The Sonic Anthropocene:

Dark Ecological Soundscapes in Chris Watson's "Vatnajökull"

David C. Jackson

ABSTRACT

As acoustic ecology and soundscape studies have developed alongside an ever-evident climate crisis, it has become imperative to reclaim the environmental aspects of soundscape recording and to use acoustic ecology as a way of confronting our current ecological condition. Ecological thinking challenges acoustic ecology to contend with the idea that sounds are critically connected to broader questions about environmental matters and urges soundscape artists to move beyond reflective or ecomimetic recordings towards active and exploratory ones. Soundscape researchers and artists, including Chris Watson, have been key to investigating the environment through sound and documenting ecological degradation and the concurrent silencing of the natural world. This article synthesizes work done in acoustic ecology and contemporary thinking about the Anthropocene to elaborate a "dark acoustic ecology" that listens in on the sonic conditions and effects of accelerated climate change. I examine Chris Watson's 18 minute soundscape recording of the 10,000-year-old Icelandic glacier "Vatnajökull" from his 2003 album *Weather Report* to pose questions about what it means to think darkly about our ecological interconnections in relation to flows of space, place, time, silence, and movement.

KEYWORDS

Anthropocene
Ecology
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Soundscape
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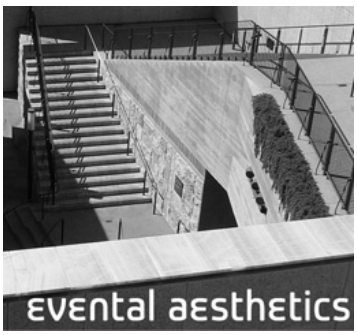

Ecology and Sonicity

A broad range of thinkers, including Timothy Morton, Roy Scranton, and Elizabeth Kolbert, have argued that we humans who are on this planet have entered a situation that threatens the entirety of life as we understand it.[1] This age has become known as the Anthropocene, a term coined by global warming and ozone depletion researcher Paul Crutzen and examined by a variety of thinkers concerned with the rapid and simultaneous changes that characterize many of our global environmental systems. The Anthropocene refers to the moment in time when humans have altered the world to the point that our presence on earth has been permanently inscribed onto the sedimentary record of the planet and possibly beyond. These changes extend far beyond global warming and include the transformation of the earth's land surface through agriculture and city building; shifting the course of rivers by damming and diverting their natural flows; fertilization; the damage to fisheries incurred by extracting vast amounts of marine life, damaging corals and coasts, and acidifying oceans; and overusing the world's freshwater supplies. Combined with industrial deforestation and fossil fuel production and usage, these changes will, in Elizabeth Kolbert's words, "leave behind a stratigraphic signature that would still be legible millions of years from now." [2] These changes are accompanied by a concurrent mass extinction rooted in the transformation of the chemical makeup of the environment and in the practices of globalized capitalism. Ironically, we have more knowledge about humans' impact on the world

than ever before, but it seems impossible to stop the cycle of consumption and destruction.

A number of reports and studies from the military and economic sectors detail the projected consequences of unchecked climate change, all of which have an immediate impact on our world. If climate science is accurate and the consensus is correct, incremental changes in climate will seriously weaken the global environment. The coming challenges, according to US Pacific Command, the National Security Advisor, the Director of National Intelligence, the Department of Homeland Security, and the Pentagon, will disrupt markets, destabilize social relations, intensify social inequalities, disrupt food and water distribution, displace large populations of people, and spread pandemics of disease. Roy Scranton details the findings of the World Bank's various reports on climate extremes, which "offer dire prognoses for the effects of global warming." [3] If the global temperature rises 7.2 degrees Fahrenheit within the next 100 years, we can expect a seven to eight foot rise in sea levels as ice sheets and glaciers melt, which will lead to the release of large amounts of methane gases currently trapped under ice, which could result in conditions akin to a nuclear winter or a catastrophic comet or asteroid impact.

