

THE PHONOGRAPHIC MEMORY
A History of Sound Recording in the Field

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ABSTRACT

Since the advent of sound reproduction technology in the late nineteenth century, the physical location of sonic capture has played an important role in determining how a recording should be received, interpreted, and exploited. It is almost axiomatic that sound recordings are made either in the controlled circumstances of a studio or laboratory, or they are captured in the field. But there is nothing categorical about this dichotomy. Indeed, the line between the field and recording's other, more controlled spaces, is often far blurrier than it might seem. I argue that sound recording always implicated in a *mise-en-scène* that constructs the very idea of location in order to justify or corroborate the ideological desires of those who hold the microphones. A recording made in a laboratory, for example, becomes implicated in a mode of knowledge production concerned with universality and placeslessness, while sounds captured in the field are meant to transparently represent the world in all of its spontaneity and complexity.

This dissertation offers a critical history of field recording, following the practice across a variety of disciplines, from ethnography to biology, from acoustic ecology to activist sound art. It examines the ways in which assumptions about this supposedly transparent form of representation also condition what field recordings are understood to be able to do. Because they are taken to be authentic fragments of an unmediated world, field recordings are often afforded a power to preserve or stand in for the people and the phenomena that they represent. I suggest that in considering this mode of sound recording, its emphasis on place and location in particular, we might develop new tools for understanding the entanglement between media and notions of veracity or authenticity.

RÉSUMÉ

La fin du dix-neuvième siècle a vu l'avènement d'une nouvelle technologie permettant la reproduction sonore. Depuis lors, l'endroit de la capture sonore a joué un rôle important quant à la façon de recevoir, interpréter et exploiter ce type d'enregistrement. Il est convenu que l'enregistrement de matériel sonore est réalisé sous certaines conditions, telles celles retrouvées dans l'environnement d'un studio ou laboratoire, ou encore celles échantillonnées *in situ* (communément aussi appelé « field recordings »). Seulement, il n'y a rien de catégorique en ce qui a trait à cette dichotomie propre. En effet, il est parfois ambigu d'isoler les enregistrements *in situ* de ceux réalisés en milieux contrôlés. Je défends que, malgré ces conditions particulières, l'enregistrement sonore parvient toujours à créer sa propre mise-en-scène, que celui-ci informe l'idée même de l'endroit, qui vient ainsi justifier, ou corroborer, certains désirs idéologiques de ceux qui aménagent les dispositifs d'enregistrement (microphones). À titre d'exemple, un enregistrement réalisé en laboratoire implique divers types de connaissances qui se soucient d'offrir une représentation d'universalité virtuelle, l'envers du sur place, tandis que les sons saisis *in situ* offrent une représentation transparente du monde dans toute sa spontanéité et complexité.

Cette dissertation propose une vision critique de l'histoire des pratiques d'enregistrements capturés *in situ*, pour ensuite se concentrer sur ce comment ces pratiques ont informé diverses disciplines, allant de l'ethnographie à la biologie, en passant par l'écologie acoustique et l'art sonore engagé. Également, les façons dont certaines suppositions conditionnent les perceptions à ce que ce type d'enregistrement est censé et est capable de faire, seront abordés. Parce qu'ils sont considérés comme des fragments d'authenticité

capturant l'immédiateté du moment présent, les enregistrements réalisés *in situ*, ont souvent ce pouvoir reconnu de préserver les gens ou phénomènes qu'ils représentent. En considérant ce mode d'enregistrement, plus particulièrement l'endroit où a lieu la capture sonore, je suggère qu'il nous faudrait développer de nouveaux outils afin de mieux comprendre l'enchevêtrement des médias à l'ensemble cognitif, et auditif, des notions collectives de véracité et d'authenticité.

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...For Eloise and Finn, with whom I have shared the quietest whispers
and the most maximum racket, doubly...

With our facilities, a sovereign, a statesman, or a historian, can inscribe his words on a phonograph blank, which will then be multiplied a thousand-fold; each multiple copy will repeat the sounds of his voice thousands of times; and so, by reserving the copies and using them in relays, his utterance can be transmitted to posterity, centuries afterwards, as freshly and forcibly as if those later generations heard his living accents.

- Thomas Edison, *The Perfected Phonograph*

From the vantage point of an absolute distance, free from the restraints of positive knowledge, the origin makes possible a field of knowledge whose function is to recover it, but always in a false recognition due to the excesses of its own speech. The origin lies at a place of inevitable loss, the point where the truth of things corresponded to a truthful discourse, the site of a fleeting articulation that discourse has obscured and finally lost.

- Michel Foucault, *Nietzsche, Genealogy, History*

Faithful field recordings have been part of ethnomusicological *devoir* since the birth of the discipline. Any aspiring professional who feels this short list is already too long should give serious thought to choosing another vocation. In the 1990s we face the danger that professional ethnomusicologists, by opting for convenience, are preserving the sights and sounds of music of our time on domestic equipment designed originally as dictation machines...

- Helen Myers, *Field Technology*

Staging the Scene

It begins with the buzzing of flies, a buzzing cloud descending. From underneath come sinister inhalations, monstrous and wheezy. And then there are the screeches: sharp outbursts ringing somewhere between the braying of a donkey and the distorted clucking of a turkey. And then the moist sounds of what must be flesh tearing. Whatever is going on

there, it is gruesome, and our proximity to this ghastly feast feels perverse, overly sensual, more than a little voyeuristic, as though we are eavesdropping on something we are not meant to hear. Of course we are not *there*, wherever there might be. And yet these creatures rasp and screech and these flies flit across the stereo field. Closed eyes and a good set of headphones might give us the illusion, fleetingly, that we have slipped across some spatial threshold, but without any supplemental information it is hard to say just where we are—or are not.

“Vultures taste the dry, crackling viscera inside the rib cage of a zebra carcass. Nine birds feeding on a zebra carcass.”¹ The notes to field recordist Chris Watson’s 1998 album, *Outside the Circle of Fire*, fill in the details that these sounds-in-themselves might have left lacking. The scene further materializes. Returning to the notes we learn that track 12, “Cracking Viscera,” was recorded on the “Itong Plains, Kenya. Sept. 1994” using “Sony ECM 77’s x 2**, 250m cable via SNQ4s to Sony TCD-D3.”² Subject, location, apparatus. Things come into sharper focus. The scavengers we have been hearing tear a dead beast apart on the African Savannah were evidently recorded from a great distance—250m, to be precise. At a remove of a ¼ km, Watson is of little consequence to his quarry, which, unaware of the microphones hidden in their lunch, are content to chomp and gnaw without inhibition. Watson explains his approach: “Some of the time I use hundreds of metres of cable and run it back to a point where I won’t affect what’s happening...I can come and go without disturbing what’s happening in the forest. Things do settle down, so I try not to influence them, and by doing that I also hope to get more dynamic or spectacular behaviour.

¹ Chris Watson, "To:37 - Chris Watson "Outside the Circle of Fire"," Touch, http://www.touchmusic.org.uk/catalogue/to37_chris_watson_outside_the.html.

² Ibid.

You can tune in to things you would never hear by being there.”³ Watson’s comment both encapsulates and complicates some of the prevailing assumption about field recording, a practice generally associated with the capture of sound outside of a recording studio, laboratory, or other controlled environment. His efforts to be there without being there speak to the rhetorical importance in field recording of presence, that the recordist was there, in the world, where something happened. His being there confirms and ratifies the legitimacy and authenticity of the recording, as a testimony to things-as-they-were. But, as Watson reveals, presence is also problematic in that the recordist always risks appearing on the recording, even if only as a quiet shadow whose existence influences or alters the unfolding of things-as-they-should-have-been. If the recording is meant to be a transparent window onto reality, then any trace of intervention could make its claim to representing things-as-they are suspect. This is why Watson must extricate himself from the scene without fully removing his authorial presence, a paradoxical trick he plays by “cabling” his way out of the *mise-en-scène* and then monitoring and recording it from afar. The metaphorical resonances with Heisenberg’s “uncertainty principle” are too suggestive to avoid. Heisenberg famously proposed that we can never know both the speed and the position of an electron simultaneously, that in illuminating the particle with sufficient light to observe its movement through a microscope, its trajectory will be affected by the apparatus. Dial down the frequency and power of the light and it follows a truer path, although now its momentum is more difficult to ascertain.⁴ The observer removes himself from the system,

³ Ken Hollings, "Defying the Wilderness," *The Wire*, August 2010, 53.

⁴ Werner Heisenberg, *The Physical Principles of Quantum Theory*, trans. Carl Eckart and Frank C. Hoyt (New York: Dover Publications, 1930), 13-19. David C. Cassidy, *Beyond Uncertainty: Heisenberg, Quantum Physics, and the Bomb* (New York: Bellevue Literary Press), 162. Others have observed the connection between field recording and uncertainty, or, the observer principle. See Marc Masters and Greyson Curry, "The out Door: Turning the World into

along with his microscopes or microphones, and the world supposedly carries on outside of the scope of epistemology. Or, the recordist walks towards the carcass and the vultures scatter; proximity is relational to interruption. Watson's remote recording strategy lowers the intensity of engagement, placing him far enough away from the scene to avoid spooking his subjects. But with a set of microphones attached to a corpse and a human skulking close by, it seems fair to say that we can never fully know what goes on outside of the frame of observation.

Nor can we ever really be sure where and when a recording was made without the recordist providing its location, without some sort of origin story, even if in point form. In the case of "Cracking Viscera," we can only situate its Kenyan provenance thanks to Watson's notes. Knowing *where* we are listening to is an almost irreducible part of understanding *what* is unfolding. We might recognize the species depicted, something of the general features of the landscape that colour the recording, but locating it with any real specificity requires a supplement. Not that this sort of narrative scaffolding is necessary to appreciate the ominous sounds of decay and scavenging, but it is a part of the staging that links field recordings back to the moments and places from which they come. Nor is additional information crucial in recognizing a field recording as such; we often know one when we hear one. Clearly captured somewhere under seemingly spontaneous conditions, Watson's wheezing vultures sound anything but simulated. There are no walls here. This is apparently not a situation orchestrated by the recordist in the controlled setting of a laboratory or sound stage. Which raises an important and fundamental question about field recording: how is that we know if a specific sound was captured in the field or whether it was produced in the studio? There must be some irreducible quality that each possesses if

Art," Pitchfork Media, <http://pitchfork.com/features/the-out-door/8692-field-recording/1/>.

these categories are to be meaningful. But the lines between the field and the studio are largely fictitious and contingent, and this seemingly categorical—even metaphysical—binary has a history. That these two locations of recording seem like separate, Platonic entities is indicative of the power that this dichotomy offers, a set of assumptions that helps to dictate how these recordings will be received or exploited. Historically, recordings made in the field have been taken to capture a particular and actual location faithfully, authentically capturing them in their full and real complexity. In contrast, there is an enduring story about how the recording studio and/or the laboratory have come to represent the control that modern technology affords, that this assemblage of practices and technologies has the power to produce sonic creations that exist on an ideal and placeless plane of being. They are not documents of performances; rather they seem to be virtual and detached from the history of their making.⁵ Surrounded by the sounds of vultures and flies, Watson’s recording readily leaps into the former category, but not naturally or essentially. Because is there not an element of control here? A carcass studded with microphones—is this not in itself a considered, even contrived, *mise-en-scène*?

It is hard to know what to make of Watson’s work, where to situate it in the multiplicity of academic disciplines and artistic genres in which field recording is alternately regarded as an epistemological technique or as a tool for expression. Published by the British record label Touch—home to avant-garde electronic musicians Christian Fennesz, Philip Jeck, and Phil Niblock—Watson is often described as, or mistaken for, a composer. Following the release of his first record for Touch, the 1996 album, *Stepping into the Dark*, the British Performing Rights Society telephoned the label, asking what to credit as Watson’s

⁵ Theodore Gracyk, *Rhythm and Noise: An Aesthetics of Rock* (London: I. B. Tauris & Co Ltd, 1996), 145; David Morton, *Off the Record: The Technology and Culture of Sound Recording in America* (New Brunswick, NJ: Rutgers University Press, 2000), 46.

instrument, to which label head, Mike Harding, replied, “The microphone.”⁶ Watson’s creative production is complemented by more technical work; he is perhaps less well-known, although equally respected, for his collaborations with David Attenborough, recording far-flung soundscapes for popular BBC television programs such as *Blue Planet* and *The Life of Birds*. Working as both an artist and a documentarian, Watson bridges the poles of expression and utility that have tended to mark out the terrain of field recording, a practice with which he is identified as an icon. His total body of work is puzzling, demanding that we consider its aesthetic, even musical, merits, while attending to its veracity as representations of complex ecosystems. This is a tension that has traditionally troubled field recording, insofar as it has been called upon either to do one thing or the other. Throughout the history of sound art and avant-garde composition, recordings of recognizable sonic environments have tended to be manipulated and processed to fit with an aesthetic and compositional program that opposes signification. But on occasion it is the very simulation of naturalism that lends a seemingly situated, authentic power to a work of art—this is the very thing that makes Watson’s work hard to hear in an exclusively non-signifying fashion, as an object of pure aesthetic contemplation. It is always pulling the listener back into the world, into a mode of listening *for* rather than a state of listening *to*. On the other hand, scientific and academic applications of field recording have generally demanded that their objects remain unaltered so that they might stand in for the things they represent. But this has never stopped researchers from fawning over the beauty of recorded “natural” soundscapes, the environments they are often motivated to understand and protect precisely on account of their harmoniousness.

⁶ Hollings, "Defying the Wilderness," 54.

Field and studio, art and science, spontaneity and control, reality and simulation; when we speak of field recording the world appears to be ordered by dualities. However, if we explore the rhetoric that keeps these categories separate, the narratives that keep each term in a state of repulsion so as to maintain their consistency, we find that each has a history. We find that the notion of the field is not a categorical *a priori*, but the shadow cast by the laboratory as it emerged in the nineteenth century. We find that it is the logic and techniques of the studio and laboratory that allow a recordist to frame and establish her subject as real. The vulture tearing away at a carcass inside our headphones certainly did at one time feast thanks to a zebra's misfortune on a Kenyan plain. But this is not all that we are hearing; we are listening to centuries of debate about where and how knowledge is produced, about what it is that recording technologies are and what they contain, about how we store and access the world when we ourselves are not or can longer be *there*, in the field, where real life unfolds.

My research on field recording began around 2007 while I was preparing an essay on the work of the World Soundscape Project (WSP)—a research and educational group founded in the late 1960s by the composer and educator R. Murray Schafer, a collective formed to draw attention to noise pollution and the quality of a sonic landscape that they felt was rapidly degenerating.⁷ I was interested in understanding more about the group's approach to documentary recording and their belief that direct, unedited representations of the soundscape could inspire concern for the health of the sonic environment. Given their suspicion of recorded sound, which they felt problematically separated sounds from their sources, I found it curious that they would consider field recording an important tool for

⁷ "The World Soundscape Project," <http://www.sfu.ca/~truax/wsp.html>.

communicating their concerns as well serving as a means for preserving the sounds they felt were fundamental to the health of communities. It seemed to me that this required a faith in the transparency of sound recording that was fundamentally in contradiction with the metaphysical disconnection that it apparently caused.⁸ This was the seed out of which this project grew, work that I revisited and expanded for the third chapter of this dissertation. Back then I was surprised about how little attention had been given to field recording in both academic and popular literature. Although it is a fundamentally important practice in a wide array of disciplines—anthropology, biology, and sound art, to list three general categories that branch out into many subdisciplines—there was and continues to be surprisingly little writing on field recording. Both parts of the term—“field” and “recording”—have generated enormous amounts of scholarship, but there has been little consideration given to “field recording” as a coherent practice, in spite of its pervasiveness and one-hundred-year-old history.

The idea of the field as a particular space for engagement is a well-worn subject in critical anthropology and in ethnomusicology.⁹ Similarly, in Science and Technology Studies

⁸ Mitchell Akiyama, "Transparent Listening: Soundscape Composition's Objects of Study," *RACAR* XXXV, no. 1 (2010).

⁹ The list of works regarding the history and politics of the field that come of critical anthropology is long. Key texts include Bruce Jackson, *Fieldwork* (Champaign, IL: University of Illinois Press, 1987); James Clifford and George E. Marcus, *Writing Culture: The Poetics and Politics of Ethnography* (Berkeley: University of California Press, 1986); Regina Bendix, *In Search of Authenticity: The Formation of Folklore Studies* (Madison: University of Wisconsin Press, 1997); Akhil Gupta and James Ferguson, eds., *Anthropological Locations: Boundaries and Grounds of a Field Science* (Berkeley: University of California Press, 1997); Vered Amit, ed. *Constructing the Field: Ethnographic Fieldwork in the Contemporary World* (London: Routledge, 2001); James Davies and Dimitrina Spencer, eds., *Emotions in the Field: The Psychology and Anthropology of Fieldwork Experience* (Stanford: Stanford University Press, 2010). Writings on the field in ethnomusicology bring the discussion closer to the sonic practices that are the focus of this dissertation. See Bruno Nettl, *Theory and Method in Ethnomusicology* (Glencoe: Free Press of Glencoe, 1964); Gregory Barz and Timothy J. Cooley, eds., *Shadows in the Field: New Perspectives for Fieldwork in Ethnomusicology* (Oxford: Oxford University Press, 2008). Ibid.

(STS), scholars have recently turned to historicizing and critiquing the idea of the field, a subject that was largely overlooked by the studies of the laboratory that were fashionable in the 1970s and 80s.¹⁰ There have been a few efforts in critical anthropology/ethnography and STS to consider the use of sound recording in the field, but these have, for the most part, focused on technical or pragmatic issues and not on the political or ideological concerns that arise when researchers train their microphones on subjects outside of the laboratory or the recording studio.¹¹ With respect to recording, the most cogent work has emerged from the discipline that has come to be called “sound studies,”¹² a body of work that has addressed the cultural, technological, and political implications of sonic reproduction. However, much of the work in sound studies has focused almost exclusively on the studio as the site of recording.¹³ Field recording has received more attention in the arts thanks to R. Murray

¹⁰ Robert E. Kohler, *Landscapes and Labscapes: Exploring the Lab-Field Border in Biology* (Chicago: University of Chicago Press, 2002); Thomas F. Gieryn, *Cultural Boundaries of Science: Credibility on the Line* (Chicago: University of Chicago Press, 1999); Henrika Kuklick and Robert E. Kohler, "Introduction," *Osiris* 11 (1996).

¹¹ Edward D. Ives, *The Tape-Recorded Interview: A Manual for Fieldworkers in Folklore and Oral History* (Knoxville, TN: University of Tennessee Press, 1995); Bruno Nettl, "Recording Primitive and Folk Music in the Field," *American Anthropologist* 56, no. 6 (1954); Don L. Hunter, "Sound Recording of History," *Western Folklore* 11, no. 3 (1952); Ivan Polunin, "Visual and Sound Recording Apparatus in Ethnographic Fieldwork," *Current Anthropology* 11, no. 1 (1970); Frank Dorritie, *The Handbook of Field Recording* (Vallejo, CA: ProAudio Press, 2003); Daniel Makagon and Mark Neumann, *Recording Culture: Audio Documentary and the Ethnographic Experience* (Los Angeles: Sage, 2009). Exceptions to this are Erika Brady, *A Spiral Way: How the Phonograph Changed Ethnography* (Jackson, Miss.: University Press of Mississippi, 1999); Jonathan Sterne, *The Audible Past: Cultural Origins of Sound Reproduction* (Durham: Duke University Press, 2003); Gregory Radick, *The Simian Tongue: The Long Debate About Animal Language* (Chicago: University of Chicago Press, 2007); Joeri Bruyninckx, "Sound Sterile: Making Scientific Field Recordings in Ornithology," in *The Oxford Handbook of Sound Studies*, ed. Trevor Pinch and Karin Bijsterveld (New York: Oxford University Press, 2012).

¹² Trevor Pinch and Karin Bijsterveld, "Sound Studies: New Technologies and Music," *Social Studies of Science* 34, no. 5 (2004); Jonathan Sterne, ed. *The Sound Studies Reader* (New York: Routledge, 2012).

¹³ Morton, *Off the Record: The Technology and Culture of Sound Recording in America*; Sterne, *The Audible Past: Cultural Origins of Sound Reproduction*; Emily Thompson, *The Soundscape of Modernity: Architectural Acoustics and the Culture of Listening in America, 1900-1933* (Cambridge: MIT Press, 2002); Gracyk, *Rhythm and Noise: An Aesthetics of Rock*; Albin J. Zak III, *The Poetics of*

Schafer and the WSP whose work was foundational in drawing attention to sound as an object of study. WSP members and acolytes have, since the 1970s, produced several texts that attend to ideas of representation and mediation in field recording.¹⁴ But, in the literature inspired by Schafer, the term “field recording” is generally treated as a common compound noun whose meaning and etymology are apparently stable and unproblematic enough to escape attention. Or, used as a transitive verb, field recording recedes even further into a realm of mundane actions, words describing processes too banal to be worth unpacking.

Simply put, there is a lot we know about the field. And there is no shortage of material on recording. Yet “field recording” remains an elusive concept in all the disciplines for which it is an important technique or practice. While the Oxford English Dictionary lists the first published instance of “field recording” as occurring in 1934,¹⁵ the term seems to have first appeared in print a year earlier. C. R. Daily’s 1933 description, published in *The*

Rock: Cutting Tracks, Making Records (Berkeley: University of California Press, 2001); Louise Meintjes, *Sound of Africa! Making Music Zulu in a South African Studio* (Durham: Duke University Press, 2003); Steve Jones, *Rock Formations: Music, Technology, and Mass Communication*, vol. 3, Foundations of Popular Culture (Newbury Park, CA: Sage Publications, 1992).

¹⁴ R. Murray Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World* (Rochester: Destiny Books, 1977); Barry Truax, *Acoustic Communication* (Westport, CT: Ablex, 2001); Hildegard Westerkamp, "Soundscape Composition: Linking Inner and Outer Worlds," in *Soundscape voor 2000* (Amsterdam 2000); Barry Truax, "Soundscape, Acoustic Communication and Environmental Sound Composition," *Contemporary Music Review* 15, no. 1 (1996); John Levack Drever, "Soundscape Composition: The Convergence of Ethnography and Acousmatic Music," *Organised Sound* VII, no. 1 (2002); Andra McCartney, "Soundscape Composition and the Subversion of Electroacoustic Norms," *Organised Sound* VII, no. 1 (2002).

¹⁵ Oxford English Dictionary, "'Field, N.1'," <http://www.oed.com/view/Entry/69922?redirectedFrom=field+recording&>. The first usage of “field recording” occurred in an article published in *Science* by Carl and Harold Seashore. Ironically, the article is about visualization of recorded sound using a method called phonophotography, a sort of precursor to sound spectrography. The Seashores’ use of the term comes almost as an aside towards the end of the article: “With the improved techniques of field recording and of laboratory study it is of course desirable that in all future collecting only adequate and permanent recordings should be made.” Carl E. Seashore and Harold Seashore, "The Place of Phonophotography in the Study of Primitive Music," *Science* 79, no. 2056 (1934): 487.

Journal of the Society of Motion Picture Engineers, of a portable sound and image recording device developed by Western Electric, claimed, “With the three motor systems that are available it is possible to meet any field recording condition.”¹⁶ Here the term is used in passing, as though already commonplace in the lexicon. Indeed, it seems surprising that, in 1933, it was not already in use considering that, by the early 1890s, the phonograph had become a common part of fieldwork, especially in ethnography. For forty years ethnographers and biologists had been capturing sound in the field, a space that was understood as fundamentally different to the recording studio or the laboratory, without having a universal term for the practice. It is difficult to speculate, if not impossible to determine, why it took so long for “field recording” to become a widely used expression. Perhaps it was simply that, for much of its early history, field recordings were seen as supplements to other means of data collection, and not as important objects in and of themselves. Most ethnographers, for example, used sound recording primarily for transcribing songs and spoken language, as an aid for notation.¹⁷ By the 1920, music was being recorded in the field for commercial purposes—music for listening’s sake. Scouts like Ralph Peer travelled widely to record blues, folk, and hillbilly music for niche markets, but these itinerant recordists were mostly untrained in ethnographic conventions and had little concern for the potential scientific or archival value of their work; they were out to sell records. Even if someone like Peer described what he did as field recording, it seems unlikely that the term would have made it into print. There was no imperative for a commercial record producer to describe or contextualize his work; Peer’s contribution to posterity was the recordings themselves. It was

¹⁶ C. R. Daily, "A New Western Electric Double Film Portable Sound Recording System," *Journal of the Society of Motion Picture Engineers* 20 (1933): 140. Another article published in the following volume of the same journal also precedes the OED’s first reported usage. F. W. Hoorn, "Military Training and Historical Films," *ibid.* 21: 339.

¹⁷ Brady, *A Spiral Way: How the Phonograph Changed Ethnography*, 77-85.

not until the mid-1930s, around the time “field recording” entered the lexicon, that collectors like Alan Lomax began recording sound for its own sake, as a way of archiving and disseminating aesthetic objects.¹⁸

Perhaps the first general, non-academic use of the term was published in *Popular Science Monthly* in 1936, in article about the importance that field recording played in the creation of commercial sound libraries. Curiously, in this brief piece intended for popular consumption, Fairfax Downey gives a strikingly thorough account of the parameters and features that have come to be associated with field recording. He writes that, thanks to recent technical innovations, sound recording outside the studio has become a viable way of capturing any sound that radio broadcasters or film studios might ever need to give an air of authenticity to their productions. According to Downey, “While it possible to produce adequate studio imitations of droning airplanes, barnyard noises, or the chants of Indians, recordings of the real thing have been found superior.”¹⁹ Even though he recognizes location as having an important role in how a recording might be understood as being genuine, Downey also touches on a contradiction that has always been at play: field recordings rely on the techniques and logic of studio practices in order to structure and secure an acceptable representation of unmediated reality. “Sometimes,” writes Downey, “in field recording, the sound is amplified to telephone pitch and wired directly into the studio

¹⁸ Benjamin Filene, *Romancing the Folk: Public Memory & American Roots Music* (Chapel Hill: University of North Carolina Press, 2000), 55-56. It should be noted that archives had been established to preserve ethnographic recordings by the turn of the century, such as the one created by Carl Stumpf in Berlin in 1900. However, these collections were primarily understood as databases, *avant la lettre*, of materials that might be used for comparison and taxonomy. Eric Ames, “The Sound of Evolution,” *Modernism/Modernity* 10, no. 2 (2003): 299-301.

¹⁹ Fairfax Downey, “Name Your Noise...The Sound Libraries Have It Sealed in Wax,” *Popular Science*, August 1936, 19.

through telephone lines.”²⁰ Even in the field, the recordist is sometimes still tethered to the studio, if not conceptually, then at least electrically. Providing what was essentially a live feed to a studio location does not seem to have been a widespread practice in field recording, but it is one of many ways that recordists intervened in the spontaneous flow of the world in order to extract what they wanted from what they were given. For Downey, field recording has set the standard for authenticity and any other sonic representation should now aspire to a similar level of transparency. He describes, for example, the importance of capturing the actual sounds of household chores—mopping, sweeping, baking, etc.—given that a radio audience of housewives will surely detect any simulation of a domestic soundscape.²¹ Yet he does not explicitly state that these sounds need to be recorded in situ to be convincing. It might not have seemed important for Downey to outline just what or where the field is; the genuineness of recorded sounds is what counts; their being recognized as field recordings is what sets the standard for authenticity. But this small oversight gestures at what has always been and continues to be the thorny status of the field. Are these actual domestic sounds recorded in a “real” kitchen? If so, does this constitute a field situation? For Downey this is beside the point; what is important, for the purposes of creating an exhaustive sound library, is the verisimilitude and authenticity of each item. Downey’s casual movement between field and (implied) studio recording settings speaks to the reality that this dichotomy was and continues to be somewhat fluid, that its division is sometimes attributed to geography or architecture, but it can also be understood in terms of realism or authenticity. Ultimately, for Downey, sound recordings’ value lies in their potential to archive the present: “Perhaps the most important contribution of the sound library is its work in storing up a vast file of

²⁰ Ibid., 18.

²¹ Ibid., 19.

audible current history.”²² In 1936, we might imagine a reader coming across the notion of field recording for the first time and taking away from Downey’s article a similar set of ideas about the practice to those that have endured into the present. This reader might surmise that field recordings do two important and related things: they can be used to stand in for reality given that they are authentic representations of actual things and environments, and that they preserve a moment captured in the present for eventual use in the future.

Downey’s article gestures at some of the issues that have come to be synonymous with the idea of field recording, but his offhandedness with the term, as though any average reader should simply know what a field recording is, also previews its relatively uncritical usage in the following decades.²³ Ethnographers, biologists, foley sound artists, acoustic ecologists—a variety of academics and creative experts have published explanations of how to properly capture sound in situ according to specific professional criteria, while almost no one seems to have found the need to ask what field recording is and does, to unpack the cultural and technological assumptions and histories embedded in the practice.²⁴

Even Erika Brady, in her 1999 book, *A Spiral Way*—a work that considers the important role that the phonograph has played in ethnographic fieldwork, and perhaps the earliest work to directly address field recording critically—fails to use, let alone define the term “field recording.” *A Spiral Way* is a rich and nuanced text that thoughtfully considers how the phonograph deeply altered the ways in which ethnographers relate to their subjects, while, at the same time, serving as a fulcrum around which already existing assumptions,

²² Ibid., 104.

²³ It would be impossible to list every usage of the term, but so far as I can gather, after “field recording” entered the lexicon it was generally used in passing, as though it was a phrase that had always existed. Searches for “field recording” in Jstor and Google Scholar show the term beginning to come into wide usage in the 1940s.

