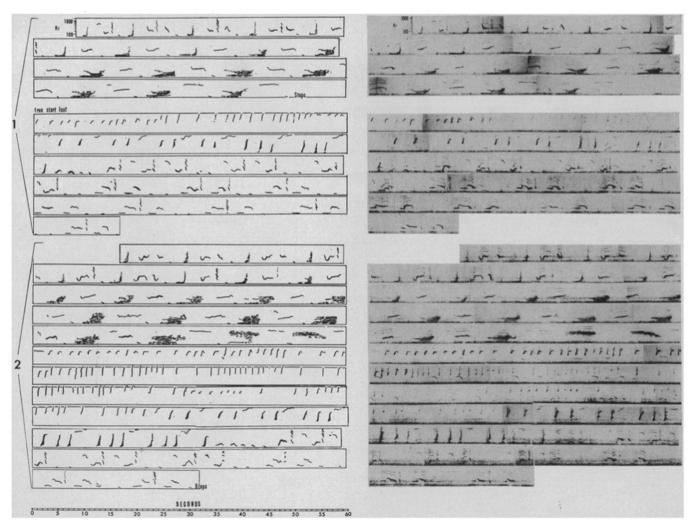
Minor Listening,
Major
Influence:
Revisiting
Songs of the
Humpback
Whale

Frank Watlington, a US Navy engineer, was based in Bermuda during the Cold War. In the early 1950s he was covertly listening for Russian submarines and dynamite explosions through a set of hydrophones – underwater microphones – when he picked up some unfamiliar sounds. An unidentifiable noise was disrupting his fieldwork. By 1955 he identified the sounds as those of local humpback whales he had spotted swimming not too far away. Over ten years later, in 1967, when enough time had passed for the material to be declassified, Watlington decided to hand the recordings over to a trusted friend, the whale researcher and environmentalist Roger Payne, who was also conducting studies in the region. Payne then reached out to Scott McVay, another whale specialist (who had studied with the well-known eccentric cetacean neuroscientist John C. Lilly), and the two spent years analyzing the data. By running the material through an aural spectrograph that McVay accessed at Princeton University where he worked, they concluded that most certainly these whale vocalizations were unique patterns, and they likened them to "songs."

Payne and McVay sensed the affective power of these sounds and partnered with Communications Research Machines, Inc. (CRM), an independent publishing company in California, to press a limited run of LP records titled Songs of the Humpback Whale in 1970. The next year, they coauthored the article "Songs of the Humpback Whale," which appeared on the cover of Science journal alongside visual renderings from the aural spectrograph. Each track of the LP contained long, high- and lowpitched moaning calls from between one to three whales at a time. The record's written material was bilingual in Japanese and English to appeal to audiences potentially aware of the violence of the Japanese and American whaling industries, and included a thirty-six-page booklet urging the reader to help stop commercial whaling through sharing facts, maps, graphs, and personal narratives. Songs of the Humpback Whale became incredibly popular over the next decade. The album was reissued in English by Capitol Records, then again by *National Geographic* in 1979 as a flexi disc. Along with the greeting "hello" recorded in fifty-five languages, excerpts were included in NASA's 1977 Golden Record aboard the Voyager spacecraft and later inspired a Star Trek feature film.² It instigated the Save the Whales campaign, was sampled by popular and experimental contemporary musicians alike, and was even played on the floor of Congress by animal activist Christine Stevens in 1971 during a hearing on whale conservation.³ Due in part to such efforts, commercial whaling was officially banned in the United States by 1982.

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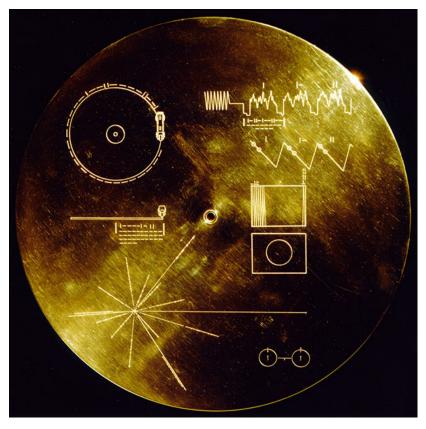
Roger Payne and Scott McVay's aural spectrograph rendering the whale sequences of Watlington's 1963 recordings, as featured in *Science Magazine* (August 13, 1971). Courtesy of Roger Payne.