Our world then is a series of worlds folded in on one another that interconnects biological, chemical, physical, and imaginary levels and brings us into contact with processes and species of which we may not even be aware. As a species at risk and spreading risk, we need to not just think about ecology, but following Tim Morton's ideas, to "think ecologically." [4] Thinking ecologically challenges practitioners and theorists of acoustic ecology to contend with thinking of soundscapes as complex ecologies. Likewise , it urges acoustic ecologists to move towards a sound practice that recognizes the soundscape as a material process in which complex weavings of the temporal, spatial, biological, and geographical mix and combine in its sonic makeup. By focusing on the sonic ecological experience as an expression of the environment, acoustic ecology could come into proximity with real ecological change and horror or what David Michael has called a "dark nature recording" that rejects the aesthetic artifice of nature recordings and closes the perceptual gap between the living world and our place within it.[5] The aesthetic dimension of acoustic ecology should establish the act of listening as an intense and focused expression that elaborates relationships between humans and the environments we inhabit. Active listening affords

us the opportunity to better understand our emergent position in the world in relation to sonic space, ecology, and the movement integral to place. To actively listen is to amplify the environment of understanding, what we might call the logic of acoustic ecology, and to situate ourselves not as separate observers capturing the world but as an integral, if only a momentary, aspect of that world.

The Soundscape and Ecology

The soundscape is a critically important part of the makeup of the world and is as important as climate, landscape, oceans, air, forests, and deserts for understanding our environment. It is therefore important to understand the soundscape in relation to the period of the Anthropocene and the associated changes that are registered both in the environment and in the soundscape. Two concepts of sound and the environment emerge as ways of thinking about ecological listening. The first, posited by Canadian composer R. Murray Schafer, considers the significance and impact that changes in soundscapes have upon the social and sonic environment. The second, by John Cage, draws upon ideas about the complexity and autonomy of nature to argue that sounds as a fundamental part of the environment should "be themselves." I will briefly deal with each in turn.

Schafer defines the soundscape as "the sonic environment ... regarded as a field for study." [6] In *The Soundscape: Our Sonic Environment and the Tuning of the World*, he analyzes the effects of sound and noise in the environment and in everyday life, starting with the industrial revolution and increased mechanization over the last 200 years. Schafer's discussion culminates in a critique of the modern noisy city: one threatened and brutalized by the noise of everyday lives, machinery, and media saturation. A critical social aspect to the soundscape emerges where the "general acoustic environment of a society can be read as an indicator of social conditions which produce it and may tell us much about the trending and evolution of that society." [7] Schafer's primary contribution to soundscape studies is to locate acoustic ecology within a sonic environment being degraded by urbanization, modernization, mechanization, and overconsumption.

Schafer hierarchically divides the soundscape between a "hi" and a "lo" fidelity, maintaining a rigid division between nature and culture. For Schafer, "A hi-fi system is one possessing a favorable signal-to-noise ratio … one in which discrete sounds can be heard clearly because of the low ambient noise level." [8] The hierarchy of high and low privileges the natural world, the past, and a kind of conservative and moderate quiet. This is of course a difficult division to maintain and has been critiqued from a number of perspectives for perpetuating unrealistic ideas of nature as a pristine and pure space that is perfect in its composition so long as it remains untouched by humans or technology. For Schafer, the noisy form of the soundscape brings society to a "slovenly and imperiled condition" instead of initiating "models of beautifully modulated and balanced soundscapes such as we have in great musical compositions." [9] Schafer discerns in the contemporary world changes in perception and behavior that have denigrated the world from its pre-modern hi-fidelity state. The increase in noise accompanies and contributes to the gradual but significant loss of fidelity, both sonically and socially.