²⁴ See note 6 for a list of examples of works concerned primarily with technical aspect of field recording.

values, and biases about Western anthropology's Others are leveraged.²⁵ It is a book, evidently and essentially, about field recording. But Brady actually only uses the term twice, and in both cases "field recording" is tucked away into the endnotes. While this may seem like a niggling lexical detail, that Brady neglects to use the term, let alone offer a consideration of its genesis, speaks to field recording's strange evasion of definition.²⁶

In recent years field recording seems to have finally become an object of study, both in practice and in name. *Field recording: l'usage sonore du monde en 100 albums*, Alexandre Galand's annotated discography of field recording, published in 2012, is an encyclopedic guide to the many forms of sound captured in situ. Galand's introduction touches on some of the concerns particular to field recording—place, transparency, authenticity, etc.—untangling how these tropes play out across an array of disciplines, from ethnography to bioacoustics to sound art. Galand's preview to a world of sound ostensibly recorded out in the world touches on some of the ideological issues that underpin the practice, but he offers little critique, effectively reinforcing commonplace tropes. Galand writes, for example, "In addition to recording in the field, there is one important element that links its usage by these musicians, audio-naturalists and collectors of traditional music. With respect to the possibilities of control and repetition offered by the studio, the recordist is often confronted by a field that is unpredictable and unstable. Magic instants are fleeting and unlikely to be repeated."²⁷ Galand gives a thorough synopsis of the history of field recording, but, while celebrating its polyvalence, he has little to say about the social or ideological forces that give it form.

²⁵ Brady, *A Spiral Way: How the Phonograph Changed Ethnography*, 7-8.

²⁶ Jonathan Sterne's *The Audible Past*, which contains a significant section on field recording—which draws heavily from Brady's work—also avoids the term. Sterne, *The Audible Past: Cultural Origins of Sound Reproduction*, 11-33.

²⁷ Alexandre Galand, *Field Recording: L'usage Sonore Du Monde En 100 Albums* (Marseille: Le mot et le reste, 2012), 12. Translation mine.

In the Field, another recent book on field recording—a series of interviews with notable artist practitioners of field recording published in 2013—gives far less space to editorial commentary on the significance and concerns of the practice. In their introduction, editors Cathy Lane and Angus Carlyle briefly outline the stakes of recording in the field, touching on the roles that place and mediation play in constituting the practice. But they are strangely evasive and elliptical on the subject of what field recordings actually are. For one thing, they begin by atomizing the expression: “For field recording, how the field is defined is at least as important as how the recording itself has been accomplished.”²⁸ While they note that there several relatively stable definitions of the field, the one that most interests them is “the idea of a field nourished by artists who have learned an appreciation of place, locality and their representation from the legacy of land art and the site-specific.”²⁹ For Lane and Carlyle, it seems that what is most important about this understanding of the field is that it is inclusive of a self-reflexive participant, one who recognizes her own presence both in physical space and in the recording: “Is the recordist an audible presence? Are they a silent participant who nonetheless provides some experiential authenticity or at least takes responsibility for pressing ‘record’ and then ‘stop?’”³⁰ However, it is perhaps equally true that the field is somehow the transcendental object of a positivistic process of representation: “Or is the recordist understood to be of relative insignificance compared to the dynamic properties of the scene itself?”³¹ Lane and Carlyle seemingly set up a false dichotomy that posits either the field itself or the relations between people and technological mediation as opposing modes of recording. Either way, their approach to understanding field recording

²⁸ Cathy Lane and Angus Carlyle, eds., *In the Field: The Art of Field Recording* (Axminster: Uniformbooks, 2013), 9.

²⁹ *Ibid.*

³⁰ *Ibid.*, 10.

³¹ *Ibid.*

still stops at discussing what is there on the record without attending to the disciplinary conventions, histories, and ideologies that give the practice its contours.

That Lane and Carlyle offer little historical context for the emergence of the field as a concept is perhaps understandable considering their book is concerned exclusively with the use of field recording in various art practices. But it is arguably this sort of disciplinary specificity that has prevented any real consideration of the field recording in all of its various applications. If defining the field is at least as important as discussing the recording process, as Lane and Carlyle suggest, then we should take them at their word and construct its genealogy. Ironically, the idea of the field only really became articulated as a particular site of epistemological inquiry in a moment of fragmentation. Prior to the nineteenth century, there was no such thing as “the field.” This, for the most part, was because the formation against which it would be defined had not yet been born. The field would come into being in distinction with the laboratory as it took shape the Victorian era, growing out of the houses of experiment where nobleman would gather to assess each other’s work.³² As we will see in greater detail in chapter 2, as scientific networks began to extend throughout Europe, location became a problem that needed to be solved while at the same time emerging as an important feature in the production of knowledge. On the one hand, an ideology of placelessness took hold, a paradigm that treated findings produced in the laboratory as universal in that they could theoretically be replicated with standardized equipment anywhere in the world.³³ On the other, the field came to be understood as a unique location whose plenitude and specificity could only ever be fully engaged in situ.³⁴ The laboratory

³² Steven Shapin, "The House of Experiment in Seventeenth-Century England," *Isis* 79, no. 3 (1988).

³³ See Kohler, *Landscapes and Labscapes: Exploring the Lab-Field Border in Biology*, 1-22.

³⁴ See Thomas F. Gieryn, "Three Truth-Spots," *Journal of History of the Behavioral Sciences* 38, no. 2 (2002).

materialized—both literally, as an architectural entity, and figurative, as the container for a set of codified practices—and constituted the field as its exterior. If the laboratory was understood as a controlled space in which the world was broken down into its constituent parts, the field came to be seen as authentic and spontaneous, free from the intervention of researchers. The field also came into relief as a place to which one travelled. Prior to the mid-nineteenth century, aristocratic natural historians made judgments about the world based on the artifacts and samples returned to them by informants traveling the globe in search of commercial opportunity or on missionary business and generally not in the pursuit of knowledge. It was seen as being beneath a man of science to leave his study to seek the fragments of the world that colonial trade routes would carry to his door. The field emerged alongside the ethos of fieldwork, characterized by a shift in values that established travel and physical hardship as virtues rather than inconveniences.³⁵

The field—defined as a site in which knowledge is gathered directly, without control or mediation—is an invention of the nineteenth century, a moment in which the science fractured along the ideological fault line of location. This fragmentation was also manifest in another sense of the word field, which the OED defines as, “A particular branch of study or area of expertise or competence,” and according to which was first found in print in 1825.³⁶ That these two senses of the term came into use around the same time is a prompt to consider the congruity between the two, between *the* field as a space of epistemology and *a* field as an organized set of practices and techniques. The former sense is laden with spatial connotations and foregrounds location as a vessel for the real, unfettered life that it contains.

³⁵ Henrika Kuklick, "After Ishmael: The Fieldwork Tradition and Its Future," in *Anthropological Locations: Boundaries and Grounds of a Field Science*, ed. Akhil Gupta and James Ferguson (Berkeley: University of California Press, 1997).

³⁶ "Field, N.1," *OED Online* (2014), <http://www.oed.com.myaccess.library.utoronto.ca/view/Entry/69922?rskey=y0rTOa&result=1&isAdvanced=false>.

The field is what *is*; it is independent of its being known or studied, even when it contains other people, for in the field they are just as much an observable set as other animals, geological features, weather patterns, etc. In the latter case, a field is fundamentally supposed to be a product of human consensus. A field of study is essentially synonymous with what Foucault described as a “discursive practice.” For Foucault, discourse is not to be confused with language. It is not a figure for what is said, but a system that constrains the possibility of what *can* be said, for what is possible to think in any given moment. “Discursive practices,” he writes, “are characterized by the delimitation of a field of objects, the definition of a legitimate perspective for the agent of knowledge, and the fixing of norms for the elaboration of concepts and theories.”³⁷ Foucault’s use of “field,” here, is metaphorical, yet it is also intentional and considered. Evidently knowledge must always be produced somewhere, in some physical or geographical location. But *situating* this knowledge,³⁸ positing its production as an activity that *takes place* in a location in which its observers are embedded, reveals the workings of power and the forces that constitute just what can be known:

Once knowledge can be analysed in terms of region, domain, implantation, displacement, transposition, one is able to capture the process by which knowledge functions as a form of power and disseminates the effects of power. There is an administration of knowledge, a politics of knowledge, relations of power which pass

³⁷ Michel Foucault, *Power/Knowledge: Selected Interviews and Other Writings 1972-1977* (New York: Pantheon Books, 1972), 199.

³⁸ The allusion here is to Donna Haraway’s notion of situated knowledge. For Haraway, the predominating model of objectivity in science posits one who *knows* as being external to that which is under observation. Situating the observer brings him into a relation with the object of knowledge that forces a recognition of its agency. Haraway’s spatialization of knowledge, similar to Foucault, is meant to show how power, specifically of a masculine valence, operates in epistemology. *Language, Counter-Memory, Practice: Selected Essays and Interviews*, ed. Donald F. Bouchard, trans. Donald F. Boucher and Sherry Simon (Ithaca: Cornell University, 1977), 199.

via knowledge and which, if one tries to transcribe them, lead one to consider forms of domination designated by such notions as field, region and territory.³⁹

In attending to the spatiality of *a* field of knowledge, the differences between a discursive practice and the location with which a given discipline is concerned begin to blur. *A* field of practice, then, can be approached as *the* field of observation, itself a space where reality spontaneously unfolds.

Field recording suggestively smears both senses in that it is a practice imbricated in multiple branches of study and areas of expertise, and it is a technique that purports to be indexically linked to a particular and unique place. To return to Lane and Carlyle's attempt at defining field recording, although sketchy and abstruse, it at least gestures at some important ideas that lie sedimented in the term's history. For one thing, there is the question of framing and perspective. Lane and Carlyle offer a tripartite schema for listening that moves through three degrees of distance from the field itself: a recordist might listen, without mediation, to an environment; she might monitor the site through a microphone/recorder/headphone apparatus; or she might listen to recorded representations of the space so as to classify and then file them away as material for future projects. But, even without actually having donned her headphones or having pressed record, the field recordist is already listening like microphone, engaging in a process of audition that is "ready to inform choice of

³⁹ Donna J. Haraway, "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective," *Feminist Studies* 14, no. 3 (1988). Pierre Bourdieu similarly uses the term "field" to describe the space that renders intelligible discourses about what can properly be grouped as coherent and bounded practices. Bourdieu is primarily concerned with cultural production, specifically art and literature, but his analysis of a field could well be transposed to any disciplinary formation. Also similar to Foucault is his observation that there are rules and pre-existing conditions in a field that order the "position-taking" that actors have available to them, but that these positions are also always being contested as individuals struggle to contest a field's limits. Foucault, *Power/Knowledge: Selected Interviews and Other Writings 1972-1977*, 69.

microphone type and microphone placement...”⁴⁰ Field recording, then, is not simply a technological intervention; it is an assemblage of complex, material things and practices that engender a type of mediated listening, even when the technology is switched off. This is akin to what Heidegger described as enframing (*gestell*): “Enframing means that way of revealing that holds sway in the essence of modern technology and that is itself nothing technological.”⁴¹ For Heidegger, enframing reveals a world of inchoate matter waiting to be ordered and shaped by human desires. Enframing unconceals objects as a “standing-reserve”⁴²—materials whose utility only becomes apparent to the extent that it might be exploited.⁴² For Lane and Carlyle, field recording engenders a similar relation to the world. The reality of recording always already constitutes mediated listening, and mediated listening offers back an unconcealed whisper of reality: “Each of the recordists with whom we engage in conversation could offer numerous examples from their own work of occasions where a particular reality was uncovered for an audience through attentive listening, skilful (*sic*) recording and careful re-presentation.”⁴³ Mediation uncovers a reality which, ironically, would remain hidden were it not for a technique that is but a representation of the thing itself.

This apparently paradoxical claim speaks to one of the defining features implicit in the discourse about field recording: that sound captured *in situ* bears a metaphysical relation to the reality that it represents.⁴⁴ In one sense, this is a question of indexicality, of the belief that any sound recording is somehow ontologically linked to the thing it captures. But the

⁴⁰ Lane and Carlyle, *In the Field: The Art of Field Recording*, 10.

⁴¹ Martin Heidegger, “The Question Concerning Technology,” in *Basic Writings: From Being and Time (1927) to the Task of Thinking (1964)*, ed. David Farrell Krell (New York: Harper & Row, 1997), 302.

⁴² *Ibid.*, 298-99.

⁴³ Lane and Carlyle, *In the Field: The Art of Field Recording*, 11.

⁴⁴ Akiyama, “Transparent Listening: Soundscape Composition's Objects of Study.”

indexical relation between a thing itself and its mediated representation is a moving target, a standard whose own limit is laid out in advance. The apparent transparency of a recording can, theoretically, approach perfect acoustical replication of an event, however, it can never become the thing itself. Indexicality, then, always implies the existence of an *original* sonic event to which a *copy* will, to higher or less degree, be faithful, an assumption or desire for representations of acoustic energy to be synonymous with the thing itself. James Lastra offers a useful sketch of two opposing positions on this ontological conundrum. Responding mainly to theorization of sound in cinema studies, he associates writers such as Béla Balázs, Jean-Louis Baudry, and Christian Metz with the position that a sound recording is essentially coextensive with the thing it represents.⁴⁵ In this view there is no appreciable—or even ontological—difference between the original event and its replication. On the other side Lastra identifies a position that he calls “non-identity” theory, an approach that regards all sounds as unique and unrepeatable. When one plays back a recording it is not the original sound that is being resurrected, it is a new instance of a newly formed acoustic event that is generated.⁴⁶ But, as Lastra points out, this position problematically locates mediation exclusively in the technological apparatus of sonic reproduction. For the non-identity camp, the distinction between original and copy is solely a function of sound recording’s parasitical relationship with an absent, irretrievable ideal. However, for Lastra, this account attributes a sort of uncomplicated purity to the original, thereby establishing a “hierarchy of more and less appropriate forms of listening.”⁴⁷ Sound is always mediated by something, even prior to the act of recording. There is no one privileged vantage point from which to experience the original in its uncorrupted state because, in real space, all sounds are always different

⁴⁵ James Lastra, *Sound Technology and the American Cinema* (New York: Columbia University Press, 2000), 124.

⁴⁶ *Ibid.*, 125.

⁴⁷ *Ibid.*, 132.

depending on where one experiences them. Change the circumstances or material situation of audition and the sound changes.⁴⁸

Field recording, because of its preoccupation with transparency, with the reality of the location beyond the frame of mediation, is especially implicated in the back and forth between essentialism and non-identity described by Lastra. Taken in light of the former, field recordings might be taken to be essentially of the same stuff as the sites they capture. And yet, by fetishizing the pre-recorded suchness of an actual site, field recordings might also be thought of as enshrining a specific location as an original fount of sonic experience, one from which imperfect, degraded copies are spirited away. Paradoxically, as we will see in chapter 3, in some approaches to field recording practice, these apparently contradictory positions are not taken to be mutually exclusive. Members of the WSP, for example, were suspicious of sound recording, arguing that it produced copies of original events, for wrenching sounds away from their sources and allowing them to proliferate outside of their natural environments, a phenomenon that R. Murray Schafer dubbed “schizophonia.” And yet they also used field recordings as pedagogical tools for fostering connections to endangered soundscapes, incorporating them into an aesthetic form they called “soundscape composition.” The WSP discouraged overly manipulating source material because it supposedly broke the link between recording and site, a connection that was meant to inspire listeners to take action in preserving the sounds of places they might never even have visited.⁴⁹

⁴⁸ Ibid., 134.

⁴⁹ Not all WSP-associated work has necessarily endorsed this paradigm. Some of Hildegard Westerkamp’s work deliberately and self-referentially addresses the artifice of its own making. In her piece, “Kits Beach Sound Walk,” she describes, on the record, the transformations and tricks of perspective that she is employing as we hear them, altering environmental sound and describing the process as it unfolds. However, Westerkamp’s

Field recordings, despite their supposed transparent relation to reality, are always in need of supplementation in order to re-approach the real. In his 1998 memoir, the field recordist, Bernie Krause, recounts his first experience listening to the world through a recording device and a set of headphones, an event that, at first, overwhelmed his senses: “Amplified and more vivid than (sic) those we generally hear, the sounds had a feeling of space that was vastly expanded and lustrous.”⁵⁰ However, later listening back to the field recordings, Krauss was disappointed to find that nothing sounded the way it had in that moment of mediated simultaneity—“The illusion and magic of the moment was completely lost...”⁵¹ This remembrance prompts Krauss to consider that realism is not necessarily effected by the direct imprinting of things-as-they are onto a material support, but that verisimilitude is in fact a construction. Krauss writes that “the *effect*, or illusion of sound, is much more important to the human ear than the sound’s original source.”⁵² What Krauss had been searching for on that particular trip was the sound of a stream that he intended to include in a musical composition. Failing to capture actual stream naturalistically enough to pass as the real thing, he set up stereo microphones in his toilet and let the water run. In the end, this was the stream that ran its way through the finished piece. We can only imagine what Fairfax Downey might have to say about this deception, about Krauss’s suggestion that realism is an effect of listening and not one of production. He would certainly argue that this is not a field recording. But here the disconnect is essentially rhetorical considering that we could facetiously claim that Krauss in fact made a field recording in his bathroom; the problem, as far as authenticity is concerned, is in the presentation. Perhaps in the context of

process, in this case, is at odds with her own adherence to the tenets of soundscape composition. Her writings on soundscape composition are discussed in detail in chapter 3.

⁵⁰ Bernie Krause, *Into a Wild Sanctuary: A Life in Music and Natural Sound* (Berkeley: Heyday Books, 1998), 57.

⁵¹ Ibid.

⁵² Ibid.

a radio ad for toilet bowl cleaner an audience of plumbers listening to Krauss's toilet stream might be convinced of its veracity; like Downey's housewives, their discerning ears should allow them to hear the recording for what it really is.

In and out of the Studio

After remarking on the peculiar resistance of field recording to description, it seems natural, possibly courteous to offer a sober definition, considering that the phrase has not completely avoided being pinned down. The American Library of Congress—the largest custodian of cultural documents in the world, and consequently an organization with a considerable investment in description and categorization—offers this genre heading to keep patrons from confusing field recordings with “Astronomical models [genre form 2011026056]” and “Railroad sounds [genre form 2013025024]”: “Field recordings...This heading is used as a genre/form heading for recordings of sounds or images made outside a controlled studio environment or professional performance venue that are generally unedited and typically made with portable equipment.”⁵³ Frustratingly, this definition is essentially a description of what a field recording is not, and, as is often the case, it appeals to the figure of the studio to bring the field into relief. For this reason it seems perversely logical to map the space of studio before stepping back out into the real world.

Since its earliest days sound recording has been vexed by the distinction between inside and out, between the artificial and the natural. At the turn of the century, with engineers still in the early stages of establishing what sorts of spaces were most conducive for recording, recordists set up and captured performances often in provisional ways; in the decades following the introduction of the first commercially available phonographs in the

⁵³ "Field Recordings," <http://id.loc.gov/authorities/genreForms/gf2011026253.html>.

late 1870s, sound recording was an ad hoc business.⁵⁴ Early devices were built to both record and play back sound, inscribing acoustical vibrations at first onto tinfoil, and then onto wax-covered cylinders. Until Emile Berliner's introduction of a disc-shaped surface, there was no effective way to mass-produce phonographic recordings; each recording was unique.⁵⁵ Initially sound recordings were presented as novelties as the phonograph was trotted out across the Eastern United States to audiences paying to witness demonstrations of the device. Part of the appeal of these exhibitions was their interactivity as spectators talked, whistled, and sang into the phonograph's horn.⁵⁶ The conditions for recording were likely not the first thing on demonstrators' minds; that the machine worked at all was apparently enough to delight audiences. With a market for prerecorded music beginning to take shape, recordists developed and refined techniques for capturing and reproducing sound with ever increasing definition.⁵⁷

The mechanical methods of capturing sound that preceded electrical amplification required an enormous amount of spatial resourcefulness. In its acoustic era, recordings were

⁵⁴ The conventional history of sound recording marks 1877, the year that Thomas Edison filed the patent for his phonograph, as ground zero. However, it is problematic to simply begin at the supposed beginning of sound reproduction considering the abundance of technical and cultural precedents for the device. A history of sound recording writ large is beyond the scope of this dissertation and has already been examined in great detail from a wide array of prerogatives. A sample of key works includes Roland Gelatt, *The Fabulous Phonograph, 1877-1977* (New York: Macmillan, 1977); Walter L. Welch and Leah Brodbeck Stenzel Burt, *From Tinfoil to Stereo: The Acoustic Years of the Recording Industry, 1877-1929* (Gainesville, FL: University Press of Florida, 1995); Morton, *Off the Record: The Technology and Culture of Sound Recording in America*; Michael Chanan, *Repeated Takes : A Short History of Recording and Its Effects on Music* (London: Verso, 1995); Sterne, *The Audible Past: Cultural Origins of Sound Reproduction*; Evan Eisenberg, *The Recording Angel: Explorations in Phonograph* (New York: McGraw-Hill, 1987); Greg Milner, *Perfecting Sound Forever: The Story of Recorded Music* (London: Granta, 2009).

⁵⁵ Chanan, *Repeated Takes : A Short History of Recording and Its Effects on Music*, 5.

⁵⁶ Lisa Gitelman, *Always Already New: Media, History, and the Data of Culture* (Cambridge, Mass: MIT Press, 2006), 34-35.

⁵⁷ On the concept of fidelity in recording see Sterne, *The Audible Past: Cultural Origins of Sound Reproduction*, 215-86; Morton, *Off the Record: The Technology and Culture of Sound Recording in America*, 13-47.

made indoors in rooms of all sorts of shapes and sizes—some covered in dampening materials like seaweed or cow hair, some left bare to allow for a more reverberant, brighter sound, while some sessions were organized outdoors under tents.⁵⁸ Musicians performing in early recording studios had to be positioned properly with respect to the recorder's horn to ensure an even mix.⁵⁹ The acoustic character of the room also played an important part in blending a performance, reflecting and reinforcing desirable sonic frequencies.⁶⁰ With the introduction of the microphone and electrical means of amplifying and monitoring sound, recordists were able to isolate each voice or instrument, adjusting each component's relative volume as the ensemble was committed to the record. Recording engineers, as they would come to be known, discovered that they could have more control over the sonic character of recording by deadening the acoustics of a room, then reintroducing an illusion of space by routing the electrical signal through specially designed reverberant chambers.⁶¹ By the 1960s, multi-track recording would allow recording engineers to craft a sonic space for each recorded element individually. Not only could each spaceless part now occupy its own simulated sonic environment, any given element could be captured separately, at a temporal remove from what would previously taken place in a single, synchronous take. The musical genres that would come to exploit these techniques—rock, dub, hip hop, electronic music, etc.—are first and foremost studio-based. As many have suggested, when we listen to records by The Beach Boys or King Tubby or Public Enemy or Aphex Twin, we are not experiencing a representation of a performance; rather, we are hearing a simulation, a

⁵⁸ *Off the Record: The Technology and Culture of Sound Recording in America*, 20.

⁵⁹ *Ibid.*, 21.

⁶⁰ Gelatt, *The Fabulous Phonograph, 1877-1977*, 223; Susan Schmidt Horning, *Chasing Sound: Technology, Culture, and the Art of Studio Recording from Edison to the Lp* (Baltimore: Johns Hopkins University Press, 2013), 42-43.

⁶¹ Paul Théberge, "The Network Studio: Historical and Technological Paths to a New Ideal in Music Making," *Social Studies of Science* 34, no. 5 (2004): 765.

fictional moment in space and time constructed by engineers and producers.⁶² Prior to multi-track technology, the story goes, a recording captured a singular performance as it unfolded. Modern studio techniques and practices supposedly invert this relation between events; in studio-centric forms of music, live performance now strangely signifies a ritual recreation of an original moment that never really existed.⁶³ According to engineer and acoustician, Barry Blesser, “While listening to recorded music in our homes, we experience a virtual space created by a mixing engineer who manipulated a spatial synthesizer in a recording studio. There was never a performance space.”⁶⁴

And yet, there is something a little overwrought about this claim. Its rhetorical force says more about the desires of engineers, critics, and listeners than it does about any actual condition of recording. On one level, the appeal to spacelessness serves the desires of recordists and producers wanting absolute control over raw sonic material. The idealized modern studio is supposedly designed to neutralize reverberation and echo, preventing the room’s acoustic signature from being picked up on a recording. In what Paul Théberge calls the “non-space” of the modern studio, space is electronically grafted back onto the

⁶² Gracyk, *Rhythm and Noise: An Aesthetics of Rock*, 53.

⁶³ This is not the case for all music. According to Gracyk, some musical traditions—folk music, for example—have maintained a relation to recording in which performance is still taken to be a primary form, an event that is understood to precede its mechanical reproduction. Ibid., 38. Philip Auslander finds Gracyk’s ontological prioritization of recording in rock problematic, arguing that both modes of presentation, recorded and live, are equally constructed according to tacitly held ideas about authenticity. Philip Auslander, *Liveness: Performance in a Mediatized Culture* (New York: Routledge, 2008), 76. Auslander also calls attention to the ways in which visual representations—music videos, album covers, etc.—supplement the authenticity of *recording* artists, an argument similar to one made by John Mowitt. According to Mowitt, the idea of liveness is a construction that depends on visual supplementation in order to ratify claims to authenticity or fidelity. John Mowitt, “The Sound of Music in the Era of Its Electronic Reproducibility,” in *The Sound Studies Reader*, ed. Jonathan Sterne (New York: Routledge, 2012), 215.

⁶⁴ Barry & Linda-Ruth Salter Blesser, *Spaces Speak, Are You Listening?: Experiencing Aural Architecture* (Cambridge, MA: MIT Press, 2007), 6.

recording.⁶⁵ The dry, neutral sound of a drum kit recorded in a baffled, padded room can thunder back through the speakers as though captured in a cavernous hall, or a tiny, bright bathroom, thanks to signal processing. The individually captured musical components of a finished studio recording might have been captured in physical isolation—perhaps even at different moments in time. Subsequently, working their way through a discrete signal path, each can be made to bear very different spatial signatures. For those at the receiving end, if space is all a fiction, and if the moment of performance never happened, then the recording in a sense stages nothing other than itself—a previously momentless unfolding of new moments—every time the listener presses play. The recording, then, belongs to her and her alone. As Jacques Attali notes, recording stockpiles the time of the performer and puts into circulation for consumption. Under this regime of “repetition,” as he calls it, music exists solely as copy, as a commodity stamped out by a matrix that enters into a system of economic and rational equivalence.⁶⁶ According to Attali, the artist has become little more than a mold or a model for replication; her likeness, like her music, is virtual, existing only to differentiate her brand.⁶⁷ But there is something here that does not fully hold—after all, none of this completely squares, for example, with the fetishistic attention given to the suchness of particular recording studios. The legendary sound of Sun or Stax or Abbey Road studios should be irrelevant if the studio is a non-space, if its architecture is made to be inaudible. Phil Spector, for example, the producer perhaps most associated with the annihilation of space in recording, the man in whose recordings sound itself forms the walls, made his best recordings at Gold Star studio in Los Angeles. “In a case like this,” writes Albin Zak, “a

⁶⁵ Théberge, “The Network Studio: Historical and Technological Paths to a New Ideal in Music Making,” 766.

⁶⁶ Jacques Attali, *Noise: The Political Economy of Music*, trans. Brian Massumi (Minneapolis: University of Minnesota Press, 1985), 89.

⁶⁷ *Ibid.*, 119.

room's ambient signature plays such a prominent part on a record that it becomes a stylistic hallmark, taking its own place in the lexicon of recording practice."⁶⁸ Or take the studio of Stax Records in Memphis, a cavernous room in an old movie theatre, a space large enough to make sound separation difficult. Musicians had to stand far apart, monitoring each other carefully both visually across the room and sonically through headphones. These distances, a consequence of the studio's architecture, invariably led to the musicians falling slightly behind the beat of the singers, leading to the signature tight backbeat of the labels' stars, artists such as Otis Redding, Wilson Pickett, and Isaac Hayes.⁶⁹ Or take the peripatetic producer Daniel Lanois, a recordist whose belief in ambiance has taken him to a castle in Ireland, a house in the French Quarter of New Orleans, a one-time movie theatre in Oxnard, California.⁷⁰ If the recording studio is spaceless, then why go to the trouble of anchoring a recording in an exotic or storied locale? To harness its ineffable spirit and authenticity? If that is the case, then the space of the studio must suffuse the recording at some level. Are the ancient stones of Slane Castle audible on U2's 1984 album, *The Unforgettable Fire*? Is it their timeless resonance that makes it such a haunting recording? Maybe. Or maybe it is narrative that permeates the record. Either way, at both a physical and a rhetorical level, space plays a much more important part in studio recording than we often suppose. That one might travel to set up a studio in a place of interest, in a place that confers authenticity and unique ambiance, should also beg the question, how are we to distinguish this from a field recording? Effectively, this is also exactly what many early ethnographers did: they traveled to an important, singular location and arranged the space of the field to suit their standards for sonic capture.

⁶⁸ Zak III, *The Poetics of Rock: Cutting Tracks, Making Records*, 100.

⁶⁹ *Ibid.*, 103.

⁷⁰ *Ibid.*, 101.

