempster described as "being wrapped up in a warm, fuzzy blanket. Reverberation in the cistern is like a supportive audience."<sup>5</sup>

What is also striking is the effect this sonority has on one's sense of time, particularly in spaces with unusual acoustical qualities. Dempster expresses it poignantly<sup>6</sup>, "This is where you have been forever and will always be forever."

The collective recorded their Cistern sounds and released the album *Deep Listening*<sup>7</sup>. In the original liner notes, Oliveros wrote, "The cistern space, in effect, is an instrument played simultaneously by all three composers. The instruments—which are being played without any electronic processing—are accordion, didgeridoo, trombone, voice and found metal pieces. The tonal qualities produced by each performer are constantly changed by interaction with the cistern acoustics, making it seem as if many more instruments are present."

Music production has evolved massively since the 80s and site specific performances have become more commonplace. Drone and ambient music have evolved into well-established music genres. As albums go, *Deep Listening* may

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<sup>5</sup> Nat Evans, "The Cistern Chapel: Resonance from the Pacific Northwest," *New Music Box*, April 6, 2016. <https://nmbx.newmusicusa.org/cistern-chapel>

<sup>6</sup> Stuart Dempster, *Underground Overlays From The Cistern Chapel*, Album liner notes. New Albion Records, 1994.

<sup>7</sup> Pauline Oliveros, Stuart Dempster, Panaiotis (Deep Listening Band), *Deep Listening*. New Albion Records, 1989.

not be as radically conceptual as it was when it was first released. Nevertheless, it remains an exceptional work sonically and is still a strange and beguiling listen. In the present day, it still sounds progressive, its complex textures stretching out time and blurring demarcated sonic zones between sounds of the past, present and future. The past lingers while the present and the future coalesce in a slow motion, epic continuum of hallucinatory tones and harmonic alchemy. How many musicians can lay claim to have gone into an enormous cistern to explore the acoustic possibilities inherent in a 45 second long reverb resonance?

Even audio engineers recording in the cistern were not prepared for the spatial anomaly. One of them, Al Swanson, recalls, “Everything bounces everywhere with almost no loss (...) so a sort of ‘phase wash’ is created. It’s funny what this does to your head. As an engineer I tried to analyse all this objectively, but I found I couldn’t do it. In a kind of acoustic uncertainty principle, there was no way to simultaneously pin down both the objective audio parameters and the audible reality of the situation. That is, the actual act of listening influenced the cognitive result. In this situation, therefore, I, an ostensible observer, became a virtual performer.”<sup>8</sup>

The relevance of *Deep Listening* rests in its counterpoint to the spectacle and saturation of today’s mainstream culture. It offers a position of radical attentiveness in stark contrast to vapid listening habits sustained by present day streaming, dispensing music as a continuous loop of background accompaniment. Such as in the classic case of Muzak, which became “a utilitarian tool for productivity, something to be ignored while your concentration rests elsewhere”<sup>9</sup>.

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<sup>8</sup> Evans, “The Cistern Chapel: Resonance from the Pacific Northwest”.

<sup>9</sup> Jonathan Williger, “Deep Listening” (Reissue review), *Pitchfork*, February 10, 2020.  
<https://pitchfork.com/reviews/albums/pauline-oliveros-stuart-dempster-pan-deep-listening>

Oliveros' seminal work, *Sonic Meditations*, proposed new ways of composing but more importantly, it signalled the power of community and the possibility of social polyphony through the cognition of sound. Oliveros' ideas have resurfaced in the last decade or so as a balm to a cacophonous and relentless Internet age. By cultivating a focused, creative listening practice, these accessible strategies provide a way to counteract the challenges and pressures of modern life.

As Jonathan Williger wrote, "Deep Listening exists as its own end, without a pretense of functionality"<sup>10</sup>. Furthermore, being active in engaged listening enables one to reach beyond known registers of sound. One way to do this, Salomé Voegelin suggests, is to "make alternative possibilities of subjectivity, identity, and place audible (...), not to read and decode the sonic environment but to experience in its complex mobility the plurality of the world."<sup>11</sup>

### The whole body listens – Reverberating the Corporeal

Looking at our human anatomy, it is normative to perceive the ear as the main organ for hearing. Seth Kim-Cohen talks about how "the ear never closes".<sup>12</sup> He says, "The ear is oblivious to the notion of the blink. There is no such thing as an earlid. The ear is always open, always supplementing its primary materiality, always multiplying the singularity of perception into the plurality of experience."<sup>13</sup>

Although the ear analogy shows a poetic parallel to our lived experience, it is true only for hearing persons. It is limiting in its scope when we consider what is possible in the act of listening. Instead of the ear, I propose substituting the organ

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<sup>10</sup> Williger, "Deep Listening".

<sup>11</sup> Salomé Voegelin, *Sonic Possible Worlds: Hearing the Continuum of Sound* (Bloomsbury Academic, 2014), 13.

<sup>12</sup> Seth Kim-Cohen, *In the Blink of an Ear: Toward a Non-Cochlear Sonic Art* (Continuum, 2009), xviii

<sup>13</sup> Kim-Cohen, *In the Blink of an Ear*, XX.

for listening with the body, as a radical conduit for channelling greater awareness, situated-ness and plurality.

All sounds have an effect on us. Sound has inherent qualities that we relate to. Many sound artists, myself included, have tried to explore sound in many things, natural or artificial, acoustic or electronic, human, non-human, and the spectrum is still widening. Sounds could be nice, mundane, disturbing, unusual, even unrecognisable or painful. I tend to gravitate towards sounds that test the limit of tolerance, sound that confounds or elicits responses of heightened sensitivity.

Therefore, sounding out and listening can have a high degree of subjectivity, shaped by cultural normativity, physicality, behavioural conditioning, and a number of other variables posited by complex and multifarious fields of sound studies. Nevertheless, for the purpose of this thesis, I will limit the scope of my research to what relates to my practice and a few of my peers. I do not focus on any particular area of sound studies but will instead try to connect discursive viewpoints from existing theoretical reflections.

Some years ago, I began to investigate sounds that present psychoactive properties, particularly those that induce a trance-like state. Adjacent to this, I tried to discern sonic properties or conditions that compel people to be more attentive. During these prolonged periods of research, I found great pleasure in listening and in the act of sound making. The process of sonic exploration feels intimate, a warm space in which to confront sounds, either material or more ephemeral. It can also be intriguing in a slow, unravelling, and timeless way. In the course of mulling over sounds for hours, one is able to dwell in a subjective domain and let one's imaginative freak flag fly. Curiosity is placated in a momentary suspension of conventional time, immersed in a palpable energy that feels rather like a subtly

modulating deep drone intonating in a sonic play zone.

Why do we listen so intently? Perhaps the answer might be the desire to expand our perception of the "sonorous body that we inhabit"<sup>14</sup>, as well as the ability to exist on an alternate time plane.

Up until recently, I regarded myself a gatherer as well as an activator of sounds. Over two-thirds of my time was and still is, spent listening and contemplating, and the rest on figuring out how to translate this energy into produced sound.

Oliveros affirms, "Such intense listening includes the sounds of daily life, of nature, or one's own thoughts as well as musical sounds, a heightened state of awareness and connects to all that there is."<sup>15</sup>

Deep listening is the act of opening up to everything, being fully engaged but also being aware always, of the act of listening and "listening in every possible way to everything possible to hear, regardless of what you are doing".<sup>16</sup> How this may help to engage with the purpose of sonic fluidity is to make perceivable the experience of what lies in between or out of reach, and to be cognizant of sonic entities that are invisible, fleeting or ambiguous. Listening creates possibilities to see complex connections in the world that compel closer scrutiny and in turn, generates an understanding of how we move within this world, and where we fit in.

### Sonic communion – Resonating from Within

However, of late and increasingly so, it has become clearer to me that in order to create work that resonates across cultures, we must engage not as mere

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<sup>14</sup> Pauline Oliveros, *Sounding the Margins: Collected Writings 1992-2009* (Deep Listening Publications, ed. 2010), 23.

<sup>15</sup> Oliveros, *Sounding the Margins*, 73.

<sup>16</sup> Oliveros, 73.



observers, but with captivated alertness, in a profound listening that is situated within the sonic landscape, and not apart from it. Canadian composer, radio artist and sound ecologist Hildegard Westerkamp insists that in order to “stay true to an ecological consciousness”, one must position oneself “inside the soundscape, as part of and a participant (...), not as outsider, observer, or commentator.”<sup>17</sup>

This type of embodied listening employs not just ears, but full on feelers, our affective sensors and radial memory antennas. By this I mean, the hairs at the back of our neck, our body parts, even our skin. We activate ourselves in order to find what “sonic possible worlds”<sup>18</sup> could be traversed. On this subject, writer-artist Salome Voegelin has proposed substantial strategies for listening. Voegelin believes that a “sonic sensibility” comes from “the desire to share the heard without reducing it (...), (granting) access to sound’s present unfolding, for you not to hear the same, but to hear its possibilities.”

According to Voegelin, “Sound is the invisible layer of the world that shows its relationships, actions, and dynamics”<sup>19</sup> and listening is therefore a “generative and participatory” exercise in viewing actuality, possibility, and impossibility. Listening “intersubjectively and reciprocally”<sup>20</sup> to the soundscape, works of sound artists and musical compositions as ‘sonic environments’, which we inhabit, and from within these spaces, we are affected in the way we perceive the world, and how we live. In the ensuing sections of this thesis, I intend to more closely examine the works of sound artists that have realised certain sonic sensibilities, and who have augmented the metaphor of soundscape to express less perceptible, or inaudible worlds.

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<sup>17</sup> Hildegard Westerkamp, “Speaking from Inside the Soundscape,” in *The Book of Music and Nature*, ed. Marta Ulvaeus and David Rothenberg (Wesleyan University Press, 2009), 144.

<sup>18</sup> Voegelin, *Sonic Possible Worlds: Hearing the Continuum of Sound*, 2.

<sup>19</sup> Voegelin, *Sonic Possible Worlds*, 2.

<sup>20</sup> Voegelin, 3.

## Decentering – A Tool to Displace Sonic Hegemony

In a recent talk by Voegelin, she articulated a proposition that not only resonates with me creatively but also takes a clear political position, one that assumes a clear activist stance in sound. As one listens, articulates and expresses, Voegelin reminds us to “mute the centre, we don’t have to listen to the centre.”

This is suggestive commentary on the effects of a colonising framework, of a music and art industry that has perpetuated rather uneven power structures in the production of knowledge and art.

I am reminded of the famous quote from the novel of the same name by Nigerian author Chinua Achebe. “Things fall apart; the center cannot hold: Mere anarchy is loosed upon the world.”<sup>21</sup>

Although an ironic reference to imminent collapse of systemic structures, on further reflection, when applied to sound art and music composition, one can read this as a resistance to the dominion of the Western canon, specifically the patriarchy of European music classicism that still continues to proliferate and assert prevalence in many fields of music, education and sound practices.

In the natural world or nature, as it is oft referred to, there exists no simple hierarchy or an overarching central structure. What seems more evident is a series of autonomous yet interconnected constellation of complex structures. Music can be a model for learning to perceive the surrounding world and in turn, this shared resonance with our environs offers multitudinous ways to tune into ourselves and also evinces modes of operating that can parallel nature’s complexity, whether in artistic practice or as interconnected beings in consonance.

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<sup>21</sup> Chinua Achebe, *Things Fall Apart* (Penguin Publishing Group, 2019).