Schafer proposes that the damaged sonic world should be corrected through deliberate human intervention, including through the implementation of urban design and planning policies that consider the soundscape as an integral part of urban design. This idea is interesting but problematic as Schafer's trajectory of sonic degradation moves from an Edenic pure ecology of the past into the polluted present. Recuperation of the soundscape will occur through measures like pedagogical ear-cleaning and acoustic design that recovers a hi-fi sound ecology. This return to a "pure" past is problematic as are the notions of health and cleanliness that pepper Schafer's writings. Jonathan Sterne justifiably detects a "distinctly authoritarian preference" and a "nostalgic elitism" in Schafer's desire for a human scale sound culture where the one voice can be heard by the many and the present is disparaged as debased and soiled.[10] According to Sterne, this conservative and nostalgic view of sound ignores "a whole set of phenomena that we would not necessarily assume to have anything to do with sound." [11] The soundscape is entangled within the development of the world and therefore to the history of capitalism and the many changes it has brought about in living, bodily relations, spatial reorganization, and of course the environment.

In contrast to Schafer, who seeks to intervene in acoustic environments, John Cage proposes that sounds should "be themselves." In letting sounds "be themselves" no matter their origin, Cage develops a compositional philosophy of chance and indeterminacy that stretches out to encompass the world as a series of paradoxes and complexities that involve both human and nonhuman agencies. Natural phenomena with their own temporal and spatial non-human processes, movements, and becomings are ideal models for acoustic design. Instead of proceeding authoritatively as the creator of a composition who attends, shapes, and controls the form and content of the music with the intent that it is performed and heard in a specific setting and way, Cage relinquishes control to assemble compositions that are as purposeless as nature itself, that simply come together to endure for some time and are then gone, never to be repeated exactly the same way again. Composition as a philosophy is elevated by Cage to encompass the total environment. The novelty of creation is discovered through new kinds of listening that do not "attempt to understand something that is being said, for, if something were being said, the sounds would be given the shapes of world. Just an attention to the activity of sounds." [12] There is still a response in the listener but not one that evaluates the quality of the composition for a faithful reproduction of a world but instead focuses on the experience of perception. Cage, moving towards an ethics of sounds, allows for all sounds to be included in the field of music. We may interpret parts of our environment as significant, but there is much more going on in the world that we cannot fully apprehend but which can nonetheless impact on our perception.

A truly ecological approach to the natural world means leaving it free from human involvement and interference. Letting nature "go natural" has parallel and contradictory consequences that are a kind of sweet destruction: "I would let it all go to heaven and to hell at the same time. That happens automatically." [13] From Cage's all-too-human point of view, humans who interfere with nature or try to give it shape are an invasive presence as opposed to understanding their place within a complex system that includes a thing called "nature."

Dark Ecology

What Cage illuminates for us is the futility of trying to control nature because our deep connection to it means that an exploitation or abuse of the environment is an abuse of ourselves. The human and environment are intimately interconnected processes that cannot be separated from one another. As Jason Moore argues, "if humans are a part of nature, historical change — including the present as history — must be understood through dialectical movements of humans making environments and environments making humans." [14] Thinking these interconnections is a way of thinking ecologically, a kind of thinking that, according to Morton, "includes all the ways in which we imagine how we live together" that is "profoundly about coexistence" between the human and the environment without hierarchically privileging either.[15] Thinking ecologically requires serious thinking about the prefix "co-" and all the meanings about things that are joined together, that are shared in common, that have mutuality and togetherness, and that ooze away from thinking the "co-" in a general sense. Common aspects of life, nature, environment, and human are "co-" from every possible position as Morton argues: "Existence is always coexistences. Human beings need each other as much as they need an environment. Human beings are each other's environment. Thinking ecologically isn't simply about non-human things. Ecology has to do with you and me." [16] Thinking ecologically has to do with the dread of understanding the conditions generated by the Anthropocene and recognizing that the radical destabilization of the environment is also the radical dissolution of the idea that we are separate from or impervious to any process of change as the world undergoes rapid, fundamental, irreversible change.