Here the ideological boundaries between studio and field start to break down. If studio recording can be just as mobile and grounded in a location as field recording, if field recording is just as susceptible to the sorts of staging and intervention in which studio recording trades, then it becomes hard to make a simple distinction between the two. We might find an approach to resolving this blurriness in Jonathan Sterne's suggestion that sound recording was, from its very beginnings, a studio art.⁷¹ Sterne's goal in positing the studio as the locus of recording is to untangle the social processes and forces underpinning sound reproduction from the ontological *a priori*s that are too often taken for granted. Recording is always concerned with producing an ideal object, whatever this ideal may be. But if we think of it as a practice and not as a neutral, technological process that produces faithful representations of actual phenomena, we then begin to find that recording actually constructs its objects, thereby constituting the very possibility of our understanding the reality of an event that precedes it. According to Sterne, "Conventional accounts of sound fidelity often invite us to think of reproduced sound as a mediation of 'live' sounds, such as face-to-face speech or musical performance, either extending or debasing them in the process."⁷² Considering the studio as the location of recording moves us away from ontological debates about mediation, leading us to think about how the very idea of sonic fidelity can arise. Insofar as recording always takes place in place, we are compelled to attend to the people, technologies, and architectures that constitute what is fundamentally a social practice. For Sterne, the very notion of fidelity presupposes a "pact or agreement."⁷³ That is, it requires *people* to believe that there exists such a thing as an original sound in order to

⁷¹ Sterne, *The Audible Past: Cultural Origins of Sound Reproduction*, 219.

⁷² *Ibid.*, 218.

⁷³ *Ibid.*, 221.

believe that this prior phenomenon might conceivably be copied.⁷⁴ Fidelity is about having faith in a narrative that puts different modes of acoustic phenomena in continuity with each and not an ontological relation that links the copy to the original. As Sterne writes, “Sound fidelity is a story that we tell ourselves to staple separate pieces of sonic reality together.”⁷⁵

The studio has always been both a figure and a physical site that houses these narratives, the setting for stories about fidelity and transparency. The architecture and materiality of the studio were evidently important forces in that they isolated performers from the outside world,⁷⁶ but there were also psychological consequences that came with recording indoors. Early performers, for example, had to learn to play to the microphone rather than a live audience. For some this required finding ways of overcoming the fear of performing for an unknown audience, for the thousands of ears envisaged by the singer Leon Alfred Duthernoy, which would repeat and scrutinize their every mistake.⁷⁷ In the studio, as Sterne notes, “People performed for the machines; machines did not simply ‘capture’ sounds that already existed in the world.”⁷⁸ In recording’s mechanical days performers learned to squeeze their voices into the frequency bands that would yield the best

⁷⁴ Marcus Boon, working through a Buddhist critique of essences, arrives at a similar point: that the appearance of something that could be designated as an original is contingent and dependent on some sort of social pact. Marcus Boon, *In Praise of Copying* (Cambridge: Harvard University Press, 2010), 26-27.

⁷⁵ Sterne, *The Audible Past: Cultural Origins of Sound Reproduction*, 219.

⁷⁶ “The studio was a necessary framing device for the performance of both performer and apparatus: the room isolated the performer from the outside world, while crude soundproofing and physical separation optimized the room to the needs of the tympanic machine and ensured the unity and distinctness of the sound event being produced for reproduction.” *Ibid.*, 236-37. “Studios regulate and optimize the physical and physiological conditions of listening in multiple ways. They are designed to isolate the internal sonic environment from the noise of the outside world. The hubbub of the vicinity is dampened or extinguished. The world out there sounds far away.” Louise Meintjes, “The Recording Studio as a Fetish,” in *The Sound Studies Reader*, ed. Jonathan Sterne (New York: Routledge, 2012), 272.

⁷⁷ Sterne, *The Audible Past: Cultural Origins of Sound Reproduction*, 239.

⁷⁸ *Ibid.*, 235.

tonal results. Later on, following the electrification of studio, they became skilled in softly crooning to a microphone capable of picking up and amplifying the subtlest nuances of their voices.⁷⁹

In a sense, Sterne's claim that sound recording has always been a studio art is true—the process of recording invariably involves structuring performances or selecting for particular features of a sonic space. But this is also a fundamental feature of field recording and, as we will see, the controlled spaces of recording—the studio and laboratory—are themselves only intelligible in relation to the space of the field. The studio—as architecture and as practice—is not really conceivable without the space that surrounds it. We could extend Sterne's argument, positing that field recordings are themselves studio recordings whose valence is angled towards a different set of suppositions. As we will see in the chapters that follow, the reality of the field is never really as real as we are led to believe. Out there in the open, recordists have always guided performers and created physical circumstances favourable to their sonic ideal. And, when dealing with subjects less responsive to instruction—animals or entire soundscapes, for example—they regularly tune and direct their equipment to catch or isolate scenarios suited to their epistemological standards or their aesthetic tastes. However, beginning and ending with the studio as a figure for all recording elides a significant part of the story about how we understand sound recording and mediation. That the studio could ever come to be understood as a non-space depends parasitically on a figure of another location outside its sphere of control and staging.

⁷⁹ Simon Frith, "Art Versus Technology: The Strange Case of Popular Music," *Media Culture Society* 8 (1986): 264; Schmidt Horning, *Chasing Sound: Technology, Culture, and the Art of Studio Recording from Edison to the Lp*, 44-45.

Productions of Place/Space

It would seem that the vast majority of digital images in circulation these days bear some trace of the place from which they came. A photo might clearly represent a particular place, and it might contain clues about when it was taken. But imported into a photo management app even more accurate information about its provenance is revealed by the data cached in the image's geotag. Sound recording, however, has been slower to catch on to the idea of linking the moment of capture to a particular place in time. Of the current crop of dedicated digital portable sound recording devices none carries a GPS chip or a means of imprinting global coordinates to a file. In fact, adding locative data to digital audio seems to, at the moment, seem to involve hacking into the file.⁸⁰ At the moment, the only way to spatially locate a sound recording (the creation date of a digital audio file has long been standard) is to upload it to an interface that supports audio geotaging, such as Google Earth, Soundcloud, or Freesound, for example, and then to manually enter the GPS coordinates of the recording.⁸¹ As it stands, at the level of data, location is little more than a supplement to sound recording. The idea of place is grafted onto sound files after the fact, but, in a sense, this has always been true of field recording.

As we have seen, what seems like a solid and enduring distinction between the field and the recording studio (and its analog, the scientific laboratory), is in fact porous and

⁸⁰ Currently the only file format that supports GPS information is the open source Vorbis standard. It does contain a LOCATION field, but it is unclear that any existing recording devices are able to write to or access this parameter. "Vorbiscomment," https://wiki.xiph.org/VorbisComment#Geo_Location_fields.

⁸¹ "Google Earth," <http://www.google.com/earth/>; "Map Your Audio!," <http://soundcheck.soundcloud.com/audio/map-your-audio/>; "Freesound.Org - Geotags," <https://www.freesound.org/browse/geotags/>. The last few years have seen the introduction of audio recording apps, such as *Geo-tagged Audio* capable of recording location, but these write GPS location to a separate file. "Geo-Tagged Audio," <https://play.google.com/store/apps/details?id=com.ahmetkizilay.audio.geotag>. Soundcloud's mobile app also generates geotags.

complicated in terms of practice. Recordists regularly intervene in field situations, on the one hand, shaping and influencing performances, and, on the other, exploiting their equipment to isolate or selectively capture elements of a supposedly spontaneous whole. If the conceptual stability of a field recording cannot be secured through practice, then the alternative, it would seem, is to define it in relation to location. In this formulation, a field recording is a window onto a particular place at a particular moment. But for this to hold a recording must somehow transparently convey something about the location in which it was made. And this, as we have seen, requires a problem attribution of essence to a recording, a suchness that is wrapped in and preserved in an aural document. Listening to an environmental sound recording of an urban soundscape, for example, one might pick out details that mark its origin—spoken language, the particular signature of a unique sounding tram, a famous church carillon. This might tell us that the recording was made in downtown Toronto—the sound of its streetcars, for me, is a unique and immediately identifiable aural cue. The accents of the people captured in the recording might give some indication as to the neighbourhood from which it was taken—the specific sonority and inflection of a woman raised by European immigrants might suggest we are in Little Italy. But without some sort of narrative supplement a recording itself does not necessarily or transparently link back to the place in which it was made. We rely on ethnographic accounts, scientific field reports, liner notes, and, occasionally metadata to make this connection concrete. It is tempting, for example, to listen to the sound artist Peter Cusack’s field recordings of derelict and dangerous sites and imagine that, even without prior knowledge their context, the deadly field emanating from a radioactive field in Chernobyl or the noxious fumes seeping from a British landfill—the forces and essences particular to these sites—might reach through their sonic frames and reveal something of their origin. Without Cusack’s terse yet suggestive

track titles—“Landfill Waste Gases—Rainham, UK,” for example—these recordings have very little to say about environmental devastation or manmade disaster. It is what is external to the recordings—the titles and album art, even the interviews given by Cusack and the critical response to the work—that urge us to listen a little more closely, to try to discern the inherent aural rot of a sick soundscape, paratexts that help to structure listening and expand its meaning.⁸²

The attribution of place to a sound recording is an act of interpretation and projection enacted by a listener, one that might or might not be facilitated by the notes or images supplied by the recordist. A sense of *place* conferred by a recording is in reality a *placemaking*. Recorded or not, a place is not a stable, eternal thing; it is a categorical *placeholder* arrived at through claiming, naming, and occupying.⁸³ There is something seemingly essential and unique about a place, that it is somewhere in particular, local, and nowhere else. There is perhaps something ontologically true about this, that a particular collection of atoms make up a cluster of physical features that are, to be sure, there and not somewhere else. But place is not what *is*; it is the gathering of characteristics into a coherent bundle of space and time. While field recording is supposed to be about a place, while it is supposed to stand in for a given location because of its mimetic, isomorphic properties, its claims are built on shaky ground if the idea of place itself is has no solidity. In effect, we might even go so far as to suggest that field recording is itself active in constituting the placefulness of the location it

⁸² Will Straw, "In Memoriam: The Music Cd and Its Ends," *Design and Culture* 1, no. 1 (2009): 86.

⁸³ A full unpacking of the idea of place is beyond the scope of this dissertation and, even in critical geography, the discipline most interested in its definition and function, there is agreement that there is little agreement about how to best approach the concept. With respect to the constructedness of place I am drawing on Nigel Thrift, "Steps to an Ecology of Place," in *Human Geography Today*, ed. Doreen Massey, John Allen, and Philip Sarre (Cambridge: Polity Press, 1999); Doreen Massey, *For Space* (London: Sage Publications, 2005); John A. Agnew, "Space and Place," in *The Sage Handbook of Geographical Knowledge*, ed. John A. Agnew and David N. Livingstone (London: SAGE, 2011).

represents. That a recordist chooses to record *there* and not elsewhere is significant in that there is a parasitic and mutually contingent relation at play here: a field recording must be attached to a place—whether metaphysically or rhetorically. But, at the same time, the recording is itself a gathering of characteristics into bundle of concrete space, assembling that gives it coherence, that plays a role in constituting the place as singular.

Field recording requires an understanding of placefulness to be intelligible, but it is also contingent on a particular understanding of space. That place and space are related but different is evident. In the tradition of critical geography, place is understood as a local, irreducible, and particular location whose consistency is the product of human assent, while space is considered more of a general container. Space is a labile envelope that furnishes the resources out of which places are constructed.⁸⁴ Space is not neutral or featureless, an empty vessel occupied by real things, as Descartes assumed,⁸⁵ rather, as Henri Lefebvre argued, space is produced through social practice, that it is not a void in which things happen, but an entanglement of both abstract and lived experience.⁸⁶ If the argument that space has a reality of its own, that it is both produced by and influences our activity, seems paradoxical or counterintuitive, it is owing to the persistence of a set of illusions that mask its fluidity. According to Lefebvre, one such illusion is produced by the persistent perception that space is transparent. “The illusion of transparency,” he writes, “goes hand in hand with a view of space as innocent, as free of traps or secret places. Anything hidden or dissimulated—and hence dangerous—is antagonistic to transparency, under whose reign everything can be taken in by a single glance from that mental eye which illuminates whatever it

⁸⁴ "Space and Place," 325.

⁸⁵ Henri Lefebvre, *The Production of Space*, trans. Donald Nicholson-Smith (Cambridge, Mass: Blackwell, 1991), 1-3.

⁸⁶ *Ibid.*, 26-27.

contemplates.”⁸⁷ Lefebvre’s critique felicitously captures the problem with attributing to field recording a similar transparency, with assuming that sonically representing the real world swaps one container with another. Under the spell of this illusion, we presume everything that is, no matter its obscurity or impenetrability, can be illuminated and communicated transparently by thought into the light of knowing. This does not mean that the features of space are imminently or eminently available to the mind; thought itself makes space intelligible by a “design” that “serves as a mediator—itsself of great fidelity—between mental activity (invention) and social activity (realization)...”⁸⁸ Lefebvre gives little indication as to what exactly constitutes this design, but for our purposes, we might substitute field recording in order draw on the sense that the practice is understood as revealing something of things as they are, a technique that makes them even more available to knowledge than in their unmediated state. The illusion of transparency leads us to believe—or want to believe—that space is simply a vessel that contains that which is reintroduced into another empty receptacle. While Lefebvre’s account of how mediation makes space intelligible is useful in understanding how a field recording might seem to reveal something unavailable to direct experience, we do well do to bracket his thinking for its implicit visualism.

That space can be considered empty is a conceit rooted in the experience of scanning an environment and supposing that there is emptiness wherever material objects are absent. As Casey O’Callaghan suggests, in the Kantian tradition sound is does not occupy or create space because it is taken not only to be immaterial, but an effect produced by material objects. Sound is a secondary property of matter, much like colour or odor. “If sounds as we

⁸⁷ Ibid., 28. Lefebvre counterposes the illusion of transparency to an opposite form of deception: realism. In this mode space is conceived of as an unproblematic material that is more real than the desires and thoughts of the subject. While these illusions might seem contradictory, they in fact “nourish” each other according some strange pact that conceals the contingency of spatial practice.

⁸⁸ Ibid., 27-28.

perceive them do not exhibit the common marks of items in the material world,” writes O’Callaghan, “and if they are not obviously features of those items, that might encourage us to believe that sounds have no natural home in the world. That, in turn, may tempt us to understand sounds as having no place other than the mind.”⁸⁹ O’Callaghan argues for an corrective to the visualist paradigm, a “sonic realism” that treats sounds as events that exist in the world and not as properties of material objects whose consistency is given in perception.⁹⁰ Insofar as sounds are real and not perceptual effect, they are always already present in space. They constitute a field of acoustic energy to which we invariably contribute simply by virtue of our existing. Stand still and hold your breath, but your heart is still faintly throbbing, and your ears themselves produce otoacoustic emissions—faint sonic signals generated within the inner ear.⁹¹ Space is always suffused with acoustic vibration, an ocean of sound to which any occupant contributes. Space is the “realm of the lived” as Lefebvre proposed, but, when we attend to it on sonic terms, we find that it is already vibrant.

The space of the recording is just as much a creation of social practice as the “real” or “physical” spaces in which they are made. As with the fabrication of a placefulness that secures the recording’s location, the spatiality of a recording relies on cues outside of any seemingly essential concrete, physical reality that appears, transparently, to a listener. The perceived spacefulness of a recording, as Peter Doyle suggests, is not purely function of acoustics. There are also important rhetorical or narrative qualities that are communicated in parallel to a physiological perception that can reveal much about where and under what sorts of social conditions a recording was made. This can occur at a semiotic level—Doyle refers,

⁸⁹ Casey O’Callaghan, *Sounds: A Philosophical Theory* (Oxford: Oxford University Press, 2007), 6.

⁹⁰ *Ibid.*, 10.

⁹¹ D. T. Kemp, “Stimulated Acoustic Emissions from within the Human Auditory System,” *Journal of the Acoustical Society of America* 64, no. 5 (1978).

for example, to a 1929 recording of Frank Hutchison in which the hillbilly singer and guitarist stops mid-song to announce, “All right, boys, this is Frank Hutchison, setting back in the Union Square Hotel, just getting right on good red liquor. All right, Frank, step on it!”⁹² That Hutchison inserts himself into the recording, not simply as a musician, but in a way that suggests something of a backstory, makes the performance about more than just music. As Doyle writes, “Rather than simply being music, this recording is about a specific person, a specific personality at a precise time and place.”⁹³ Hutchison’s brief interjection appeals to the listener to imagine the Southern singer holed up in New York City, out of his element, but already on his way to some sort of familiarity through intoxication. Doyle finds a different mode of narrativity in the recordings of the legendary bluesman, Robert Johnson. Recording in the 1930s, Johnson was able to perform in an intimate style thanks to the dynamic range offered by electrical amplification.⁹⁴ In a break midway through his recording of “Come on in My Kitchen,” Johnson murmurs—almost whispers—the refrain, an invocation: “Baby can’t you hear that wind howl?”⁹⁵ He is luring the listener at the other end of the phonograph horn to join him in his hotel recording studio, asking her to temporarily imagine herself away from wherever she at that moment happen to be.⁹⁶ Frank Hutchison’s declamation of his whereabouts, his narration that is strangely parallel and central to the process of recording, are gestures at a biographical way of relating to the recording. This, we might imagine Hutchinson saying, is a moment in time, and I am here in New York and not

⁹² Peter Doyle, *Echo and Reverb: Fabricating Space in Popular Music Recording, 1900-1960* (Middletown: Wesleyan University Press, 2005), 64.

⁹³ *Ibid.*, 65.

⁹⁴ *Ibid.*, 80-81. Simon Frith similarly notes that amplification allowed for a more intimate performance style, particularly in the case of the crooner. “‘Legitimate’ music hall or opera singers reached their concert hall audiences with the power of their voices alone; the sound of the crooners, by contrast, was artificial.” Frith, “Art Versus Technology: The Strange Case of Popular Music,” 264.

⁹⁵ Quoted in Doyle, *Echo and Reverb: Fabricating Space in Popular Music Recording, 1900-1960*, 80.

⁹⁶ *Ibid.*, 80-81.

at home in West Virginia. Robert Johnson's soft supplication is an entreaty for the listener to join him in the space of the recording. The recording itself, then, can contain its own paratextual explication, an enunciation arising from within that helps us make sense of the cultural, material, and technological forces that it draws together.

Neither place nor space is ever a metaphysical given, whether on or off the record. Because the sense of location imparted by a field recording is produced outside of the frame of sonic reproduction it invariably lets ideology in through the backdoor. What field recording seems to offer, thanks to its apparent transparency, is an analog or a stand-in for place itself. But a recording's placefulness is always negotiated into intelligibility in a particular disciplinary or social context. Our understanding of an in situ recording of a quiet forest soundscape only really becomes emplaced through the assumptions that we bring to the listening experience or thanks to the narratives that accompany it. Listening to, for example, Hildegard Westerkamp's haunting soundscape composition, *Beneath the Forest Floor*, we hear the soft sounds of the wind rustling its way through a leafy canopy, birds chirping, water gurgling. We hear it for the first time, without any context given, and we cannot help but know that it comes from a place, a quiet, sylvan place, one that might be unknown to us, but still we place it, imagine it, perhaps remembering similar pastoral sites we have directly experienced. Place might be vague, but the recording cannot really be heard placelessly. Listening again, we turn to a text written by Westerkamp to accompany the piece, and are told what we might have suspected all along given a pervasive understanding that, in our industrialized times, representing an unspoiled natural soundscape—especially in what we might gather is an artistic mode of representation—should almost implicitly be read as argument for environmental protection. "*Beneath the Forest Floor...*" writes Westerkamp,

...hopes to encourage listeners to visit a place like the Carmanah, half of which has already been destroyed by clear-cut logging. Aside from experiencing its huge stillness a visit will also transmit a very real knowledge of what is lost if these forests disappear: not only the trees but also an inner space that they transmit to us: a sense of balance and focus, of new energy and life. The inner forest, the forest in us.⁹⁷

Sure enough, the significance of the recording becomes entangled with the importance, the uniqueness, and the fragility of the forest in which was captured. Westerkamp provides us with the cue to Carmanah, maybe to find her forest on the map, to make it as real to us as we can without actually visiting. The piece is poignant because we are listening to an actual place, one identified as special and endangered. It is special and unique, but at the same time, it is meant to stand in for something more universal, for the forest in us. This movement between the particular and the universal paradoxically runs through how many field practices conceive of authenticity and truth. In the field, the story goes, we are in the presence of placefulness, and, because of our encounter with this unique, indivisible space, we are granted a privileged relationship to a particular, situated truth. While its supposed opposites—the laboratory and the studio—trade in a placelessness that apparently grants them objectivity and distance, situating them outside of the local, in the field veracity is constructed around the notion that the fieldworker, in “being there,” has unmediated access to something real and unstructured. The possibility of generalizing outwards, of uncovering universal truths in particular places, is a more difficult proposition and, as Thomas Gieryn writes, “...depends paradoxically on how well the author constructs the local particulars of this place of truth.”⁹⁸ Westerkamp confirms the importance of being there, suggesting that a

⁹⁷ Hildegard Westerkamp, "Beneath the Forest Floor,"
http://www.sfu.ca/~westerka/program_notes/forestfloor.html.

⁹⁸ Gieryn, "Three Truth-Spots," 117.

work created from field recordings cannot truly be considered a soundscape composition if the composer did not capture the source material herself. A composer who cobbles together a piece with sounds snatched from CD libraries “relates to the recording as an acquired object rather than as a representation of an experienced place and of lived time.”⁹⁹ Being there is the only way to authentically capture a place, to avoid instrumentalizing a location one has never experienced. Transparency, then, is not a quality one can secure simply by leaving a recording unaltered, it would seem that it is an effect that is either produced or obscured by the composer.

It is exactly these local particulars that must be played up in order to supplement the work, to give it, perhaps not a truthfulness, but certainly a potency or poignancy. That Carmanah is under threat is not something we can discern without Westerkamp’s situating both herself and her microphone as having been there, as being witnesses to the forest’s suchness. Westerkamp, to a degree, recognizes the contradiction inherent in making use of a schizophrenic medium to communicate this placefulness to the listener. Schizophrenic sound is inextricably linked to capitalism in that it lubricates the spaces of consumption. Composing with soundscapes, for Westerkamp, is an act of resistance, one that can invert the recording’s tendency to blunt political consciousness, and awaken in a listener a desire to investigate a world of sound.¹⁰⁰ However, in suggesting that not all uses of schizophrenic sound are the same, that some narrow the listener’s engagement with the world while others open her to valuable things-as-they-are, Westerkamp implicitly commits to the position that field recordings constitute a special case. This is so because they connect back to the things they represent rather than obfuscate their origins. We can read *Beneath the Forest Floor* as a

⁹⁹ Hildegard Westerkamp, "Linking Soundscape Composition and Acoustic Ecology," *Organised Sound* VII, no. 1 (2002): 55.

¹⁰⁰ *Ibid.*, 52.

part of the WSP's goal to archive disappearing soundscapes, but it also stands as a plea for the preservation of the place that it represents.

Across several disciplines, field recording is charged with a variety of functions—extracting sound from an environment to offer a repeatable, analyzable quantity, for example—but always lying in the background is an imperative to capture and store something of a particular place, to preserve the world's ever changing sonic landscape.

Preserve, Can, Embalm; Record

There is an enduring story about sound recording, a trope that seems to be spring forth from the form of the technology itself: recordings preserve sound, freezing it in an unchanging state for eternity. But this is not a narrative whose origins lie in Edison's successful efforts to capture fugitive waves on foil; it is a tale at least two thousand years old about a yearning to arrest the ephemeral. That sound could be frozen was taken—presumably facetiously—to be a literal possibility by the 4th century BCE Greek poet, Antiphanes, who described a winter so cold that sounds congealed in mid-air and fell to the ground, solid until the thaw of the following summer.¹⁰¹ This was likely no more than a tall tale, yet it suggests that the poet conceived of sound as possessing a particular form of materiality that would allow noises to record themselves. This story would be propagated for the next two thousand years, inscribed and preserved in the Renaissance works of Rabelais and Castiglione, and on into the New World in the tall tales of Paul Bunyan.¹⁰² Sound had been understood since

¹⁰¹ Eugene S. McCartney, "Antiphanes' Cold-Weather Story and Its Elaboration," *Classical Philology* 48, no. 3 (1953): 201-23; Douglas Kahn, *Noise, Water, Meat* (Cambridge, MA: MIT Press, 1999).

¹⁰² McCartney, "Antiphanes' Cold-Weather Story and Its Elaboration," 171.

antiquity as a physical disturbance: a collision between bodies that carries through the air.¹⁰³ Described for centuries as having analogous properties to their watery counterparts, by some accounts, sound waves were thought to propagate infinitely, growing weaker as they strayed from their source. In 1837, forty years before the appearance of Edison's phonograph, the mathematician Charles Babbage surmised that the acoustical energy of an errant sound vibrates each atom as it travels across space. Spreading ever endlessly outward, each particle agitated by this sonic event records of contact. "The air itself," wrote Babbage, "is one vast library, on whose pages are for ever written all that man has ever said or woman whispered."¹⁰⁴ That Babbage speculated that sound was in fact less fleeting a phenomenon than is often supposed does not itself grant him a place as a pioneer of sound reproduction—it is his contributions to the development of computing that grant him special status in the pantheon of recording history. But Babbage's speculations certainly cast doubt on Edison's 1878 claim that, prior to the coming of the phonograph, sound was only be understood as fleeting and evanescent, that his device for the first time allowed for "the gathering up and retaining of sounds hitherto fugitive, and their reproduction at will."¹⁰⁵

From Antiphanes to Babbage there are many metaphorical explanations and theoretical arguments that imply that a sound does not simply vanish as it strays from its source. Conceptual precedents to the phonograph, to be sure, but they foreshadow one of the concerns that would become central in field recording discourse. Across all disciplinary lines, field recording has, since its beginnings, been seen as a hedge against disappearance and decay. Ethnographers and anthropologists have captured the songs and languages of

¹⁰³ Frederick Vinton Hunt, *Origins in Acoustics: The Science of Sound from Antiquity to the Age of Newton* (New Haven: Yale University Press, 1978), 14-15.

¹⁰⁴ Quoted in Kahn, *Noise, Water, Meat*, 211.

¹⁰⁵ Thomas A. Edison, "The Phonograph and Its Future," *The North American Review* 126, no. 262 (1878): 527.

indigenous peoples whose customs are threatened with disappearance. Biologists have catalogued and archived the sounds of endangered species on the brink of extinction.¹⁰⁶ Field recording has always had an ideological commitment to preservation, as though simply making use of a phonograph or tape recorder compelled one to archive sounds that would surely be lost to the vicissitudes of time. Perhaps it is the prevailing understanding of sound as being ephemeral that has fueled this imperative. If even solid objects like buildings or paintings can be lost to erosion, decay, or destruction, then sounds seem doubly vulnerable to disappearance. Sound is apparently always transient, escaping the scene of its production, but so are the beings and things from whom and from which emanate acoustic energy whose dissipation is assured without an apparatus capable of holding it still. If one is to create a record of the world as it once was, then this presumes that it must be recorded as it currently is. That is to say, the ideologies of realism and transparency that subtend field recording motivate just what is considered genuine enough to be worth archiving. If field recording can be said to be preserve sound, it follows that a trace or fragment of the original thing or event must remain lodged within the medium.

In its early days, the compulsion to preserve sound provided an important motivation to develop the means to record. While preservation might seem like a natural effect of the recording process, a phenomenon engendered by the technology, the motivation to capture fugitive sound waves arose, prior to the advent of the phonograph,

¹⁰⁶ An example of biologists preserving the sound of endangered or extinct species is manifest in recent a work by artist and architect, Maya Lin, entitled, *Sound Ring*. Lin, who conceived the iconic *Vietnam Veterans' Memorial* in Washington D. C., created a monument to the precariousness of biodiversity. The piece, a large wooden ring embedded with speakers, plays back sounds of threatened and disappeared creatures and environments drawn from Cornell's Macaulay Library, one of the largest archives of field recordings in the world. David Leveille, "Artist Maya Lin's Sound Ring Immerses Listeners in a World of Endangered Species," Public Radio International, <http://www.pri.org/stories/2014-06-12/artist-maya-lins-sound-ring-immerses-listeners-world-endangered-species>.

from a deeply rooted nineteenth-century obsession with death and decay. The development of a host of practices and strategies for preserving things of both emotional and practical value was a corollary to Victorian's preoccupation with loss. The outbreak of the American Civil War, an event that saw legions of men marching throughout the hot, humid Southern states—men who were being killed, whose corpses were rotting, men who needed reliable and safe sources of food—led to two crucial techniques of conservation: chemical embalming and canning.¹⁰⁷ The connection between these methods of preservation and sound recording may seem oblique, but each was certainly understood in terms of the other. This was certainly the case for the American bandleader and composer, John Philip Sousa, who, in 1906, famously complained that “canned music” promised to undermine instrumental performance, discourage original composition, and produce “human phonographs” whose exposure to music would come from a rigid, unfeeling machine, rather than the spontaneous and sensitive interpretation of an artist.¹⁰⁸ The phonograph might preserve sound, but for Sousa the product was of dubious freshness.

For Sousa, recording threatened the superiority of music's living incarnation, but the early phonograph was also granted the responsibility of preserving the most precious objects of sonic posterity: the human voice. In this case recording was understood as an acoustic analog to embalming, that other practice of human preservation. But, as Sterne notes, capturing the voices of those who would eventually perish was essentially an aspiration, a program for how the phonograph might serve posterity, and not as a description of any actual practice.¹⁰⁹ The problem was that early tinfoil recording surfaces were extremely fragile and could barely withstand playback. Although sound recording was initially promoted and

¹⁰⁷ Sterne, *The Audible Past: Cultural Origins of Sound Reproduction*, 292-97.

¹⁰⁸ Reprinted in John Philip Sousa, "Machine Songs Iv: The Menace of Mechanical Music," *Computer Music Journal* 17, no. 1 (1993).