What is it about these specific sounds and the discourse around them that was able to capture the imagination of so many people and produce such emotional responses and judicial consequences for the environment? While whale vocalizations seem like an obvious and prevalent sonic rendering of nature, the narrative around this record is much more complex than a quick summary can describe. The album had wideranging effects far beyond marine biology or burgeoning environmental movements – for instance, making conceptual connections between explorations of the ocean and the cosmos, and creating a now-common way of accessing animal life through certain listening practices. While much has been written about Songs of the Humpback Whale, I would like to focus on the ways humans have either anthropomorphized or Othered "wild" nonhuman animals through domestic interactions and fetishization via recordings of their vocalizations. I employ this album as a case study in the ways humans have listened to and interpreted nonhuman sounds, specifically sounds from the non-terrestrial environment of the ocean, and how ways of listening and the fetishization of such sounds have contributed to a dualistic construction of nature and the human at large. I

also look at the positive ways in which listening has been able to engender an entanglement with the natural world that promotes stewardship and environmental sustainability. What can we learn from the ongoing reactions to this album when our global environment is set to expire? Are there ways to ethically make use of animal recordings that foster political and environmental change? What kinds of listening practices can bring us closer to such goals?

The Album: A Primary Source

CRM, the California publishing company that pressed Songs of the Humpback Whale, was until then known mainly for its previous work producing and distributing academic psychology textbooks. The album's cover art is a painting commissioned by CRM's director, David Dushkin; it depicts a breaching whale towering over a small human figure in a rowboat. The two bodies are tilted away from one another, contrasting their differences. The title of the album appears in bold, black serif lettering below the image. There are five tracks, titled "Solo Whale," "Slowed-Down Solo Whale," "Tower Whales," "Distant Whale," and "Three Whale Trip." The titles are fairly straightforward descriptions of the origin of each sound, and Roger Payne



NASA, The Sounds of Earth: Voyager Golden Record, 1977. Image: Public Domain

himself came up with them.⁴ Side A of the LP includes the first four tracks, and side B includes about sixteen minutes of "Three Whale Trip." The sound objects themselves were new to the human ear, but so was the confirmed scientific discovery that came with them, that these vocalizations included long and complex patterns that whales repeat. Payne and McVay, along with Katy Payne – Payne's wife, who frequently worked with them – inferred that whales are able to remember such patterns and activate them regularly.

The album staunchly positioned the vocalizations as songs. Not all whales or cetaceans have long and complex vocalizations, nor do all echolocate. The reference to the acoustic documents as songs brings the humpback whale closer to the human by means of an analogous way of communicating through musical composition. My focus here is not in whether nonhuman animals make music, which is a rich and widely discussed concern, but rather why humans ask this question at all – and what it says about human desire that we anthropomorphize and taxonomize the nonhuman. The concept of music is a human one, which (as far as we know) whales do not claim to participate in. Scientists and naturalists in the

early twentieth century long argued over the way animal vocalizations should be documented and rendered so that the wild sounds would fit into a scientific and "accurate" taxonomy – for example, whether or not they should be recorded through musical notation, phonetically, or through an entirely new set of signs. By depicting the mammals as closer to humans intellectually, Songs of the Humpback Whale intends to bring about a sense of care for a kind of kin ("whales – they're just like us!"). Yet in doing so it diminishes their difference as oceandwelling animals with unique cognitive abilities.

Each track includes the whale sounds among the notoriously noisy and increasingly loud ocean that Payne and McVay were concerned with. Such noises were derivative of human industry and commercial whaling apparatuses including ship propellors and sonar technologies. Like a canary in the coalmine, whale vocalizations are barometers of the traffic and health of our oceans. The louder the ocean, the more difficult it is to hear them. There have been numerous disturbing instances in recent years of cetaceans beaching themselves with bleeding ears. The ocean is dark place where sound supersedes sight as a navigational sense, and changes in the sonic environment can have



Interior record label of Roger Payne and Scott McVay's Songs of Humpback Whales (CRM Inc, 1970). Courtesy of Roger Payne

Payne insists there was no editing done to the tracks. In an email interview, he recalls,