The flickering instability, this collapsing of worlds, and our collective inability to think about the future create a darkened aesthetic that Morton calls "dark ecology," one that "puts hesitation, uncertainty, irony, and thoughtfulness back into ecological thinking." [17] Dark ecology is useful for thinking about the connections between ecology and the production of aesthetic materials and lends itself particularly well to thinking about sound. Morton defines dark ecology as a depressing, weird, uncanny, and — strangely — sweet awareness of the world.[18] The darkness of dark ecology lies in recognizing and accepting the collapsing interconnections between our world and ourselves as far as we can still say that the world continues to

exist. Consequently, thinking through interconnectivity breaks down the myths we tell ourselves about this world: the teleology of nature, space, the West, and linear time has ceased to have relevance in a world of radical interconnection. Dark ecology opens us up to all the intensity and weirdness that the world requires for us to be truly intimate with it and produces a creative opening that disturbs our recognizable categories of human and nonhuman in ways that trouble consistent and stable notions of being. Dark ecology interrupts and breaks the anthropocentric superiority of human being, forcing us to think darkly: what does the world look like without pollinators or slime molds or certain grasses? How far can we go before things really begin to get too bad to return? Do we know if we have reached that moment yet or not? Dark thinking focuses our attention on the innumerable micro-elements that we normally push away from thinking about in our daily life to our awareness, obliging a reckoning with things like our waste, ice melt, Styrofoam, consumption, and so on.

Dark ecology makes us feel uneasy about the natural world due both to its complexity as an object and our inability to fully understand it even on a basic level while insisting on our ability to manage and "fix" whatever errors we might have produced. Our view of nature is impossibly contradictory, offering innumerable justifications for horror (dog eat dog, survival of the fittest) and also acting as an imaginary model for holistic and harmonious existence within the world. As Morton writes, "Since the Romantic period, nature has been used to support the capitalist theory of value and to undermine it; to point out what is intrinsically human, and to exclude the human; to inspire kindness and compassion, and to justify competition and cruelty."[19] This flickering "in-between" indicates the separation in our thinking about nature even as we recognize our fundamental connection to the world's processes. The current crisis and shift in our global ecological awareness trouble the flickering as it centers us as a key actor in the world's destruction. Recognizing our central role brings the world rushing towards us, and the objective separation that we have based so much of our relationship to nature upon collapses.

The Sonic Anthropocene: Soundscape, Place, Movement

Chris Watson offers one of the best of examples of thinking a dark acoustic ecology through the recording and composing of soundscapes. Watson, a member of the 1970s avant-garde post-punk band Cabaret Voltaire, is best known now for his work as a documentary field recordist who has also produced a number of radio documentaries about sound for the BBC. Watson's 2003 album *Weather Report* directly poses questions about dark ecological thinking as it pertains to flows of weather, instabilities of place, movements of time, and the sound and silences of environmental transformation. Watson's recordings alter our perceptions beyond a representation of the ecological toward what Gilles Deleuze and Felix Guattari characterize as a bloc of sensation that considers the recording as an active thing itself.[20] The liner notes to *Weather Report* indicate that each 18 minute-long track is a time-compression of various long duration recordings of certain places, atmospheric moods, and locations. These include Kenya's Masai Mara, a large game reserve and national park, which Watson recorded over a 14-hour period on Thursday, October 17, 2002, from 5:00 a.m. to 7 p.m.; recordings of Scotland's highland glens, which were composited over a duration of 4 months from September to December; and the final recording of the Icelandic glacier Vatnajökull as it melts and flows into the Norwegian sea. These tracks capture the unstable and shifting rhythms of animals, land, marine, atmospheric ecologies, and processes of change. More pertinently, these tracks capture the sound of worlds in dissolution and express what Rob Nixon calls a "slow violence" that "occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all." [21]

The glacier itself is connected to the environment and to dark ecology. As an object in the environment, it is associated with the dire prognosis of global warming as outlined above. The glacier's changing state directly contributes to the rise in the sea level and the release of methane gases, and yet its location in a national park means that it is also an important place connected to tourism and subsequently the tourist economy of Iceland. Vatnajökull is therefore a weird object for ecology: one that seems solid but is rapidly in movement, that is intimately connected and subject to larger environmental changes, that is linked to the processes of capitalism, but that has also existed for much longer than capitalism itself.