Oliveros was also a proponent of decentering and defying a focal centeredness in perception. Oliveros points out, “Sounds carry intelligence. Ideas, feelings and memories are triggered by sounds. If you are too narrow in your awareness of sounds, you are likely to be disconnected from your environment, More often than not, urban living causes narrow focus and disconnection. Too much information is coming into the auditory cortex, or habit has narrowed listening to only what seems of value and concern to the listener. All else is tuned out or discarded as garbage.”<sup>22</sup>

### Matter vs Representation – Shifting Perception

Francisco López, another contemporary sound artist and sound theorist, talks about “blind” listening as a “profound listening that delves deeply into the sounds and is freed as much as possible from such constraints”.<sup>23</sup>

López makes a case for de-emphasising the representational or relational aspect of sound. He prefers not to document “what it is” but rather “the sound matter as it is”. In relation to nature or field recordings, otherwise known also as acoustic ecology, he writes, “This form of listening doesn’t negate what is outside the sounds but explores and affirms all that is inside them”.<sup>24</sup> It is an attempt to reconcile and acknowledge sonic entities by situating them in an environment as a whole. López deliberately avoids distinguishing between foregrounds and backgrounds. He aims to “discourage a focal listening centred on the entrance of species or other sonic events”.<sup>25</sup>

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<sup>22</sup> Pauline Oliveros, *Deep Listening: A Composer’s Sound Practice* (Deep Listening Publications, 2005), xxv

<sup>23</sup> Francisco López, “Blind Listening,” in *The Book of Music and Nature*, ed. Marta Ulvaeus and David Rothenberg (Wesleyan University Press, 2009), 163.

<sup>24</sup> López, “Blind Listening,” 163.

<sup>25</sup> López, 164.

Rather than an attitude of listening that categorises aural entities, López favours a decentralised, environmental perspective “because it encourages a perceptual shift from the recognition and differentiation of sound sources to the appreciation of the resulting sound matter.”<sup>26</sup>

In essence, this involves the experience of an entire topography of sonic identities and considers how certain elements modify the manner in which sound-producing entities inhabit a certain space. According to López, when we hear a birdsong for instance, it is as much a result of the space in which we hear it, the tree cover around us, the forest floor (if it is muddy, stony, mossy, the material of the topsoil), the humidity levels, all of these define a sonic environment as much as the animal or object producing the sound. So the space a sound inhabits is integral to how we perceive sound. López argues, “As soon as the call is in the air, it no longer belongs to the creature that produced it.”<sup>27</sup>

In the argument of sound matter versus representation, I agree with Lopez. Sound matter itself has dimensional and transcendental properties beyond its immanent qualities. He favours the term *matter* rather than object. However, I question the ‘blindness’ in the listening intent or the assumed impartiality. In sharply focusing on immanence while sidelining representational and/or relational connections, one is essentially editing and mediating a specific paradigm while neglecting questions of identity. Is the call that has been vocalised really no longer a part of the creature that it came from? The question of ownership and agency of sound begs further enquiry.

Here, I also recognise a parallel to the “purposeful purposelessness” of John Cage, who saw “art not as something that consisted of a communication from the

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<sup>26</sup> López, 164.

<sup>27</sup> López, 164.

artist to an audience but rather as an activity of sounds in which the artist found a way to let the sounds be themselves”.<sup>28</sup> Cagean rhetoric espouses indeterminacy in music as the central tenet and silence, often presented as a Zen trait, is ironically its most striking occidental partner. This, I find, significantly problematic. Some critics have observed that Cage, in advocating us to embrace all sounds as music, has created a sonic discourse that is contrived and universalising. Its ostensible Romantic leanings are the result of Cage’s unconscious intention, whose hegemonic influence denies a more differentiated understanding of social and cultural factors in music practice.

Marie Thompson calls out the Cagean aesthetic priorities to ‘let sounds be themselves’ as “whiteness that often enables the orientation of the critical gaze elsewhere.” She argues, “Cage recapitulates the self-invisibilization of the white, masculinist and Eurocentric standpoint, enabling himself to become the auditory observer of sound’s nature.”<sup>29</sup>

Connected to this ideal of sounds being materially sovereign, López explains that sound recording technology does not document or represent a richer, more significant world, just as recorded history does not adequately represent the entire human world. Instead, López advocates that we “shift the focus of attention and understanding from representation to being”<sup>30</sup>, from the restrictive urge to find ‘meaning’ to a more dynamic experience of the ‘inner world of sounds’. This approach does indeed generate potential for critical relevance to the socio-cultural and socio-political roles of artistic practice today, but I would venture further to say that this notion of sound, could be expanded into a more agile

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<sup>28</sup> John Cage and Richard Kostelanetz, *Conversing with Cage* (Routledge, 2003), 42.

<sup>29</sup> Marie Thompson, “Whiteness and the Ontological Turn in Sound Studies,” *Parallax*, 23:3, 262-282, <https://doi.org/10.1080/13534645.2017.1339967>

<sup>30</sup> López, 165.

hypothesis by prefacing aspects of greater mobility, multiplicity, even trans-disciplinarity. We ought to challenge established precepts by practising critical and non-hierarchical ways of organising and questioning, to recognise diversity in voices, and consciously move away from pursuing hegemonic, reductive and deterministic ways of living, creating and expressing.

## Sounding the Unseen, Palpating the Unheard, Traversing the Unknown

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What are the attributes of a fluid experience of sound? How does one resonate different meridians of the unseen, the unheard and the unknown? What modalities of expression can facilitate one's process of becoming sound?

These are pertinent topics for consideration as I attempt to define what sonic fluidity means and what it suggests for applying ourselves to creative tasks.

### Defining Sonic Fluidity

In traditional Chinese medicine, it is believed that meridians are pathways on the body, along which vital energy is believed to flow and where the acupoints are distributed. As a Singaporean Asian Chinese person, I find it easy to draw parallels between the meridian system and the concept of fluidity in sonic perspectives. One could see the meridians as channels, and acupoints as the interconnected flow network of embodied and experiential modes. I would offer this analogy as congruent to the foundation and practice of sonic fluidity.

This suggestion may also challenge classical Western philosophy, where there is a dialectical tendency to keep things differentiated, or to define things through opposition and deduction rather than affinity. I have found certain music methodology to be rather limiting in scope. There are often rigid criteria applied to performance and composition. Analyses frequently revolve around relatively strict adherence to rudiments of music, or are at least framed by insular musical thought. The same can be said of performance, which in normative contexts is sound delivered 'in a proper way' (emphasis my own) according to a visual score.

The basis for a successful classical performance is somewhat biased towards an accurate live rendering of history in sound. Rather than developing pliable music interpretation informed by interdisciplinary perspectives and cultural theory, my criticism of normative Western music education and its associated practices rests on attributes that privilege the overarching deference to virtuosity, hierarchy and an excessive emphasis on how things ought to be properly done – which is largely anchored upon a historically patriarchal system buttressed by a staid coloniality.

In normative constructions of sonic understanding, there appears to be the inclination to define creative modes by purpose rather than by the experience of the modes themselves. In other words, creative processes are advanced through conflict and resolution, through progression and argument, and through binary forms of reasoning rather than non-linear, integrated positions. By contrast, in flattening this structural normativity, we could appreciate sonic encounters as a continuous series of moving realms, shaped by perceptivity and particularity and altered at points of confluence and convergence.

Sonic fluidity, as an attitude, is an evolving sensibility that “sounds space in time and time in space and produces a place that is neither oppositional nor deductional. Instead it presents space and time as extensions of each other, where they exist in a critical equivalence: not the same but not combative either.”<sup>31</sup> Compare this to my earlier analogy of acupoints and meridians in TCM. These form a complex network of trajectories and nodes that correlate to the body’s organs, whose parts may have variegated functions and mechanisms but are nonetheless constituted by pathways that are in essence, equivalent

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<sup>31</sup> Fabian Neuhaus, September 30, 2010, “MyTime Interview – Salomé Voegelin on SoundTimeSpace,” *urbanTick*, Accessed December 1, 2021, <https://www.urbantick.org/2010/09/mytime-interview-salome-voegelin-on-soundtimespace.html>



extensions of one another within a parasympathetic system. All parts act in concert to achieve calm and balance.

Sonic fluidity therefore, manifests itself in a desire to parse different perspectives from complex and plural sources in order to imagine other states and novel environments. As a nascent topic within sound and cultural studies, it can also support the assumption of an identity or a set of identities that may not necessarily align with one's practice. I see it more as an emergent quality that asserts a willingness to be present, ready to traverse obscure artistic territory.

In being sonically fluid, one sometimes intentionally sets certain resonances into vibration to materialise the invisible, the formless and the abstract in a concrete way. We must then question, what can be perceived as audible? How do we understand the notion of audibility? And how do we resonate latent or in between entities?

I would further describe sonic fluidity as being multimodal, one that aims to be always reflexive, acutely aware, non-confrontational but never complacent. It is an on-going stream of processing and pluralistic exchange but above all, it is a practice of nomadic shifts in perception. In fluid sonic states, one could cultivate a practice that is interactive, interconnected, and resistant to tropes, but also at ease with ambiguity and intermediate planes. However, this is not possible if we fail to consider the obstacles that conventional hearing poses for those wanting to expand sonic vocabulary.

For instance, how can we listen to what is not audible in the conventional sense? In using the term 'conventional', I am referring to the anatomical perception of the acoustical property of sound. Furthermore, I would argue that we should also address what is metaphorically 'inaudible'. This leads to a more compelling

question, how do we make *heard* what is imperceptible?

To reconfigure the act of listening by going beyond the solely acoustical perspective, would it then make sense to redefine sonic sensibility through a deconstruction of normative methods? How critical is it to consider how the social, cultural, environmental and the affective influence what we hear and make heard?

Circling back to the analogy of TCM and acupuncture, when a certain body organ requires special attention, the course of action would be to stimulate several acupoints elsewhere. My late grandmother, for instance, would apply pressure on a certain point called LI-4 or Hegu, located between the base of my thumb and index finger if I needed relief from headache pain. In similar fashion, shifting positions and exploring more distant sites of sonorous experience and interaction, I might add, can engender transformative possibilities in composition and sound art. Sonic fluidity makes it possible to rewrite and rework traditional patterns of compositional practice, to find alternate or even reversed notions of what can be conveyed with sound as medium.

### A Multimodal Practice

To ‘embody’ a set of identities unfamiliar to one’s own constitution is to set out to be culturally, socially, materially and environmentally inquisitive, and this involves a temporary suspension of scientific elucidation in order to experience different contexts and heterogeneous expressive modes. According to the National Centre for Research Methods, multimodality “offers an approach to analysing meaning making that embraces these different modes of interaction that inherently form

notions of embodiment: gaze, gesture, posture, movement.”<sup>32</sup> The relationship between perception, experience, practice and interaction “signifies the importance of the human body and its communicative and expressive functions, whether these be banal and everyday, or those through which performance-based art forms such as dance, music and drama are accomplished.”<sup>33</sup>

Being multimodal can thus be reasoned as the conception of the self in the act of embodying. In doing so, the embodied self is further shaped by interactions without and within. This is premised on the notion that there is no such construct as a mind-body divide, meaning that the body is the seat of lived experience, which goes beyond the brain itself. The focus is on “palpable experiential realities of substance, action, sensation, affect, and time. Sense of self is not a cognitive construct. It is an experiential integration”.<sup>34</sup> Perception has great impact on one’s sense of place, although this may not necessarily be a function of the mind alone, since unquestionably, sensing occurs in the body as well.

In practical terms, what I find most persuasive about multimodality vis-à-vis embodiment as a creative model is the freedom it bestows upon the composer or sound artist, to try out more artistically expansive processes and to rely less on canonical structures. More importantly, a multimodal approach encourages sensitivity to other modes of being. This enlarged gaze generates a greater possibility to inhabit imagined temporalities and brings us in touch with more complex forms of spatiality, while being intrepid and multidimensional in navigating the perilous fringes of sonic creation.

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<sup>32</sup> MODE (2012), “Glossary of Multimodal Terms”. Accessed December 22, 2021. <https://multimodalityglossary.wordpress.com>

<sup>33</sup> MODE (2012), “Glossary of Multimodal Terms”.