I had worked endlessly when selecting the songs for the CRM record and I had observed that if you remove the high or low frequencies you seriously affect the emotional impact of the sounds (rather like listening to an old Carouso record and wondering what made him so popular when, probably, it was the limitations in the recording techniques of his time that failed to capture the subtleties of his performances or those of all the great singers of his generation. For it is such subtleties that often are the basis of the differences between an ordinary and a great singer's musicianship). For those such reasons I left the recordings the way they were and I think the impact that they had proves that that was probably the right thing to do.6

Payne recognized that the recording technology itself mediates the documentation of the sound event, and that recording the nuanced environment alongside the whale voice leads to an unreduced appreciation of the environment. He selected the cuts himself and refused "several requests to filter out the wave noise a bit more." In fact, on the first track, "Solo Whale," one can hear the faint sound of dynamite erupting underwater about four minutes in, and several times thereafter. The distinctive highfidelity groans, squeaks, and echoes of the whales are just as important as the waves and dynamite that help to situate the recording within the vastness of the ocean during the specific era of the Cold War. These field recordings, as we might call them (despite the "field" being a wet, dark, dynamic, and voluminous ocean), do not separate the whales from their context, nor is each track an autonomous sound object. Part of the context is also the warfare, the hydrophone, and the water in which the whale sound travels.

The conditions of recording sounds outside are significantly different than recording them in a studio. In "Sound Sterile: Making Scientific Field Recordings in Ornithology," Joeri Bruyninckx discusses how ornithologists in the nineteenth and twentieth centuries made conscious decisions about what to record and how to record it. These decisions were structured by recording techniques and technologies that muddled traditional scientific boundaries between fieldwork and the laboratory (and therefore binaries such as the

uncontrollable/overcontrolled, found/made, immersed/detached, and so on). Despite the removal of contextual sounds like the wind or machinery, ornithologists considered extracted and edited bird calls as authentic and faithful reproductions. Songs of the Humpback Whale was a significant departure from this paradigm because it included all the original sonic signifiers of its environment with barely any editing. We can assume that the tracks remain faithful to what Watlington might have heard through his headphones over seventy years ago.

Anthropologist Stefan Helmreich's article "An Anthropologist Underwater: Immersive Soundscapes, Submarine Cyborgs, and Transductive Ethnography" explains that bringing underwater sound into the zone of human audibility requires transduction, a process of converting sound waves to electrical information so that it can be understood by the brain as sound. Helmreich contrasts this mediated process with the experience of immersion that often results from both listening and fieldwork; consider the total sonic immersion of a hi-fi stereo system or opera hall, or long-term cultural immersion in a place of observational study. The problem with immersion when it comes to listening is that the technological infrastructure must be hidden in order to provide an immersive quality to sound, which makes it difficult for the listener to maintain an awareness of how infrastructure extends our senses and therefore ontologies about the world. Helmreich writes: "Immersion is a poor tool for thinking about the structure of space, about the materiality of the media in which ethnographers as participant-observersauditors move ... immersion is not necessarily situated knowledge."8

Sound never travels nor is heard without a media to channel it. If we are to listen critically to sounds recorded underwater, it is important to listen and maintain a reflexive perspective on technology, structures, and conventions, including ways in which they can inadvertently create inequalities and tensions among those they're meant to benefit. Regarding Songs of The Humpback Whale, the mediation is done by the water, by Frank Watlington's hydrophone (a media technology embedded in Cold War fears of war), and in the track editing. As Helmreich puts it, "To think transductively demands inquiry into the very histories and languages that organize conceptions of sensing – and is, therefore, an endeavor in dialogue with the anthropology of sensing more generally."9 Thus, the individual tracks, despite their unedited nature, cannot be called "natural" experiences removed from human intervention. They are recorded by, through, and alongside human culture.