It is connected to volcanic activity, flows of water, other glaciers proximate to it, and the many species that survive off of it. We are connected to Vatnajökull even if we have never come near it.

Watson's recording of a glacier melting due to climate change expresses the dark ecological object that flickers between different levels of beings, spaces, and times and troubles the ecomimetic and representational aspects of soundscape recording. The recording does not simply represent the sound of the glacier for us to consume but instead acts as an environment that we inhabit through listening. The liner notes state "The weather has created and shaped all our habitats. Clearly it also has a profound and dynamic effect upon our lives and that of other animals." [22] This dynamism does not come from the recognition that a bird is chirping or that something sounds strange but through the experience of the recording that activates a complex interconnection between ourselves and Vatnajökull. Reviews of the disc focus on the representational sounds of birds, creaking ice, and the dawn or dusk choruses of animals, but the most significant aspect of *Weather Report* is Watson's rethinking of time and the compression of place through the recording a variety of ecological durations over its three tracks. As an object of dark ecology, the glacier is a weird uncanny sonic thing, musical and geological, immediate and distant, familiar and strangely unknown, and modulating connections between the human and the non-human. These dynamics are related to climate transformations and their effects, where change is happening at different scales and shaping diverse biotic worlds, at both a molar and molecular level of biology, chemistries, geologies, and atmospheres.

Dark ecology brings the immensity of the planet down to multiple and specific scales of time and space, which makes things seem weird:

> Our sense of the planet is not a cosmopolitan rush but rather the uncanny feeling that there all kinds of places at all kinds of scale: dinner table, house, street, neighborhood, Earth, biosphere, ecosystem, city, bioregion, country, tectonic plate … and perhaps more significantly: bird's nest, beaver's dam, spider web, whale migration pathway, wolf territory, bacterial microbiome.[23]

Different places cannot be disconnected from the variety of their temporal scales, which are attached to the unfolding of their existence in space and time. This includes a variety of different entanglements of human and non-human entities and actors, unfolding and folding around one another:

"dinner party, family generation, evolution, climate, (human) 'world history,' DNA, lifetime, vacation, geology; and again the time of wolves, the time of whales, the time of bacteria." [24] "Vatnajökull" locates our listening in proximity to different scales of time that shift across the long durations of geological formation and dissolution. The temporal and spatial aspects unfold in relation to the significant but unaccounted and invisible presence of the recording apparatus and Watson himself as a human-technological presence that persists temporally in the recording like a ghostly machine capturing and storing time.

The soundscapes of *Weather Report* are flickering phenomena that oscillate between a significant presence and a subtle background, depending on where our listening is focused. This fluctuating foregrounding and backgrounding of the soundscape is a textural effect that also flickers between the human and the non-human and perceptive and affective experiences of the glacial soundscape as it transforms how we listen and hear the environment. As stated above, soundscape recordings create conditions for amplifying the perceptual and sensational elements found and captured in their recording rather than representing a specific sound. The soundscape recording is an event in process and motion rather than a static and fixed sonic document. Listening to the recording pulls back layers of sound. The materials that produce the soundscape are an integral part of the creation of the sensation itself; the soundscape is not simply the apprehension of the sound but also the thick textures in the environment, the ear of the recorder who is listening, and the affective relay to the next listener.

The glacier precedes both machine and human by thousands of years, having been formed and retreated and reformed again over a span of about three thousand years. The recording captures not just groans, chirps, trickles, drips, flows, and the odd moaning of the glacier but also the deep time layers of a particular geologic history, bringing the temporal together with the geologic. In listening to "Vatnajökull" we become a part of the place we are listening to, scaling up and down various biotic and geologic interrelations within the different ecologies that they inhabit. Being positioned in this way moves us towards considering the ethics that situates us in a spatial field or ecology and subsequently in relation to everything else around us in that moment in time. Ethics then becomes a negotiation that is partial, temporary, and which "implicate[s] us, perforce, in the lives of human

others, and in our relations with nonhumans they ask how we shall respond to our temporary meeting up with these particular rocks and stones and trees."[25] Ethics, sounds, and ecologies come together as a multiplicity of events, encounters, and situated temporalities.