<sup>34</sup> Daniel N. Stern, *The Interpersonal World of the Infant* (Karnac Books, 1998), 71.

## Polyphonic Resonances

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### The Body & Situatedness

// Pharmakon – *Bestial Burden* (Existential resonance)

When writing about the body and its capacity for extreme resonance, I am reminded of the percussive meat punching sounds in Scott Walker's album *The Drift* as well as the disorientating slop of obscene sounds of mortality in his later album *Bish Bosch*. Pursuing a similar theme, *Bestial Burden*<sup>35</sup>, the album by the noise artist Margaret Chardiet, also known as Pharmakon, frames the body as a highly charged site of decay and gruesome revolt. Chardiet's work came about in the aftermath of a protracted convalescence from a medical emergency that had her near the verge of organ failure and near death. During an interview with Pitchfork, Chardiet revealed that "being treated like a piece of meat while in the hospital had a huge impact on some of these ideas behind the album".<sup>36</sup>

The album presents resonances that are devastatingly existentialist; the first track 'Vacuum' opens with hyperventilating sounds. The artist can be heard employing a gamut of viscera to portray the body not merely as a primal conduit but also a sonically enveloping and disconcerting space. There is coughing and choking, but also power-electronics, bludgeoning rhythms and Chardiet's impressive howl. This is reminiscent of the 30-minute long 'Cough Piece' by Yoko Ono from 1961.

Swiss sound artist Christof Migone has been mining the corporeal for musical effect since 1998 in his piece 'Crackers', which explores the sonic representation of cracking neck sounds, knuckles, and knees. He ascribes the somatic to "bodies

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<sup>35</sup> Pharmakon, *Bestial Burden*. Sacred Bones, 2014.

<sup>36</sup> Brandon Stosuy, "Pharmakon" (Interview), *Pitchfork*, August 15, 2014.  
<https://pitchfork.com/features/update/9481-pharmakon>

which *remain* – despite themselves”, around which “the airwaves are embodied by our breaths – current, past and future”.<sup>37</sup> Migone’s interest in the body’s penchant for making particular involuntary noises is a fascinating narrative of the body as possessing a will of its own.

In comparison to Ono and Migone, Pharmakon’s somatic exploration is much less subtle. You get a sense that Chardiet is intent on pushing corporeality and her voice to the brink of annihilation. In the same Pitchfork interview, Chardiet says the sonic impetus to explore bodily disintegration comes from “the desire to show the body as a lump of flesh and cells that mutate and fail you and betray you – this very banal, unimportant, grotesque aspect of ourselves.”<sup>38</sup>

Critic Hazel Cills writes, “The body work of Chardiet, (...) presents these humble infirmaries (or a voice screaming itself to death) as a lesson about the dark unknowability of the body, the strength and fragility embedded within that connects us – and she will whisper, choke, and scream it until we have understood it completely.”<sup>39</sup>

Cills references the performance art works by Bruce Nauman and Marina Abramovic. In ‘Get out of My Mind, Get Out of This Room’, a sonic installation by Nauman from 1968, his voice intones these words repeatedly in numerous registers and articulation, sometimes whispering, and at other points, yelling and screaming. Designed to induce claustrophobia within the installation space, the audience, in dealing with Nauman’s affective torrent, are forced to confront themselves. Similarly, by going to the sonic limits of the body, Chardiet does the

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<sup>37</sup> Christof Migone, *Sonic Somatic – Performances of the Unsound Body* (Errant Bodies Press, Audio Issues Vol 5, 2012), 21.

<sup>38</sup> Stosuy, “Pharmakon”.

<sup>39</sup> Hazel Cills, “Pharmakon, Sound Art, and Expressing Bodily Disturbance Through Noise,” *Pitchfork*, November 18, 2014. <https://pitchfork.com/thepitch/556-pharmakon-sound-art-and-expressing-bodily-disturbance-through-noise>

same, making you hyper attentive to the disturbing precariousness of one's corporeal self. In 'Freeing the Voice', Marina Abramovic's 1976 piece in which she screams until she loses her voice, Cills describes this act as a type of "phantom birth, the voice as a separate being". Abramovic amplifies the body's situatedness and through sheer force of existential transmutation, "the voice turns into a sound object".<sup>40</sup>

The voice is inseparable from the body. The body itself is a sonic world, as is the voice. As corporeal entities, both advocate for sonic fluidity by actualising indiscernible terrains and situating them in somewhat extreme contexts. They draw us into alternate worlds, to which we must attune and reconfigure our corporeal self. In doing so, the body reveals expanded resources that provide access to sonic vistas that are inexhaustible, albeit terrifying for some people. The ear alone is not enough if we hope to widen the margins of greater sonic possibility.

For this reason, I reiterate my earlier proposition; one must liberate from the ear. The ear transmogrifies into the body, and in this communion, the meridians of sonic sensitivity can become more nuanced and suffused with deeper creative potentiality.

Situatedness can be posited as the understanding of the seat of our experiences – be it historical, cultural, familial, social or personal – and how this shapes the way we interpret and respond to what surrounds us. In order to make sense of our creative drive, to study situatedness implies considering perspectives that lay outside of our own sphere, particularly those that illuminate unfamiliar situations or unknown motivations. Accessing fluidity in our sonic endeavours is thus

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<sup>40</sup> Hazel Cills, "Pharmakon, Sound Art, and Expressing Bodily Disturbance Through Noise".

predicated on the importance of examining one's own predispositions and embedded values, specifically the way they affect how we navigate through our creative lives. One possibility would be to investigate the narratives that underpin different predispositions, disrupting listening norms, and questioning what it means to articulate a voice.

// Christine Sun Kim 4x4 (Body resonance)

Normative constructs of voice that are synonymous with acoustically heard sound or simply put, audible sound, have not gone unchallenged by scholars and artists working in the expanded field of sound. In Nina Sun Eidsheim's text *Sensing Sound: Singing and Listening as Vibrational Practice*, she critiques the "figure of sound", a set of tropes that frames sound and music as "stable, knowable, and defined a priori", an understanding that is commonly premised on purely auditory contexts. Eidsheim counters this reductive "figure" by offering an alternative paradigm for thinking about sound. In advancing a more multisensory framework, Eidsheim describes, "(...) rather than conceiving of voice and sound as phenomena with fixable identities, captured and held by the eye or ear, instead we must understand that we are party to, and partake in, a process and an experience."<sup>41</sup> She advocates for sound to be "sensed by the material, lived body".<sup>42</sup>

In an essay for ART PAPERS on the Berlin-based sound artist Christine Sun Kim, Walker P. Downey further outlines this multisensory modality as the "conception of sonic and musical practice insistent upon sound's ecstatic slippages across different sensory registers (auditory, visual, and haptic) and between different people and things".<sup>43</sup>

Moving between different modalities and exploring differentiated experiences of sound is a part of Christine Sun Kim's oeuvre. Kim was born prelingually deaf. She reimagines hearing norms through a Deaf lens. One of Kim's sonic interventions, offering another materiality through which sound could be

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<sup>41</sup> Nina Sun Eidsheim, *Sensing Sound: Singing and Listening as Vibrational Practice* (Duke University Press, 2015), 51.

<sup>42</sup> Eidsheim, *Sensing Sound*, 51.

<sup>43</sup> Walker P. Downey, "Christine Sun Kim: Too Much Future," *ART PAPERS*, Winter 2018/2019.



experienced, was *4X4* (2015), an installation performance at *Andquestionmark* in Stockholm, Sweden. For this, Kim explored subsonic frequencies. Four large subwoofers lay on their sides in four corners of the venue space. Working with texts from her drawings, she composed four songs which became recorded performances by four individuals who were relatively well known in the medium of sound: artist Tony Conrad, musician Matana Roberts, designer Jeffrey Mansfield, and Robert Cohn (who popularised voicemail).



Image: Screenshot from *4x4* video on Vimeo, uploaded by Christine Sun Kim

The frequency of the recording was pitched shifted down to the 7-35 Hz range, on the low end of the spectrum of what is audible to human beings. The sound was also ‘tuned’ to the room. This calibration made it possible for certain moments in the playback to stimulate particular resonances of the venue’s architecture. When each song came to an end, a 7 Hz sound would set off a strong rattling of the front window, what Kim and her sound engineers humorously called ‘window hell’<sup>44</sup>. This then cued the next song. After all four songs had been played, a tone

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<sup>44</sup> Jeffrey Mansfield, “Christine Sun Kim with Jeffrey Mansfield,” *Coronagraph*. March 2015. <http://cargocollective.com/coronagraph/Christine-Sun-Kim-with-Jeffrey-Mansfield>

sweep would mark the start of the finale, which Kim describes as “a short explosion that can be felt everywhere”.<sup>45</sup>

Acting in parallel to the architectural features of the room, the (audience) bodies within the space also mediated the transmission of sound. For a published conversation with Jeffrey Mansfield for *Coronagraph*, Kim acknowledged the use of “space as an instrument.”<sup>46</sup> She also cited as inspiration for *4x4*, Alvin Lucier’s iconic work “I am sitting in a room”. Lucier employed space to augment his own speech impediment (his stutter) and reconfigured this into an extraordinary listening experience, changing the perception of his ‘voice’ by giving it a multi dimensional shift. Kim’s nod to this same tradition of psychoacoustic experimentation and the spatial conditions of listening is further expanded by situating the experience of voice(s) in the bodies of others within the same space while also concurrently aligning it with the realm of her own experience of sound.

Lucier marshals the room to alter his voice while Kim mobilises the inaudible spectrum of the voice to mobilise the room and consequently, the bodies within it. In so doing, Kim initiates a collective “sonic agency”, a term coined by Brandon LaBelle to explain “how people draw from experiences of sound and listening” in order to nurture “an expanded perspective (...) shaped according to a sonic sensibility and the potentialities found in sounded experience (...) sculpted from reverberations and resonances, volumes and their echoes.”<sup>47</sup> By assuming unfamiliar modalities, a collective of people can join in the embodied experience of other subjectivities that then invites reflection on sound as a means to examine

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<sup>45</sup> Mansfield, “Christine Sun Kim with Jeffrey Mansfield”.

<sup>46</sup> Mansfield, “Christine Sun Kim with Jeffrey Mansfield”.

<sup>47</sup> Brandon LaBelle, *Sonic Agency: Sound and Emergent Forms of Resistance* (London: Goldsmiths Press, 2018), 149-152

“a queering of the limits that define bodies out of place”.<sup>48</sup> “Sonic agency” provides a moment for a concrete engagement with a sense of empowerment through sound and listening, creating a shift away from normative constructs of listening, and activates the potentiality to listen otherwise.

On her subjective mode of listening, Kim describes it as a capacity that could be shared with hearing individuals. She says, “As a deaf person I believe that there are different ways of listening but my number one way of doing it isn’t through my ears”.<sup>49</sup> Alexis Deighton MacIntyre suggests that Kim’s desire to reclaim sound from “an aural-centric worldview” is in fact how “the body distributes the voice, neither knowing nor caring for its own discursive fencings.”<sup>50</sup>

Kim’s processes expand current notions of sound by entangling multiple sonic contexts into one experience, creating an interplay of modalities. There are numerous embodied ways to sense sound that extend well beyond the aural.

As a Deaf artist working in the medium of sound, this presented numerous cultural and political challenges. During a TED talk in 2015, she likened sound to “money, power, control, social currency”. Describing her path in finding her artistic voice, Kim says, “(...) sound is so powerful that it can either disempower me and my artwork, or it could empower me. I chose to be empowered.”<sup>51</sup>

With *4x4*, Kim moves sonic perception beyond the ear by creating the possibility for hearing-normative people to experience inaudible channels in feeling sound.