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Listening to the Whale

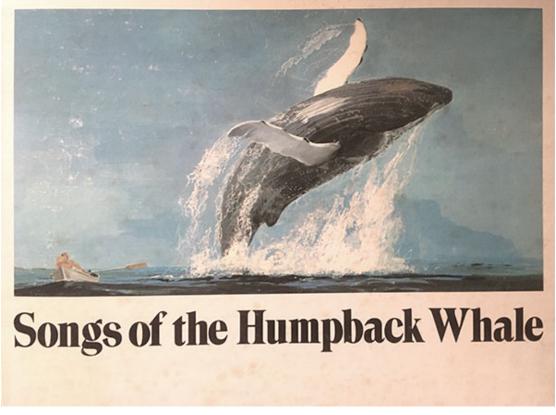
Payne was thrilled at the reception of the album and wanted to make it more accessible. He brought the master tape to an engineer at Capitol Records who "simply refused to cut a disc from it, saying that the recording was far too noisy and he would not waste his time nor the time and money of Capitol Records by making a master disc for vinyl."10 Where Payne heard the noise as essential to the album and the understanding of the plight of the whales, the engineer heard it as obstructive. Payne got CRM to connect directly to one of the heads of the label and eventually convinced them to reissue the album tracks exactly as they were. This time, however, the record was published without the information booklet and the small human figure was removed from the image on the cover, leaving only an image of the breaching whale. In 1979, National Geographic distributed a flexi disc version of the album, including only two of the tracks, which circulated to 10.5 million of their subscribers and is to this day the largest single pressed record in history.11

Payne and McVay's original CRM sleeve included instructions as to how one might listen to these whale sounds alongside the

spectrogram images, which could be treated as musical notation. Payne cut each track based on the whale vocalization patterns. When he heard that one "song" or series of sound structures was complete, he ended the track and moved onto another, eliminating the repetition. 12 A listener wouldn't necessarily realize that each track represented a segment from a pattern of repeating sounds, which is why the accompanying images that demonstrated their repetitive nature were important supplementary information. Payne and McVay wanted listeners to hear the record with headphones on, to surround ourselves with the animal vocalizations amidst the ocean sounds that accompany them. The instructions state that

when heard through headphones, the ocean noise seems a natural part of the whale's environment ... The sea in most places is alive with sound ... The noises that most interfere with the Humpback whale songs are the low-pitched ones, and in recent years ship traffic noise has become a constant roar of low-pitched noise in the ocean, even far from shipping lanes.

Payne didn't want people to listen like whales,



Detail of album cover for Roger Payne and Scott McVay's Songs of Humpback Whales (CRM Inc, 1970). Courtesy of Roger Payne.

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Basically, I believe that baleen whales probably hear the underwater world pretty much the same way you and I hear it when we listen to underwater recordings. But I can't prove that. However, I do believe that that [similarity] may well be one of the aspects of their songs that made people lean into humpback whale songs so strongly.¹³

Employing Pierre Bourdieu's concept of "habitus," an embodied pattern of action/reaction and a tendency to behave in a certain way, the ethnomusicologist Judith Becker describes a "habitus of listening" in Deep Listeners: Music, Emotion, and Trancing. This listening habitus is seemingly natural, i.e., we listen in a particular way without thinking or reflecting on it. Yet Becker believes that most humans, despite differing situatedness, can come to experience and understand divergent expressive sounds at some level. While she admits that there are "nuanced differences of affect and emotion" in listening practices, she notes a danger in losing sight of the individual to cultural models. 14 Becker settles on the idea that both sides of the nature/culture divide are necessary for understanding how humans attune themselves to differing listening practices. Transcending this Western dichotomy when listening to the nonhuman would certainly allow for a much wider spectrum of relationality to exist. Whales are not human but they are mammals. They live underwater but they are sentient and grieve. They are both like us and not like us.

One year before the pressing of Songs of the Humpback Whale, humans landed on the moon for the first time and the extraterrestrial became attainable. The LP similarly transported its audience to the depths of the ocean, another kind of extraterrestrial space. In that era, education regarding the health of the environment and entanglements with nonhuman species collided with fantasies of "new" worlds that highlighted the limitations of planet earth, while simultaneously universalizing humankind. Neil Armstrong was heard around the world saying "One small step for man" when walking on the moon, but in 2006, computer programmer Peter Shann Ford fed Armstrong's recording into a spectrograph and noticed a thirty-five millisecond "a" that Armstrong had always insisted on having said: "One small step for a man."15 The public didn't hear, or want to hear, the additional "a." a word that implies that the actions of one individual could have consequences for all humanity. Instead,

Armstrong's statement was interpreted as a step forward by a collective mankind that promised perpetuity for all and eliminated any notion of asymmetrical difference. The search for life on other planets, the possibilities of communication with them, and the universal redemption of all humanity was mapped onto the effort to understand whales as well.