For Morton, this is due to a place's connection with time, which is related to his notion of "the hyperobject," a scalable object that blurs the boundaries between ourselves and the things we encounter in the world.[26] Some hyperobjects can be experienced, but many are inaccessible or only partially accessible although they remain no less real. The accelerated rate of the ice melting sounds the actual dissolution of a hyperobject, contributing to the overall soundscape and sonics we encounter and attend to in listening. We also hear the melt flowing into the Norwegian Sea and the North Atlantic Ocean, mixing the glacier's temporalities with the ebbs and flows of the ocean and presumably the ecosystemic processes of evaporation, cloud gathering, and eventual rainfall. We can question whether we detect in the recording the future of rising sea levels or atmospheric conditions gathering into a weather system. These two examples barely scratch the surface of possible temporalities that Watson's recorder may have picked up. For example, birds nesting, feeding, and resting on or around the glacier have temporal scales that cannot be apprehended by our own perception as do the microorganisms that are no doubt residing in the waters and being transferred by the glacier's flows. Speculatively, Watson's recorder has captured a number of frequencies unavailable to humans such as whales and other ocean creatures, inaudible atmospherics, and a variety of time and spaces beyond our grasp. Listening to the recording of Vatnajökull, we encounter deep temporalities that unsettle the milieus of perceived human time. The recording captures a number of different levels of vibrant materials that we could generally categorize as non-human or post-anthropocentric.

Acknowledging this broadens our treatment of art and media to "allow us to consider the connections of the organic human bodies in the organic and nonorganic surroundings."[27] Watson's *Weather Report* moves us towards a sonic ethics that recognizes that what exists beyond our own sensible and perceptual apparatus affects us in ways we are only remotely aware of as humans. How do we relate to a glacier and the changes it is undergoing? Where does our responsibility to the ecological lie? Jussi Parikka notes an urgent need for an ethics of the "posthuman" that

highlights the "lack of certainty of what constitutes the human brought about by scientific, technological, and ecological forces." [28] Détourning the Situationist International's practice of psychogeography to account for a world beyond the urban and beyond the human, Parikka proposes a psychogeophysics which, like Morton's "ecology without nature," breaks the ecomimetic aesthetic of "nature" art and "establish[es] proximity, map[s] the links, the continuum of medianatures" to incorporate positions that acknowledge all aspects of the ecology in question. [29]

Doreen Massey, who also considers issues of proximity and flux, asks a critical question about locating a specific place where everything is moving: "if everything is moving where is here?" For Watson, the answer may be that here is everywhere, both as a relationship to sound and as an expression of sonic ontology, from the galaxy to our DNA. The important thing for Morton and his project is to disconnect anthropocentric "Nature" from our idea of ourselves and existence, place being a part of that fuzzy blur of contradictory things: "A human being is an ecosystem of nonhumans, a fuzzy set like a meadow, or the biosphere, a climate, a frog, a eukaryotic cell, a DNA strand."[30] Massey's argument is that the crux of place relies on the displacing movements of the geographic and temporal features of place, which means that being situated in a place is always part of a process of sinking, spinning, bouncing, and moving.

According to Massey, place is rhythmical and involves negotiations between human and non-human actors in a space or on a plane where "spatial narratives meet up or form configurations, conjunctures of trajectories which have their own temporalities … where the successions of meetings, the accumulations of weaving and encounters build up a history."[31] As the glacier melts, it also moves across the tectonic plates; as the glacier melts, tourists flock to see it and traverse its dissolving field; as the glacier melts, ecosystems disappear and force liquid, microbial, and animal migrations. The movement of these many things occurs beyond ourselves and involves geology, plants, and animals, atmospheres and particles across extreme durations that confound the human. We are in place as the "here and now" but also involved in the "there and then" encompassing a number of interconnections, the "weaving of a process of space-time" that is thrown together and always unstable. The soundscape is a pertinent example for understanding and sensing the continuous and accelerating changes that

the Anthropocene has released because the soundscape as an environment undergoes a continuous and constantly audible shift.