Steph Ceraso calls this ‘multimodal listening’ and has written about the ways in

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<sup>48</sup> LaBelle, *Sonic Agency*, 149-152

<sup>49</sup> Josie Thaddeus-Johns, “Open Interpretation: How Christine Sun Kim feels the sound,” *Crack Magazine*, May 24, 2017. <https://crackmagazine.net/article/long-reads/open-interpretation-how-christine-sun-kim-feels-the-sound>

<sup>50</sup> Alexis Deighton MacIntyre, March 4, 2019, “What is a Voice?,” *Sounding Out! The Sound Studies Blog*, Accessed December 10, 2021, <https://soundstudiesblog.com/2019/03/04/what-is-a-voice>

<sup>51</sup> TED talk by Christine Sun Kim (August 2015). “The Enchanting Music of Sign Language,” TED Fellows Retreat. November 19, 2015. YouTube, 15:17, <https://youtu.be/2Euof4PnjDk>

which the body “amplifies the tactile experience of sound”.<sup>52</sup> In relation to Christine Sun Kim’s work *4x4*, what is strikingly resonant is the subject of Deaf space and architecture, hereby illustrated by the force of vibration as a design factor that can facilitate multisensory listening. According to Ceraso, “Bodies, spatial and material configurations, and the senses are (sic) all taken into account in this kind of design”<sup>53</sup> and that these ‘tuned’ environments become accessible to differently abled as well as normatively abled listening individuals, and in my view, levelling the field per se. Despite being a relatively untapped domain, it presents an exciting prospect to reimagine the breadth of possibility and potential in designing sound experiences for all types of listening persons.

In the documentary *Touch The Sound*, percussionist Evelyn Glennie also situates hearing ability in the corporeal realm rather than the aural, highlighting aspects of haptic or tactile capacities that have been overlooked. In Glennie’s words, “Hearing is a form of touch. You can feel as though you can literally reach out to that sound and feel that sound.”<sup>54</sup> People with normative hearing rarely think about more dynamic ways of listening, much less think about developing plasticity in their listening habits. Hence, given the wide range of listening modalities possible, a key interest of mine is to discover and amplify the polyphonic ways in which music composition and sonic encounters can expand the listening capacities of *all bodies* (emphasis my own).

Scholarly studies have begun to acknowledge the role of the body’s senses in relation to sonic experience. And Christine Sun Kim’s *4x4* demonstrates this

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<sup>52</sup> Steph Ceraso, February 27, 2012, “The Plasticity of Listening: Deafness and Sound Studies,” *Sounding Out! The Sound Studies Blog*, Accessed December 10, 2021, <https://soundstudiesblog.com/2012/02/27/the-plasticity-of-listening-deafness-and-sound-studies>

<sup>53</sup> Ceraso, “The Plasticity of Listening: Deafness and Sound Studies”.

<sup>54</sup> *Touch The Sound: A Sound Journey with Evelyn Glennie*, directed by Thomas Riedelsheimer (2004; Germany/UK), Documentary theatrical release.

quality of visceral immersiveness. To elaborate, I refer to Julian Henriques' research on reggae. He uses the term "sonic dominance" to signify sound that "pervades, or even invades the body, like smell".<sup>55</sup> This frames the corporeal perception of sound as kinesthetic and tactile, felt with varying intensity within the body. Henriques writes, "Sonic dominance is visceral, stuff and guts. (...) It's not just heard in the ears, but felt over the entire surface of the skin. The bass line beats on your chest, vibrating the flesh, playing on the bone, and resonating in the genitals".<sup>56</sup>

Attesting to the theme of multimodal literacies, Anne Cranny-Francis points out the direct connection between hearing and sound, affirming that "sound literally touches us" with a palpability that is "intimate" and "visceral". She validates the idea of body situatedness in sound. She writes, "In a sense we act as both receivers and instruments to create the sound we hear; are fully engaged in its production."<sup>57</sup>

Anthropologist Roshanak Kheshti explains that by delineating our senses, we have created a division of labor with each sense optimised and serving a different purpose. According to Kheshti, Evelyn Glennie's sensory modality connects hearing and touching as the foundation of the whole body as the listening organ, that sonic perception is in essence, a corporeal and material process. Kheshti characterises the concept of "touching listening" as a way to experience sound as "the whole body intertwining what is heard by the ears with what is felt on the

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<sup>55</sup> Julian Henriques, "Sonic Dominance and the Reggae Sound System Session," in *The Auditory Culture Reader*, ed. Les Back and Michael Bull. (Oxford: Berg, 2003), 451.

<http://research.gold.ac.uk/4257/1/HenriquesSonicBodiesIntro.pdf>

<sup>56</sup> Henriques, "Sonic Dominance and the Reggae Sound System Session", 452.

<sup>57</sup> Anne Cranny-Francis, "Sonic Assault to Massive Attack: touch, sound and embodiment." *SCAN: Journal of Media Arts Culture*, Vol 5. Issue 3 (January 1, 2008): 4-5.

[https://www.academia.edu/186134/Cranny\\_Francis\\_Anne\\_2008\\_Sonic\\_Assault\\_to\\_Massive\\_Attack\\_touch\\_sound\\_and\\_embodiment](https://www.academia.edu/186134/Cranny_Francis_Anne_2008_Sonic_Assault_to_Massive_Attack_touch_sound_and_embodiment)

flesh, tasted on the tongue, and imagined in the psyche”.<sup>58</sup>

Interestingly, written notes on 4x4 by the curator of the work, Stefanie Hessler of *Andquestionmark*, also express its visceral materiality in poetic detail (hereby quoted in the article by Christopher Willes):

“Your voice is disappearing, into the walls, making the light fittings shiver. The doors move and the windows shake. Your chest fills up with sound, your cranium bubbles. Yet, your ears cannot hear anything. A song is played, you can feel it, but it’s not really there. It could be the artist’s voice, or someone else’s in disguise. Any attempt at speaking is sucked up and absorbed by the surroundings. The inaudible sound is leaking through the building, too big to be detained in the space. The silence is physical, permeating the rooms, the objects, the bodies. It becomes the sound.”<sup>59</sup>

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<sup>58</sup> Roshanak Kheshti, “Touching Listening: The Aural Imaginary in the World Music Culture Industry,” *American Quarterly*, Vol. 63. No. 3 (2011): 713-714.

<sup>59</sup> Christopher Willes, “Christine Sun Kim Explores the Politics of Sound,” *Musicworks* Issue #123, Fall 2015.

// Christine Sun Kim *Subjective Loudness* (Transformative resonance)

Various scholars continue to diversify sound studies and sustain meaningful sonic engagement through different lens. For instance, by examining intersections of queer bodies, affect and marginalised narratives, Airek Beauchamp, proposes the materiality of the body as a possible “site of constant unfolding (...), as both processor and producer of sound, a connection of trembling nodes eschewing the patriarchal structures of language”.<sup>60</sup> Beauchamp’s notion of “sonic tremblings” is articulated as a way to “engage with the world via a series of shimmers and impulses (...) rather than with concrete events or objects”.<sup>61</sup>

I am interested in the work of scholars that connect sonic states of being with diverse lived experiences. Beauchamp’s research in the field of noise music and queer bodies helps to relay a practice of resistance to codification of what is traditionally framed as ‘music’, and can be further likened to sonic outliers such as Christine Sun Kim, Pharmakon, and other experimental purveyors of sound art and music. Beauchamp has stated that he wants to understand “how feeling, quite *literally* (writer’s emphasis), moves bodies”.<sup>62</sup> Connected to this is the potential of the mobile and the mobilised in sonic experience, a position Kim has often been quoted as saying, “In Deaf culture, movement is equivalent to sound.”<sup>63</sup>

For her piece titled *Subjective Loudness*, she provokes the theme of subjectivity in the experience of sound, in this case, the notion of loudness; while resisting aural fixation and normative ideologies in order to demonstrate that sound does

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<sup>60</sup> Airek Beauchamp, September 14, 2015, “Live Through This: Sonic Affect, Queerness, and the Trembling Body,” *Sounding Out! The Sound Studies Blog*, Accessed December 10, 2021, <https://soundstudiesblog.com/2015/09/14/sonic-tremblings-sound-affect-queer-body>

<sup>61</sup> Beauchamp, “Live Through This: Sonic Affect, Queerness, and the Trembling Body”.

<sup>62</sup> Beauchamp, “Live Through This”.

<sup>63</sup> TED talk by Christine Sun Kim, “The Enchanting Music of Sign Language,” YouTube, 15:17, <https://youtu.be/2Euof4PnjDk>

not require audibility to be felt. *Subjective Loudness*, which took place in Ueno Park during the Sound Live Tokyo festival in 2013, involved 200 members of the public asked to help create a musical score. Seated in a large amphitheatre, a speaker is placed in front of each person, and they are also equipped with a microphone. Typing visual text prompts on an iPad, Kim invites the audience to interpret what is written on the cards. On Kim's cue, the audience activate their voices to replicate the sounds of common 85dB noises. The cues selected included: a ringing telephone, a washing machine, the repetitive motion of a printing press, a busy street, and the harsh grind of a food blender.

The result is a cacophonous rendering of multiple subjective voices all at once. The sounds are then converted into a musical score and performed by singers, transforming one resonance to another. We are moved between realms, from the visual into a subjective sounding out of familiar everyday objects, back to visual representation, and then shifting into audible music. The piece weaves several subjective modes of experience but also consigns subjectivity to loudness.



Image: *Subjective Loudness* performance set up, Ueno Park, Tokyo. Photo: Masahide Ando



Kim has offered some insight into her collaborative approach, saying “There’s always something in between myself and people, so that has made me think so much about ‘leasing’ people’s actual voices such as conducting audiences to become my ‘voice’.”<sup>64</sup>

In his analysis, Christopher Willes describes this simultaneous sounding by an audience of two hundred as an act to supplement Kim’s voice but more importantly, the process transmutes normative notions of sound and loudness into something with greater agency and empowerment. Willes cites the example of a letter Kim addressed to the participants, in which she explains her motivation, “... instead of resisting or subverting Ueno’s sound etiquette (a sound limitation rule stipulating nothing louder than 85 dB), together we will attempt to convert the list (of 85 dB noises) into a score; as part of my practice, I will depend on audience participation as my platform, instead of using the actual stage.”<sup>65</sup>

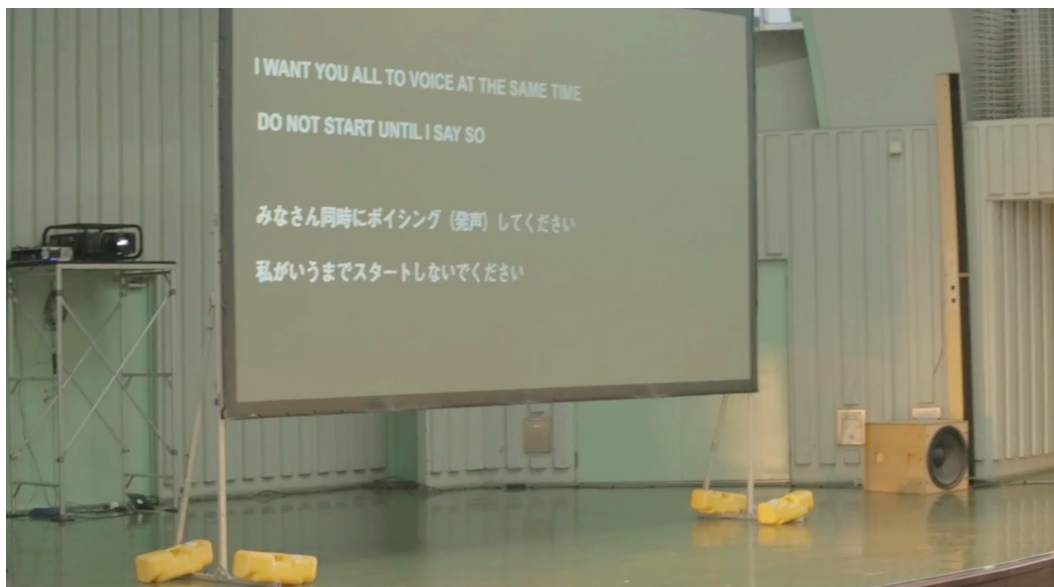


Image: Screenshot from *Subjective Loudness* video on Vimeo, uploaded by Christine Sun Kim

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<sup>64</sup> Vida Weisblum, “How We Listen Determines What We Hear: Christine Sun Kim on Her Recent Sound Works, Working with Blood Orange,” *ARTnews*, September 28, 2015, <https://www.artnews.com/art-news/artists/how-we-listen-determines-what-we-hear-christine-kim-on-her-recent-sound-works-teaming-with-blood-orange-4833>

<sup>65</sup> Willes, “Christine Sun Kim Explores the Politics of Sound”.