The 1970 album was quickly adopted by New Age and hippie cultures, and by experimental musicians and activists alike. As if anticipating the album, artist and composer Alvin Lucier first performed his Vespers in 1968, an open-score artwork in which performers hold pulse oscillators called Sondols to explore the architecture of a room through echolocation; the listener is blindfolded and encouraged to think like a whale. 16 Another composer, Will E. Jackson, was a collaborator with Greenpeace, an environmental activist offshoot of the Sierra Club that promoted protections for the ocean and ocean life in anticipation of a global crisis. Jackson often accompanied the organization on anti-whaling expeditions in the Pacific, and in 1971 he staged a performance on a moving ship, playing songs on a modular synthesizer while broadcasting live underwater to whales in an attempt to communicate with them. 17 Jackson was so involved with activism around the conservation of whale life that he eventually opened San Francisco's first Greenpeace office. Slogans to save the whales started to proliferate and appear on public-facing commodities like buttons and T-shirts, while San Francisco became the epicenter of the environmental, New Age, and hippie youth movements.

Songs of the Humpback Whale wasn't the album one would play at a club, a birthday, or a social gathering. It was best suited to headphones, an experience that interiorizes the sounds and creates an illusion of closeness. One could listen to the whales in the solitude of the home, experiencing a sense of intimacy. The original fieldwork required to record these tracks in the open ocean was now domesticated and even personalized through the many samples and remixes the album inspired. Popular musicians like Kate Bush, Judy Collins, and Pete Seeger contributed to framing the sounds as musical commodities. The production, circulation, and popularization of these sounds might be compared to Victorian popularizations of aquariums. Indeed, throughout the nineteenth century, once unknowable species came to be understood via meaning-making technology like microphones, spectrographs, photography, and the aquarium tank. Just as the aquarium brought the ocean into domestic space for amateur scientists and entertainment alike, so too did this record.

As Brandon LaBelle explains in Acoustic Territories: Sound Culture and Everyday Life, the nineteenth-century bourgeois idea of interiority was directly linked to the demand for increased labor outside the home:

Against the growing metropolis, and the intensities of modern labor, the home became a place for alternative productions, outside or against the modern commodity – a place for re-establishing a psychic center. Domestic space became a haven, refined through object collecting, interior design, furnishing, and a general spatial ordering that might renew a feeling for the material world.¹⁸

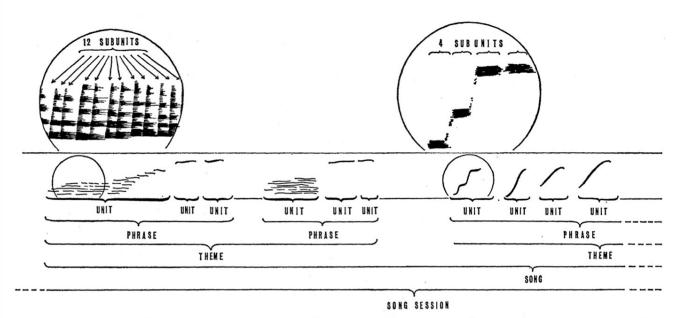
This notion extended into the twentieth century. While Payne intended for listening to relationally bring the human closer to the whale, one consequence was that listening was more apt to externalize the whale as some alien being that could transport the listener far away from quotidian labor and everyday realities.

Minor Listening

Roger and Katy Payne, along with McVay, continued to dedicate their lives to understanding whales. The researchers believed that whales were not part of sublime nature, but

could only be perceived by humans through their relations with humans. Because the Capitol Records reissue did not include the thoughtful instructions and was less concerned with the environmental consequences of the whaling industry, the popular positioning of the album at that point engendered a human-animal divide. The culture at the time was left to spectacularize the whale sounds as new aural tapestries to get high with. An anthropocentric framework positioned the whales as something external to humanity, placed outside the social body, which made it easier to perpetuate fantasies of the exotic.

Nature field recordings have done much to perpetuate the idea of nature as external to humanity, something to be captured, explored, and categorized. The first sound recording was of Thomas Edison singing "Mary Had a Little Lamb" in 1877. Although the song refers to an animal (and its possession by the girl), it wasn't until 1889 that the first animal recording was made. A young Ludwig Koch is credited with having recorded a bird on a wax cylinder, which could be played back on an Edison phonograph. At the turn of the nineteenth century, representations of animals once considered wild could easily be domesticated and studied through the popularization of such technology. In fact, the language used around sound itself - "captured,"



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Fig. 1. Diagrammatic sample of whale spectrograms (also called sonagrams) indicating terminology used in describing songs. Frequency is given on the vertical axis, time on the horizontal axis. The circled areas are spectrograms that have been enlarged to show the substructure of sounds which, unless slowed down, are not readily detected by the human ear.