The sonicity of the Anthropocene therefore makes us acutely aware, if we care, about temporal scales of change and acceleration that extend far beyond human being and brings new rhythms into our everyday lives at paces that often feel as though we are just barely keeping up. Noise and silence take on an urgent expression of the limits of temporality and duration in the Anthropocene. Composers attuned to the environment (like Chris Watson or, retrospectively, Cage) are dark ecological thinkers of the Anthropocene, who through the urgency and immediacy of the soundscape expose the futility of worrying about the temporality of it all; that our delayed response is already too late; and that the processes that may bring about extreme changes in our worlds have already been loosed and are creating new rhythms and patterns that cannot be easily reversed as we live through them. Cage recognizes the multiplicity of human being as a complex phenomenon in relation to "nature" that does not necessarily depend on a human creating because the world is always already creating something. In contrast, Schafer wants the human to intervene deliberately and drastically with the sound world. Both then recognize a compositional element to the world, but Cage formulates a clearer ecology of sound that is already a part of the becoming of the world.

Hence, we need to accept the fact that there is no turning back and that the very real possibility of life on earth, especially as we know it and are wrapped up in it, will transform its current pattern, shift and pivot, and leave us behind: "it may be that we have crossed the summit of our knowledge and power, and the brief explosion of human life in the Holocene will turn out to have been as transient as an algae bloom." [32] It does not matter whether or not you believe climate science: the change has already and irreversibly been wrought, and there can be no turning back the clock to a utopian moment of the "before" time. Nor can the future reliably be a place to put our hope. There is no point in demonstrating the inconsistencies in weather patterns and rabidly noting contradictions between viewpoints: there are contradictions because the environmental system never made any sense, and the order imposed on nature, atmosphere, climate, and geology was only a human conceit — the dream of domination that was constructed mythologically in an attempt to make sense (how stunning that phrase) of the insensible.

Sound then as an artistic expression of the conditions of the world draws attention to the sensations contained in the artwork. The development and intensification of communications technologies and the development and refinement of neoliberalism's social and economic tendencies disclose themselves both in the changing nature of the soundscape and in the capturing of those perceptions within the artwork. Acoustic ecology recognizes and makes explicit the fundamental relational aspects between sound, hearing, listening, recording, and the environmental space created through the interactions of those elements. Creation or art is an encounter between a person and their experience of the work where works are no longer concerned with the formation of imagined reality but become ways of organizing everyday life and being active in the world. Imagination opens spaces between people to reflect, think, question, and suggest possibilities to critically engage with other ways of being. Artists or musicians dialogue through and with these realities to make and remake new realities or forms. Morton writes, "ecology permeates all forms" in a radically open way: "all art — not just explicitly ecological art — hardwires the environment into its *form*. Ecological art, and the ecological-ness of all art, isn't just *about* something (trees, mountains, animals, pollution, and so forth). Ecological art *is* something, or maybe it *does* something." [33] Art — and ideally politics — is about the potential and possibility manifest in the dialogue about becoming.

Notes

1 There is a burgeoning literature on the Anthropocene as well as a number of arguments about the accuracy and appropriateness of the term. See for example Bonneuil and Fressoz, 2016; Moore, 2016; Scranton, 2015; Wark, 2015. In August of 2016, the Working Group on the Anthropocene formally put forward a recommendation to acknowledge that the Holocene was to give way to the Anthropocene.

2 Elizabeth Kolbert, *The Sixth Extinction: An Unnatural History*, First Picador ed. (New York: Picador, Henry Holt and Company, 2015).

3 Roy Scranton, *Learning to Die in the Anthropocene: Reflections on the End of a Civilization* (San Francisco, CA: City Lights Books, 2015), 15.