In engaging the audience this way, their bodies constitute a larger sonorous construct that becomes more easily moulded than if she had merely chosen to let them feel vibrations from say, a printing press. The audience vocalise common 85dB sounds by interpreting loudness individually and in doing so, transform their subjectivities into a malleable, material presence through which Kim's voice is made 'audible'. Kim says, "The more I collaborate, the more sonorous my voice becomes."<sup>66</sup>



Image: Screenshot from *Subjective Loudness* video on Vimeo, uploaded by Christine Sun Kim  
Video: <https://vimeo.com/76308328>

In the final stages of *Subjective Loudness*, what is sung is lowered out of hearing range, immersing the participants in a vibrational resonance that is more intense than loud, coalescing expressive modalities for sensing sound through the body. As Sarah Mayberry Scott writes, "Kim challenges her audience to *feel* intensity in the absence of volume." By recontextualising sonic experience, Deaf modalities can become "vitally part of the soundscape, experiencing and producing sound (...) amplifying the fact that Deaf bodies have something to say."<sup>67</sup>

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<sup>66</sup> Willes, "Christine Sun Kim Explores the Politics of Sound".

<sup>67</sup> Sarah Mayberry Scott, June 5, 2017, "Re-orienting Sound Studies' Aural Fixation: Christine Sun Kim's *Subjective Loudness*," *Sounding Out! The Sound Studies Blog*, Accessed December 10, 2021, <https://soundstudiesblog.com/2017/06/05/re-orienting-sound-studies-aural-fixation-christine-sun-kims>

## The Breath & Voice as Material

// Vivian Wang – *Alt Human* (Vocal resonance)

In 2020, I was commissioned by curator Lasse Marhaug to compose a multichannel work for the 2021 edition of Ekko Festival in Bergen, Norway. I have always feared composing for voice, being that noise and drone music have been the greater part of my musical pursuit in over a decade. Nevertheless, I decided upon using voice as sculptural material for an octophonic piece entitled *Alt Human*.

My interest in exploring voice sprung up after a year of greatly reduced social interaction. At the end of Spring 2021, around the time when urban life started to regain some semblance of normality, I realised I wanted to create a work that would address the unease I had started to feel around human company (bodies). The work is a reflection on the post-experience of physical isolation, of having encountered human interaction only through zoom meetings or over the phone. I observed that my modes of listening had changed dramatically. I had become much more attuned to nuance, interoceptively (the perception of sensations from inside the body) but also exteroceptively, towards other people and the immediate environment as well. I came to rely much more on the voice(s) of people as a gauge for intimacy, or humanity, if you will. Being a few steps removed from physical presence in social settings meant that I could only measure or tell from hearing vocal expression, how well I was actually connecting. I started to pay attention to the minute details of different voices, and so over a period of months, the possibility of designing a new experience of human 'anima', or what some might call, our vital force, took on a more definitive form.

*Alt Human* investigates breath, tones, undertones, overtones, non-lingual

utterances, and liminal interjections in human articulation or voiced sound. My only stipulation (to myself) was that there be no spoken word. I perceive voice as the seat of identity with its ability to convey strength and dynamic energy. And ostensibly, it can also convey great vulnerability, fragility and precariousness, more so at the present moment if we meditate on the context of the Covid-19 soundscape.

With *Alt Human*, I wanted to explore three aspects of sonic experience, to test the possibilities of conveying intimacy using non-lingual voice(s), to activate a heightened mode of embodied listening, and to create intermingling clusters of poly-resonances which would shift across registers by interpolating time, matter, spatiality, intensity, distance, intimacy (proximity), movement and silence. My plan was to root around with sonic feelers into invisible or unseen/unheard territories of the voice.

Christopher Willes cites Christine Sun Kim about invisibility in sonic perception. He writes, “Christine Sun Kim describes sound as a ghost. There is a nearness to it, its presence is felt.”<sup>68</sup> Unlike Kim’s sound art, my work is far less overtly political. Yet, in skirting around the fringes of vocality and liminal registers, I feel a sonic kinship to Kim’s work. I too, recognise the need to redraw notions of audibility. So armed with this intent, I examined different aspects of ambiguous voicings, and prepared to pull focus on the barely audible, or the obscured.

Rather than examine what constitutes a voice, in the following paragraphs, I attempt to relate my methodology and thinking behind the processes of *Alt Human* to existing sonic discourse on vocality. For a start, my initial impetus for the composition was to create a languid, drawn out space, one that would slowly

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<sup>68</sup> Willes, “Christine Sun Kim Explores the Politics of Sound”.

unfurl with voices, those of two friends and my own, plus the additional sound of breath-work through a saxophone. I wanted to induce an immersive sonic experience in which conventional time would feel suspended, compelling the audience to pause, be enveloped in sonic matter, and listen differently.

In addressing dystopic and utopic vocalisations in sound art, Stina Marie Hasse Jørgensen quotes scholar Norie Neumark as saying that vocal “performativity suggests something that doesn’t just describe or represent but performs and activates – acting as a material force to change something.”<sup>69</sup> Simply put, the material essence of the voice in a performative setting does more than just interact with the audience. The vocal materiality literally embodies the sonic experience within the audience. The audience becomes the medium, the embodied body acting as a conduit for realisation of the vocal sound.

Brandon LaBelle directs attention to the orality of the voice as being inextricably tied to a body. He asks, “If voice is fundamentally an embodied oral action, what kinds of performative significations can be found in its flexed and sounded movements?”<sup>70</sup>

What is worth reiterating at this point is the experience of the situatedness of the voice. LaBelle argues, “(...) the voice, however diffuse, phantasmic, or acousmatic, is never truly without a body; even as an ‘invisible’ presence.”<sup>71</sup>

Cathy Lane echoes this sentiment and states, “The voice is produced and shaped

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<sup>69</sup> Stina Marie Hasse Jørgensen, “Vocalising Dystopian and Utopian Impulses: The End of Eating Everything,” in *The Bloomsbury Handbook of Sound Art*, ed. Sanne Kroth and Holger Schulze (New York: Bloomsbury Academic, 2020), 90.

<sup>70</sup> Brandon LaBelle, “Kiss, Lick, Suck: Micro-Orality of Intimate Intensities,” in *The Bloomsbury Handbook of Sound Art*, ed. Sanne Kroth and Holger Schulze (New York: Bloomsbury Academic, 2020), 187.

<sup>71</sup> LaBelle, “Kiss, Lick, Suck: Micro-Orality of Intimate Intensities,” 191.

by a body. When heard, it also suggests a body.”<sup>72</sup> According to LaBelle, the voice is the spectre that anticipates the body, taking on numerous animated forms that he calls the “oral imaginary”.<sup>73</sup>

Having this in mind, while editing the recorded content for *Alt Human*, I intentionally kept in certain sounds of lip smacking, mouth clicks and breath intakes or expulsions, something I had never done before. I found that these micro gestures augmented a sense of sonic proximity and concomitantly, the feelings of intimacy.

As previously mentioned, one of my goals is to scour the edges of vocal possibility. I am curious to examine the tension in the relationship between voice and body, but also to scrutinise the space between impulse and reception. There are sections where the voices maintain considerable heft. You hear it mostly in the droning male voice as well as in certain breath bursts that I had pitched to the subsonic frequency range. I also included a penetrating, feral sounding, high frequency screech that might elicit a strong visceral response on the part of the listener. It is interesting to see what these vocal margins throw up in terms of understanding intimacy when comingled with ambiguity.

How then, do we reconcile this with the concept of sonic fluidity?

In delving into the oral imaginary, I attempt to build non-lingual worlds to surreptitiously move within, shifting between clusters of different groups of sonic material, where instead of a linear progression of sounds, our attention is drawn to the sum effect of vocal possibility.

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<sup>72</sup> Cathy Lane, “Gender, Intimacy, and Voices in Sound Art: Encouragements, Self-Portraits, and Shadow Walks,” in *The Bloomsbury Handbook of Sound Art*, ed. Sanne Krogh Groth and Holger Schulze (New York: Bloomsbury Academic, 2020), 198.

<sup>73</sup> LaBelle, “Kiss, Lick, Suck: Micro-Orality of Intimate Intensities,” 191

In *Alt Human*, this is done by way of distributing different vocal material tints through a continuously oscillating division of frequencies across 8 speakers. How often these frequencies modulate is also asymmetrically determined, meaning different parameters are given but the programme chooses when and what. I choose to utilise spectral filtering and random selection to relay a sense of movement, spatiality, a level of titillating discomfort, proximity and a dynamic meshing of polytemporalities.

Immanent sonic identity is provocatively dismembered. I filter, and then conjoin spectral properties of individual voices, through a deconstruction of the voice frequencies by splicing and sampling, and in the end, amalgamating frequencies and reassembling them into 'new' voices to create what one might call a 'Frankenstein' choir. My main interest was to create a sounding of a multiplicity of voices at once, to make it challenging to isolate single voices, and as a result, drive your attention instead, to a community of sound.

Upon reflection, the sifting and then stacking of several dimensions became de rigueur processes in excavating sonic material that lay hidden or obscured. The elusive qualities I am looking for in a sonic experience is mostly directed by imagination and embodied listening, and not by narrative or predetermined structures.

Cathy Lane writes, "Listening becomes the act of imagining unspoken words, and gradually shifts into a fluidity between listening and speaking, and voiceless voices hidden under discourses would become audible."<sup>74</sup> With *Alt Human*, I felt a strong desire to invigorate the sonic imaginary; to erase the limits of what could possibly be 'heard' via expanded auditory capacities, and humbly suggest that it

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<sup>74</sup> Lane, "Gender, Intimacy, and Voices in Sound Art," 209.

is possible to build a sonic social contract focused on more inclusive ways of sounding out voices.

On the phenomenological experience of sound, I propose that being sonically fluid is a kinaesthetic triggering of presence itself. I would therefore frame this as an intentional leaning in to an inner receptivity, a sonic sensibility that actively palpates the inaudible into the audible zone. Salomé Voegelin describes this rather poignantly. She says, “There is an anticipation to listening, which is particularly forceful when we are in silence; an almost breathless waiting for what might eventually sound. This anticipation is my agency of listening as a pull to generate the heard.”<sup>75</sup>

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<sup>75</sup> Neuhaus, “MyTime Interview – Salomé Voegelin on SoundTimeSpace”.



## The Creatures & Transmuting Otherness

// Jana Winderen – *The Noisiest Guys on the Planet* (Bioacoustic resonance)

In considering voices that lay in the spectrum of the unheard and the invisible, I am reminded of the important sonic works of artist Jana Winderen. *The Noisiest Guys on the Planet*, Winderen's album from April 2009 featured a class of crustaceans called decapods. Winderen was curious about the ability of aquatic lifeform to produce or react to sound. This led to a series of underwater recordings of these ten-legged creatures such as crayfish, crabs, lobsters, prawns and shrimp, to investigate "the use and production of sound by decapods."<sup>76</sup>

At this juncture, I find it fitting to expand the notion of invisibility to include worlds that extend beyond the human sphere. Little is known about the sonic topography of creatures living in the hidden depths under water. The likes of sound artists like Winderen advocate for the recognition of the 'voice' of ecological environments and that the ecological voice(s) should perhaps be given political mandate. Listening to the oceans, rivers, lakes and other water bodies activates another aspect of the sonic imaginary. Arguably, aside from going out into the field to document or capture resonances from various ecological worlds, I propose that one could also approach non-human sonic organisms via a pursuit of sonic fluidity. In engaging with Winderen's work that involves interacting with the non-human world, sonic fluidity can be understood as a variegated, enhanced sonic reception that implies both embodied and speculative listening.