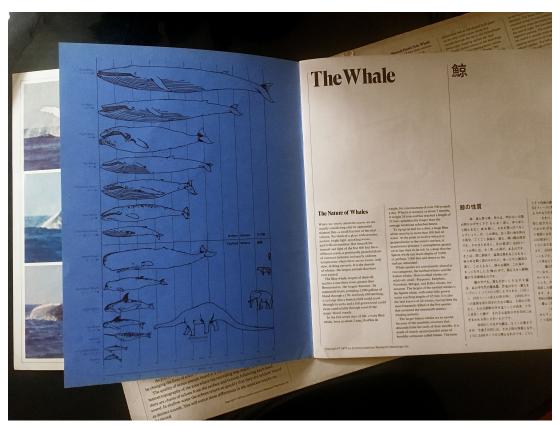
Roger Payne and Scott McVay's diagrammatic sample of whale aural spectrogram indicating terminology used in describing songs, as featured in *Science Magazine* (August 13, 1971).

"channel," "wave" — has much to do with Western epistemologies of colonial exploration, control, and domination. Tara Rogers has argued that "audio-technical language and representation, which typically stands as neutral, in fact privileges the perspective of an archetypal Western, white, and male subject." 19

Marine biology and its history are not exempt from such perspectives. In all of the published research I have encountered about Songs of the Humpback Whale, none has mentioned the groundbreaking work of Marie Poland Fish.²⁰ Fish was a bioacoustician and oceanographer working for the US Navy who published the text "Marine Mammals of the Pacific with Particular Reference to the Production of Underwater Sound" in 1949. In her research, which goes as far back as 1942, Fish concludes that the interference picked up on submarine hydrophones were those of animals and not of machines. She is also the first to identify the sounds as of those of whales and porpoises. Fish did not record the sounds she heard, and so the narrative of Frank Watlington's discovery has been the dominant one due in part to the masculinist discourse of science and to his records of proof.

In a chapter from A Thousand Plateaus

called "Becoming-Intense, Becoming-Animal, Becoming-Imperceptible," Deleuze and Guattari discuss the relations between Captain Ahab and Moby Dick in Herman Melville's classic novel. Ahab is engaged in an obsessive "becomingwhale" with Moby Dick; his careful observations and notes allow him to think like the whale in order to track him. With the ostensible aim of dominating the whale, Ahab paradoxically had to forego rational science and the assumed order of nature and acting in ways that appeared to his crew to be entirely irrational. Moby Dick is no typical whale for consumption or profit for Ahab; instead, the whale represents something far more complex that eventually frees him of his own human expectations. Ahab simultaneously becomes less human as he lets go of his authoritative position as a captain and all the conventions that are expected of him as a human. Paraphrasing Ahab, Deleuze and Guattari say, "I have no personal history with Moby-Dick, no revenge to take, any more than I have a myth to play out; but I do have a becoming!"²¹ They speak of human becoming-animal, not animal becoming-human, an important distinction. Man is always in the position of domination, the "majoritarian par excellence," whereas becoming is always a minoritarian pursuit. The authors



Liner notes for Roger Payne and Scott McVay's Songs of Humpback Whales (CRM Inc, 1970). Photo: Alaina Claire Feldman

employ the concept of "becoming" from a minoritarian position, that is, an ontological shift that takes place through the dissolving of fixed subjectivities, essences, and borders. If becoming-animal offers a reconsideration of the relations between human and nonhuman animal, what are some ways humans can practice becoming-animal and embrace unstable thinking around being human without relinquishing the responsibility that comes with our historical dominance?