¹⁰⁹ Sterne, *The Audible Past: Cultural Origins of Sound Reproduction*, 298.

understood as another method for fending off decay and disappearance, once it was put to work in the service of preservation it soon became imbricated in a culture of disposability. The first cylinders fashioned from tinfoil and wax were too fragile to serve any archival purpose and were thus discarded. Later, sound recording was swept up in the capitalist logic of obsolescence both as new phonographic formats appeared and were rapidly replaced, and as a never-ending torrent of mass-produced hits made songs themselves expendable.¹¹⁰ “Sound recording,” writes Sterne, “did as much to promote ephemerality as it did to promote permanence in auditory life.”¹¹¹

This paradoxical relationship between preservation and destruction was especially well articulated in ethnographic practices at the turn of the century, at a time in which the tentacles of colonialism seemed to have wrapped themselves around virtually every surface of the globe. Many indigenous people were, of course, eradicated by violence or disease, but ethnographers also worried that the simple fact of contact with Westerners, even those whose intentions were benign, was corrosive to culture. In 1881 the ethnologist Adolf Bastian wrote, “The existence of natural peoples is for us only ephemeral; that is, they exist for us only insofar as our knowledge of them and our relationships to them are concerned. The moment that they meet us, the angel of death is upon them. From then on, struck by the angel, they carry the seed of decline within them.”¹¹² Given that contact seemed to be inevitable, the only solution was to document “natural” peoples’ languages, songs, and customs before they were subsumed by Western modernity. This was the imperative that motivated American ethnographers like Jesse Walter Fewkes and Frank Hamilton Cushing,

¹¹⁰ According to Jacques Attali, sound recording reifies music to a commodity form whose “value depends on the existence of other, alternate objects, and disappears when the possibility of making more surplus-value with other objects arises.” Attali, *Noise: The Political Economy of Music*, 107.

¹¹¹ Sterne, *The Audible Past: Cultural Origins of Sound Reproduction*, 288.

¹¹² Quoted in Ames, “The Sound of Evolution.”

men who, in the 1890s, took on the responsibility of recording the customs of Native Americans, traditions that were disappearing due to assimilation and extermination. While sound recording was taken to be an important tool for preserving indigenous languages and songs, it was also a part of the modernizing complex that was itself responsible for their destruction. Erika Brady writes, “The phonograph as a force in popular culture accelerated the process of corruption and decay of traditional ways of life—or so claimed many ethnographers. Ironically, many chose the phonograph—the very agent of corruption—as their tool of choice in preserving the disappearing remnants of those ways.”¹¹³ Sound recording captured tradition and held it for posterity, but it also hastened the spread of popular music, a phenomenon that the folklorist Alan Lomax would, in the 1930s, blame for the disappearance of the African-American folk songs of the rural South. Transported into the field, to the prison work farms of Louisiana, Mississippi, and other Southern states, Lomax’s phonograph preserved the songs of the black convicts using the self-same technology that carried the “canned music” that he denounced for making folk songs obsolete.¹¹⁴

From Fewkes to Lomax, the idea that recordings had been made in the field secured their authenticity. As we will see in chapter one, the transparency and genuineness of field recording was constructed rhetorically around the idea of *being there* that became a fundamental trope in ethnography. Both the fieldworker and the phonograph were taken to be witnesses to the unaltered, unmediated customs of peoples in their native environment. These recordings could stand in for and preserve vanishing customs because they were understood to be unstaged and spontaneous records of real life. But the sound recorder is

¹¹³ Brady, *A Spiral Way: How the Phonograph Changed Ethnography*, 2.

¹¹⁴ Alan Lomax, *Alan Lomax: Selected Writings 1934-1997*, ed. Ronald D. Cohen (New York: Routledge, 2003), 22.

never just a neutral object or an invisible witness to the way things are out there. As Michael Taussig shows, in its early use in the field, the phonograph was a part of a colonial *mise-en-scène* that functioned to heighten the apparent discrepancy in sophistication between the ethnographer and the subject.¹¹⁵ In Robert Flaherty's famous 1892 documentary, *Nanook of the North*, the eponymous star's first encounter with phonographic technology produces the sort of clichéd reaction that audiences would have come to expect from a pre-technological "primitive." Upon hearing his voice, in disbelief Nanook tries to take a bite out of the record, as though to restore his detached voice to its corporeal source. An intertitle reads: "Nanook: How the white man 'cans' his voice."¹¹⁶ According to Taussig, this is "a contrivance not of the 'primitive' but of the primitivist filmmaker Robert Flaherty—a set-up job."¹¹⁷ The field recording gains its intelligibility as an authentic document of a genuine, "exotic" moment through this sort of staging—contrived scenarios that lead us to picture the recordist installed behind and operating the technology, a subject of the modern age, while the "primitive" object of recording is captured by an apparatus whose workings he cannot fully comprehend. Far from receding from the situation of recording, the phonograph is always a palpable presence, one that helps to articulate the relationship between subject and object. We know this dynamic through visual representations of the recorded encounter in the field—the famous photograph of the ethnographer Frances Densmore recording a Native American man in full traditional dress is an iconic example—but the artifice of the *mise-en-scène* can also be discerned in the recording itself. Sterne, for example, describes the experience of listening to a recording of a man named Noel Josephs—recorded by Fewkes in 1890—performing the sung portion of the Passamaquoddy

¹¹⁵ Michael Taussig, *Mimesis and Alterity: A Particular History of the Senses* (New York: Routledge, 1993), 199.

¹¹⁶ Quoted in *ibid.*, 201.

¹¹⁷ *Ibid.*, 200.

Snake Dance. Sterne hears traces of the ethnographer's presence, even through his silence. He imagines that Fewkes is there, prompting Josephs to repeat certain verses. Inaudibly, he is coaching Josephs "to modulate his voice so as not to tax the capabilities of the recorder, standing still and not dancing, without drum or rattle..."¹¹⁸ Listening to Fewkes's recording, Sterne questions the "ideology of transparency" embedded in field recording: "The thing itself as we imagine it was never there at the moment of the recording; the recording is less a memory and more a mnemonic."¹¹⁹ Ethnographers' belief that their subjects' songs and voices resided there in the etched grooves of wax or acetate was a requirement for any understanding that these peoples' cultures had been preserved. But the ideology of transparency lets the sorts of mimetic misunderstandings typically attributed to "primitives" in through the back door of modernity; Euro-American colonialism's Others are almost always depicted as fundamentally misunderstanding the ontology of recorded representation.¹²⁰ Nanook bites down on the record because it contains the stuff of his voice; it has magically acquired a part of him through contact and contagion.¹²¹ And yet there is a completely analogous logic at play if transparency is on the table. Phonographic preservation only works if the recording is understood as a stand-in for the thing itself, the copy having received something auratic from the original through their mutual contact.

But something seems to have changed in the culture of preservation over the course of the twentieth century. The understanding that a sound recording holds a living moment in

¹¹⁸ Sterne, *The Audible Past: Cultural Origins of Sound Reproduction*, 320.

¹¹⁹ Ibid.

¹²⁰ Taussig, *Mimesis and Alterity: A Particular History of the Senses*, xiii-xiv.

¹²¹ "If we analyse the principles of thought on which magic is based, they will probably be found to resolve themselves into two: first, that like produces like, or that an effect resembles its cause; and, second, that things which have once been in contact with each other continue to act on each other at a distance after the physical contact has been severed. The former principle may be called the Law of Similarity, the latter the Law of Contact or Contagion." James George Frazer, *The Golden Bough: A Study of Magic and Religion* (Auckland: The Floating Press, 2009), 36.

stasis has lost some of its power thanks, on the one hand, to the ubiquity of canned music and sound, and on the other, to the understanding that not all recordings are taken to be authentic documents of unique moments or performances, but as objects that seem to spring forth only at a present moment of audition. The placeless, timeless quality of studio recording, as we have seen, conditions an a-historical understanding of playback. But, in an age of virtual sound, we continue to listen to field recordings for their authenticity and truthful relation to a particular time and place. Field recording has yet to fully shed its cloak of transparency.

In early ethnographic practice sound recordings were once meant to be an end in themselves, a terminus to house the remnants of cultural annihilation. Preservation itself was enough.¹²² But the notion of what a field recording is and what it can do has certainly changed since the 1890s. A subtle shift is apparent, for instance, in the environmentally oriented field recording practices that emerged in the 1960s. Largely owing to the work and influence of the WSP, field recording continued to be thought of as a means of preserving vanishing sounds, but it was also promoted as a pedagogical tool that could inspire listeners to repair a deteriorating soundscape. We find this in the practice of soundscape composition developed by Barry Truax, Hildegard Westerkamp, and other WSP members. Soundscape compositions are constructed from field recordings, and, while the source material might be manipulated, the fundamental ethos of the practice is to preserve a sense of connection to the place in which the recordings were made.¹²³ As we will see in chapter 3, in early works such as *Soundscapes of Canada* (1974) and in their writings, the WSP delegated the important

¹²² Brady notes that early ethnographers entrusted their recordings to institutions that would store them indefinitely, supposing that their value was somewhat tied to their lying in dormancy. However, an initiative was launched in 1979 by the American Folklife Center that made these recordings available to the descendants of the peoples that had been captured on record decades ago. Brady, *A Spiral Way: How the Phonograph Changed Ethnography*, 123-24.

¹²³ Truax, *Acoustic Communication*, 237.

task of preserving vanishing sounds to their tape recorders. But the soundscape composition was just one of many methods that they developed to alert listeners to the growing problem of noise pollution in the post-industrial world, and to promote the important function that sound played in creating community and preserving continuity with the past. Paradoxically, while they argued that recording problematically separated sounds from their sources, an effect that Schafer called “schizophonia,” the rhetorical importance of transparency and referentiality in soundscape composition belied a tacit acknowledgment that there was indeed something essential that remained on tape.¹²⁴ Schizophonia was attacked as a disorienting phenomenon, yet at the same time it was this very effect that, harnessed by the soundscape composition, held the potential, as Westerkamp wrote, “...to awaken our curiosity and to create a desire for deeper knowledge and information about our own as well as other places and cultures.”¹²⁵ While the field recordings out of which soundscape compositions were fashioned had an important archival function, ultimately their importance was to stir listeners into action. Field recording, for the WSP, was a method of preserving sounds as recordings in order to inspire the preservation of their real-world sources.

Recording the Field in Several Fields

It is perhaps obvious to say that any discipline that conceives of the field as a particular and privileged place of inquiry also posits that there are particular methods, techniques, and practices for investigating such sites. Self-evident, perhaps, but it is worth considering how each area of knowledge establishes its own notion of what and where the field is. In some disciplines for which fieldwork is fundamental, sound recording is an essential too, while in others it is unimportant or it is used in ways that are different to the applications we have

¹²⁴ Westerkamp, "Linking Soundscape Composition and Acoustic Ecology," 54.

¹²⁵ "Soundscape Composition: Linking Inner and Outer Worlds."

explored so far. In archaeology, for example, sound has only relatively recently been taken up as an object of study. Archaeological recording has generally been limited to field notes and graphical representations of geological strata,¹²⁶ but in the last two decades the discipline has taken an interest in recapturing and recreating prehistoric sounds. This could mean something as simple holding an ancient bone flute to one's lips and blowing, reconnecting with its original purpose as an instrument rather than gazing upon it as an artifact, or it could involve using a calibrated sonic apparatus to examine the resonant properties of spaces thought to have been significant in prehistoric sonic practices. In what has come to be called "archaeoacoustics," recording is generally not utilized as a technique for preserving disappearing sounds so much as it is a tool for engaging the with the existing materiality of a physical structure.¹²⁷ For example, fieldworkers might play sound into a cave and then record its reflections in order to capture impulse responses—"the acoustic fingerprint of a space."¹²⁸ Sonically mapping sacred sites promises contact with how a space might have sounded to prehistoric peoples, but for archaeologists, there is little recording can do to recover lost sounds when all that is left are bones, shards, and the imagined echoes of ancient ritual.

Another variant of field recording that falls slightly outside the scope of this dissertation is the recorded interview favoured by oral historians and sociologists. Sociologists were relatively slow to take up sound recording, relying mostly on "verbatim"

¹²⁶ Gavin Lucas, *Critical Approaches to Fieldwork: Contemporary and Historical Archaeological Practice* (London: Routledge, 2001), 1-4.

¹²⁷ Archaeoacoustics might conjure associations with an earlier, quixotic and controversial attempts to recover the sounds of the past. In the late 1960s one archaeologist proposed that if a prehistoric potter, in the process of turning a vessel, were to inscribe its surface with a stylus, acoustic vibrations might conceivably "write" themselves on its surface. If this were possible, theoretically the vessel would act as a phonographic recording device whose inscriptions might be played back. Richard G. Woodbridge III, "Acoustic Recordings from Antiquity," *Proceedings of the IEEE* (1969).

¹²⁸ Rupert Till, "Sound Archaeology: Terminology, Palaeolithic Cave Art and the Soundscape," *World Archaeology* (2014): 3.

techniques and stenography until the introduction of the tape recorder.¹²⁹ Writing in the mid-1950s, only a few years into the era of magnetic tape, a group of social researchers took stock of the technology's utility, lauding the machine for its ability to tirelessly and accurately transcribe interviews; to alleviate any biases that might lead the interviewer to omit seemingly insignificant or excessive parts of an interview; to liberate her from the process of note taking, freeing her to attend to the testimony of her subject.¹³⁰ For sociologists, the tape recorder was more an infallible and untiring stenographer than a vessel for actual and authentic voices. Disciplines to which the field interview was central were concerned primarily with transcribing spoken language and tended to have little use for its sonority.¹³¹ Writing in 1987, the oral historian David King Dunaway differentiated between field recording and the interview precisely in terms of the authenticity granted by a presumption of transparency or a lack of staging: "Another obvious difference between these practitioners of field recording is that oral historians work from planned, researched interviews, whereas folklorists and ethnomusicologists often collect in a survey or spontaneous mode."¹³² While he considered the taped interview to be a field practice, that elements of control and influence entered into the process, for Dunaway, meant that it could not properly be considered a field recording.

Evidently, not all sound recordings made in the field are read as *field recordings*. There is an order, a legibility, to field recording that is shaped by disciplinary conventions and a rhetorical appeal to spontaneity and authenticity, to the assumption that its objects were

¹²⁹ Raymond M. Lee, "Recording Technologies and the Interview in Sociology, 1920-2000," *Sociology* 38, no. 5 (2004): 870-76.

¹³⁰ Rue Bucher, Charles E. Fritz, and E. L. Quarantelli, "Tape Recorded Interviews in Social Research," *American Sociological Review* 21, no. 3 (1956).

¹³¹ David King Dunaway, "Field Recording Oral History," *The Oral History Review* 15, no. 1 (1987): 24.

¹³² *Ibid.*

capture out there in the world, away from the recording studio or the laboratory. The focus of this dissertation is precisely the weight that these claims of transparency that subtend field recording carry, and how the practice has come to be understood as a means of representing the real world, in all of its complexity and depth. It examines field recording in four different disciplines, areas in which the practice plays an integral part in establishing what can be known about the world and what types of relations it can engender. In ethnography, biology, acoustic ecology, and sound art, the techniques and concerns of field recording appear slightly different, but themes of authenticity, transparency, and place are always in play. This project crosses a wide range of literatures and approaches, spanning at least the entire history of recorded sound. Rather than tracing a chronological history of the practice through each particular discipline, I approach field recording as a tool for taking readings from very different areas of knowledge at significant moments in their development. Such an expansive approach to one particular practice entails circling it from a multitude of perspectives, as a way of “sounding” its depths and its contours.¹³³ Circling field recording from a multitude of disciplinary and epochal perspectives reveals the tropes and assumptions that give the practice coherence outside of any one particular area of study. This is not to suggest that there is any one positive version that we might hold onto. It is simply to note that there are correspondences—*resonances*—that are produced as we follow a variety of recordists into their respective fields.

¹³³ There is an aptness to the metaphor of sounding, to a history of toggling between the output of sonic signals and the transposition of their reflections into visual representations, that is relevant to field recording. In many of its incarnations, field recordings are often used to furnish signals for processes of visualization, a subject that is explored in chapter 2. On sounding as an epistemological practice and as a metaphor or figure, see Sabine Höhler, "Depth Records and Ocean Volumes: Ocean Profiling by Sounding Technology, 1850-1930," *History and Technology: An International Journal* 18, no. 2 (2002): 216-22; Stefan Helmreich, *Alien Ocean: Anthropological Voyages in Microbial Seas* (Berkeley: University of California Press, 2009).

Because of the rhetoric that holds field recording as uninvolved in the situations that it captures, as producing transparent traces of the world such as it is, it is an ideal, if perverse, figure for exploring how notions like objectivity, authenticity, and representation come to be constituted. Putting field recording at the center of an inquiry into ethnography, biology, environmentalism, and artistic activism is also a way of setting up an object that can *diffract* themes and concerns particular to each of these disciplines, revealing their resonant properties as well as the patterns of interference that this can generate. Thinking field recording through the metaphorical aperture of diffraction (a physical phenomenon particular to waves of any kind—including sound, light, and water) can help us to avoid constituting the practice itself as objectively knowable, or figuring the types of knowledge it produces as being necessarily consistent across disciplinary boundaries. Donna Haraway proposes diffraction as a critical tool that provides an alternative to reflection as a way of engaging scientific practices. “Reflexivity has been much recommended as a critical practice,” she writes, “but my suspicion is that reflexivity, like reflection, only displaces the same elsewhere, setting up the worries about copy and original and the search for the authentic and really real.”¹³⁴ Diffractive thinking can keep us from falling into the metaphysical trap of transparency so deeply embedded in field recording discourse. It offers a way of thinking about recording itself not as the mimetic reflection of an original phenomenon, but as an intervention that generates difference. We might think of a recording as diffracting sound so as to create a disturbance in the sonic flux of the world, as a dispersion and redistribution of acoustic energy, rather than positing it as an inert copy or a passive reflection of reality. The diffractions that take place at a material level also reverberate in praxis. Karen Barad, expanding on Haraway’s conceit, considers diffraction as

¹³⁴ Donna J. Haraway, *Modest_Witness@Second_Millennium.Femaleman_Meets_Oncomouse: Feminism and Technoscience* (New York: Routledge, 1997), 16.

a method capable of attending to the entanglements of actors/objects and processes. She notes that realists and constructivists alike are captivated by reflections—realists by the presumption that physical reality is reflected in knowledge; constructivists by the notion that it is culture that is mirrored in epistemology.¹³⁵ In either case,

Reflexivity, like reflection, still holds the world at a distance. It cannot provide a way across the social constructivist's allegedly unbridgeable epistemological gap between knower and known, for reflexivity is nothing more than iterative mimesis: even in its attempts to put the investigative subject back into the picture, reflexivity does nothing more than mirror mirroring.¹³⁶

Rather than look for isomorphic correspondences between the natural and the social, or analogical structures between the humanities and the natural sciences, Barad proposes that taking diffraction seriously as a methodology means paying attention to the totality of ways in which knowledge is produced and discussed in any array of disciplines whose practices oscillate outwards, sometimes overlapping and strengthening particular ideas, and sometimes crossing and creating interference. It means taking seriously the particular details of relevant or related fields in order to find relations and resonances, correspondences and entanglements, as well as differences and discrepancies.¹³⁷

This dissertation similarly works to entangle and knot together a variety of practices and ways of encountering the world using field recording as the thread, or perhaps the unruly, kinked patch cable, that connects them. Diffraction can help us approach field recording by accounting for all the ways in which it registers and captures the world, whether as a set of claims to transparency, or as a sedimented collection of practices, without having

¹³⁵ Karen Barad, *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (Durham: Duke University Press, 2007), 86.

¹³⁶ *Ibid.*, 88.

¹³⁷ *Ibid.*, 93.

to hold on to the assumption that the importance of either of these modes resides in their reflection of something external. Under diffraction, at some frequencies science, art, and ethnography vibrate in sympathy, while, at others, there are negations and contradictions. Positioned behind her microphone, the silent, invisible field recordist seems poised to capture all of these things, and yet she and her apparatus are equally caught in this entanglement; representation and reflection do not offer distance, being themselves enmeshed in a multitude of connected fields.

Each chapter of this dissertation addresses a particular disciplinary subject, examining the role that field recording has played at particular and significant moments in its development. While field recording is similarly understood in ethnography, biology, acoustic ecology, and sound art, in each chapter I have bracketed off a particularly relevant theme or figure. In some cases, some of these themes are similar philosophically, although slightly different in valence. For example, while authenticity is a key figure in my discussion of ethnographic field recording, veracity is a more appropriate modality for bioacoustics. But each has a relationship to some overarching assumption about the possibility of transparent representation. My approach here is to take seriously the language and methods of each of these fields of study in order to show what each demands or expects a field recording to be or do, and, in turn, what the practice of field recording then becomes or does to that given discipline and its practitioners.

Chapter 1 scrutinizes the work of a figure almost synonymous with field recording: Alan Lomax. Over a career that spanned several decades, Lomax travelled the world collecting songs from an astonishing variety of cultures, but he is probably best known as the man who “discovered” many of the iconic figures of blues and folk music—artists like Muddy Waters, Mississippi Fred McDowell, and Pete Seeger, to name a few. The story of

Lomax's recording trip, at the age of 17, is legendary and has long been a template for understanding sound recording in the field as a heroic endeavor. In 1933, he followed his father John, himself an esteemed collector of cowboy songs, into the deep South where they intended record African American singers and performers sequestered from the public and popular culture in the prison work farm systems of Texas, Louisiana, and other states below the Mason-Dixon line. With five hundred pounds of recording equipment in tow, their trip was arduous and, they believed, noble. They regarded the brutal confinement of black prisoners as unconscionably harsh, but incarceration had also succeeded in isolating convicts from popular music, which meant that their folk traditions might remain intact. Recording the prisoners' songs, out there in the harsh conditions of the work farms, for Lomax meant transparently capturing moments of authentic expression, tempered by hardship, in some of the realist places in America. But his love and admiration for his subjects was tainted by a disconcerting racial essentialism that figured African Americans as steadfast survivors, as perennial victims of abuse in need of a white saviour. Lomax would play this role, and field recording would be the vehicle he would use to transmit their plight, without distortion and saturated with the sweat and suffering of real people, into the halls of power. This self-given mandate to speak for less sophisticated subjects was one of the hallmarks of the European tradition of folklore studies, a line of thinking that conflated the isolated places and their inhabitants that modernity had supposedly forgotten with an authentic, prelapsarian way of being. For Lomax, as for his European forbearers, journeying into the field meant traveling back in time without ever leaving the present.

The second chapter deals with concerns of a less human nature, addressing sound recording in biological fieldwork. It tells the stories of two particular figures, separated by almost exactly one hundred years, who employed sound recording as an instrument for

determining whether or not animals have language. In the early 1890s, Richard Garner, an amateur primatologist and self-styled “simian linguist,” provoked a caged monkey in the zoological garden in New York’s Central Park and recorded its reaction with a cylinder phonograph. He then played the recording back for a different monkey and observed what he took to be its recognition of a speaking counterpart. Garner pioneered a technique that is now known as playback, a method that would be taken up a century later by a psychology and neuroscience professor named Klaus Zuberbühler who was similarly interested in ascertaining the linguistic capabilities of monkeys. The years in between saw the development of a variety of tools and technologies for recording and analyzing—from electrical amplification to the microphone to the spectrograph to digital techniques for storage and manipulation. The spectrograph in particular—an instrument that visually depicts the distribution and intensity of sonic frequencies—played a foundational role in the creation of the discipline of bioacoustics, and is a valuable tool for discerning subtle differences between sounds, ones that might not be apparent to the unaided ear. In Zuberbühler’s case, spectrographic imaging, paired with a means of repeating, slowing, transposing audio, helped him to recognize, and effectively understand, his subjects’ speech.

There was a profound difference in how each interpreted his discoveries. For Garner, the confirmation that monkeys do indeed speak confirmed his belief in Darwinian evolution, a process that he understood placed humans on the more developed end of a teleological progression towards intellectual sophistication. To his mind, there existed a continuum of complexity in communication that stretched from the lower orders of nature, through primates, through the speech of “savage” races, culminating teleologically in the achievement of Indo-European languages. For Zuberbühler, understanding his subjects’ alarm calls led to a loss of objectivity and distance from his field of study. Working in the

late twentieth century, at a time in which the privileged ethical and cognitive status of humans was being undermined by currents in both science and philosophy, Zuberbühler professed to one day having felt the distinction between species disappear as he became just another species of primate in the Taï Forest of Côte D'Ivoire, another humble creature fearing a potential leopard attack. The sorts of human-animal relations occasioned by field recording were very different for Garner and Zuberbühler, but both had a similar understanding of the epistemological possibilities offered by sonic reproduction outside of the laboratory. Sound recording could arrest an animal's call, allowing a researcher to repeat it, to slow it down, and approach it as an almost inert object of study. But in 1890, as in 1990, the places in which these recordings were made were crucially important in establishing the veracity of these experiments. Beginning in the mid-nineteenth century, the location of science became crucially important as the natural sciences bifurcated, becoming entrenched as laboratory or field practices. The laboratory, as we have seen, came to be understood as placeless and universal, a controlled space where variability is stringently managed, while the field was cast as the site of natural, unfettered life. Field scientists took up sound recording as a way of capturing animals' sounds in their habitats, of documenting and studying their calls without affecting their interactions within complex environments. But, as we will see, field recording often entails establishing laboratory-like conditions for sonic capture—acoustically isolating subjects from their ecological milieu with directional microphones, for example. The boundary between field and laboratory is not nearly as stable as it might appear; it is the product of an ongoing process concerned with articulating what constitutes viable scientific knowledge, with how epistemology supposedly function differently in the controlled space of the laboratory, and in the wild open of the field.

Chapter 3 discusses the WSP's fraught and contradictory relationship with field recording, specifically in relation to their sprawling 1974 radio series *Soundscapes of Canada*. Although they treated recording with suspicion, warning that reproduction schizophonicly populated the world with sounds that had been separated from their original context, they also advocated recording as an important tool for both preserving a disappearing sonic past and promoting ways of improving our aural future. The ten-part program, which was broadcast on the Canadian Broadcasting Corporation's esteemed show *Ideas*, was an introduction to the WSP's pedagogical model for improving listeners' listening skills as well as an experiment in recorded aesthetics, but most importantly it was meant to give listeners a sonic snapshot of the nation. Working from the assumption that a shared experience or memory of sound anchored people in a sense of community, the WSP devoted two episodes of the program to cataloguing, from coast to coast, Canada's "soundmarks"—the local and unique sounds that identify or mark a place—and the accents of its inhabitants. Canadians were presumably meant to find themselves reflected back in these works, to find a broader sense of community across a vast stretch of territory. There was an urgency to debates about identification and unity at that particular moment in time, with unrest coming to head as separatist politics in Quebec and a foundering economy threatened national cohesion. The problem was, at a time when Canada was fast becoming a deeply multicultural nation, these two episodes exclusively represented the soundmarks of Canada's colonial past—church bells and train whistles featured heavily—and their token interviewees were English or French speakers evidently of European descent. Completely absent were any traces of the nation's recent immigrants or indigenous peoples. Given the ethos of soundscape composition, that sound captured in the field should not be overly manipulated in order to preserve its connection to the place from which it came, the WSP's seemingly exhaustive

sonic catalog of the nation could not but tacitly convey the assumption that Canada, first and foremost, belonged to its colonizers.

The group's work, both in *Soundscapes of Canada*, and in the texts that preceded and followed it, was also marked by nostalgia for what they considered to be Canada's true sonic heritage. In their view, the seemingly inexorable lurch towards industrialization had created a noisy and hostile soundscape that would invariably fray the social bonds that had once been formed in quieter, more pastoral times. Recording could preserve this past and hold it up as a model for the future. That the sounds out of which the program was crafted were captured in the field played an important part in establishing the authenticity of the material and the credibility of its collectors. Members of the WSP had ventured out there, from one end of the country to the other, testifying with their physical presence and their Nagra tape recorders to the expansive sonic character of the nation. However, their recordings were not really the pellucid windows onto national experience that they took them to be. Rather, they papered over the diversity of a changing country, tacitly promoting the right of a particular national subject to decide how Canada should sound.

The conclusion of this dissertation looks to the work of activist sound artist collective Ultra-red to provide a different way of understanding field recording, a reading that explores the practice's potential to critique the medial ideologies of transparency discussed in the previous three chapters. If field recording is typically wedded to assumptions of realism and authenticity, for Ultra-red it is a tool for defamiliarizing the world and revealing the workings of power and hegemony. For Ultra-red, a field recording is never synonymous with the thing itself; it is an artificial object whose importance lies not in what it contains, but in what it can *do*. Their sonic compositions capture moments of controversy or contestation, from representations of gay public sex in a Los Angeles park to

recordings of demonstrations against the inequalities endemic to the public housing system. Their approach is not, however, to assume that the politics and concerns embedded in these recordings will be transmitted unproblematically into a sphere of political engagement. Rather, they constitute an arsenal of tools and tactics for intervening in public space. By focusing not on the ways that recordings capture the field, but in how they alter social relations when reintroduced into sonic environments, they treat mediation as a phenomenon that can shape and transform a listener's affective engagement with a politics of space. By focusing on what it potentiates, recording becomes implicated in a utopian reimagining of how society might be, rather than remaining rooted in a reminiscence of how it once was. Ultra-red's work is also an important intervention in sound art, a field that has never fully moved beyond an engagement with the formal and material properties of sound.¹³⁸ Traditionally composers and artists working with recordings have, following the acousmatic doctrine of Pierre Schaeffer, limited themselves to focusing on what Seth Kim-Cohen calls "sound-in-itself." But reducing sound to its purely formal and phenomenological register brackets out worldly concerns, stripping sonic practice of its political potential. What the work of Ultra-red shows us is that a politically engaged practice of field recording realizes that realism often reproduces the perpetuation real problems. In approaching field recording not as mode of documentary, but as one of action, Ultra-red proposes a model that cuts against one hundred years of sonic practice, showing that media are never neutral, that it is not what they represent that is important; it is how they act on the world that is crucial.