4 Timothy Morton, *The Ecological Thought* (Cambridge, Mass.: Harvard University Press, 2010); Timothy Morton, *Dark Ecology: For a Logic of Future Coexistence*, Wellek Library Lectures in Critical Theory (New York: Columbia University Press, 2016).

5 David Michael, "Toward a Dark Nature Recording," *Organised Sound* 16, no. 3 (December 2011): 206–10, doi:10.1017/S1355771811000203.

6 R. Murray Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World* (Rochester, Vt.: Destiny Books, 1993), 274.

7 Ibid., 7.

8 Ibid., 43.

9 Ibid., 237.

10 Jonathan Sterne, *The Audible Past: Cultural Origins of Sound Reproduction* (Durham and London: Duke University Press, 2003), 343.

11 Ibid.

12 John Cage, *Silence: Lectures and Writings* (Middletown, Conn.: Wesleyan University Press, 1961), 10.

13 Stephen Montague, "John Cage at Seventy: An Interview," *American Music* 3, no. 2 (1985): 205, doi:10.2307/3051637.

14 Jason W. Moore, *Capitalism in the Web of Life: Ecology and the Accumulation of Capital*, 1st ed. (New York: Verso, 2015), 28.

15 Morton, *The Ecological Thought*, 4.

16 Ibid.

17 Ibid., 16.

18 Morton, *Dark Ecology*, 5.

19 Timothy Morton, *Ecology without Nature: Rethinking Environmental Aesthetics* (Cambridge, Mass.: Harvard University Press, 2007), 19.

20 In *What is Philosophy?* Deleuze and Guattari suggest that the artwork does not preserve either the creator or the experience of the audience but instead the percepts and affects that make up a "bloc of sensation" which is the "thing or work of art." Sensation, percept, and affect go beyond feelings and perceptions to become "beings whose validity lies in themselves and exceeds any lived." For more, see Gilles Deleuze, *Francis Bacon: The Logic of Sensation* (Minneapolis: University of Minnesota Press, 2004); Gilles Deleuze and Félix

Guattari, *What Is Philosophy?*, trans. Hugh Tomlinson and Graham Burchell (New York: Columbia University Press, 1994).

21 Rob Nixon, *Slow Violence and the Environmentalism of the Poor*, 1. Harvard Univ. Press paperback ed. (Cambridge, Mass.: Harvard Univ. Press, 2013), 2.

22 Chris Watson, *Weather Report*, CD, 2003.

23 Morton, *Dark Ecology*, 10.

24 Ibid., 10.

25 Doreen Massey, *For Space* (Los Angeles, London, New Delhi, Singapore, Washington D.C.: Sage Publications, 2005), 141.

26 Morton ambiguously defines a hyperobject in his book *Hyperobjects* as a "thing that is massively distributed in time and space relative to humans." An example of a hyperobject would be Styrofoam, an oil field, a black hole, urbanism, plastic, the biosphere, or even the solar system. They are characterized as being sticky or viscous in that they stick to beings; they are nonlocal and operate outside of human spacetime; their effects are experienced interobjectively and are not a function of human knowledge but have a significant role to play. Most significantly, hyperobjects are a crucial factor in the end of the world. What I do find useful in the idea of the hyperobject is the weird and contradictory nature of the correlation between humans, things, and environments.

27 Jussi Parikka, *A Geology of Media*, Electronic Mediations, volume 46 (Minneapolis: University of Minnesota Press, 2015), 62.

28 Ibid., 63.

29 The psychogeophysical has resonance here with the psychogeography as developed in the 1950s by the Situationist International. As Parikka notes, the term psychogeography contains a "geography," and Debord mentions both soil and climate in his writings on the topic. For more, see Parikka, 2015.

30 Morton, *Dark Ecology*, 70.

31 Massey, *For Space*, 139.

32 Scranton, *Learning to Die in the Anthropocene*, 116.

33 Morton, *The Ecological Thought*, 11.

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