Speculative listening can be a complementary practice to embodied listening,

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<sup>76</sup> Jana Winderen. (Artist Website) Releases: *The Noisiest Guys on the Planet*, October 8, 2019. Accessed December 15, 2021, <https://www.janawinderen.com/releases/the-noisiest-guys-on-the-planet>

enlarging the dimensions of possibility engendered within one's imagination. It is a mode of attunement that engages and challenges our human perceptivity in artful ways in order to nurture deeper understanding of diverse ecosystems and other living species. In relation to this, I am also confronted with my role as an artist and a human being, mainly by the exigent question – what part can art play to strengthen political purpose and summon new narratives for addressing the climate crisis?

Kaya Barry, Michelle Duffy & Michele Lobo write, “When seeking to understand things that exceed our human grasp in the diverse planetary worlds we inhabit, the philosopher Bruno Latour urges us to learn ‘how to get our bearings, how to *orient* ourselves’. Speculative listening with the planet opens up possibilities for thinking and acting otherwise.”<sup>77</sup>

In an interview by anthropologist Stefan Helmreich, Winderen explains that her sound work is intended to bring critical attention that might help to amplify sensitivity and connectedness to the environment. Winderen's album, *The Noisiest Guys on the Planet*, originally released on cassette, is astonishingly captivating, as are her sound art installations. They beautifully and thoughtfully reveal the complexity, richness and otherness of submerged worlds, enabling us to listen beyond our anthropogenic realms.

Eminent biophilosopher Jakob von Uexküll proposed a decentering of the human perspective of the environment, arguing for a theory of life as a construction anchored in non-human and human orientations. Uexküll is best known for his thinking on ‘Umwelt’ or Environment. He lavishly used extended metaphors of

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<sup>77</sup> Kaya Barry, Michelle Duffy & Michele Lobo (March 8, 2021), “Speculative Listening,” *Global Discourse: An interdisciplinary journal of current affairs*, January 2019 Vol 09 No. 01, <https://globaldiscourseblog.co.uk/2021/03/08/speculative-listening>

sound and music to describe his biocentric theories, “The characteristics of the animal and those of its fellow players harmonised everywhere with assurance, like the points and counterpoints of a many-voiced chorus. It was as if the same masterful hand were gliding across the keys of life since time immemorial.”<sup>78</sup>

With less religiosity in expression, Winderen perhaps evinces a similar thinking, advocating for the consideration of ‘other’ voices, particularly those of the non-human, creature world. In the worlds encapsulated in Winderen’s sound work, these creatures clearly have a voice. They may be invisible but are without question, audible. Winderen’s sound research has helped to demonstrate the ‘sonic dominance’ of marine life, that fish and other aquatic species do indeed navigate and orientate themselves through sound. Echoing Winderen’s humorously inflected album title, Uexküll paints a delightful picture of decapods, “In the waves of the primordial sea, simple yet fully formed crustaceans cavorted.”<sup>79</sup>

The mind-boggling depth of sonic exploration of water environments is buoyed by Winderen’s need to draw attention towards fragile ecosystems and environmental spaces that have been damaged, neglected or simply ignored. Using hydrophone technology, Winderen makes audible “less obvious sounds, the sounds of creatures we do not think of in terms of sound, or that are so small we do not hear them, in frequency ranges we do not perceive.”<sup>80</sup>

Winderen emphatically asserts that her compositions are not intended to be documentary works. Although undeniably inspired by science and even with an

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<sup>78</sup> Jakob von Uexküll, *A Foray Into The Worlds of Animals and Humans: With a Theory of Meaning*. Translated by Joseph D. O’Neil. (Minneapolis: University of Minnesota Press, 2010), 195.

<sup>79</sup> Uexküll, *A Foray Into The Worlds of Animals and Humans*, 195.

<sup>80</sup> Stefan Helmreich, “Hydrophonic Fields,” in *The Bloomsbury Handbook of Sonic Methodologies*, ed. Michael Bull and Marcel Cobussen (Bloomsbury Academic, 2021), 460.

academic background in marine biology, she refutes a purely scientific representation in her work. Rather, it is about amplifying the voices of creatures and paying closer attention to how sound affects them. She composes her recorded material by thinking about “stories, layers, sections, travels, and up and down in the depths of the water. (...) I hope that audiences listening feel like they’re swimming or inside the water. I want them to listen to the situation, but I’m not trying to represent what’s out there. I’m trying to tell a story.”<sup>81</sup>

And that story invites our reflection on the effects of anthropogenic sound on non-human life forms. According to Winderen, the persistent onslaught of ubiquitous human activity in global waters such as industrial activities, military sonars, tankers, fishing vessels and oil drills is hugely disruptive for aquatic life, “impeding animals’ ability to hear each other, communicate, feed, mate, and navigate”.<sup>82</sup> She elaborates, “All these sounds are stressing us on a subconscious level and my message is that we are pouring all these sounds into the water as well without knowing.”<sup>83</sup>

What Winderen’s position illustrates is an active correlation of art practice to political agency. Anette Vandsø discusses the “epistemological potential”<sup>84</sup> of art, which in brief, refers to the potential of art to engender new knowledge. She cites French philosopher Jacques Rancière, who argues that the distribution of what can and cannot be heard or recognized is political. That is what Rancière connotes as the “distribution of the sensible”. Rancière suggests this as a point of contention, relating it to who gets to decide and define what is “beautiful” and of

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<sup>81</sup> Y-Jean Mum-Delsalle, “Jana Winderen: Listening to the Ocean,” *TLmag* 33 Extended, <https://tlmagazine.com/jana-winderen-listening-to-the-ocean>

<sup>82</sup> Columbia University School of the Arts, “The Art of Listening: Under Water,” Event synopsis, <https://arts.columbia.edu/art-listening-under-water>

<sup>83</sup> Mum-Delsalle, “Jana Winderen: Listening to the Ocean”.

<sup>84</sup> Anette Vandsø, “The Sonic Aftermath: The Anthropocene and Interdisciplinarity after the Apocalypse,” in *The Bloomsbury Handbook of Sound Art*, ed. Sanne Krogh Groth and Holger Schulze (New York: Bloomsbury Academic, 2020), 23.

valid artistic interest. He refers to “artistic practices as ‘ways of doing and making’ that intervene in the general distribution of ways of doing and making as well as in the relationships they maintain to modes of being and forms of visibility”<sup>85</sup> and to this equation, Vandsø applies “the audible”.<sup>86</sup>

Therefore, what seems inevitable and merits serious consideration is this; in developing as a composer or an artist, one ought to actively canvass diverse perspectives and seek out different praxis and non-music disciplines. The essence of engaging in sonic fluidity is in empowering creativity, curiosity and interconnectedness through the embodied, situated act of listening to and with others.

A few key questions are to be considered. Although I do not purport to have any answers myself, they form a basis for further reflection. Does sonic intervention have the requisite power and agency to vocalise the unheard? How can contemporary sound and compositional artworks precipitate reconciliation with surrounding worlds? And what heterogeneous approaches can redefine a voice and confer audibility to unheard sonic spheres?

By pushing the envelope of how we engage with urgent social and environmental issues, I believe in the ‘epistemological potential’ of sound art to illuminate vulnerable worlds and cultivate interspecies understanding.

The idea for *The Noisiest Guys on the Planet* arose when Winderen was out listening to spawning cod with field recordist and musician, Christ Watson. This sparked her interest in crustaceans. Supported by the Norwegian Institute of

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<sup>85</sup> Jacques Rancière, *The Politics of Aesthetics: The Distribution of the Sensible*. Translated by Gabriel Rockhill, (Continuum International Publishing, 2004), 13.

<sup>86</sup> Vandsø, “The Sonic Aftermath: The Anthropocene and Interdisciplinarity after the Apocalypse,” 32.

Marine Research, the album portrays the sounds of scavenging Nordic shrimp as they scuttle around foraging on the seabed. One hears the distinctive snapping sounds of shrimps as they employ their front mandibles to paralyse their prey. It is a lively, otherworldly ambience with the loud pops reminiscent of crackling fire embers. You also hear frequent low frequency hum of passing boats that engulf a massive blanket of drone around the animated sounds of shrimp feeding. The overall listening experience is hypnotic and deeply immersive.



The Noisiest Guys on the Planet (2009).  
Album cover art is an illustration by the  
composer.

<https://janawinderen.bandcamp.com/album/the-noisiest-guys-on-the-planet>

Winderen's field recording methodology focuses on exploring sound at different depths. To her, the vertical trajectory of water in sonic research reveals more interesting activity than the horizontal. She also talks about exploring fish perception and about listening as a way to ground oneself, to "stick a finger in the earth"<sup>87</sup>, she explains.

When I interviewed Jana Winderen for a magazine called *Personal Best* in June 2020, she spoke of her fascination for unknown places and unknown things. She grew up near Lake Mjøsa near Oslo and saw how badly the lake was affected by

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<sup>87</sup> Vivian Wang, June 2020, "Jana Winderen," *Personal Best* Issue 8 (Marhaug Forlag, 2020). Ed. Lasse Marhaug and Vivian Wang.

human activity. Driven by an emotional need to save the lake, she spoke passionately about her preoccupation with fish, “It stuck with me so thoroughly, how a fish could recognise one tablespoon of a substance diluted in the whole of this lake. The sensitivity of the sense of a fish, for example, I find really fascinating. And then I started to think about the senses of other creatures and human beings. How other creatures are listening, or smelling or sensing the world.”<sup>88</sup>

Winderen has spent years trying to tune in to sounds from a hidden source, almost like a sort of blind field recording. In the same interview, I asked how she grapples with the multitude of unknown elements, for instance, when she drops a long cable down into the ice or water. Winderen admits she has often been tempted to incorporate a camera down below in order to see what is there but she insists that it is possible to “recognise certain characters in an environment through repeated listening although it’s always different.”<sup>89</sup>

Regarding this quality of invisibility, or the im-permeability of these sonic excursions beneath the ocean, she asserts, “There is always something, even if there isn’t any obvious sound. (...) What appears to be silent tells me something about that environment.”<sup>90</sup>

Another quality that is found in Winderen’s sonic pieces is the sounding of aquatic spaces to convey a strong sense of movement. As part of her compositional process, she points out the importance of interacting with the acoustics of the space in which an installation would eventually be heard. Whether working on site or for a studio recording, Winderen thinks about sonically activating immersive

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<sup>88</sup> Wang, June 2020, “Jana Winderen,” *Personal Best*.

<sup>89</sup> Wang, “Jana Winderen”.

<sup>90</sup> Wang, “Jana Winderen”.

aquatic realms in a body or a space. On an album like *The Noisiest Guys on the Planet*, which is meant for listening in stereo, Winderen still tries to “create a sense for the listener of being immersed in sound”.<sup>91</sup>



Jana Winderen hydrophone recording at the Silverbank, Dominican Republic.  
Photo: TBA21-Academy, José Alejandro Alvarez

There is a strong conceptual parallel between her sonic exploration and her compositional style. Her partiality towards exploring the vertical axis in water bodies is aligned with what she says about giving her compositions “a sense of travel”<sup>92</sup>. Winderen says, “I move between under and above water, and I try to keep some feeling of this movement, and some pulse in the pieces.”<sup>93</sup>

By perceiving and speculating about creature perception, Winderen creates a channel to articulate these invisible worlds, thereby bringing them into the domain of human audition, and thereby conferring audibility to what is unseen. Here, I draw a comparison to Christine Sun Kim. Jana Winderen’s ongoing interest in transmuting the experience of sound in aquatic realms by underwater creatures is

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<sup>91</sup> Stefan Helmreich, “Hydrophonic Fields,” in *The Bloomsbury Handbook of Sonic Methodologies*, ed. Michael Bull and Marcel Cobussen (Bloomsbury Academic, 2021), 464.