¹³⁸ Seth Kim-Cohen, *In the Blink of an Ear: Towards a Non-Cochlear Sound Art* (New York: Continuum, 2009).

Chapter 1 – Real as Folk

You shoulda been on the river, nineteen and nine,
Number one was runnin, number two was flyin,
Number three was hollerin, number four was cryin,
Number five was draggin, and the pull-do's dyin.
Why don't you wake up, dead man, help me drive my
row?
My row is grassy, I can't hardly go.
They have murdered my partner, plan on killin' me.
If I get my chance, buddy, I'm gonna try to run free.

- Anonymous¹

In the summer of 1933 John Lomax and his seventeen-year-old son, Alan, set out to record the African soul of the American South. With five hundred pounds of sound equipment bolted into a modified Ford they drove from Texas to Kentucky in search of Authentic Black Folk Songs. They alighted in small towns all but absent of white residents, but, to their dismay they found that, no matter their isolation, the purity of black folk culture had been diluted or extinguished by either or both of two forces: religion and the influence of popular culture. Faith, they found, had papered over secular song traditions, hiding them beneath a veneer of piety and propriety. The pull of popular culture had lured blacks, especially young people away from their heritage. “We had found the educated Negro resentful of our attempt to collect his secular folk-music,” grumbled Alan. “We had found older Negroes afraid for religious reasons to sing for us, while the members of the younger generation were on the whole ignorant of the songs we wanted and interested only in the Blues (which are certainly Negro folksongs, but of which we had already recorded a plenty) and in jazz.”² Everywhere, it seemed, African Americans were turning their backs on the rich traditions ostensibly born out of the horrors and the hardships of slavery. And so it was in the most

¹ Alan Lomax, *The Land Where the Blues Began* (New York: New Press, 1993), 298.

² *Alan Lomax: Selected Writings 1934-1997*, 22.

impermeable institutions—the prisons and work farms of the South—that the Lomaxes sought the true cultural wellspring of African America: “There, we thought we should find that the Negro, away from the pressure of the churchly community, ignorant of the uplifting educational movement, having none but official contact with white men, dependent on the resources of his own group for amusement, and hearing no canned music, would have preserved and increased his heritage of secular folk-music. And we were right.”³

For John, the trip was a journey into a primeval past, an encounter with a race relatively unchanged since its abduction from Africa. He would recount the story of one early Texas morning, the day after a birthday party for a black subject that lasted late into the night: “As I sat in the car and listened to the steady, monotonous beat of the guitars, accented by handclaps and the shuffle of feet—the excitement growing as time went on, the rhythm deeper and clearer—again I felt carried across to Africa, and I felt as if I were listening to the tom-toms of savage blacks.”⁴ John—the ballad hunter, the veteran collector of cowboy songs—observed his Negro subjects with detachment and reserve; he inhabited another world, another era. But young Alan, aware of the gulf between himself and Them, craved admission into a society he felt richer, nobler, and more authentic than the one from which he came.⁵ In his 1993 memoir *The Land Where the Blues Began*, Alan would write of those early days, “I was filled with deep excitement that at last I had slipped under the

³ Ibid. Or, in the words of John Lomax, “The main object of this journey was to record on aluminum and celluloid disks, for deposit in the Library of Congress, the folk songs of the Negro—songs in musical phrasing and in poetic content, are most those of the white race, the least contaminated by white influence or by modern Negro jazz.” John A. Lomax, *Adventures of a Ballad Hunter* (New York: MacMillan, 1947), 112.

⁴ *Adventures of a Ballad Hunter*, 117.

⁵ Patrick Mullen suggests that not only did Lomax admire African American culture, he wished that he was black. This, for Mullen, was partly about the allure of taboo: “One reason the black world was forbidden to white youth was the sexuality associated with it.” Patrick B. Mullen, *The Man Who Adores the Negro: Race and American Folklore* (Urbana: University of Illinois Press, 2008), 94.

barbed wire that had always separated me from blacks, and could now begin to see something of the lives that lay back of the music that I was devoted to.”⁶

Paradoxically, it was sound recording—a medium often distrusted for the distance between individuals that it engenders—that for Lomax provided the possibility of communing with his subjects. “One remembers those times,” wrote Lomax,

when the moment in a field recording situation is just right. There arises an intimacy close to love. The performer gives you his strongest and deepest feeling, and, if he is a folk singer, this emotion can reveal the character of his whole community. A practiced folk song collector can bring about communication on this level wherever he chooses to set up his machine. Ask him how he does this, and he can no more tell you than a minister can tell you how to preach a great sermon. It takes practice and it takes a deep need on the part of the field collector—which the singer can sense and want to fulfill.⁷

This was Alan Lomax’s philosophy of field recording in miniature: a credo full of idealism and contradiction; an erotics of recording in which the phonograph acts as a hub between recordist and performer—mechanical inscription as a conduit for bridging subjectivities. For Lomax, technological mediation did not create distance; it fostered connection. The phonograph was the pretext for the encounter *and* it catalyzed a fusion between subject and collector. It was the technological fulcrum of a meeting between individuals of different races and classes. But his visions of mechanical intimacy hid inequities specific to the medium as he the recording industry’s already endemic exploitation of performers—a convenient obfuscation considering his sometimes-questionable practices of remuneration and attribution.

⁶ Lomax, *The Land Where the Blues Began*, 29.

⁷ *Alan Lomax: Selected Writings 1934-1997*, 177.

Equally unsettling is Lomax's insinuation that the performer's talent is secondary to the artistry of the collector. As Lomax writes later in the same essay, "To the musicologists of the twenty-first century our epoch may not be known by the name of a school of composers or of a musical style. It may well be called the period of the phonograph or the age of the golden ear, when, for a time, a passionate aural curiosity overshadowed the ability to create music."⁸ It would seem that musicians, while not quite expendable, were of lesser importance; their contributions could never amount to much without the refined ears of the collector and his equipment—not to mention his access to production and distribution of a recording. Talent was apparently of little consequence without the equipment. This, of course, prevented Lomax's subjects—mostly poor, rural folks, both black and white—from ever sitting on the other side of the dials.⁹ Ultimately it was the tastemakers and canon-builders that controlled whose voice would be etched onto a record, the collector filtering the important performances from the mediocre. But he did more than encourage or ignore a performer; his ability to create a mood and coax the best of out the performer was essential to the success of the recording session. The musician's talent, Lomax seemed to suggest, was secondary to the discrimination—and to the virtuosity—of the collector.

But, skill, talent and a unique, original voice did matter deeply to Lomax, the man with a genius for discovering genius. His quest to record the great folk singers of the South before their assimilation into American modernity unfolded at a moment in which the priorities of folklorists were undergoing a dramatic shift. The previous generation had

⁸ Ibid., 173.

⁹ Historically, African Americans had been excluded from the production end of the music industry. Until the emergence of black owned record label in the early 1920s, the black artists, songs, and styles that circulated were entirely controlled by white-run enterprises. This meant that a narrow band of black music was available for public consumption, music that fell tidily in line with demeaning black stereotypes. David Suisman, *Selling Sounds: The Commercial Revolution in American Music* (Cambridge: Harvard University Press, 2009), 206.

hunted for evidence of cultural continuity in libraries, occasionally venturing into the field for evidence of the persistence of old songs. For turn-of-the-century folklorists, traditional music existed to be written down. Collectors adopted the phonograph soon after its introduction but, initially, it served as little more than a tool for transcription.¹⁰ Lomax took to the field as the nascent record industry was discovering the power of niche marketing, selling regional—and racialized—styles of music to audiences targeted based on location, class, and race. In Lomax’s hands the phonograph became a means of capturing the voice of the people as it emerged from the mouths and instruments of singers and musicians of singular importance. Alan Lomax—the man who “discovered” Lead Belly, Woody Guthrie, Mississippi Fred McDowell, and so many others—was, according to Benjamin Filene, interested in promoting “not just the songs [he] gathered but the singers who sang them.”¹¹ Lomax produced recording sessions with musicians who, paradoxically, were selected for their originality *and* as representatives of a greater and important living American folk tradition. This complicated mission was perhaps best embodied by his work at Parchman Prison and in other Southern penitentiaries, in spaces completely segregated from public life. In forced isolation, thought Lomax, these convicts had honed an expression both singular and universal, an expression that could inoculate Americans against the insidious popular music that was eating away at the nation’s cultural integrity. But in focusing too narrowly on the act of recording a hidden and important element is left out: embedded in Lomax’s philosophy of field recording is an unexamined assumption about where recording takes place. For Lomax, the “wherever” of “setting up” is taken for granted. Always tacitly lurking

¹⁰ See Brady, *A Spiral Way: How the Phonograph Changed Ethnography*; Benjamin Filene, “Our Singing Country”: John and Alan Lomax, Leadbelly, and the Construction of an American Past,” *American Quarterly* 43, no. 3 (1991).

¹¹ “Our Singing Country”: John and Alan Lomax, Leadbelly, and the Construction of an American Past,” 49.

behind any invocation of the field is an assumption about authenticity, about capturing life in its “natural” state. The field is what *is*. Field recording does not happen in a studio: a fixed location chosen by the collector to which the talent travels.

Lomax’s commitment to fieldwork was fundamentally fraught with a racial politics that silently embraced and propounded the equation of a certain milieu to cultural authenticity. But the problem is, the field is always a site chosen by the collector, therefore its power to act as a distillation of a place’s essence is always an ideological fiction of her or his authorship. In Lomax’s worldview, authentic black culture persisted only in sites that had remained insulated from pernicious cultural influence. The field was where they were outside of civilization, where they could authentically remain themselves: noble figures seemingly born to endure hardship. Nowhere was this more apparent than in prison, Lomax’s field par excellence.

Ultimately Lomax’s ability to sell his prison recordings as fragments of an authentically American folk tradition hinged in large part on a particular definition of the field, one never explicitly acknowledged or described. Set against the airless artificiality of the studio, Lomax spun countless adventure narratives that served to reinforce the idea that his recordings captured real life at its most unaffected, unscripted, unvarnished. His heroic tales of discovery and persecution, of adventure and preservation—and the recordings that these journeys produced—were central to the folk revival that he helped to nourish; a cultural explosion that would deeply influence American music and culture. No less than the phonograph or the tape recorder, the field was Alan Lomax’s medium. And yet he was so thoroughly embedded in it, he could not see the field for the ideological construct that it was. Indeed, Lomax took it for granted that there was such a place as the field just as he was in the process of fashioning it as a metaphor for all that was real and pure in American life.

For Lomax the field—a word that is by definition associated with openness—needed to be cloistered and shut off from the public life that threatened to dilute and diminish authentic folk culture. As a white man, privileged and educated, Lomax had the luxury of entering and leaving the field in a way that his subjects—marginalized by race, class, and geography—did not. He wanted openness and liberty for his subjects; just not at the expense of their total integration into the hegemonic melting pot of modernity.

The prison trips were perhaps the most glaring cases in point. Penitentiaries contained the individuals most removed from public life; they were repositories of both a primordial culture and examples of unique, incandescent genius. They were bursting with troubled artists desperate for an opportunity to show the world that they were worthy of redemption. In Lomax's estimation, committing their voices to record was the best—if not the only—way of making sure that their stories, concerns, not to mention the dignity of their timeless struggles might influence the national discussion. As Lomax would write, "...by making it possible to record and play back music in remote areas, away from electrical sources, it gave a voice to the voiceless. It documented music, such as the complex polyphony of the blacks, which notation could not represent. Thus the portable recorder put neglected cultures and silenced people into the communication chain."¹² Sound recording meant more than merely squirreling away some regional folk curiosities for specialists; it was a medium for transmitting messages from the oppressed to the public sphere. The recordings were mobile in a way that the people they represented could never hope to be. In becoming material, the prisoners' songs were made portable; they became traveling texts.¹³

¹² Lomax, *The Land Where the Blues Began*, xi.

¹³ James Clifford describes the way in which interactions between ethnographers and subjects, or discourse, becomes textualized. "The ethnographer always ultimately departs, taking away texts for later interpretation (and among those "texts" taken away we can include memories-events patterned, simplified, stripped of immediate context in order to be

But these texts had no legibility or meaning without Lomax's tall tales. Far from speaking for themselves, the prisoners' voices were relayed and contextualized by Lomax's ideas about the inherent musicality and nobility of his black subjects, of their implicit genius, and their troubled place at the core of American identity.

Prison Blues

If you ever go to Houston,
You know you better walk right.
You know you better not stagger,
You know you better not fight.
Because the sheriff will just arrest you,
You know he'll carry you down.
And you can bet your bottom dollar,
Oh Lord, you're penitentiary bound.

- *Midnight Special*, as sung by a convict named "Lifetime"
on Parchman Farm.¹⁴

I am in a library in Toronto, hundreds of miles and decades away from the hot, dusty hell of Parchman Farm. It is 2011 and I am listening to Alan Lomax's recordings from a series of visits to the penitentiary in 1947-48. It was then that he had made his second trip to Parchman, returning to see how things had changed since the early 1930s when he first visited with his father, to see if the work song tradition was still alive. This time he came equipped the latest in recording technology: a paper-backed magnetic tape recorder. Compared with the recordings from that first trip, the newer material is clear and bright and yet it stills feel yellowed and distant, as though encased in amber. It is music that exists simultaneously in a particular moment and yet utterly outside historical time. There is no

interpreted in later reconstruction and portrayal). The text, unlike discourse, can travel.” James Clifford, *The Predicament of Culture* (Cambridge, MA: Harvard University Press, 1988), 39.

¹⁴ John Szwed, *Alan Lomax: The Man Who Recorded the World* (New York: Viking, 2010), 68.

simple way to approach these recordings: To be moved by the rapturous texture of the singers' voices, their dense and unpredictable harmonies, is to be drawn away from the hellish conditions under which these songs were performed. Even brief distraction from the knowledge that these men are withering under the blazing sun, literally working themselves to death, seems callous. But dwelling on nothing but the convicts' suffering ignores the power and beauty of their signing and its ability to transform (at least temporarily) the brutality of another crushing day on the farm. A quality of listening at once visceral and historical, an attention to both the immediate ecstatic brilliance and the legacy of racial exploitation, seems difficult, if not impossible. But this is the tangled and contradictory place that Alan Lomax's recordings force us to inhabit. They dare us to exoticize and revel in the suffering of others.¹⁵ They defy us to dwell nostalgically on the simpler times in which of black prisoners broke their backs breaking rocks for the profit of the state. By most accounts, this is how they—both the inmates in the flesh and their ghostly, recorded presence—confronted Alan Lomax. He celebrated these songs' raw beauty and offered them as powerful examples of an important American tradition. But he also considered them evidence of racial injustice; testimony that could be transmitted to the powers that perpetuated systemic racism, locking up disproportionate numbers of African Americans and subjecting them to cruel and inhumane treatment in the penitentiaries and work camps of the South.

¹⁵ The folklorist Bruce Jackson followed in the Lomax's footsteps, recording and collecting worksongs in Texas prisons in the 1960s. He expressed a similar ambivalence with respect to his love for and repulsion to prison songs: "I experience an unmediated loathing for the context that made and makes these songs possible and necessary...But at the same time I am (obviously) drawn to the songs and the people who make them...Given the choice, of course, I'd throw all the songs and all that art out for any improvements." Bruce Jackson, *Wake up Dead Man: Afro-American Worksongs from Texas Prisons* (Cambridge: Harvard University Press, 1972), xx-xxi.

Slavery ended, at least nominally, in 1865 with the enactment of the 13th amendment. Overnight, the legal permission to own other human beings vanished, but the brutal conditions of life for African Americans remained all too similar. Freed black slaves now struggled to earn a living under the sharecropping system, the terms of which ensured a de facto debt of bondage to a white master. Generally, an agreement permitted a tenant (almost always black) to rent a plot of farmland from its owner (almost always white) in exchange for the standard rate of 50 percent of the crop.¹⁶ Tenants often ended up further in debt after buying food and supplies on credit at stores run by plantations owners, paying extortionate rates of interest. An economy of exploitation limited the freedom of Southern blacks but, in theory, liberty did now exist.

Following the abolition of slavery, the prison regime of the South was radically transformed. There had been no need for prisons, let alone a system of criminal justice for blacks under slavery; the judgment and punishment of a slave was the domain of her or his owner. But, in the wake of emancipation, the criminal justice system of the South strained under the weight of thousands of convicted ex-slaves. In 1868 an enterprising businessmen named Edmund Richards realized that the prisoners were an untapped resource and negotiated a contract with the authorities to take the convicts off their hands for \$18,000 a year with additional funds to establish off-prison camps. This would become the convict leasing system, a brutal institution that would submit generations of black men to grueling and often lethal labour. Suddenly the abundance of ex-slaves was no longer a threat: it was a vast unexploited labour pool. New laws were passed to make sure that the pool would never dry up; the so-called Black Codes made offences like mischief, vagrancy, and selling

¹⁶ David M. Oshinsky, *"Worse Than Slavery": Parchman Farm and the Ordeal of Jim Crow Justice* (New York: Free Press, 1996), 116. Oshinsky notes, "By 1910, more than ninety percent of the Delta's farmland was being worked by tenants, 95 percent of whom were Negroes. Ibid., 115.

intoxicants illegal for “free negroes.”¹⁷ These laws, in combination with the profit to be reaped from convict labour, effectively incentivized the incarceration of black men. The convict leasing system had no ambitions to reform prisoners; the majority of Southern whites believed blacks to be essentially incorrigible and that rehabilitation was a waste of time and money.¹⁸ Superintendents chosen not for their expertise in penology, but their experience in plantation management ran these camps. Their concern was not to turn their prisoners’ lives around; their concern was to turn a profit.

In many ways, the convict leasing system was worse than slavery.¹⁹ While the conditions of living were comparable, as Angela Davis suggests, at least the slave’s body held some value to his owner: “Slave owners may have been concerned for the survival of individual slaves, who, after all, represented significant investments. Convicts, on the other hand, were leased not as individuals, but as a group, and they could be worked literally to death without affecting the profitability of a convict crew.”²⁰ Prisoners worked from dawn until dark without shade, without adequate food or water. They were whipped and beaten arbitrarily and mercilessly by the wardens.

But ultimately it is absurd to compare two regimes of utter brutality. Both were unfathomably cruel; both relied on the assumption that blacks were in a category apart. Dylan Rodriguez argues that the lines slave traders and plantation owners drew between themselves and their property constituted the positive conception of a new category of subject—*nonhumanity*—that was at the very center of their attempt to define their own place

¹⁷ Ibid., 21.

¹⁸ Alex Lichtenstein, *Twice the Work of Free Labor: The Political Economy of Convict Labor in the New South* (New York: Verso, 1996), 21.

¹⁹ David Oshinsky argues this point in his unambiguously and eponymously titled book. Oshinsky, *“Worse Than Slavery”: Parchman Farm and the Ordeal of Jim Crow Justice*.

²⁰ Angela Y. Davis, *Are Prisons Obsolete?* (New York: Seven Stories Press, 2003), 32.

in the world.²¹ Rodriguez, like many scholars of American slavery and black incarceration before him, holds that conventional thinking about slavery and incarceration slips too easily into historical and geographic dualisms: blacks once lived in Africa and were abducted into bondage. Before and after. But ignoring what came in between, leaping over the Middle Passage, misses a crucial and complicated piece of slavery's torturous history. The Middle Passage is the time and place in between cartographic productions—Africa and America. It is the moment and the site of a sustained encounter between groups—one with the self-given power to write history and the other relegated to a primordial time out of time. It is a contact zone, according to Paul Gilroy, and not simply a “vanishing mediator” between fixed identities—African and American/European—or a break between them.²² It is an important and real site of experience, a continuum out of which new hybrid subjectivities were born.²³ Innumerable horrors did indeed occur, but the temptation to narrate it as a metonym for a one-sided perpetration of brutality overlooks some of the complexity of these voyages. After all, on average, more crewmembers died on slaving expeditions than did slaves themselves.²⁴ It was a cruelly ironic economy that sacrifices the lives of labourers to secure the transport of slaves, the most profitable bodies on board.

²¹ Dylan Rodriguez, *Forced Passages: Imprisoned Radical Intellectuals and the U. S. Prison* (Minneapolis: University of Minnesota Press, 2006), 235.

²² I am borrowing this term from Jonathan Sterne who himself borrows it from Žižek who adopted it from Frederic Jameson. In Sterne's usage, a vanishing mediator is an ideological figure originating in the claims and disputes about sound fidelity in the early days of the phonograph industry. Recording, ideally, is not supposed to degrade the “original”; rather, in its perfect form, it disappears leaving the listener with access to a pure trace. Sterne, *The Audible Past: Cultural Origins of Sound Reproduction*, 218.

²³ Paul Gilroy, *The Black Atlantic: Modernity and Double-Consciousness* (Cambridge: Harvard University Press, 1995). See also Maria Diedrich, Gates Jr. Henry Louis, and Carl Pedersen, “The Middle Passage between History and Fiction: Introductory Remarks,” in *Black Imagination and the Middle Passage*, ed. Maria Diedrich, Gates Jr. Henry Louis, and Carl Pedersen (New York: Oxford University Press, 1999).

²⁴ Rodriguez, *Forced Passages: Imprisoned Radical Intellectuals and the U. S. Prison*, 234.

Rodriguez uses the metaphor of the Middle Passage to link both the technocratic and the social practices that emerged out of the slave trade to the carceral regime that would emerge in the wake of abolition. In the penitentiary, as in the hold of the slave ship, the prisoner underwent a process of deliberate “immobilization, and bodily disintegration.”²⁵ But the liquidation of the bodies of the slave and the prisoner was far from absolute. Once thoroughly deindividuated, captives become interchangeable quantities. In this reduction of individual human lives to a state of interchangeability that, according to Dario Melossi and Massimo Pavarini, capitalism emerged, ensnared with the prison: “The transition...to retributive punishment, that is, the transition from an almost ‘biological’ phenomenon to a juridical category, requires as a necessary precondition the cultural dominance of the concept of equivalents based on exchange value.”²⁶ According to Foucault, it is this possibility of exchanging time— forfeiting a temporal measure of liberty—against a crime whose value is correspondingly weighted in days, month, and years, which prefigures the emergence of the prison. Just as capitalism comes to be internalized as a natural order, the telos of civilized exchange, the prison—and the repayment of societal debt in time and labour—similarly passes itself off as the inevitable instrument of justice. “It is as if prison were an inevitable fact of life, like birth and death,” writes Angela Davis.²⁷ “The prison is ‘natural,’” responds Foucault, “just as the use of time to measure exchanges is ‘natural’ in our society.”²⁸

In the work farms of the South, retribution was meted out in time withheld and in hard work. Music played the double role of structuring convicts’ work—allowing them to be more efficient, and therefore more profitable—and making what was often dangerous work

²⁵ Ibid., 241.

²⁶ Dario Melossi and Massimo Pavarini, *The Prison and the Factory: Origins of the Penitentiary System*, trans. Glynis Cousin (London: Macmillan, 1981), 2-3.

²⁷ Davis, *Are Prisons Obsolete?*, 15.

²⁸ Michel Foucault, *Discipline and Punish: The Birth of the Prison* (New York: Vintage, 1995), 233.

safer and more bearable. According to Ted Gioia, the Western tradition of valorizing only those musical works that exist outside of the mundane elides the artistic power that songs—work songs in particular—possess. Work songs perform a useful, sometimes life-sustaining, function: “Above all, [the work song] served a tool for the prison workers, one that was perhaps even more important than the axes and hammers they held in their hands.”²⁹ For the inmates of the Parchman Prison Farm song was a tool for survival. Song as spiritual sustenance. Song to make the time pass. Singing effectively coordinated work and synchronized dangerous tasks. In some songs the slow crack of an axe hitting wood kept the tempo, in others the metallic clang of tools striking stone carried a pace productive enough to avoid the wrath of the supervisors.

Music and work are old relatives.³⁰ Song has been a paratool—a means to amplifying or synchronizing effort—for millennia. Song has also always been a commodity; musicians have always sold songs for the glory of kings and the amusement of everyone else.³¹ The musician is a labourer—sometimes by choice, sometimes by dint of bondage or a debt to society. But under the retributive weight of mid-century justice, as under the convict leasing system, as under slavery, black labourers/black singers toiled without remuneration. Under each of these regimes the particular tone of exploitation differed. But throughout these two

²⁹ Ted Gioia, *Work Songs* (Durham: Duke University Press, 2006), 210.

³⁰ Gioia argues that music is far more than an accidental feature of life, a superfluous construct whose meaning is superficial and free-floating. Music, since prehistory, has had as profound a role as an accompaniment to labour and as a bourgeois indulgence. Ibid. For a comprehensive history of the relationship between song and labour in American, see Ronald D. Cohen, *Work and Sing: A History of Occupational and Labor Union Songs in the United States* (Crockett, CA: Carquinez Press, 2010).

³¹ A detailed analysis of music’s relationship to capital is beyond the scope of this chapter. Jacques Attali’s assessment of music and money provides a useful starting point although the bulk of his account is devoted to the place of the composer in the economic order. While he makes little mention of folk music, he suggests that a utopian moment might be on the horizon in which new technologies make it possible for people to create music for themselves—a sort of high tech folk revival. Attali, *Noise: The Political Economy of Music*, 36-45.

hundred years of servitude, song helped, as Devonya Havis suggests, to transmute work (the stolen labour of black bodies) into Work (a cooperative and ritualized transmission of knowledge and story—the cultivation of resistance, if not revolt).³² Work *songs*, while increasing the efficiency of a prison gang (and therefore their profitability), also undermined the authority of those for whom they toil. Through the sometimes allusive, sometimes coded strategy of signifying, the songs that made the singers better workers also engendered a challenge to work, lower case.

Work songs help to structure a relationship to power (through productivity) while simultaneously sabotaging that tie. But the practice of singing together also holds the potential to disrupt hierarchies within a group. In Paul Gilroy's understanding, antiphony (call and response), is a utopian metonym for a politics and a revision of social relations in which power, race, and identity are thrown into confusion: "Lines between self and other are blurred and special forms of pleasure are created as a result of the meetings and conversations that are established between one fractured, incomplete, and unfinished racial self and others. Antiphony is the structure that hosts these encounters."³³ Antiphony does not simply act as the armature of a process of individuation and communion; it is also a strategy against oppression. In the African-American tradition, call and response is a means of communication that stands against the European hegemony of textual transmission to which black slaves found themselves subjected. According to Ben Sidran, the improvisation and spontaneity of black music form a politics of expression, a "social act" that emerges out

³² Devonya N. Havis, "Blackness Beyond Witness: Black Vernacular Phenomena and Auditory Identity," *Philosophy Social Criticism* 35, no. 7 (2009): 751.

³³ Gilroy, *The Black Atlantic: Modernity and Double-Consciousness*, 79.

of style and personal expression as much as it does out of lyrical content.³⁴ The cries, meslismas, and accents that notation struggles to capture and fails to predict are the subversion of a system of repetition endemic to culture that held black slaves, prison workers, share croppers, to toil under crushing, Sisyphean conditions.

The paradoxically agonistic *and* cooperative practice of singing-against/singing-together has similarly played a dual role in the relationship between African Americans and those in an institutionally given position of power. In the prison, as on the plantation, song functioned as a pivot in the power structure. It was openly covert communication between singers, a practice of Signifyin(g), to borrow a term from Henry Louis Gates, that organized or sustained black slaves, workers, and prisoners with cryptic calls to endure and resist their oppression.³⁵ Song created empathy amongst the prisoners, but it also abetted forms of affiliation between inmates and guards; occasionally an ability to call over and above the necessity to respond did occasionally secure a way out of servitude. A prisoner at Parchman named Dobie Red's piercing voice, a cry that John Lomax said "carried the shock of a bugle call," helped him to cross over to the other side of the prison power structure. Parchman officials apparently decided to harness his voice to their ends by promoting him; Dobie Red became a guard. But power that emerges under unstable circumstances cannot be expected

³⁴ Ben Sidran, *Black Talk* (New York: Holt, Rinehart and Winston, 1971), 16. Sidran sees black orality and non-textual communication as central to a cultural resistance towards slavery and oppression.

³⁵ For Gates, the appropriation of the homonym, signifying, is indicative of a practice of intertextuality and the production of ambiguity in black oral and literary traditions. By doubling the appearance of this white homonym, Signifyin(g) disrupts the literal and original meaning of the term. While Signifyin(g) is aligned with the Saussurian concept of signification, it simultaneously negates this entire tradition by posing as trickster, doubling meaning like a hall of mirrors. Henry Louis Gates Jr., *The Signifying Monkey: A Theory of Afro-American Literary Criticism* (New York: Oxford University Press, 1988).

to conform to authority. Dobie Red attempted to escape from Parchman—not from incarceration, but from employment.³⁶

Dobie Red was one of the very few able to find a way off the work gang. Black men tended overwhelmingly to move in the other direction, towards imprisonment. As Lomax would remark, there was fine and treacherous line between freedom and incarceration for black men in the South: “Only a few strands of wire separated the prison from adjoining plantations...The land produced the same crop; there was the same work for the Negroes on both sides of the fence. And there was no Delta Negro who was not aware of how easy it was for him to find himself on the wrong side of those few strands of barbed wire.”³⁷ The line was fine but it was also an effective boundary that kept convicts from escaping and the outside world from intruding. This was the assemblage from which Lomax drew his ideas about authenticity and the importance of black music; a space of intense exploitation and suffering, hidden and “protected” from the outside world, a space in which intense hardship produced great beauty through collaboration and resistance. Powerful music grew despite inhospitable conditions, or, perhaps because of them.