Building off Deleuze and Guattari, geographer Cindi Katz offers the potential of a "minor theory" to find ways of expressing other positions, including human relations with nonhumans and our responsibilities toward them. A minor theory can "self-reflexively interpolate the theories and practices of everyday historical subjects."22 If Man is majoritarian, such a theory would dissolve the major from within by transforming authoritative norms and offering alternative perspectives from which one could understand the world. Minor theory is also about thinking and acting within a framework that is not always one's own and subverting it from within. Humans need to reconfigure the unity between Man and nature by making a serious effort to transform the power relations "of who speaks (to whom) and who listens (to whom)."23

I suggest a practice of "minor listening" that is attuned to the dominant and anthropocentric ways of hearing, and refuses any overbearing assumptions of what, for example, whale life is like. A minor listening would not only be situated but would activate a kind of human displacement "so that new subjectivities, spatialities, and temporalities might be marked and produced in spaces of betweenness that reveal the limits of the major as it is transformed along with the minor."24 The act of listening in itself is often undermined by the occularcentricity of the West that privileges sight to sound. Despite the fact that aural markers have always been a part of both human and nonhuman history, humans rarely consider the legitimacy or even possible supremacy of sound over sight. To listen from a minoritarian position would entail listening to that which has been differentiated and excluded, and then doubling ones effort to recenter it. Minor listening would engender a betterinformed listener by both taking whales seriously and abandoning universalizing concepts about animals and humans alike. By doing so, humans become a little less human, just as Ahab shed his own conventions.

If we are to meet whales, as Donna Haraway puts it,²⁵ and practice being good companions, ontological and physical partitions that thrust human qualities onto whales need to be

overturned. Minor listening can be a productive undertaking toward this end. As an example of minor listening in practice, composer Hildegard Westerkamp has spent her career listening to the environment and considering how such listening practices might bring about ecological change. Trained as a musician, Westerkamp has become known for her practice of "soundwalking" in which one actively enters and listens to an environment while simultaneously observing one's own contributions to the soundscape (through breath or footsteps, for example). This kind of minor listening rejects the hidden mediation of immersion that Helmrich critiques, because it doesn't rely on technology at all. Reflecting on her early soundwalks from the 1970s, Westerkamp states, "Conscious listening and conscious awareness of our role as soundmakers is an inseparable part of acoustic ecology, as it deepens our understanding of relationships between living beings and the soundscape." She asks, "How can we [composers] convince other ecologists that the pollution of our soundscape is as much of an environmental issue as the pollution of water and air - that indeed, it is the 'voice' which makes the world's environmental problems audible to all those who care to listen?"26

Multispecies Stewardship

Even if humans wanted to, we could never listen exactly like a whale. Despite Alvin Lucier's invitation, humans cannot echolocate under water because sound bends when it travels through the voluminous ocean. Human ears are unlike whale ears, or any nonhuman ear for that matter. Humans do not know with certainty how whales listen or what it feels like to be a whale. We can gauge their reactions to our voices, our machines, and our avatars, but we don't know what they think about them. Listening to whales is then only possible through our own partial positions, but minor listening broadens our scope of the subtleties of whale signs. Most contemporary encounters with whales are through our screens, through the social imaginary propelled by Hollywood films, cartoons, nature documentaries, and television shows. In on-demand multimedia depictions they are at once anthropomorphized, racialized, gendered, feared, and loved, all for human consumption. These broad brushstrokes of signification often reduce the complexity of the animal and its environment. Such reduction, as noted with the paratext of Songs of the Humpback Whale, have far-reaching consequences when it comes to Othering animals as objects of entertainment. Perhaps another way to begin rendering these sounds meaningful is to not refer to them as songs or

forms of communication that we cannot verify are meant to be listened to as such. The way sonic recordings are framed as descriptions or accurate representations of nonhuman phenomena must be carefully considered, because the language we use to address other species' sounds affects the way they are understood.

So much of what we know about nonhuman animals in the West is due to long encounters of biocapitalist control through domination, domestication, and taxonomy.²⁷ Scientific discovery is inexorably intertwined with the investment of knowledge produced through colonialism and the subjugation of anything less than Man.²⁸ And yet, many non-Western listening practices have carefully attended to the sounds of nonhuman animals through a perspective of multinaturalism that privileges a concept of nature understood as a multiplicity of relations and meanings.²⁹ Ana M. Ochoa Gautier's book Aurality: Listening and Knowledge in Nineteenth-Century Colombia challenges the written historical record of sounds by settler colonialists, like those of Alexander von Humboldt. Their early impressions of local animal sounds and human voices became central to the ontologies and epistemologies of the acoustic in Latin America that still exist today. Dylan Robinson's book Hungry Listening has also greatly contributed to decolonizing the titular "hungry listening," a settler-colonial listening positionality that works to perceptually reform or eradicate indigenous ontologies by imposing a way of listening oriented toward Western categorizations. Western dichotomies like nature/culture and human/animal should be understood within the longue duree of colonialism and modernity, but they have not always been separated and can be undone again.