<sup>92</sup> Helmreich, “Hydrophonic Fields,” 462.

<sup>93</sup> Helmreich, “Hydrophonic Fields,” 464.



closely affiliated in its motivation to Kim's work, which engages in a multimodal shifting of perception across different sensory registers. Both artists audify 'otherness'. As Salomé Voegelin points out, "A sonic exchange is based on the desire to share the heard rather than on a shared order or lexicon."<sup>94</sup>

Another fundamental perspective that aligns Winderen to Kim's sonic practice is Winderen's reference to the body. She says, "When people ask me about listening, I try to explain a more active perception (...) taking the focus away from the ears towards listening. (...) The whole of the body takes part in the listening process. For example, it is impossible to listen if you are too cold, too warm, restless, stressed, hungry, and so on. The core of my interest is the connectedness to our environment, no matter where we are. I try to avoid the distinction between *us* and *them*, between other species and humans."<sup>95</sup>

Inherent in Winderen's methodology is a refusal to fetishize nature as pristine wilderness. Like her, many ecology-focused sound artists reject the commodification of nature recordings, particularly those that relegate environmental sounds to adjunct accompaniment for meditation and relaxation. Early nature recordings of thunderstorms and rain such as the popular *Environments* series distributed with the *Reader's Digest Magazine*, were promoted as a soothing panacea to urban stress. Winderen neither makes an attempt to make nature palatable nor obfuscate reality. Rather, she says, "When I make recordings in the environment, I record the whole ecosystem with the animals in it."<sup>96</sup>

What we hear on Winderen's album could be mistaken for a pastiche of nature,

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<sup>94</sup> Neuhaus, "MyTime Interview – Salomé Voegelin on SoundTimeSpace".

<sup>95</sup> Helmreich, "Hydrophonic Fields," 466.

<sup>96</sup> Columbia University School of the Arts, "The Art of Listening: Under Water," Event synopsis.

were it not for the fact that we are firmly situated in a listening experience that intertwines strange, ‘other’ sounding creatures with equally unrecognisable anthropogenic sonic elements such as passing boats modulated by the materiality of ocean water, challenging us to make sense of the sonic topography of this aquatic dimension. When Winderen talks about creature perception and frames sonic encounters around hearing non-human voices, we have no choice but to reconsider what counts as a voice in the world we live in.

American Professor Emerita Donna Haraway proposes the notion of “situated knowledges” as a tool to perceive the world, that bodies are generative sites of knowledge production. Earlier, I connected the body metaphor to the example of Traditional Chinese Medicine. Exemplified in TCM is the idea that a complex system cannot be reduced to one path, but must consider the dynamics of all paths and intersections. That being so, acquiring understanding, perception and interpretation is context-sensitive and fluid. Haraway says, “I am arguing for the view from a body, always a complex, contradictory, structuring, and structured body, versus the view from above, from nowhere, from simplicity.”<sup>97</sup>

Haraway’s view also challenges our connectedness to other species with whom we co-habit. As a biologist and notable figure in the field of animal studies, she has been strongly critical of Darwinist narratives of survival of the fittest, choosing instead, to recompose the story by “making kin” with our “companion species” in the more-than-human world.<sup>98</sup> In my view, sonic fluidity occurs within the processes of assembling and entangling different perceptual modalities. It is complex, open, and in the words of Salomé Voegelin, “viscous, expanding and

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<sup>97</sup> Donna J. Haraway, “Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective,” *Feminist Studies* Volume 14. No. 3 (1988): 575-599. <https://doi.org/10.2307/3178066>

<sup>98</sup> Donna J. Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Duke University Press, 2016), 103.

pulling together, giving space and taking time.”<sup>99</sup> It is a way of being that could permeate sonic practices and artistic discourse, and invite intersectional, transformative and heterogeneous approaches to re-orientate and reconfigure our relations on this planet.

To balance the idealistic tone of my proposition, I would offer an additional point for consideration. Rather than sweeping aside the damage (done to our habitats), we could choose to stay present and deeply listen to it. Haraway expresses this thought beautifully, “Neither the critters nor the people could have existed or could endure without each other in ongoing, curious practices. Attached to ongoing pasts, they bring each other forward in thick presents and still possible futures; they stay with the trouble in speculative fabulation.”<sup>100</sup>

The work of sound artists like Jana Winderen gives us three-dimensional imprints of lesser-known habitats, suggesting and allowing for new sonic narratives to emerge and hopefully, inspire interconnectedness and genuine recognition of more-than-human worlds. Recognising that sonic terrains need not be read as just places or geographical sites but rather as pathways and channels of movement brimming with multiplicity, brings an interspecies sonic perception beyond the human realm firmly within grasp. Brandon LaBelle maintains that “sound reroutes the making of identity by creating a greater and more suggestive weave between self and surrounding.”<sup>101</sup>

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<sup>99</sup> Voegelin, *Sonic Possible Worlds*, 142.

<sup>100</sup> Haraway, *Staying with the Trouble: Making Kin in the Chthulucene*, 13.

<sup>101</sup> Brandon LaBelle, *Acoustic Territories: Sound Culture and Everyday Life* (Continuum, 2010), xxi.

## Reflections & Conclusions

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In researching a range of experimental sound works, I have tried to concretise a conceptual understanding of what constitutes Sonic Fluidity. The analyses presented reflect my interest in the practices of listening and sounding out, and these draw reference from a wide range of relevant artistic discourse, sound studies and sonic methodology to consider how a sonically fluid, multimodal approach can be brought to bear on sound/music composition. As a concept, Sonic Fluidity can also provide a basis for exploring other artists, composers, and practices that provoke a questioning of the singularity of experience.

In reviewing the artistic contexts of Margaret Chardiet, Christine Sun Kim, Jana Winderen and additionally, reflecting on my own octophonic piece, I have attempted to elucidate the role(s) of sound and methodology in connection to themes of subjectivity, audibility, resonance, plurality, otherness, ambiguity, liminality, invisibility, heterogeneity, plasticity, multiplicity and political possibility. I would further argue that through these expanded modes of perception and fully embodied ways of thinking about art, we are more likely to resonate and amplify a plurality of voices and spaces that are less perceptible but no less important.

Kinship is fundamental to sonic fluidity. I borrow Donna Haraway's notion of "making kin"<sup>102</sup> and adapt it to make this simple proposition, that we habitually and consciously attune to/with a range of sonic entities across broad sonic registers and diverse realms to engender *kinship*.

As the artist works have demonstrated, sonic fluidity applies principles of inclusivity and openness to enhance polyphony and possibility in creative

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<sup>102</sup> Haraway, *Staying with the Trouble: Making Kin in the Chthulucene*.

articulation. As a practitioner myself, I have experienced this connection between cognition and lived experience and how this heterogeneous sensibility is a function of dynamic, multimodal trajectories.

The immateriality of sound paradoxically creates a very material experience despite its ephemeral nature. The bodies are integral within sonic experience. Sound can be experienced via many modes of listening but full-bodied listening enables audition using the entire body's sensory capacities. This points towards how sonic response can manifest as tactile, kinaesthetic experiences. A key conclusion can be that a fluid sonic practice is sound vibrating the body or bodies, reverberating as a whole, *becoming sound*.

The listening body can enact a body of meanings insofar that the vibrations amplify new understandings of identity, culture and otherness. As Don Ihde succinctly put, "Listening makes the invisible *present*".<sup>103</sup>

Sonic Fluidity realises an intentional engagement within embodiment and situatedness, and transforms a practice of sonic perception into a polyphonic experience of sonic resonances. Filtered through multimodal sensing, from the ear to the corporeal to the ether, sonic fluidity is the feeling of being inside sound, present in moments of transformation. It is also an awareness of limitations as we attempt to navigate away from normative and exclusive sonic discourses.

Contingent to this, Sonic Fluidity can also be a cultivated perceptual faculty, one that shapes and shifts sensibilities by entangling imagination, intellect and intuition. Sonic Fluidity mobilises deep listening and sounding out as trusted companions, while also challenging normative notions of voice and audibility.

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<sup>103</sup> Don Ihde, *Listening and Voice: Phenomenologies of Sound*, Second Edition (Albany: State University of New York Press, 2007), 51.

When activated and applied, it is open to resonating all bodies, especially unheard ones, and tries to decouple the sonic nexus of the human realm to unveil the non-human, the imperceptible, and the in-between.

What is impossible to perceive is made possible to hear. In reflecting about possible axes of spaces for sonic observation, Jana Winderen's propensity towards a vertical sonic exploration in aquatic realms leads us to a more realised shape and movement of the sonic imaginary. I make an analogous segue to a description by Salomé Voegelin, who says, "A geography of sound can grasp the cartographic blindspots and invisible timespace slices through its voluminous capacity and can access these apparently impossible territories through its vertical sensibility."<sup>104</sup>

The cultivation of Sonic Fluidity thus occurs through an agile deployment of diverse methods to help us connect to the most discrepant sonic matter, from acoustic environments to music, from works of sound art to soundscapes, from subjective states to collective reverberation, opening up possibilities to advocate for other narratives and other perspectives of sound.

Compassion and understanding comes from listening openly and critically to the whole continuum of sound, not just what one is presently concerned about.

Discovery and exploration can thrive if other fields of sonic discourse are developed and expanded to connect in augmented ways to all sonic kinfolk.

These interrelated modes of building sonic kinship contribute towards a larger, polymorphic engendering of sound and art.

There is much more to delve into in terms of research that would knit diverse

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<sup>104</sup> Salomé Voegelin, *The Political Possibility of Sound: Fragments of Listening* (New York: Bloomsbury Academic, 2019), 90-91.

fields of thinking, knowledge and contexts. I believe that Sonic Fluidity can be mobilised to advance compositional thinking, creative methodologies, philosophy, sound studies, and experiential research to ignite critical intersections with socio-politics, and stimulate extensive interdisciplinary collaboration and exchange. The inquiry and theorization done in this thesis offer a template for thinking and working with sound outside the limitations of normative music frameworks and hopefully augur bigger strides towards a plurality of sonic sensibilities.