Producing Authenticity

Niggers growin' mo' lak whitefolks,
Niggers growin' mo' lak whitefolks,
Every day.
Niggers learnin' Greek and Latin,
Niggers wearin' silk an' satin,
Niggers growin' mo' lak whitefolks,
Every day.

³⁶ Gioia, *Work Songs*, 217-18.

³⁷ Alan Lomax, *Negro Prison Songs from the Mississippi State Penitentiary* (Tradition Records, 1957), Liner Notes, TLP 1020.

There is a fine thread woven throughout Lomax's visit to Parchman Farm, a theme that comes up again and again in literature relating to both folklore and penology: storage. Typically the term refers to the practice of holding something in reserve for future use. Sound recordings are meant to store evanescent sound waves, saving them from eternal dispersion, hoarding them for the possibility of future reactivation. In this case, as in so many others, that which stores is taken to be benign; a passive vessel or medium from which content might be extracted.³⁹ But the prison itself is also a storage device, albeit one whose function is the opposite. The prison is meant to keep convicts stored *away* from the general population; it is there in order to make those on the outside feel safe. And yet, in its physical isolation it is also a container for culture, a storehouse of old songs kept safe from a quickly changing world. Or so Lomax would have us believe.

Storage is a persistent desire amongst folklorists. Isolated geographically or, in the case of the prison, institutionally, authentic folk cultures apparently endure outside of the present moment of modernity. The folklorist's bittersweet paradox: contact with a folk culture invariably pollutes it, but without documentation—and consequent contact—it is in danger of disappearance or mutation. Of course, this presumes that there is a moment at which a culture is pure and free from external influence, a virginal state that is desperately tenuous and always threatened by assimilation or extinction. The folk are always beset upon

³⁸ John A. Lomax, "'Sinful Songs' of the Southern Negro," *The Musical Quarterly* 20, no. 2 (1934): 186.

³⁹ I am giving a sidelong glance here at Zoe Sofia's critique of the container and its longstanding association with femininity and passivity in both Western ontology and technology studies. Sofia, via Heidegger, argues that the container is plays an important role in actively shaping space and the things that it enfolds. Zoe Sofia, "Container Technologies," *Hypatia* 15, no. 2 (2000).

because theirs is a culture within a culture, a minority whose coherence is given from without.

But the folk have not always existed. Class divisions are an enduring feature of human societies but the idea of a group of people innately and inextricably linked to a particular place, living in accordance with a stable set of traditions is relatively recent. Robert Cantwell points out that American identity has, virtually since the European invasion of the seventeenth century, required the constant invention and reinvention of an aestheticized underclass to serve as cultural ballast to a bunch of émigrés nostalgic for the social structure of the homeland. For the Virginian gentry, for example, this meant dressing their African slaves in English worker's clothing and instructing them in the ways of old-world serfdom. The blackface minstrelsy of the nineteenth century, as Cantwell argues, was similarly a form of pageantry meant to comfort the ruling classes, enveloping them in a stylized form of entertainment reminiscent of simpler times. Essentially, one generation of American elites after another invented the folk it needed. "From one point of view," writes Cantwell, "the folk are simply what humanity appears to be from the prospect of social prominence, as it gazes down on its dependents."⁴⁰ The folk are a fiction spun by the privileged, a story that gives meaning to their station and furnishes a fantasy of redemption. The folk are a token of aspiration that leaves open the possibility of a return to a noble pastoral past in which the shifting terrain of the class system is stable.

The idea of the folk only became possible with the emergence of a caste of modern bourgeois intellectuals prone to fretting about the tectonic social changes for which they took themselves to be responsible. As the Enlightenment climbed towards its zenith, a malaise began to take hold, a sense that European civilization had strayed from its authentic

⁴⁰ Robert Cantwell, *When We Were Good: The Folk Revival* (Cambridge, MA: Harvard University Press, 1996), 38.

and natural state. The eighteenth-century poet, theologian, and philosopher Johann Gottfried von Herder proposed that the antidote to instrumental reason and cold rationality was to be found in the myths and stories of rural Germany. Shielded from the corrupting influence of bourgeois culture and education, the local peasantry was apparently ignorant of the effete conventions of the city and had remained rooted in the local traditions that had been bred out of the urban intelligentsia. For Herder, this lack of sophistication was the basis of raw, authentic expression. According to Regina Bendix, Herder believed that “human sensuality could overcome unavoidable self-alienating consciousness brought on by ‘the wound of reflection.’”⁴¹ It is perhaps an overstatement to say that Herder invented the folk, however, it was his influential writings that helped to set the terms for a version of authenticity that would deeply influence folk studies for two centuries. Herder’s philosophy of folk authenticity was well encapsulated in writings on the Gaelic folk epic *Ossian* (a poem whose discovery was celebrated but whose authenticity, ironically, would later be questioned), a work he described as “full of *dignity and innocence in the emotions, and full of scenes of simplicity, agency, and beatitude* of human life (emphasis in original).”⁴² It was these qualities that would come to be indissociable from folk culture and its authenticity—qualities that Alan Lomax would similarly defend two centuries later as the answer to a new wave of cultural change brought on by urbanization and the rise of communications technologies.

Lomax’s interest in a brand of Herderian folk authenticity came out of an already well-established American academic investment in its national folklore. In the mid-nineteenth century, an era dominated by the scholar Francis Child, the folk heritage of American culture was thought not to be indigenous, but in fact rooted in England. The United States apparently had no real folk culture to speak of: it was too young a nation to

⁴¹ Bendix, *In Search of Authenticity: The Formation of Folklore Studies*, 36.

⁴² Quoted in *ibid.*, 37.

have developed a unique set of traditions. Child's disciples fanned out across the country in search of British ballads whose origins could be traced back to the Old World. Appalachia would take a particular hold over their imaginations thanks to its rich musical culture, a heritage protected by its geographic isolation—and therefore its cultural sequestration—from the growing influence of urban America. The Appalachian mountain villages, far removed from the mainstream, turned out to be a trove of “Child ballads,” a cache of music that had apparently remained unchanged for centuries.

No disciple of Child's did more to solidify the notion that ancient British folk forms persisted in the Appalachian hinterlands than the English scholar Cecil Sharp. According to Sharp, the mountaineers were more than repositories of British culture, they were essentially authentic English peasants—vestigial figures of another age, suspended in time. “I should say,” wrote Sharp, “that they are just exactly what the English peasant was *one hundred years ago*.”⁴³ Sharp meant this quite literally; isolation had protected Appalachian culture from contact with impure hybrids and also served as a bulwark against the miscegenation that was seen to be diluting America's white racial purity. Appalachian folk traditions, according to this logic, were exemplary specimens of American culture. What this meant was that, in their purest form, American folk customs were essentially British. At a time when America was seething with racial tension—from the waves of European immigration washing over the nation to the perennial strain between white and black America—Sharp's ideas about cultural purity were reflective of, as Benjamin Filene puts it, the “racial undertone beneath the earliest self-conscious efforts to define America's folk song heritage.”⁴⁴

Race would continue to be an important factor in the development of folk music for decades to come. By the 1920s Child and Sharp's ideas about America's British cultural roots

⁴³ Quoted in Filene, *Romancing the Folk: Public Memory & American Roots Music*, 25.

⁴⁴ *Ibid.*, 26.

were beginning to give way to the notion that America had developed a rich and vibrant indigenous set of folk cultures—black as well as white. But it was the recording industry—not scholars and folklorists—that was responsible for promoting this new version of American folk music. Like the folk song collectors that preceded him, Ralph Peer, a talent scout for the Okeh record label, regularly journeyed to the South in search of undiscovered genius. In a way, Peer’s work was a continuation of the old folkloric quest for continuity; he was certainly looking for music that fit into recognizable idioms.⁴⁵ But, unlike Sharp, Peer was in the business of creating stars. Peer was not after typical examples of traditional songs; he was interested in finding remarkable individuals that could be slotted into the musical genres that he and the recording industry were in the process of inventing. One such genre would come to be known as the “race” category—black music styles ranging from blues to jazz marketed to the African-American community. The white antithesis to black race records came to be known as “hillbilly” or “old-time” music, a category that encompassed a variety of musical substyles intended for rural white audiences. Both genres were marked by a tension between the imperative to churn out new material while maintaining an aura of rawness and authenticity rooted in local tradition. Karl Hagstrom Miller calls the commodification of tradition that took hold in the 1920s and 30s “folkloric paradigm.” This view held that American folk cultures—white hillbillies as well as black sharecroppers—were impermeable groups, free of intermixture and mutual artistic influence. By the time Lomax headed out into the field, the record industry had already begun to package Southern musicians according to a narrow range of categories. These genres were as defined by race as they were by style and promoted the image of a South as segregated culturally as it was racially. Black hillbilly musicians and white blues singers were categorically unmarketable, if

⁴⁵ William Howland Kenney, *Recorded Music in American Life: The Phonograph and Popular Memory, 1890-1945* (New York: Oxford University Press, 1999), 132.

not unthinkable. The fantasy of cultural homogeneity propagated by the race record industry belied the pervasiveness of a mongrel popular culture. Musicians of both races listened to and borrowed indiscriminately from whatever music was available.⁴⁶

But this trend towards authentic, rural styles, both black and white, was as novel as it was manufactured. This was particularly true of black music. Prior to the rise of folkloric paradigm, the majority of urban American had contact with African-American culture only through the distorted lens of the minstrelsy. Race records presented a figure completely different from that of the white man in blackface whose sardonic yet sentimental portrayals of Southern black culture simultaneously mirrored and produced the grotesque stereotypes that, since the mid-nineteenth century, had been indelible.⁴⁷ African-American folk musicians were sold as noble and hard working—a major shift away from the minstrelsy’s portrayal of blacks as lazy, ignorant, and sentimental. While it was something of a step forward to be romanticized rather than mocked, this new image of the black singer was no less a fiction than previous clichéd representations. Thanks to the folkloric paradigm, a highly manufactured version of genuineness was pinned on Southern African Americans, a stereotype that played up an apparent connection to deep, ancient traditions unbroken and untarnished by the modern world.

If there was one trope that sustained the folkloric paradigm, it was the idea of authenticity, a notion that has haunted this chapter without being directly confronted. It is a

⁴⁶ Karl Hagstrom Miller, *Segregating Sound: Inventing Folk and Pop Music in the Age of Jim Crow* (Durham: Duke University Press, 2010).

⁴⁷ A discussion of the minstrelsy is beyond the scope of this chapter. But, it is worth considering Eric Lott’s argument that the minstrelsy was more than a merely racist and mean-spirited plundering and mockery of African American culture. Lott suggests that white representations of blacks were in part a way of working through anxieties about race and the rapid industrialization in which they were caught up. A similar sort of, as Lott puts it, “love and theft” would be at the root of Alan Lomax’s relationships with African Americans. Eric Lott, *Love and Theft: Blackface Minstrelsy and the American Working Class* (New York: Oxford University Press, 1993).

vexed term whose literal meaning, at least in academic circles, begs to be deconstructed. Dictionary definitions of ‘authenticity’ enumerate the word’s alliances with truth and sincerity. It is the authentic individual that is true to her or himself. It is the authentic object that stands against the fake and the counterfeit. Even reproductions can claim authenticity provided they capture the essence of the original. But it is also a word often wedged, either literally or figuratively, in between quotation marks; “Authenticity” as ideology, as a dangerous appeal to a heavily edited version of history.

Authenticity is a fabrication that emerges at moments of cultural ferment, a manufactured refuge against change and upheaval. Like the equally chauvinistic term “folk,” “authenticity” made its appearance at the end of the eighteenth century a response to the depersonalization and disenchantment of the Enlightenment and the rise of industrialization. Romantics like Rousseau and Herder, saw each person as a unique being whose essential spirit was thwarted again and again by the artificiality of modern life. Authenticity was the redemption of that core. Or, as Charles Taylor writes, “Our moral salvation comes from recovering authentic moral contact with ourselves.”⁴⁸

But redemption remained an elusive, vanishing point for the simple reason that the forces responsible for bringing such a thing as a unified self into view were the very same forces that prevented its union. “In an increasingly urban and technological society,” Lionel Trilling wrote, “the natural processes of human existence have acquired a moral status in the

⁴⁸ Charles Taylor, *The Ethics of Authenticity* (Cambridge: Harvard University Press, 1991), 27. Theodore Gracyk argues that, despite what postmodernist thinkers have suggested, a similar sort of rhetoric is alive and kicking in rock music. Gracyk points out that, at least since the 1960’s, a particular strain of liberalism has permeated rock, creating a cult of authenticity that derives its energy from opposition to all that is seen to be fake and overly commercialized. The true inner self must be exposed to disrupt the external forces of conformity that afflict the (post)modern subject. Gracyk, *Rhythm and Noise: An Aesthetics of Rock*, 218-26.

degree that they are thwarted.”⁴⁹ Machines drove a wedge between humans and nature as industrialization brought about a mass migration from the country to the city. Machines also populated the world with apparently identical objects, mass-produced consumer goods that were indistinguishable from each other. As Miles Orvell observes, as copies proliferated at an incomprehensible scale, advertisers stepped in, pitching their products as “the real thing.” “It was as if there were some defect in everyday reality that had to be remedied by the more authentic reality of the object to be consumed,” writes Orvell.⁵⁰ But the machines that marketers used to reach the public—mediating technologies such as film, photography, print, and sound recording—were also touted as the means of reconnecting with lost authenticity. According to Lomax, the insidious and culturally corrosive forces unleashed by popular music were transmitted via phonograph—the very same instrument that was capable of preserving the traditions it was simultaneously destroying. For some, modern technology was held responsible for eroding authenticity. But for others, Lomax included, being authentic in the modern era meant embracing change rather than holding on to dying practices. It meant taking control of technological process to disseminate all that was authentic rather than let them flood the world with ersatz, mass-produced culture.⁵¹

⁴⁹ Lionel Trilling, *Sincerity and Authenticity* (Cambridge: Harvard University Press, 1971), 128.

⁵⁰ Miles Orvell, *The Real Thing: Imitation and Authenticity in American Culture, 1880-1940* (Chapel Hill: University of North Carolina Press, 1989), 145. It is worth noting the tense interplay between enchantment and disenchantment that has been fundamental to modernity. Susan Buck-Morss reminds us that, while Weber’s description of modernity as the rise of cold rationality and disenchantment has become the dominant lens through which the epoch is seen, Benjamin argued the opposite. According to Benjamin, technology had the power to allow us to see further and deeper than ever before, to enlarge images to grotesque dimensions. Modern consumer culture was actually responsible for creating a dream world more real than reality itself. See Susan Buck-Morss, *The Dialectics of Seeing: Walter Benjamin and the Arcades Project* (Cambridge: MIT Press, 1989), 254.

⁵¹ Trilling, via Reyner Banham, gives the conflict between Marinetti and Ruskin as an example. For Ruskin, authenticity was embodied in the rural peasantry and the industrial city as its nemesis. Marinetti found the most authentic expression of modernity lay in the mechanical. Trilling, *Sincerity and Authenticity*, 128-29.

Whether claimed for old-time traditions or in the service of the zeitgeist, authenticity was and is never more than a flimsy piece of fabricated evidence in a circular argument. It is never more than an ideological cliché wielded for its polemical force. Authenticity struggles to capture an always-elusive essence, an ever-receding moment of purity as defined by those afraid of hybrids. Music, particularly in the twentieth century, has been the site of numerous debates about authenticity. From country to rock to hip hop, the signifiers of authenticity vary, but what remains consistent throughout these styles is an ostensible antagonism towards the commercialism, fakeness, and insincerity of modern consumer culture.⁵² Theodore Gracyk ties this rhetoric to a latent preoccupation with liberalism, with “an assumption that the unique individual is basic to authenticity.”⁵³ The apparent forces pulling an individual away from her or his unique individuality have changed from generation to generation. In the years leading up to and during Lomax’s prison expeditions, musical

⁵² The literature on authenticity in popular music is vast and a proper assessment is beyond the scope of this chapter. For writing on authenticity in rock—a style whose legacy is deeply rooted in the politics of authenticity that emerged in folk music, see Lawrence Grossberg, *We Gotta Get out of This Place: Popular Conservatism and Postmodern Culture* (New York: Routledge, 1992); Simon Frith, "Towards an Aesthetics of Popular Music," in *Music and Society*, ed. Richard Leppert and Susan McClary (Cambridge: Cambridge University Press, 1987); Gracyk, *Rhythm and Noise: An Aesthetics of Rock*; Hugh Barker and Yuval Taylor, *Faking It: The Quest for Authenticity in Popular Music* (New York: W. W. Norton & Company, 2007). Studies on black music and hip hop include: Paul Gilroy, "Sounds Authentic: Black Music, Ethnicity, and the Challenge of a "Changing" Same," *Black Music Research Journal* 11, no. 2 (1991); Anthony Kwame Harrison, "Racial Authenticity in Rap and Hip Hop," *Sociology Compass* 2, no. 6 (2008). Of particular relevance to the development of authenticity as a trope in folk music is Richard Peterson, *Creating Country Music: Fabricating Authenticity* (Chicago: University of Chicago Press, 1997).

⁵³ Gracyk, *Rhythm and Noise: An Aesthetics of Rock*, 220. For Gracyk, writing specifically about rock music in the 1990s, authenticity is a challenge to the claims made by postmodernists like Frederic Jameson that, since the 1960s, the idea that there is such a thing as a stable, essential self has become problematic. Rock music is, in a sense, an earnest attempt to reclaim, celebrate, and promote the authentic self in the face of a fragmented, hyper-commercialized world. The problem with Gracyk’s argument is that authenticity is itself a sort of style, complete with its own codes and signifiers. Whether or not a persistent, centered self does exist is hardly the point; authenticity does not refer back to such an essence as it is in itself an effect of the vicissitudes of capitalist individualism.

authenticity was a hotly contested subject. At a time when many white Americans feared that the racial and religious status quos were being threatened by immigration and secularization, the idea of authentic old-time traditions and music were promoted as the antidote to social decay. The industrialist and auto magnate Henry Ford, for one, was a great booster of a return to rural, protestant, and *white* values—to some fantasy of a preslapsarian rural American ideal. In the 1920s Ford mounted a campaign to educate Americans about “their” wholesome heritage, staging fiddling contests at his dealerships and instituting classes in old-style dance at thirty-four colleges and universities.⁵⁴ The irony that he, the man perhaps most responsible for urbanizing America, was attempting to turn back the clock, seemed to have been lost on Ford.

But Lomax was caught in a similarly contradictory relationship to technology. He shared Ford’s concern that the steamroller of modernity would crush older customs but, unlike the industrialist, not only did Lomax hold African-American music and culture to be every bit as important as white forms, he considered them authentically, even quintessentially American. In this sense, authenticity existed at the level of the social; black culture was described as having a depth and an origin from which a sincere expression arose. But Lomax also subscribed to the individualistic type of authenticity described by Charles Taylor. Truly gifted singers should embody the people while remaining unique and irrevocably themselves. As far as Lomax was concerned, if there was a particular singer that embodied these two types of authenticity, that individual was Leadbelly. But to dig into Lomax’s decades-long association with the Leadbelly is to unearth the extent to which authenticity turned out to be a quality to be fabricated rather than some sort of Platonic ideal.

⁵⁴ Peterson, *Creating Country Music: Fabricating Authenticity*, 60-61.

By the time Lomax “discovered” Huddie Ledbetter, aka Leadbelly, the singer had already served multiple stints in Southern work farms for charges ranging from possession of a pistol to murder. They met in Angola prison, Texas, during Lomax’s first recording trip with his father. Leadbelly’s talent was extraordinary but it was his seemingly inexhaustible knowledge of folk songs that most excited the collectors. For the Lomaxes, it was a fitting vindication that this human storehouse of African-American music was himself stored away. But Leadbelly was hardly the rural innocent that the Lomaxes made him out to be—he was also well versed in popular music.⁵⁵ They downplayed this inconvenient detail focusing instead on Leadbelly’s repertoire of “authentic” folk music; a trove secured by his isolation from the mass-produced modern detritus that littered the radio waves.⁵⁶

For the Lomaxes, Leadbelly was a myth in the making. He was both a charismatic, unique genius and the embodiment of a rich and important folk heritage. And he was a cipher that could be shaped and molded to fit their particular ideal of the authentic folk singer. At the heart of the Leadbelly legend was a great story, a tale told again and again to secure the singer’s place in the national pantheon of folk heroes. The story of how Leadbelly sang his way out of prison began with the Lomaxes’ second encounter with Leadbelly. Charmed by the singer’s talent, the Lomaxes agreed to record a petition to the governor of Louisiana for his release: “In nineteen hundred and thirty-two / Honorable Governor O. K.

⁵⁵ Karl Hagstrom Miller points out that folklorists commonly described popular music as an imposition from outside. But, the music of Tin Pan Alley, for example, was just as widely known and as deeply integrated into rural American culture as “old-time” music. Miller, *Segregating Sound: Inventing Folk and Pop Music in the Age of Jim Crow*, 1-4.

⁵⁶ Later in his career Lomax would concede that authenticity could exist in commercial music. This is not to say that he came to believe that authenticity was a construct, rather that it had to be discerned by a sensitive listener. The change of mind might have had to do with the folk revival was so successful, the music that Lomax had championed was now either influencing the mainstream or was actually being recognized in the sphere of popular culture. See Lomax, *Alan Lomax: Selected Writings 1934-1997*, 205.

Allen, I'm pleadin to you."⁵⁷ According to legend, John Lomax did as he promised and delivered the recording to the governor who was so moved that promptly called for Leadbelly's release. It was a great story and, circulated widely in the popular media—*Life Magazine*, for example, told the tale in an article entitled "Bad Nigger, Good Minstrel"—Leadbelly became a household name.⁵⁸ But the story of Leadbelly's legendary pardon turned out to be a fiction that Alan himself helped to propagate over the years.⁵⁹ Leadbelly, as it turned out, had been released thanks to a Louisiana statute called the "good-time laws."⁶⁰

The pardon legend was part of an effort to promote Leadbelly as a raw, almost savage artist whose unique talent redeemed his past transgressions. His genius was almost always set against his criminality—for many years after his release, Leadbelly would regularly wear a jailbird uniform on stage. While it was primarily John that was responsible for creating and tending to the Leadbelly myth throughout the early years, for his part, Alan would continue to tie the singer's authenticity directly to his history of incarceration. In 1940, Lomax organized a recording session with Leadbelly and the Golden Gate Quartet, intent on staging something similar to a chain gang call and response in the studio. But the quartet, a group more familiar with the inside of a church than a penitentiary, was too polished to be convincing. The solution, proposed Lomax, was to have Leadbelly teach them to perform the intense, raw style of the prison song. Lomax would later write, "The result is *not* complete authenticity, but I believe the nearest thing to it that could be achieved away

⁵⁷ Charles Wolfe and Kip Lornell, *The Life and Legend of Leadbelly* (New York: HarperCollins, 1992), 119.

⁵⁸ "Lead Belly: Bad Nigger Makes Good Minstrel," *Life*, April 19 1937. See also Wolfe and Lornell's biography of Leadbelly, *The Life and Legend of Leadbelly*.

⁵⁹ "Leadbelly, then serving life in the Louisiana pen, recorded a pardon-appeal ballad to Governor O.K. Allen, persuaded my father to take the disc to the Governor, and was, in fact, paroled within six months." Lomax, *Alan Lomax: Selected Writings 1934-1997*, 173.

⁶⁰ Szwed, *Alan Lomax: The Man Who Recorded the World*, 59.

from the prison farms themselves (emphasis in original).⁶¹ Authenticity, it seemed, was inextricably tied to the site of the prison, to the experience of incarceration. Authenticity had to be acquired through hardship and experience; it could not merely be taught. It was fitting, then, that Leadbelly was apparently able to express his authentic self because he was unencumbered by education or civility. “Leadbelly,” wrote Lomax, “was the performer everyone thought of when they wanted honesty, authenticity and power.”⁶² But authenticity was not some sort of quality that Leadbelly naturally possessed; it was the product of a narrative spun by those around him.

These types of stories would play an important part in the creation and promotion of a “cult of authenticity”—a phenomenon that, according to Benjamin Filene, continues to have a firm hold on the present. What the cult of authenticity demands is otherness: “Roots musicians are expected to be premodern, unrestrainedly emotive, and noncommercial. Singers who too closely resemble the revival’s middle-class audiences are rejected by those audiences as ‘inauthentic.’”⁶³ Paradoxically, according to the cult of authenticity, an individual’s status as an outsider is exactly what makes her or him a beacon for the mainstream.⁶⁴ Robert Cantwell suggests, “What had been, to the men who originally recorded it, essentially the music of poor, isolated and uneducated people—and hence an avowedly inferior music, primitive, parochial, or merely amateur—was thus reframed as a kind of *avantgarde* art.”⁶⁵ As outsiders, authentic folk artists remained uncorrupted by the homogeneity and triteness of mass culture. They represented the possibility that modern life might be redeemed by a return to a simpler, more authentic way of life. Folk authenticity is a

⁶¹ Quoted in *ibid.*, 163.

⁶² Lomax, *Alan Lomax: Selected Writings 1934-1997*, 198.

⁶³ Filene, *Romancing the Folk: Public Memory & American Roots Music*, 63.

⁶⁴ *Ibid.*, 65.

⁶⁵ Robert Cantwell, “Smith’s Memory Theatre: The Folkways Anthology of American Music,” *New England Review* 13, no. 3/4 (1991): 365.

product of difference, a construct that comes into being in relation to contemporary anxieties.⁶⁶ The working poor offered the urban, white middle class an ideal future rooted in a romanticized past. But for Lomax it was the black prisoners of the Southern penitentiaries that would be America's true salvation.

Black Music

Coon, coon, coon, I wish my color would fade...
I had my face anointed
I had my hair made straight,
Dressed up like a white man,
Certainly did look great.⁶⁷

- *Coon, coon, coon*, as sung by Will Stark.

By the time Lomax revisited Parchman in 1947, the worksong tradition had been in decline for some time. Outfitted with “the first good portable tape machine to become available after World War,” Lomax “rushed the machine...back to the Parchman (Mississippi) Penitentiary where [he and his father] had found the finest, wildest and most complex folk singing in the South.”⁶⁸ At stake was the disappearance of a musical tradition linking a rapidly modernizing South to the apparently innocent shores of pre-contact Africa.

For Lomax, prison protected these cultural lineages; it was fertile ground in which the “self-replenishing spirit of Africa” could flourish.⁶⁹ At the heart of this paradoxical tension between preservation and creation was the presumption that the music he captured

⁶⁶ Richard Middleton makes a similar point although in slightly inverted form. He argues that folk music has been used as an outside but authentic “Other” against which commercial popular music is judged. Richard Middleton, *Studying Popular Music* (Buckingham: Open University Press, 1990), 129.

⁶⁷ Lomax, *The Land Where the Blues Began*, 189.

⁶⁸ *Alan Lomax: Selected Writings 1934-1997*, 177-78.

⁶⁹ *Liner Notes to Prison Songs: Historical Recordings from Parchman Farm 1947-48* (Rounder CD 1714, 1997), CD.

in Southern was somehow timeless, the product of a distinctly African soul.⁷⁰ In their way of life and their musical traditions, the slave bled into the convict. And, in the end, all of these points could be traced back to a monolithic ur-Africa. But, positing a unified Black Music collapsed the complexities and vicissitudes three hundred years of individual struggles, of intermixture—not only between blacks and whites, but slaves, sharecroppers, and prisoners from myriad African cultures—into one romanticized form. Perhaps the need to trace innumerable black genealogies back to a singular African past was a feature of Lomax’s desire for connection, for folk song to enfold humanity in charity and brotherhood and make it whole again. But only so much of Lomax’s views can be explained by utopianism; the rest is contradiction.⁷¹ Lomax was as aware as anyone of the extent to which racial and cultural intermixture had shaped black folk music.⁷² And yet he also believed that essence and accident were separable, that an African soul endured through all of the exchanges and encounters en route to the New World.

⁷⁰ Mullen, *The Man Who Adores the Negro: Race and American Folklore*, 49. Mullen later suggests, in a critique of Toni Morrison, that Alan Lomax’s thinking about racial essentialism was more nuanced than it is often made out to be. He argues that Lomax saw these traditions dying out as desegregation took hold. But, he acknowledges that Lomax’s writings are uneven and do often argue for the existence of an essential African soul. *Ibid.*, 87.

⁷¹ The logical arc from reductionism to utopianism is especially apparent in Lomax’s later grand theory of comparative musicology called cantometrics. This system broke representative songs from all over the world into constitutive components and coded them in order to compare them formally. By bringing all folk music into a vast, theoretically non-hierarchical database, all the world’s cultures would find “cultural equity” owing both to their similarities and affinities, as well as to their uniqueness. Evidently, such a totalizing project could never be anything but deeply flawed. For one thing, the project neglected significant cultural traditions. China, for example, is entirely excluded. See Alan Lomax, *Folk Song Style and Culture* (Washington, D.C.: American Association for the Advancement of Science, 1968); Gage Averill, “Cantometrics and Cultural Equity: The Academic Years,” in *Alan Lomax: Selected Writings 1934-1997*, ed. Ronald D. Cohen (New York: Routledge, 2003).

⁷² According to Gage Averill, “Authentic for Alan Lomax didn’t require that music be somehow “pure,” as he was an advocate for many creolized musics of African Americans such as blues and jazz.” Averill argues that Lomax attached more importance to class as a sign of authenticity. “Ballad Hunting in the Black Republic: Alan Lomax in Haiti, 1936-37,” *Caribbean Studies* 36, no. 2 (2008): 16.