Songs of the Humpback Whale's poetry was useful in motivating political and juridical action on the floors of Congress in 1971. Yet, in instrumentalizing nonhuman sounds toward political ends, we must find an ethical balance without making other species mere metaphor – like majestic bellwethers of humanity's demise. It is clear that the album brought about a sense of empathy, despite the many problematic connotations I have addressed. The Paynes and McVay were concerned not only with circulating and popularizing the whale recordings for a general public, but with promoting a kind of multispecies stewardship through listening. They took genuine care with the material, not just in the production of the sounds, but through their own attentiveness and responsiveness to the welfare of other beings in the world. Their initial pressing of the record included instructions that could engender a minor listening, but their

attribution of human-like qualities (whale "song") counterintuitively problematized this. Playing back the album and thinking through its temporal context of space exploration, environmental activism, and the Cold War inspires us to consider new possibilities for how relations might be otherwise in the future. Practicing minor listening entails understanding whale vocalizations alongside war technologies, and not taking human responsibility for granted. As state and neoliberal actors encroach on the ocean in search of new extractive opportunities at an intensifying rate, it would do us well to be active listeners to whales, with full acknowledgment that whales are in the zone of human conflict and we cannot let them become a casualty.

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16 Lucier encouraged participants to "dive with whales, fly with certain nocturnal birds or bats (particularly the common bat of Europe and North America of the family Vespertilionidae), or seek the help of other experts in the art of echolocation." See http://www.alvin-lucier-film .com/vespers.html.

A short video of the performance can be seen on YouTube https://www.youtube.com/watc h?v=ficpddKrhi0. More on Jackson's work with whales, in his own words, can be found in Will E. Jackson, "Synthesizers of the Eco-Front," Synapse 1, no. 6 (1977): 16–19. Many thanks to Ted Gordon for first introducing me to Jackson's work.

18 Brandon LaBelle, Acoustic Territories: Sound Culture and Everyday Life (Continuum, 2010), 50.

19 Tara Rogers, "Synthesizing Sound: Metaphor in Audio-Technical Discourse and Synthesis History" (PhD diss., McGill University, 2011).

20 My gratitude to marine biologist David Gruber for introducing me to the work of Marie Poland Fish.

21
Gilles Deleuze and Félix
Guattari, A Thousand Plateaus:
Capitalism and Schizophrenia
(University of Minnesota Press,
1987), 245. The notion of
"becoming" is far too complex to
describe in this text, but I have
laid out a simplified example
where becoming and
metamorphosis is mapped onto
the relationship between human
and whale.

22 Cindi Katz, "Major/Minor: Theory, Nature, and Politics," Annals of the Association of American Geographers 85, no. 1 (1995): 166.

23 Cindi Katz, "Towards Minor Theory," *Environment and Planning D: Society & Space* 14, no. 4 (1996): 448.

24 Theory," Environment and Planning D: Society & Space 35, no. 4 (2017): 598.

25 Donna J. Haraway, *When Species Meet* (University of Minnesota Press, 2007).

26 Hildegard Westerkamp, "Linking Soundscape Composition and Acoustic Ecology," *Organised* Sound 7, no. 1 (2002), 52.

27 Michel Foucault, The Order of Things: An Archaeology of the Human Sciences (Pantheon Books, 1972).

28 The scholarship of Sylvia Wynter has done much to discuss Western conceptions of "Man"

e-flux journal #118 — may 2021 <u>Alaina Claire Feldman</u> Minor Listening, Major Influence: Revisiting Songs of the Humpback Whale that align racism and European colonialism, questioning whose life is prioritized and whose is systematically overlooked. For more, see Wynter, "Unsettling the Coloniality of Being/Power/Truth/Freedom: Towards the Human, After Man, Its Overrepresentation – An Argument," CR: The New Centennial Review 3, no. 3 (2003). Benedicte Boisserron's Afro-Dog: Blackness and the Animal Question has also carefully mapped how the history of the animal and the black experience in the circum-Atlantic is connected, rather than simply comparable.

29
Eduardo Viveiros de Castro,
"Cosmological Deixis and
Amerindian Perspectivism,"
Journal of the Royal
Anthropological Institute 4, no. 3
(1998).

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