## Bibliography

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- Achebe, Chinua. *Things Fall Apart*. London: Penguin Publishing Group, 2019.
- Barry, Kaya, and Michelle Duffy and Michele Lobo. March 8, 2021, "Speculative Listening," *Global Discourse: An interdisciplinary journal of current affairs*, January 2019 Vol 09 No. 01.  
<https://globaldiscourseblog.co.uk/2021/03/08/speculative-listening>
- Beauchamp, Airek. September 14, 2015, "Live Through This: Sonic Affect, Queerness, and the Trembling Body," *Sounding Out! The Sound Studies Blog*. Accessed December 10, 2021, <https://soundstudiesblog.com/2015/09/14/sonic-tremblings-sound-affect-queer-body>
- Cage, John, and Richard Kostelanetz. *Conversing with Cage*. New York: Routledge, 2003.
- Ceraso, Steph. February 27, 2012, "The Plasticity of Listening: Deafness and Sound Studies," *Sounding Out! The Sound Studies Blog*. Accessed December 10, 2021. <https://soundstudiesblog.com/2012/02/27/the-plasticity-of-listening-deafness-and-sound-studies>
- Cills, Hazel. "Pharmakon, Sound Art, and Expressing Bodily Disturbance Through Noise." *Pitchfork*, November 18, 2014. <https://pitchfork.com/thepitch/556-pharmakon-sound-art-and-expressing-bodily-disturbance-through-noise>
- Columbia University School of the Arts, "The Art of Listening: Under Water," Event synopsis, <https://arts.columbia.edu/art-listening-under-water>
- Cranny-Francis, Anne. "'Sonic Assault to Massive Attack: Touch, Sound and Embodiment.'" *SCAN: Journal of Media Art Culture*, Vol.5, Issue 3, January 1, 2008.  
[https://www.academia.edu/186134/Cranny\\_Francis\\_Anne\\_2008\\_Sonic\\_Assault\\_to\\_Massive\\_Attack\\_touch\\_sound\\_and\\_embodiment](https://www.academia.edu/186134/Cranny_Francis_Anne_2008_Sonic_Assault_to_Massive_Attack_touch_sound_and_embodiment)
- Dempster, Stuart. *Underground Overlays From The Cistern Chapel*, Album liner notes. 1994. New Albion Records.
- Downey, Walker P. "Christine Sun Kim: Too Much Future." *ART PAPERS*, Winter 2018/2019.
- Eidsheim, Nina Sun. *Sensing Sound: Singing and Listening as Vibrational Practice*. Durham: Duke University Press, 2015.
- Evans, Nat. "The Cistern Chapel: Resonance from the Pacific Northwest." *New Music Box*, April 6, 2016. <https://nmbx.newmusicusa.org/cistern-chapel>



- Ford, Charles. "Musical presence: Towards a new philosophy of Music." Accessed December 23, 2021.  
<https://www.contempaesthetics.org/newvolume/pages/article.php?articleID=582>
- Friedman, Ann. "Christine Sun Kim – On what listening looks like." *The Gentlewoman*. Issue 24, Autumn & Winter 2021.
- Goh, Annie. "Sounding Situated Knowledges: Echo in Archaeoacoustics." *Parallax* 23, no. 3 (2017): 283-304. <http://dx.doi.org/10.1080/13534645.2017.1339968>
- Haraway, Donna. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective." *Feminist Studies* 14, no. 3 (1988): 575.  
<https://doi.org/10.2307/3178066>
- Haraway, Donna J. *Staying with the Trouble: Making Kin in the Chthulucene*. Durham: Duke University Press, 2016.
- Helmreich, Stefan. "Hydrophonic Fields." Essay. In *The Bloomsbury Handbook of Sonic Methodologies*, edited by Michael Bull and Marcel Cobussen. Bloomsbury Academic, 2021.
- Henriques, Julian. "Sonic Dominance and the Reggae Sound System Session," Essay. In *The Auditory Culture Reader*, edited by Les Back and Michael Bull. Oxford: Berg, 2003.  
<http://research.gold.ac.uk/4257/1/HenriquesSonicBodiesIntro.pdf>
- Ihde, Don. *Listening and Voice: Phenomenologies of Sound*. Albany: State University of New York Press, 2007.
- Jørgensen, Stina Marie Hasse. "Vocalising Dystopian and Utopian Impulses: The End of Eating Everything." Essay. In *The Bloomsbury Handbook of Sound Art*, edited by Sanne Kroth and Holger Schulze. New York: Bloomsbury Academic, 2020.
- Kheshti, Roshanak. "Touching Listening: The Aural Imaginary in the World Music Culture Industry," *American Quarterly*, Vol. 63. No. 3, 2011.
- Kim-Cohen, Seth. *In the Blink of an Ear: Toward a Non-Cochlear Sonic Art*. New York: Continuum, 2009.
- LaBelle, Brandon. *Acoustic Territories: Sound Culture and Everyday Life*. NY/London: Continuum International Publishing, 2010)
- LaBelle, Brandon. "Kiss, Lick, Suck: Micro-Orality of Intimate Intensities." Essay. In *The Bloomsbury Handbook of Sound Art*, edited by Sanne Kroth and Holger Schulze. New York: Bloomsbury Academic, 2020.
- LaBelle, Brandon. *Sonic Agency: Sound and Emergent Forms of Resistance*. London: Goldsmiths Press, 2018.

- Lane, Cathy. "Gender, Intimacy, and Voices in Sound Art: Encouragements, Self-Portraits, and Shadow Walks." Essay. In *The Bloomsbury Handbook of Sound Art*, edited by Sanne Krogh Groth and Holger Schulze. New York: Bloomsbury Academic, 2020.
- López, Francisco. "Blind Listening," Essay. In *The Book of Music and Nature: An Anthology of Sounds, Words, Thoughts*, edited by Marta Ulvaeus and David Rothenberg. Middletown, CT: Wesleyan University Press, 2009.
- MacIntyre, Alexis Deighton. March 4, 2019, "What is a Voice?," *Sounding Out! The Sound Studies Blog*. Accessed December 10, 2021.  
<https://soundstudiesblog.com/2019/03/04/what-is-a-voice>
- Mansfield, Jeffrey, "Christine Sun Kim with Jeffrey Mansfield," *Coronagraph*. March 2015. <http://cargocollective.com/coronagraph/Christine-Sun-Kim-with-Jeffrey-Mansfield>
- Migone, Christof. *Sonic Somatic: Performances of the Unsound Body*. Los Angeles: Errant Bodies Press, 2012.
- MODE (2012). "Glossary of Multimodal Terms". Accessed December 22, 2021.  
<https://multimodalityglossary.wordpress.com>
- Mum-Delsalle, Y-Jean. "Jana Winderen: Listening to the Ocean," *TLmag* 33 Extended. <https://tlmagazine.com/jana-winderen-listening-to-the-ocean>
- Neuhaus, Fabian. September 30, 2010, "MyTime Interview – Salomé Voegelin on SoundTimeSpace." *urbanTick*. Accessed December 1, 2021.  
<https://www.urbantick.org/2010/09/mytime-interview-salome-voegelin-on-soundtimespace.html>
- O'Brien, Kerry. "Listening as Activism: The 'Sonic Meditations' of Pauline Oliveros." *The New Yorker*, December 9, 2016.  
<https://www.newyorker.com/culture/culture-desk/listening-as-activism-the-sonic-meditations-of-pauline-oliveros>
- Oliveros, Pauline. *Anthology of Text Scores*. New York: Deep Listening Publications, 2013.
- Oliveros, Pauline, and Stuart Dempster, Panaiotis (Deep Listening Band). *Deep Listening*. 1989. New Albion Records.
- Oliveros, Pauline. *Deep Listening: A Composer's Sound Practice*. New York, NY: iUniverse, 2005.
- Oliveros, Pauline. *Sonic Meditations: March – November 1971*. Baltimore, MD: Smith Publications American Music, 1974.
- Oliveros, Pauline. *Sounding the Margins: Collected Writings 1992-2009*. Kingston, NY: Deep Listening, 2010.
- Pharmakon, *Bestial Burden*. 2014. Sacred Bones.

- Rancière, Jacques. *The Politics of Aesthetics: The Distribution of the Sensible*. Translated by Gabriel Rockhill. London/New York: Continuum International Publishing, 2004.
- Riedelsheimer, Thomas, dir. *Touch The Sound: A Sound Journey with Evelyn Glennie*. 2004; Germany/UK. Documentary theatrical release.
- Scott, Sarah Mayberry. June 5, 2017, "Re-orienting Sound Studies' Aural Fixation: Christine Sun Kim's *Subjective Loudness*," *Sounding Out! The Sound Studies Blog*. Accessed December 10, 2021. <https://soundstudiesblog.com/2017/06/05/re-orienting-sound-studies-aural-fixation-christine-sun-kims>
- Stern, Daniel N. *The Interpersonal World of the Infant*. New York: Basic Books/London: Karnac Books, 1998.
- Stosuy, Brandon. "Pharmakon" (Interview). *Pitchfork*, August 15, 2014. <https://pitchfork.com/features/update/9481-pharmakon>
- Tan, Siu-Lan, Peter Pfordresher and Harré Rom. *Psychology of Music: From Sound to Significance*. Abingdon, Oxon: Routledge, 2018.
- TED talk by Christine Sun Kim. "The Enchanting Music of Sign Language," TED Fellows Retreat. Published on November 19, 2015. YouTube, 15:17. <https://youtu.be/2Euof4PnjDk>
- Thaddeus-Johns, Josie. "Open Interpretation: How Christine Sun Kim feels the sound." *Crack Magazine*, May 24, 2017. <https://crackmagazine.net/article/long-reads/open-interpretation-how-christine-sun-kim-feels-the-sound>
- Thompson, Marie. "Whiteness and the Ontological Turn in Sound Studies." *Parallax* 23, no. 3 (2017): 266–82. <https://doi.org/10.1080/13534645.2017.1339967>
- Uexküll, Jakob von. *A Foray into the Worlds of Animals and Humans: With a Theory of Meaning*. Translated by Joseph D O'Neil. Minneapolis: University of Minnesota Press, 2010.
- Vandsø, Anette. "The Sonic Aftermath: The Anthropocene and Interdisciplinarity after the Apocalypse." Essay. In *The Bloomsbury Handbook of Sound Art*, edited by Sanne Krogh Groth and Holger Schulze. New York: Bloomsbury Academic, 2020.
- Voegelin, Salomé. *Sonic Possible Worlds: Hearing the Continuum of Sound*. New York: Bloomsbury Academic, 2014.
- Voegelin, Salomé. *The Political Possibility of Sound: Fragments of Listening*. New York: Bloomsbury Academic, 2019.
- Wang, Vivian. "Jana Winderen." *Personal Best*. Issue 8, edited by Lasse Marhaug and Vivian Wang. Oslo: Marhaug Forlag, 2020.

Weisblum, Vida. "How We Listen Determines What We Hear: Christine Sun Kim on Her Recent Sound Works, Working with Blood Orange." *ARTnews*, September 28, 2015. <https://www.artnews.com/art-news/artists/how-we-listen-determines-what-we-hear-christine-kim-on-her-recent-sound-works-teaming-with-blood-orange-4833>

Westerkamp, Hildegard. "Speaking from Inside the Soundscape." Essay. In *The Book of Music and Nature: An Anthology of Sounds, Words, Thoughts*, edited by Marta Ulvaeus and David Rothenberg. Middletown, CT: Wesleyan University Press, 2009.

Willes, Christopher. "Christine Sun Kim Explores the Politics of Sound." *Musicworks* Issue #123, Fall 2015.

Williger, Jonathan. "Deep Listening" (Reissue review). *Pitchfork*, February 10, 2020. <https://pitchfork.com/reviews/albums/pauline-oliveros-stuart-dempster-pan-deep-listening>

Winderen, Jana. (Artist Website) Releases: *The Noisiest Guys on the Planet*, October 8, 2019. Accessed December 15, 2021. <https://www.janawinderen.com/releases/the-noisiest-guys-on-the-planet>

## Cited Music and Sound Art Works

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Stuart Dempster, *Underground Overlays From The Cistern Chapel*, Album. Released 1995. New Albion Records NA076CD.

Pauline Oliveros, Stuart Dempster, Panaiotis, *Deep Listening*. Album. Released 1989. New Albion NA022CD.

Pauline Oliveros, Stuart Dempster, Panaiotis, *Deep Listening*. Album. Reissue 2020. Important Records, IMPREC473.

Pharmakon, *Bestial Burden*. Album, Released 2014. US: Sacred Bones Records SBR-117.

Christine Sun Kim, *4x4*, 2015, Sound, Installation at Andquestionmark, Stockholm, Sweden.

Christine Sun Kim, *Subjective Loudness*, 2013, Sound Live Tokyo, Ueno Park, Japan.

Vivian Wang, *Alt Human*, 2021, Multichannel performance/installation at Ekko Festival, Østre, Bergen, Norway.

Jana Winderen, *The Noisiest Guys on the Planet*. Album. Released 2009. Ash International ASH 8.1, published by Touch Music.

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