Lomax's ahistorical explanation of black music's eternal soul was already prefigured, as Patrick Mullen notes, in the functionalist school of anthropology to which he was heavily indebted. Under the influence of Malinowski, Lomax believed that cultural traditions could be both universal—for example, the essential and timeless human attraction to magic and ritual as outlets for anxiety—as well as particular. In the latter view, a cultural behavior might arise under unique historical circumstances. Functionalism posited cultures were endowed with irreducible traits, a view that would allow Lomax to “make sweeping functional statements that imply an idealized African-American culture that was outside time and resistant, if not impervious, to change.”⁷³ The Malinowskian tradition was often mobilized to combat the popular belief that African Americans were a people without any significant identity or traditions, that in crossing the Atlantic their savage and primitive customs had been extinguished. Blacks were represented as childlike and simple, qualities that made them happy to adapt to their new cultural milieu, a social world so impressive and sophisticated that they would only be too happy to give up their atavistic ways.⁷⁴ The anthropologist, Melville Herskovits, sketched this litany at the beginning of his book, *The Myth of the Negro Past*, with the hope of destroy its hold over the American imagination. Herskovits argued that these claims were, for the most part, made by people completely unfamiliar with African cultures. His great project was to connect cultural forms—what he called Africanisms—across the African diaspora. According to Herskovits's “retentions” theory, significant elements of African culture had survived the fragmentation of forced migration and had remained at the core of creolized identities from Haiti to Alabama.⁷⁵ Herskovits, a pupil of Thorstein Veblen, was influenced by the sociologist's idiosyncratic view of history. For

⁷³ Mullen, *The Man Who Adores the Negro: Race and American Folklore*, 88.

⁷⁴ Melville Herskovits, *The Myth of the Negro Past* (New York: Harper & Brothers, 1941), 1-2.

⁷⁵ Ibid.

Veblen, cultures do not evolve in a linear fashion with each new stage representing a break with the old; rather, cultural change is accumulative. Applying this logic to African-American culture, Herskovits argued that “primitive” (a term he did not intend to be pejorative) aspects of African culture had not been shocked out of them. These qualities had survived and in turn had influenced slaves’ cultural response to their new surroundings.⁷⁶ This thinking put the anthropologist at odds with other theorists of black identity, including E. Franklin Frazier, an African-American sociologist, who claimed that blacks had become fully assimilated into American culture. Politically, there was much at stake: assimilationists had a vested interest in placing blacks on the same social plane as whites, an endeavor they felt would be compromised if any links to perceived African primitiveness were thought to exist. Whereas supporters of retentions, in the Malinowskian tradition advanced by Herskovits, argued that African culture was complex, unique, and sophisticated. The answer was not to deny Africanness; it was to celebrate and reclaim it.⁷⁷

Lomax became a proponent of retentions theory, taking it up for its descriptive as well as its aspirational powers. Retentions theory became the basis for his future comparative cultural research. It also allowed him to perform the trick of presenting black culture as ancient and exotic but *also* as an outgrowth of Africans’ time in America. The music was a response to the oppression suffered in the New World, just as it was an expression of a deep and indelible heritage imprinted into the souls of every woman and man of African descent born in the United States. For Lomax, the exemplary form of black musical genetics was the work song: “The fact is that the custom of work-singing is native to the basic culture of the

⁷⁶ Eleni Coundouriotis, "Nation, History, and the Idea of Cultural Origin in Melville Herskovits," *Diaspora: A Journal of Transnational Studies* 10, no. 1 (2001): 36-37.

⁷⁷ Walter Jackson, "Melville Herskovits and the Search for Afro-American Culture," in *Malinowski, Rivers, Benedict and Others: Essays on Culture and Personality*, ed. George W. Stocking Jr. (Madison: University of Wisconsin Press).

Negro people. Therefore, it is immaterial whether they have adopted European melody or perpetuated their own African heritage of melody or developed new Afro-American work-song melodies of their own.”⁷⁸ Despite his use of the word ‘custom’ Lomax, it would seem, is suggesting that no circumstances can extinguish an essential blackness in the music of the African diaspora. If a black prisoner sings a white melody, that tune is tinted by this fundamentally racial inflection. Cut off from external cultural influence—secluded from popular culture by the walls of a prison, for example—original African melodies might change or be forgotten but their essential blackness would never die. Features of black music are self-replicating like DNA—the work song as black phenotype.

African cultural retentions, in the terms proposed by Herskovits and Lomax, edge towards a black musical metaphysics. The danger, according to Ronald Radano, is in accepting essentialist characterizations of African-American music, distinctions that put blacks “beyond the cultural mainstream and thus necessarily outside the realm of American experience overall.”⁷⁹ It does not matter whether or not the cultural features labeled essentially black are positive or pejorative. Both metaphysical generalizations suppose a fallacious and pernicious Platonic blackness holding forth in the face of the vicissitudes of African-American experience. Cultural practices are taught and learned and gradually drift away from older forms, metamorphosing along the way. The fundamental mistake made by the retentions camp was to assume that not only did black Americans hold an immutable African core at the center of their being, but that Africa itself was also a stable, unchanging foil. For Johannes Fabian, such a fallacy lurks at the core of modern anthropology. The denial of coevalness, as Fabian puts it—i.e. the refusal to grant that the fieldworker and the

⁷⁸ Lomax, *Alan Lomax: Selected Writings 1934-1997*, 71.

⁷⁹ Ronald Radano, *Lying up a Nation: Race and Black Music* (Chicago: University of Chicago Press, 2003), 35-36.

subject exist within the same historical moment—is fundamental to a view that time is not a homogenous substance: some move through history while others fall behind.⁸⁰ The Retentions theory that time worked against itself in the black diaspora. Blacks were constantly in the process of attenuating or amplifying their African cores, being absorbed into modernity while simultaneously stubbornly refusing its reach.

This was the paradox of Lomax's theory of race: even though black music was stable and self-replenishing, it was also in constant danger of being corrupted or diminished. The Africanisms of black Americans were apparently too insecure to survive without outside help; they needed isolated sites like the prison to protect against assimilation and extinction, against the dilution that comes with exposure to popular culture. Spirited away from a rapidly changing world, the prisoners sloughed off the banality of popular culture and allowed their inner Africans to emerge. While the songs they sang could not specifically be traced back to any pre-slavery origin, their spirit sprang directly from a time out of bondage. The prison songs had always been prefigured in the songs of the convicts' ancestors. And yet, they were also a direct response to the brutal conditions of the Southern work farms. Work songs were, according to Lomax, somehow transcendental and accidental at the same time.

While it was unfortunate that as drastic and cruel an institution as the prison was that black folk traditions were able to survive, Lomax, it would seem, thought it a necessary evil given that African Americans seemed to be unable to resist the forces of cultural change. Even the church was guilty of refining and ultimately eradicating what he felt was the raw and authentic spiritual response to slavery. On a visit to Mississippi in the early 1940s, Lomax hoped to finally properly record the “sweet thunder” of black Southern Baptist song.

⁸⁰ Johannes Fabian, *Time and the Other: How Anthropology Makes Its Object* (New York: Columbia University Press, 1983).

Lomax set up recording equipment at a church in Clarksdale but, as the choir started up, he was horrified to find that the fervor and spontaneity of black spirituals he loved had dulled. As it turned out, this bland new style had a name: gospel. According to the reverend, the new genre—which had been introduced by the church’s musical director—was an improvement and represented the modernization of an outdated tradition. Lomax protested:

“But what is more progressive about a musical director, when your old sisters could already harmonize beautifully without any direction?” I asked.

“That’s not the modern, educated way. They need direction to learn the more modern songs we want them to have. This is a new day, and we just adapt to it. Take your own case. You’re not here taking notes with a paper and pencil—you have the latest thing in recording equipment. The old must give way to the new.”⁸¹

Initially Lomax found this argument persuasive. But, after sharing his dismay with his traveling companion Lewis Jones, a black sociologist from Fisk University, he learned that the church in the midst of a power struggle. The male preachers were undermining the matriarchy that had traditionally held sway; the reverend’s sermon about advancement and education was a cover story for a coup mounted by the patriarchy. But this digression into the gender politics of the church in turn papered over Lomax’s resistance to the changing black culture of the South. Indeed, after leaving the church, Lomax wandered through a Baptist street fair and came upon Charles Haffer Jr., a wizened old blind man who agreed to sing for the phonograph. At last, Lomax discovered what he had been after:

This was not quite singing, at least in our prettified, provincial view of singing. More like a midnight mountain in the Cameroons humming to itself, a musical lion at his evening devotions, or the old man of the tribe judicially measure out his advice and

⁸¹ Lomax, *The Land Where the Blues Began*, 46.

prophecies, mixing them with groans—this was the voice of the street evangelist, a husky rumble, with such vibrato that you might imagine the vocal chords were not flesh but hemp.⁸²

Lomax was energized to find that the true voice of the South still sang with primordial force; the true voice, of course, being a call out of Africa, still rooted in the savage virility of the Dark Continent, a jungle animal creature itself without inhibition. For Lomax, it seemed, the true soul of African America was bestial, atavistic just as it was noble.

The link between cultural isolation and a primal authenticity was almost a cliché by the time of Lomax's Southern prison tour. In an 1845 article entitled "Who are our National Poets," a J. K. Kinnard mused,

In what class of our population must we look for our truly original and American poets? What class is most secluded from foreign influences, receives the narrowest education, travels the shortest distance from home, has the least amount of spare cash, and mixes the least with any class above itself? Our negro slaves, to be sure! *That* is the class in which we must expect to find our original poets, and there we *do* find them.⁸³

Furthermore, a liberal education and a cosmopolitan worldliness inspired by foreign travel could only produce a white poet whose "standard is universal, not national."⁸⁴ While Kinnard's essay was a satire of the American quest to find its archetypal voice, it is revealing of an argument about African-American exceptionalism that would emerge in the twentieth century. In the 1930s Alain Locke, one of the guiding lights of the Harlem Renaissance, gave

⁸² Ibid., 49.

⁸³ J. K. Kinnard, "Who Are Our National Poets?," *The Knickerbocker* 26, no. 4 (1845): 331.

⁸⁴ Ibid.

a more sober assessment, similarly recognizing African Americans' foundational contribution to the national culture. "Negro music," wrote Locke, "is the closest approach America has to a folk music, and so Negro music is almost as important for the musical culture of America as it is for the spiritual life of the Negro."⁸⁵ For Locke, black music was originary but unrefined in the form in which it was celebrated. "It has now become fashionable to collect Negro folk ditties and work-songs; and even 'the blues' have taken on musical respectability," wrote Locke.⁸⁶ But he saw these folk forms as the forbears of a tradition whose telos lay in an elevated and sophisticated hybrid between African and European traditions. In Locke's estimation, music followed a hierarchical path from folk to popular to classical forms. The loss of older, pure forms like traditional blues—that is, the blues before it was devoured by the record industry—was regrettable but a part of progress. If, for Locke, the apotheosis of black music was a synthesis with the European classical tradition, others within the African-American intelligentsia were ambivalent about cultural miscegenation. In 1953, the African-American poet and scholar Sterling Brown wrote,

It is evident that Negro folk culture is breaking up. Where Negro met only with Negro in the black belt the old beliefs strengthened. But when mud traps give way to gravel roads, and black tops and even concrete highways with buses and jalopies and trucks lumbering over them, the world comes closer. The churches and schools, such as they are, struggle against some of the results of isolation, and the radio plays a part...The phonograph is common, the television set is by no means unknown, and down at the four corners store, a juke-box gives out the latest jive. Rural folk closer to towns and cities may on Saturday jaunts even see an occasional movie, where a

⁸⁵ Alain Locke, *The Negro and His Music* (Port Washington: Kennikat Press, 1936; repr., 1968), 1.

⁸⁶ *Ibid.*, 38.

rootin'-tootin' Western gangster film introduces them to the advancements of civilization. Newspapers, especially the Negro press, give the people a sense of belonging to a larger world.⁸⁷

The Great Migration of early twentieth century, a movement which saw millions of African Americans relocate to Northern cities, was fueled by the prospects of better jobs and education but came at a cost to tradition. But this did not have to mean cultural extinction. As Brown noted, integration and urbanization did not extinguish Southern folk cultures; rather, thanks to a “stubborn vitality,” they continued to permeate the popular forms disseminated by mass media. According to generations of observers, both black and white, the enduring spirit of African-American music has seemed to require a harsh and oppressive climate to flourish. This history of black music can sometimes appear to be one long response to racial subjugation: the work songs that eased the burden of plantation brutality; the blues as an antidote to economic and political injustice; the spiritual as rallying cry for the civil rights movement; hip hop—the black CNN—sending out dispatches of inner city poverty and violence; Detroit techno and the dream of a post-human utopia; and so on. Of course, this arc describing a trajectory of bravery in the face of hardship ignores and minimizes the joyful and participatory uses of music. But perhaps it is difficult, after four centuries of exploitation, to imagine black music could be anything but the transcendental product of suffering.

Lomax equated suffering with authenticity, with a truer version of experience that he would only ever be able to approach vicariously. He was, after all, an educated, privileged white man who, for all his self-mythologizing, moved in rather rarefied circles. While his affinity lay with his black and working class subjects, Lomax’s identification with them

⁸⁷ Sterling Brown, "Negro Folk Expression: Spirituals, Seculars, Ballads and Work Songs," *Phylon* 14, no. 1 (1953): 60.

approached a fetishistic desire for the poverty and struggle from which he safe. He would write,

I longed and was unable to talk freely with these newfound brothers of mine whose songs triumphed over their misery. The guards were in the way. I lay awake scheming how I might write down their lives and their thoughts. Burdened with the guild of my adolescent peccadillos and fantasies, I felt myself as criminal as they, subject to arrest at any moment. Every police whistle, every cruise-car siren blew for me. I fantasied committing some crime so that I, too, could experience what they were experiencing and thus write about them with real understanding.”⁸⁸

Lomax never did act on his daydreams about sympathetic acts of criminality. He instead entered into the closed world of the prison furnished with a letter of introduction from the Library of Congress as his ticket in and his white skin and clean record a passport out. According to Frantz Fanon, this desire to shuttle between racial binaries is the privileged delusion of the elite, a class endowed with the self-given entitlement to erect and police the barriers of race. But even a sincere love and admiration for the racial Other can never collapse or bridge these boundaries. For Fanon, an avowed love of the racial Other will, at best, always be suffused with the inchoate murmurings of an old and fundamentally unresolved conflict: “...an individual who loves Blacks is as ‘sick’ as someone who abhors them.”⁸⁹ Love for the Other invariably carries with it a reaffirmation of difference. And difference must carry with it an imbalance of power. For Fanon, this is the decay wrought by colonialism, past and present: a legacy that forecloses on any possibility of escape from the

⁸⁸ Lomax, *The Land Where the Blues Began*, 286-87.

⁸⁹ For Fanon this cuts both ways: “Conversely, the black man who strives to whiten his race is as wretched as the one who preaches hatred of the white man.” Frantz Fanon, *Black Skin, White Masks*, trans. Richard Philcox (New York: Grove Press, 2008), xii.

“complexes that germinated in a colonial situation.”⁹⁰ These complexes are long-lived and invariably haunt the racial categories established by colonial powers. Whether it is in the spirit of persecution or idealization, racial difference, indeed the idea of race itself, exists only through the power of a particular group to name, to make the other. “What is called the black soul,” writes Fanon, “is a construction by white folk.”⁹¹

Fanon’s diagnosis is harsh but it speaks to Lomax’s love for black culture, an affection shot through with condescension. He loved them for their Otherness, for what he took to be their primal innocence, for a vitality of expression uncorrupted by the civilizing processes, but also for their apparently natural ability to respond to persecution with grace and poise. It was this untrained roughness that he strained to capture in written descriptions of his encounters in the field. But, no matter how phonetically accurate his transcriptions, his black subjects are recorded speaking in a parodic, clichéd pidgin dialect reminiscent of the minstrelsy. Here, for example, is an account of his encounter with a plantation worker and singer names One-Eye:

I ain’t no kind of a songster myself, boss. ‘Cose I do hum dese here sancrified hymns sometimes, but I’s a member of de chu’ch an’ I done clean forgot all de wor’ly songs I ever knowed. Now over on de Blanton plantation, ‘bout fo’ mile down de road, dey used to be an ole feller, name o’Patterin’, what could sho’ly pick a geetar an’ sing dem made-up, ‘sin-ful’ songs you talkin’ ‘bout. He de man you ought to see. ‘Cose, he might be daid; I ain’t been over dere for a year or two.⁹²

Susan Gubar describes these literary attempts by whites to assume a black voice as “racial ventriloquism.” Gubar argues that, by the early twentieth century, modernist writers were

⁹⁰ Franz Fanon, *Black Skin, White Masks*, trans. Richard Philcox (New York: Grove Press), 14.

⁹¹ *Ibid.*, xviii.

⁹² Lomax, *Alan Lomax: Selected Writings 1934-1997*, 9.

appropriating a blackened form of speech out of rebellion against the injustices perpetrated by their own racial group. For the most part, their imitation was respectful, not scornful or overtly condescending: "...most writers exploiting black rhythms and vernacular," writes Gubar, "felt themselves to be tapping a dissident lexicon of subversive power, one at odds with the hegemonic cadences of mainstream culture as well as their own normative conformity to it."⁹³ But, as bell hooks suggests, there is more to appropriation than self-serving defiance; it is as much about connecting with, and becoming, the Other.⁹⁴ Adopting the voice of the black Other allowed writers to slip into a world of raw, even atavistic, authenticity they felt lacking in their own culture. But it also offered the promise of detachment and a safe distance from the guilt-ridden position of the oppressor. While Gubar specifically addresses the creation of fictitious black characters and their invented dialogues, Lomax was no less guilty of racial ventriloquism than the modernist novelists and playwrights that took up an imagined black language to explore their own racial insecurities. It is difficult, probably impossible, to know how many of Lomax's black interlocutor's folksy musings were transcribed from recordings and how many were composited or invented utterances. Whatever the case, over the course of his career—a long journey that began in 1934 at the age of nineteen and culminated in the publication of *The Land Where the Blues Began* in 1993—Lomax's transcriptions lost some of their florid and hyperbolic character. By the end of his career, he had taken to rendering his reminiscences—of the same episodes, in some cases—in a language far less stylized with extravagantly punctuated truncations and elaborate primitivism. In his later years he perhaps better understood that, once transcribed by his hand, their words were, to an important extent, his.

⁹³ Susan Gubar, *Racechanges: White Skin, Black Face in American Culture* (New York: Oxford University Press, 2000), 136.

⁹⁴ bell hooks, *Black Looks: Race and Representation* (Boston: Sound End Press, 1992), 21-25.

Lomax's allegiance to African-American folk culture has never been in doubt. Without Lomax, thousands of songs—the great heritage of hundreds of artists—would have been lost. But his quest to locate the soul of Africa and the legacy of slavery—the apparently abiding and irreducible qualities of black music—in the segregated prison populations of the South was symptomatic of and contributed to deep and lingering clichés about African-American culture. The demystification and critique of the Lomax legend does not have to amount to a complete and total denial of his legacy or contributions. Ronald Radano writes, “The claims of black music’s transhistorical endurance do not develop from poor intentions. On the contrary, they reflect the deep political commitments of progressive-minded scholars who seek to defend a tradition so commonly denied a right to speak.”⁹⁵ But, one of the problems with speaking for an entire race is the need to hold a group of people up as indivisible, as a singular body barreling through history in one boat, a gesture that, as Radano puts it, “...extends racial mystification by re-presenting the past with little regard for the vagaries of history.”⁹⁶ The problem with Lomax was not that he did not mean well, but that his efforts and his tactics were fundamentally inseparable, and in many ways indistinguishable, from racial discourses that kept black Americans impoverished and behind bars.

Lomax loved what he could never be. But, paradoxically, one of the fundamental obstacles in his becoming black was his own invention and celebration of an Otherness too unique and alien to be fully knowable. Destined to never fully experience the version of black authenticity he helped to create, all Lomax was able to do was travel to exotic lands in his own backyard—to the field, where authentic black folk songs were born—set up his machines, and record.

⁹⁵ Radano, *Lying up a Nation: Race and Black Music*, 7.

⁹⁶ *Ibid.*

The Channels of Communication

I played the record back.

“That’s a ghost,” said a wizened old farmer in the corner. “It purely a ghost.”

“Don’t talk old-fashioned man,” said Willie B. “It ain’t nothin to do with ghosts. I tell you exactly how it work. You know what a cotton gin is?”

“Sho,” said the old fellow.

“Well, this the same idea. Just like a cotton gin take two, three wagonloads of cotton and squeeze it down to just one bale so you can ship it where you want to go, this microphone squeezes me and my song downs into that little wavery line and the can ship me out to wheresoever they want me to sing. See the mystery?”

- Alan Lomax, *The Land Where the Blues Began*⁹⁷

When Alan Lomax sat down with his father to record Leadbelly it had not occurred to him that their humble, temperamental machine had the power to act as an instrument for social change. As he would come to discover, field recording could be a vehicle for downtrodden, marginal people with which to convey their desires and fears to politicians and to mainstream America. “It took me a long time to realize,” confessed Lomax, “that the main point of my activity was to redress the balance a bit, to put sound technology at the disposal of the folk, to bring channels of communication to all sorts of artists and areas.”⁹⁸ His tape recorder could right social wrongs and become “a voice for the voiceless.”⁹⁹ The words, spoken and sung, of prisoners, farmers, and labourers of all descriptions could be transmitted directly to governors but could also be broadcast via the public media.

⁹⁷ Lomax, *The Land Where the Blues Began*, 9.

⁹⁸ *Alan Lomax: Selected Writings 1934-1997*, 174.

⁹⁹ *Ibid.*

Lomax's faith in sound recording to transcend geography and class, inherently functioning as a tool for emancipation, resonates with a long and deep American romance with technology. What James Carey calls the "mythos of the electronic revolution" envisioned the United States as a land unspoiled by the disastrous poverty, pollution, and injustice abetted by Europe's Industrial Revolution: "This vision was of a middle landscape, an America suspended between art and nature, between the rural landscape and the industrial city, where technological power and democratic localism could constitute an ideal way of life."¹⁰⁰ America, the nation of the middle and the medium: a technological utopia built between town and country, a promised land built on slave labour conveyed by the middle passage. It is a nation made fluid by innumerable forces that conduct and convey. But for many it has also been a nation of stultification and confinement, a nation that, for African Americans, is rigid with institutional racism and the enduring specter of imprisonment. After all, each of these technics of captivity—the prison, sharecropping, slavery—is in itself a medium.

It is unorthodox, to be sure, to compare prison and electronic media, to expect the term medium to hold them both. But, in Lomax's philosophy of field recording the prison and phonograph had similar roles to play. If prison was a container that protected black culture, sound recording technology offered the similar promise of holding it in stasis, preserving its purity. But, the metaphor only goes so far: the prison isolated prisoners, preventing them from integration into mainstream society. Sound recording, however, simultaneously preserved black culture *and* allowed African Americans to join the national conversation. It could perform the incredible trick of arresting cultural change *while* catalyzing a transformation of the social meanings of race and class. Paradoxically, recording

¹⁰⁰ James Carey, *Communication as Culture: Essay on Media and Society* (New York: Routledge, 2009), 91.

might seemingly lift African Americans out of systemic poverty and oppression and, at the same time, be a tool for ensuring that the culture bred by this disenfranchisement might live forever.

Lomax's faith in the power of sound recording to store and to transmit cultural expression ran deep. The phonograph and the tape recorder could capture the spirit of an individual in all its complexity, and hold the truth of a folk song "in its three-dimensional entirety."¹⁰¹ In his commitment to the phonographic preservation of folk music, Lomax confronted the folkloric orthodoxy that had historically privileged writing. The phonograph had been widely used by ethnographers and folklorists since the early 1890s but had mainly served to aid fieldworkers in accurately transcribing folk songs. By committing music to writing—in rendering them as instructions for future performances—ethnographers tacitly proposed that folk songs were the product of a people and not the unique expression of an individual. But, for Lomax the recording was the object of fieldwork itself; neither writing nor musical notation could fully capture the uniqueness or spirit of a performance.¹⁰² Lomax would write,

Only recently have artists and scientists seemed to care to know what the people thought and felt and believed, what and how they sang. With the development of the portable recording machine, however, one can do more than transcribe in written outline what they say. The needle writes on the disc with tireless accuracy the subtle inflections, the melodies, the pauses that comprise the emotional meaning of speech, spoken and sung. In this way folklore can truly be recorded. A piece of folklore is a living, growing, and changing thing, and a folk song printed, words and tune, only symbolizes in a very static fashion a myriad-voiced reality of individual songs. The

¹⁰¹ Lomax, *Alan Lomax: Selected Writings 1934-1997*, 64.

¹⁰² Filene, *Romancing the Folk: Public Memory & American Roots Music*, 55-56.

collector with pen and notebook can capture only the outline of one song, while the recorder, having created an atmosphere of easy sociability, confines the living song, without distortion and in its fluid entirety, on a disc.¹⁰³

There is an uneasy relationship here between timelessness and evanescence, between flux and stasis. In Lomax's view, the fluidity of a folk song is unerringly stored away by the medium, ready to be revived again and again. Paradoxically, it is a "living, growing, and changing thing" whose preservation relies on its perfect resurrection from an unchanging, arrested state. Set against the corrupting distortions of writing, the recording is able to capture change thanks to its ability to provide stasis. Writing is only a symbol; recording is the living, breathing voice itself. But Lomax undermines this metaphysical claim by describing the process of recording itself as a form of writing. Perhaps there is no escaping etymology: the phonograph—literally "sound writer"—is a dictation instrument that bypasses the wavering, imperfect script of human hands. Or, as Friedrich Kittler writes, "Ever since the invention of the phonograph, there has been writing without a subject."¹⁰⁴ Lomax has no use for writing, for a process of mediation that lets the full richness of direct experience slip past imperfect human stenographers, fallible individuals already limited by a system of musical notation that is far too coarse to adequately capture all the blue notes and melisma of a music too raw and primitive to be represented by Western musical theory.¹⁰⁵ A phonographic metaphysics of presence nevertheless requires of mechanical reproduction a supplementary mode of inscription. The phonograph writes with a transcendental accuracy. But, deferred or not, it is still writing. As Derrida might suggest, Lomax's metaphysics of

¹⁰³ Lomax, *Alan Lomax: Selected Writings 1934-1997*, 64.

¹⁰⁴ Friedrich Kittler, *Film, Gramophone, Typewriter*, trans. Geoffrey Winthrop-Young and Michael Wutz (Stanford: Stanford University Press, 1999), 44.

¹⁰⁵ On the history of Western attempts to deal with the complexities of representing non-Western music, see Ter Ellingson, "Transcription," in *Ethnomusicology: An Introduction*, ed. Helen Myers (London: Macmillan Press, 1992).

inscription takes sound as the mode of expression closest to the original, transcendental form. A written transcription, in this account, is no more than a signifier of a signifier. But, as Lomax himself acknowledges, sound recording is itself writing. It is this admission—that there is always a distance from the event effected by an act of inscription—that undercuts the metaphysically privileged status of a recording. Sound recording constitutes a trace that has no more real a claim to a transcendental event than do musical notation or writing. Or, as Derrida writes, “*The trace is in fact the absolute origin of sense in general. Which amounts to saying once again that there is no absolute origin of sense in general* (emphasis in original).”¹⁰⁶ Both forms of writing, mechanical and manual, are effectively the traces that bring the supposedly original event into being.

For all its contradictions, there is something to Lomax’s thinking about recording worth considering. Again, work songs are complex and ambiguous exactly because they signify on textual and a non-semantic levels. Writing can only approximate the unique inflections of an individual singer, let alone any improvisational deviations from anything one might consider an original song, stable in its composition. The voice, in all its physical particularity—what Barthes called the “grain”—is unique not merely thanks to a distinctive, recognizable timbre; it is a quality that is manifest when the voice is manifest through music or language. The grain of the voice is not passive; it exists parallel to a linguistic apparatus that writing cannot adequately capture. Rather, the voice itself produces what Barthes describes a form of writing in that it creates meaning, revealing the materiality of language from within.¹⁰⁷ For Mladen Dolar, however, the exact opposite is true. The voice, according

¹⁰⁶ Jacques Derrida, *Of Grammatology*, trans. Gayatri Chakravorty Spivak (Baltimore: Johns Hopkins University Press, 1997), 65.

¹⁰⁷ Roland Barthes, *Image Music Text*, trans. Stephen Heath (London: Fontana Press, 1977), 185.

to Dolar is “*what does not contribute to making sense* (emphasis in original)”¹⁰⁸ The voice is merely a vehicle for meaning, a vanishing mediator that contributes nothing to signification. Of course, this overlooks all of the very meaningful communicative sighs, grunts, gasps, and other noises that the voice produces but, rather than quibble with Dolar, it is useful to focus on the instability and ambiguity of the voice, to consider its ability to produce relatively stable statements while it simultaneously evades attempts to pin down its role in the production of meaning. But here, against the eminently meaningful cries and moans of these prison singers, it makes sense to read this definition of the voice perversely: the voice is what contributes to the resistance of that which does not make sense. The singing voice is what structures the productivity that the taskmasters demand *and* opposes exploitation. It delivers song lyrics—meaningful texts that are always Signifyin(g)—while spinning ironies that undo the words it utters. It is this voice that speaks from the recording but remains silent on the page. Recording, while not as fluid as Lomax believes it to be, at least has the capacity to reproduce certain qualities of voice and performance that evade the pen.

In the end, all of this attention to inscription, to styluses and speakers, should not draw us away from an important technosocial assemblage: a white man recording. After all, a phonograph alone is not sufficient to lift a people out abjection and isolation, to connect them to the communicative networks of power and authority. An electronic medium never transparently transmits matters of concern; a recording is always imprinted with messages that do not show up in its grooves. In any chain of communication, a multitude of actors will invariably play up certain aspects of a message while trivializing others. Sound recording offered a politically progressive individual like Lomax the story that it was the voice of the people that spoke loudly and clearly through phonographic technology, that the concerns

¹⁰⁸ Mladen Dolar, *A Voice and Nothing More* (Cambridge, Mass: MIT Press, 2006), 15.

they raised were conveyed directly and without distortion to the nation.

The living song, Lomax argued, is only properly alive in its native habitat. Without an atmosphere of easy sociability, the folk might grow stilted and wary and deliver contrived, stiff performances. Sound recording presented a potential obstacle to authentic expression by its very presence but, at the same time, it was the only medium with the potential to render a performance in all its immediacy and fullness. While sound recording did reproduce prisoners' musical responses to suffering in a way that writing could never hope to achieve, it would never be enough to waves of indignation that Lomax hoped would wash over the nation. After all, things other than mere steel, wood, shellac, and vinyl mediate the phonographic transmission of the concerns of a people. Lomax, the recordist himself, would apparently never recognize and trace of his presence on the record.¹⁰⁹

Speaking for Others

Alan Lomax's philosophy of sound recording offered the alluring promise of a technical delivery system endowed with the power to make the voices of oppressed peoples transportable, effectively allowing them to speak for themselves. In his mind, sound recording was able to represent oppressed people better than any spokesperson could. Because the poor and the incarcerated were lacking the mobility or the ability to speak on their own behalves, a recording could take their places in the halls of power. The idea of delegating a social function to a machine, for Bruno Latour, carries significant consequences. For one thing, technical objects are never simply born already suited to a particular task. Technical objects only come into being following a series of complex chains of decisions,

¹⁰⁹ "Lomax set himself up as the mediator between the folk and the rest of the country to bring the political protest message in their songs to a wider public audience." Mullen, *The Man Who Adores the Negro: Race and American Folklore*, 91.

conflicts, and alliances between engineers, legislators, planners, marketers, etc. In this sense, the values of a large number of people become reified in nonhuman objects.¹¹⁰ This is clearly not what Lomax had in mind in promoting sound recording as a powerful delegate for social justice. For Lomax, a sound recording is an impartial witness, one that will spirit testimony away without bias or alteration. But, this significantly contradicted his prediction that his era would come to be associated more with recordists and collectors of folk songs than with performers themselves. Impartiality and transparency—his stated ideals—would never be anything but overshadowed by the heavy hand and overpowering voice of a promoter like Lomax. Sound recording was supposed to transmit his subjects' voices to places they might not otherwise reach. But, in reality, Lomax was more than a mere messenger or custodian of a folk legacy; he became a self-styled spokesperson for folk culture. Lomax, perhaps more than any individual in the twentieth century, was responsible for creating the canons that defined who the folk were and how their music sounded. He was also instrumental in giving folk music a political valence. As William Roy writes, “More than any other individual, his entrepreneurship built a mode of music that could help bridge racial boundaries in an era in which the organized left was one of the few agents contributing to racial progress.”¹¹¹

Lomax's greatest contribution to civil rights was arguably the vast archive of African-American music he recorded and put into circulation. What began as an attempt to collect and preserve black folk music culminated in his efforts to establish what he called the “Black Identity Project,” an initiative intended to promote positive images of African Americans by educating the public about blacks' important musical heritage. The project resulted in a series of short educational radio spots called *Black Encyclopedia of the Air* that appeared on stations

¹¹⁰ Bruno Latour, “Mixing Humans and Nonhumans Together: The Sociology of a Door-Closer,” *Social Problems* 35, no. 3 (1998).

¹¹¹ William G. Roy, *Reds, Whites, and Blues: Social Movements, Folk Music, and Race in the United States* (Princeton: Princeton University Press, 2010), 112.

catering to black communities.¹¹² That Lomax was so active and influential in racial politics is not in and of itself problematic. His sense of curatorial authority, however, complicated and compromised his work. Lomax's biographer, John Szwed, offers an encapsulation of his thinking on the role of the folklorist in interpreting and speaking for marginal peoples:

The folklorist's job was to describe and define the system of values in the people's lore, and to show how those values relate to the cultural environments in which the exist...Folklorists should be interpreters to the world outside the folk communities, but they should also champion these peoples who are subject to the control of the modern world.¹¹³

But Szwed's sympathetic description misses the intractable problem caused by "interpreting" and "championing" a group allegedly unable to fight on its own behalf. To assemble, promote, and canonize, is to speak for others, a gesture that is always caught up in an unbridgeable power differential. As Linda Alcoff explains, "In...speaking about others, I am engaging in the act of representing the other's needs, goals, situation, and in fact, who they are (emphasis in original)."¹¹⁴ The speaker can never truly or authentically represent her or his own full self, let alone the interests or desires of others. Lomax's campaign to preserve black folk music presented a particular version of African-American experience and culture, one that he divined, recorded, and disseminated. He would himself become a brand whose compiled recordings would go on to influence generations of artists, from Bob Dylan to Led Zeppelin, from Nirvana to Moby. While these musicians were undoubtedly moved by the power and skill of Leadbelly, Muddy Waters, Mississippi Fred McDowell, and so many others, the influence of the blues has arguably been just as much about racial authenticity as

¹¹² For a more sustained examination of Lomax's mobilization of black cultural identity, see Szwed, *Alan Lomax: The Man Who Recorded the World*, 360-68.

¹¹³ *Ibid.*, 218.

¹¹⁴ Linda Alcoff, "The Problem of Speaking for Others," *Cultural Critique* 20 (1991): 9.

aesthetics. Critics have attributed white youths' fascination with African-American music to a variety of factors ranging from the essential power of black expression to more historically based forms of affective alliance.¹¹⁵ Whatever the source of this attraction, black authenticity is not something simply located within the music. It lies just as deeply in the stories and anecdotes about black blues singers that have haunted the imaginations of generations. It is not simply because Robert Johnson sang, "I went down to the crossroads / fell down on my knees," that his legend still burns over seventy years after his death; it is because he is said to have actually gone down to the crossroads and sold his soul to the devil in exchange for supernatural abilities. It is not simply because Leadbelly sang, "If you ever go to Houston, boy, you better walk right / And you better not squabble and you better not fight / Benson Crocker will arrest you, Jimmy Boone will take you down / You can bet your bottom dollar that you're Sugarland bound," that he is epitomized as the singing criminal; it is because he was trotted around America dressed in a jailbird costume, because the legend of his incarceration was used as a promotional tool, because he is said to have sung his way to freedom thanks to a plea transmitted by a phonograph recording. In the cases of both Robert Johnson and Leadbelly, there are those outside of the music who have narrated its importance and have spoken for these artists' legacies. For much of the history of African-American music, those promoters have been white men like Alan Lomax, individuals residing outside of the circles in which the music is created. As Alcoff would argue, they occupy a very different social location. Alcoff writes, "...a speaker's location...has an

¹¹⁵ Simon Frith, for example, writes, "Rock 'n' roll faith is faith in the music's Black elements, in its sense of performance, its physical energy, its directness, its vocal and rhythmic techniques." Quoted in Nick Bromell, "'The Blues and the Veil': The Cultural Work of Musical Form in Blues and '60s Rock," *American Music* 18, no. 2 (2000). Nick Bromell, finds explanations like Frith's reductive, attributing the popularity of blues amongst white youth to an identification with a sense of loneliness and alienation endemic to the early days of rock 'n' roll. Ibid. See also Mike Daley, "'Why Do Whites Sing Black?': The Blues, Whiteness, and Early Histories of Rock," *Popular Music and Society* 26, no. 2 (2003).

epistemically significant impact on that speaker's claims and can serve either to authorize or disauthorize one's speech."¹¹⁶ What a speaker says might be immediately accepted or discounted based on the location she or he is seen to inhabit.¹¹⁷ "Location," here, is a metaphor for the social position that an individual occupies but, a perversely literal reading of Alcoff, in which "the field" is given as the speaker's physical location, can give insight into the ways in which racial politics and communications technologies intersect. For Lomax, the field operated as both physical space and as an ideological construct. It was a location that he had both the right and the means to enter and leave as he pleased—a privilege that many of his subjects did not share. These were the real, authentic folk—the kind that needed his advocacy—and his encounters with them were real, authentic adventures—the kind worth writing about. As a location, the field offered Lomax legitimacy as an expert that had *been there*. But for his subjects, the field was place they were often desperate to leave. And even if they had their own means of speaking from the field, it is unlikely that anyone would have listened. Although Lomax claimed to merely be a messenger, a medium for those that might not speak for themselves, he cannily took advantage of his position as a respected folklorist, academic, and activist to advance his ideas about how folk culture might change, even save, the world. Recordings could preserve the legacies of the oppressed but could also represent them, to allow them to speak for themselves, to transport the field into the halls of power. But his recording devices were never innocent, transparent witnesses to history; they captured a limited and idealized version of African America and allowed him to tell the world just what authenticity sounded like.

Lomax seemed to be aware that the prisoners at Parchman Farm would never be

¹¹⁶ Alcoff, "The Problem of Speaking for Others," 7.

¹¹⁷ For example, Alcoff suggests that when European post-structuralists made the claim that all writing is political, they were taken seriously. But a similar claim made by African-American writers was dismissed. *Ibid.*, 13.

able to transcend their location, let alone be taken seriously if they could. And so he took it upon himself to step in and let his status and privilege do the work. As a result, the world is blessed with countless hours of powerful music. American culture as we know is unimaginable without Leadbelly and Muddy Waters, not to mention Woodie Guthrie and Lomax's many other white "discoveries." But his legacy is far from innocent: every clichéd representation of a black man harnessing his natural artistic ability to transcend dire circumstances—an image that makes hardship seem like a natural feature of being African American—resonates with the fantasy of black authenticity that Alan Lomax found in the field.

Chapter 2 - Capturing the Animal

c. 1000 BC The author(s) of the *Book of Genesis* reported a conversation between Eve and the serpent.

- William Hillix & Duane Rumbaugh, *Animal Bodies, Human Minds*¹

Making his way back to camp through the dense jungle, Klaus Zuberbühler heard a familiar sound, a warning. A group of Diana monkeys croaked ominously—a sign that a leopard lurked nearby. Zuberbühler pressed on, but the calls—and likely the leopard—were getting nearer. Out of instinct he grabbed a branch, but realized that it would be next to useless against the predator. And here, anticlimactically, the story ends. The calls subsided; the leopard had apparently lost interest. Or perhaps Zuberbühler had never been the quarry in the first place. But, for Zuberbühler, a researcher studying the alarm calls of the Diana monkeys of Côte D'Ivoire's Taï Forest, it was a profound and powerful experience: after two decades of recording and studying these monkeys' calls in the field he realized that he had finally understood what the primates were "saying." Prior to his epiphany their calls had been little more than unintelligible chatter to his naked ear. The psychology professor had earlier discovered that the Taï Forest's other ten primate species responded to each others' calls but, as he describes it, that day he became the 11th primate: "Suddenly I shifted from being the objective observer to being...sort of part of that whole crowd in [the jungle]. Even though we're separated by 20 or 30 millions of years of evolutionary history. The humble creatures were able to teach me something about what was going on in the forest."²

Zuberbühler's initiation into this non-human linguistic community came after years

¹ William A. Hillix and Duane M. Rumbaugh, *Animal Bodies, Human Minds: Ape, Dolphin, and Parrot Language Skills* (New York: Kluwer Academic/Plenum Publishers, 2004), 1.

² Jad Abumrad and Robert Krulwich, "Shorts: Wild Talk," in *Radiolab* (NPR, 2010).

of working with a technique known as “playback,” a process that involved playing recordings of the Diana monkeys’ predators into the jungle canopy and then capturing and analyzing their responses in order to discern subtle differences in their calls. Zuberbühler learned that the Diana monkeys’ alarm calls did not simply signal the presence of a predator in general; they were in fact able to identify particular threats through an apparently nuanced and specific set of vocalizations. One call warned the group to duck below the canopy to conceal themselves from a crowned eagle flying overhead. Another alerted the group to a snake or a leopard lurking below.³ When Zuberbühler played what he suspected was a leopard warning, he observed that the monkeys would fearfully scan the ground whereas the eagle alarm would prompt them to look up. Although he had spent years listening to the monkeys, Zuberbühler never learned to identify the different calls—they were too similar to be parsed without technological aid. But, by recording the calls and then analyzing them with a spectrograph—a machine that visualizes the density of audible sonic frequencies over time—he established that the monkeys did in fact respond with unique vocalizations to different threats. For Zuberbühler, having the ability to *see* the difference between the sounds enabled him to *hear* the distinctions between them: “In the acoustic details of the calls, there is something that is very difficult to hear, when you really only see it in the spectrogram—which is kind of a visual representation of these calls. But interestingly, once you’ve seen that, and once you know what to pay attention to, you go out into the forest and suddenly you do hear these differences which you’ve never heard before.”⁴

³ Zuberbühler was not the first to observe this behaviour in monkeys. Gregory Radick, in his history of playback experiments notes that, in 1980, Robert Seyfarth and Dorothy Cheney conducted similar experiments in Kenya. Gregory Radick, "Primate Language and the Playback Experiment, in 1890 and 1980," *Journal of the History of Biology* 38, no. 3 (2005): 474. The case of Zuberbühler is illustrative, here, on account of his candor about the implications of his research, about his becoming monkey.

⁴ Abumrad and Krulwich, "Shorts: Wild Talk."

It was a machine, one that transposes data from one perceptual register into another, that allowed Zuberbühler to make out what his subjects were saying.⁵ But this mechanically mediated access to the speech of monkey only partially explains his experience of becoming part of the primate crowd. Zuberbühler's story also speaks to the ways in our understanding of the field and laboratory—the dual spaces of scientific epistemology—help to shape experience and structure what sorts of encounters one can have with experimental subjects. The field is generally described as a space of spontaneous and complex interactions; it is natural, authentic, and real. But fieldwork presents the scientist with a daunting task: to understand nature in its unfathomable plenitude. The laboratory, on the other hand, is a controlled space in which complexity submits to the scientific method. In the lab variables are stripped away until the truth emerges as a composite of incrementally generated accounts about how the world outside its walls functions. As we will see, the distinction between these two sites is not given by some sort of ideal, Platonic category; the field/laboratory dichotomy is the product of a series of shifts, mainly occurring during the nineteenth century, in the understanding of how place and epistemology are related. But Zuberbühler's story troubles the supposedly uncomplicated epistemological programs of these two sites. On the one hand, his recordings of monkeys in the field could be construed as representations of the spontaneity of life as it unfolds, free from the abstractions and reductions that laboratory science supposedly imposes on its subjects. But without bringing these recordings back to the laboratory and submitting them to the cold, hard calculations of a computerized logic, he would never have been able to understand the monkeys' speech. The objectification of his subjects that the laboratory afforded ironically deepened his

⁵ On the epistemological significance of transposing data from one sensory modality into another, see Jonathan Sterne and Mitchell Akiyama, "The Recording That Never Wanted to Be Heard, and Other Stories of Sonification," in *The Oxford Handbook of Sound Studies*, ed. Trevor Pinch and Karin Bijsterveld (Oxford: Oxford University Press, 2011).

understanding of the monkeys as intelligent agents and participants in the complex web of life inhabiting the Taï Forest.

The laboratory had, since its modern origins, been a storehouse of specialized instruments that allowed scientists to extend their limited senses, submitting the world to finely calibrated mechanisms theoretically capable of measure, quantifying, and tabulating everything in existence.⁶ The technological processes Zuberbühler applied to his sound recordings, techniques such as cross-sensory transposition and time stretching, did not simply extend his sense of the familiar; they created entirely new formations. Walter Benjamin described film in similar terms: “Evidently a different nature opens itself to the camera than opens to the naked eye—if only because an unconsciously penetrated space is substituted for a space consciously explored by man.”⁷ Benjamin dubbed the expansion of the senses afforded by the camera the “optical unconscious,” noting that the manipulations made possible by recording revealed that which remained hidden under the thresholds of perception. Zuberbühler’s experience with an audible unconscious engendered by sound recording yielded epistemologically relevant data, but they also created the possibility for new forms of affective understanding to emerge. His experiences in the lab would open him to radically new experiences in the field: to his immersion in the simian world, to his becoming-monkey. For Zuberbühler, sound recording served as a means of mediating a transition both between the field and laboratory and between the human and the animal.

One day in 1890, a self-described “simian linguist” named Richard Garner separated two

⁶ Foucault notes that tabulation was a mode of epistemology that emerged in what he calls the “classical” episteme, an era coincident with the rise of the architectural and social formation that would become the laboratory. Michel Foucault, *The Archaeology of Knowledge* (London: Routledge, 1972), 143.

⁷ Walter Benjamin, “The Work of Art in the Age of Mechanical Reproduction,” in *Illuminations*, ed. Hannah Arendt (New York: Schocken, 1968), 236-37.

monkeys—wild, one tame—into different cages. He poked the horn of a gramophone through the bars of one enclosure, prompted the keeper to prod the monkey until it shrieked with irritation, and then recorded the outburst.⁸ Garner repeated the process and then, equipped with several cylinders of what he took to be simian utterances, played them back to the other monkey in order to observe its reactions. What he witnessed confirmed his hypothesis: certain species of monkey could recognize the semantic content of different utterances. His intuition, validated by his mechanical apparatus, had been proven correct: monkeys do, in fact, speak.

The experiments drew large crowds and brought wide attention in the press propelling Garner to minor celebrity. Two years later, Garner's fame was at its zenith as he set off "to find a clue to the great secret of speech."⁹ Having pushed the limits of phonographic playback in the zoos of American and Europe, he planned to trade the cages that held monkeys captive for protective bars of his own behind which he would study the great apes of Africa, uninfluenced by human contact, in the field:¹⁰

In order for me to accomplish such a feat as I propose, it is necessary for me to go into the domain of the great anthropoid apes which inhabit the jungles and primeval forests of West Africa, as that is the only locality in which they can be found...To this end I am now outward bound on my journey to enter into those jungles where they live and there take up my abode, that I may study their modes of life in a wild state,

⁸ Richard L. Garner, *The Speech of Monkeys* (London: William Heinemann, 1892); Radick, "Primate Language and the Playback Experiment, in 1890 and 1980."

⁹ Richard L. Garner, "A Monkey's Academy in Africa," *The New Review* 7, no. 40 (1892): 282.

¹⁰ "The most important feature of my outfit, however, is a cage which I have designed for the trip, and without which the use of some of my implements would be impossible." Garner's cage would serve as protection against animals and natives, as a storage container for his equipment, and as a weapon: "In case of danger or unexpected attack, by the use of my switch board and by means of an induction coil, I can charge the entire cage with electricity, developing an alternating current of about 300 volts." "What I Expect to Do in Africa," *The North American Review* 154, no. 427 (1892): 713-14.

and try to establish some friendly relations with them through the means of speech.¹¹

Garner was convinced that he had already discovered this ability in several species of monkeys, a class of animals he considered of a lower order than the apes he hoped to study. His success was therefore almost assured, considering that apes were “the nearest mental and physical approach to man that is known in the animal kingdom...if they do not possess speech that men may acquire, we could scarcely expect to find it in lower forms.”¹² He was confident that his experiments would prove not only that they had language, but also that this capacity for speech would indicate their ability to reason.¹³ Garner considered that his initial phonographic experiments had demonstrated that monkeys did in fact have such a capacity, albeit it limited, a finding that seemed to confirm Darwinian evolution. Furthermore, that monkeys could speak proved that the gulf between the human and the animal was not nearly as wide as previously supposed. Garner supposed that simian language was a simpler and less evolved type of speech than the more sophisticated human tongues. Presumably, then, language existed in concomitantly more primitive forms all the way down the chain of evolutionary complexity.¹⁴ For Garner, it also stood to reason that, in terms of both language and reason, what were then widely considered lower orders of human culture could be situated somewhere between Western civilization and the highest echelons of the animal kingdom.

Garner’s plans for the African expedition revealed the simian linguist careening suggestively between his intentions for studying the animal and the primitive: “Among other experiments which I expect to perform with the phonograph will be to make a daily record

¹¹ "A Monkey's Academy in Africa," 282-83.

¹² Ibid.

¹³ Gregory Radick, "Morgan's Canon, Garner's Phonograph, and the Evolutionary Origins of Language and Reason," *The British Journal for the History of Science* 33, no. 1 (2000): 13.

¹⁴ Ibid., 14.

as nearly as possible of some children of the natives in order to ascertain whether or not the development of consonant sounds follows the same law with them as with children of the Caucasian race, and a like experiment as far as possible will be made with the young apes.”¹⁵ For Garner, that evolutionary lines between primates, primitives, and white men existed was certainly not in doubt. But where to draw those lines? From inside his cage, behind his phonograph and camera, the realm of primitive Others—both species and cultures—appeared blurry, perhaps blurrier than many would have liked.

In 1892 media did not admit Garner into the world of the ape or the savage; they captured his subjects, arrested them, and rendered them repeatable and available for further study. But, most importantly, they brought a distant past, one from which Western culture had emerged, into the present.¹⁶ In the 1890s, sound recording revealed that, while humans—the Caucasian race in particular—was believed to hold a superior capacity for language (and ipso facto for reason), this capacity was not as categorical as had previously been supposed. Garner, following Darwin, argued that this difference was one of degree and not kind. Speech had long stood as one of—if not the most important—trait by which humans could be said to be distinct from animals. For Garner, the sophistication of animal

¹⁵ Garner, "A Monkey's Academy in Africa," 289. Elsewhere, Garner writes, "I shall also record the speech of some of those wild tribes of men in the same regions for comparative study, and these records will be given to the world with all the conditions under which they were taken carefully noted. It is my purpose to secure photographs of the apes in their native forest, and especially to make simultaneous records and photographs in order to reproduce the sound and show the movements of the lips and vocal organs at the instant of uttering the sound, and by this means the vocal physiologist will be afforded a new field for his skill and study." Ibid., 283.

¹⁶ In his critique of anthropology, Johannes Fabian argues that recording is a part of an epistemological regime that creates distance between the observer and the subject. This distance is a part of a set of practices that constructs the other as living in a past that occupies the present. Fabian, *Time and the Other: How Anthropology Makes Its Object*, 119. Eric Ames, in his history of comparative musicology, similarly addresses the role that recording technology plays in primitivizing others. Ames, "The Sound of Evolution."

communication corresponded with the complexity of a given species' brainpower.¹⁷ According to Garner, "The organs of sensation in these creatures are modelled (sic) by the same design as those of man, are adapted to the same uses, and discharge the same functions. Then why should the vocal powers alone be abnormal, except in a degree measured by the difference of place which they occupy in the scale of Nature?" While Garner's radical views even granted animals a certain degree of subjectivity, any form of non-human consciousness was ultimately understood to be a diminished version of human thought. In the 1890s, the white European subject not only stood at the top of the evolutionary ladder, he was also its telos.

In the 1990s an apparatus similar to Garner's worked to erode the line between species. Zuberbühler's access to spectrograms certainly granted him a more sophisticated means of isolating primate phonemes, of arresting and delving into monkeys' speech. But technology alone was not responsible for overturning centuries of investment in the idea that we humans are distinct and privileged, even if such a distinction is only a matter of degree. Zuberbühler's self-reported induction into the community of primates followed a proliferation of philosophers and scientists questioning the categories already troubled by Garner, of a multiplication of discourses invested in decentering the human. Over the course of the century stretching between the two, a host of ideas built on Darwin's argument that humans are not distinct and divinely wrought. The list is long, but a few points of articulation help to give the contours of the trajectory of this shift.

1934: Jakob von Uexküll proposes that each species inhabits its own, unique sphere

¹⁷ "So far as I can find through the whole range of animal life, all forms of land mammals possess vocal organs which are developed in a degree corresponding to the condition of the brain, and seem to be in every instance as capable of producing and controlling sounds as the brain is of thinking: in other words, the power of expression is in perfect keeping with the power of thinking." Garner, *The Speech of Monkeys*, 173.

of perception. His writings contradict the long-held position that there is but one world in which all creatures are ordered by the sophistication of their faculties. Rather, according to von Uexküll, there exist a multitude of life-worlds, each rich, complex, and isolated from one another. That there can be no center or privileged mode being that can exhaust or fully explain the perception of other creatures necessary throws humankind from its perch atop the ladder of creation.¹⁸

1954: The ethologist Peter Marler, influenced by the nascent cybernetics movement, begins to conceive of animal vocalizations as carriers of information. In contrast to the prevailing ethological argument that animals involuntarily release sound out of reflex, Marler argues that because their calls can be shown to elicit responses, then it follows that information has been exchanged. Cybernetic research gives Marler the materials he needs to argue that animals communicate, a proposition that problematizes the paradigm that humans alone have language.¹⁹

1975: In his highly controversial book, *Animal Liberation*, Peter Singer argues that all creatures capable of experiencing suffering should be accorded the same right and freedoms as humans. He suggests that it is reasonable to suppose that animals experience fear and pain, regardless of whether or not they are able to convey their suffering through language. After all, says Singer, human babies and some disabled people do not have language and therefore cannot communicate their pain, but this evidently does not prevent us from assuming that they can in fact experience suffering. Singer's salvo popularizes the notion that speciesist assumptions about the (limited) capacities of animals are too inconsistent to

¹⁸ Jakob von Uexküll, "A Stroll through the World of Animals and Men," in *Instinctive Behavior: The Development of a Modern Concept*, ed. Claire H. Schiller (New York: International Universities Press, 1957); Giorgio Agamben, *The Open: Man and Animal* (Stanford: Stanford University Press, 2004), 39-43.

¹⁹ Radick, *The Simian Tongue: The Long Debate About Animal Language*, 274-79.

constitute a coherent legal framework for the permission to inflict pain on non-human others.²⁰

1980: The philosopher Gilles Deleuze and the psychoanalyst Félix Guattari declare that the discrete human subject posited by psychoanalysis is in fact fundamentally porous and prone to radical displacements of self/identity. The lines dividing humans from animals are the product of an Oedipal logic that is bent of convincing us we are each singular and self-consistent. But in reality, this containment is a fantasy. The subject is more a vector of flows and intensities, a multiplicity that finds in animals alliance, or even a way out of the limits of her constitution as an individual: a becoming-animal.²¹

The last century has seen a mounting attack on the idea that the category of “the human” is not metaphysically given, that it is the result of a long history of anxious attempts to distinguish ourselves from other species, to expel the animal that we fear lurks within. For Jacques Derrida, it is telling that the word we use to denote all creatures that are not human is preceded by an indefinite article: “the animal.” Which is to say that this designation collapses the multiplicities and complexities of all life under the sign of the singular other. “Animal is a word that men have given themselves the right to give,” Derrida writes.²² That we humans occasionally deign to use this word in self-description is in itself a sign of our privilege to order and describe the world in relation to ourselves. But given the torrent of news items regarding the discoveries that other species are not nearly as poor in world or in language as we had been led to believe, stories about how dolphins call each other by name and about marmosets’ human-ish tendency to take turns speaking when engaged in “polite

²⁰ Peter Singer, *Animal Liberation* (New York: Ecco, 2002).

²¹ Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. Brian Massumi (Minneapolis: University of Minnesota Press, 1987), 232-309.

²² Jacques Derrida, *The Animal That Therefore I Am*, trans. David Wills (New York: Fordham Press, 2008), 32.

conversation,”²³ Zuberbühler’s epiphany is utterly of its time.

Whatever the differences in Garner and Zuberbühler’s interpretations of their playback experiments, their respective engagements with both sound recording and the field in which it was deployed have much to tell us about the ways in which the technological representation of animals has played a crucial role in the modern constitution of the sovereign human subject. As Akira Lippit writes, “As animals began to disappear from the phenomenal world, they became increasingly the subjects of nineteenth- and twentieth-century reproductive media.”²⁴ Removed from everyday life, animals became objects of representation and figures through which modern people constituted their humanity. For Garner, culling these representations in the wild was an essential part of unlocking the secret of human language as the monkeys with which he previously worked had been tainted by domestication and were no reliable measure of the simian capacity for language in its natural, authentic state of nature.²⁵ As for Zuberbühler, his foray into the jungle came after a century of negotiations and contestations surrounding the relationship between knowledge gathered in the field and in the laboratory. Field recordings were still taken to represent life in a more authentic, unmediated state; however, by the 1990s methods of abstraction and isolation associated with the laboratory had been thoroughly integrated into field science.

²³ Rebecca Morelle, "Dolphins 'Call Each Other by Name'," BBC, <http://www.bbc.com/news/science-environment-23410137>; Joseph Bennington-Castro, "Marmosets Have Conversations That Sound Strikingly Human," io9, <http://io9.com/marmosets-have-conversations-that-sound-strikingly-huma-1446903661>.

²⁴ Akira Mizuta Lippit, *Electric Animal: Toward a Rhetoric of Wildlife* (Minneapolis: University of Minnesota Press, 2000), 185.

²⁵ “I have observed such a trait in monkeys, but have not been able to tell as yet, with any degree of certainty, to what degree they appreciate these values, or whether they are indeed conscious of the real meaning of the act, as all the monkeys in which I have observed this act have been thoroughly domesticated specimens.” Garner, "A Monkey's Academy in Africa," 290.

The Location of Knowledge

Perhaps the best way to record sounds made by a bird or other animal is to invite, or to entice, it into a good studio, place a microphone before it, and have the animal render its various songs and call notes, repeating these until the engineer and the biologist are convinced that the recording is satisfactory.

- Peter Paul Kellogg, *Recording Sound in Nature*²⁶

Before the nineteenth century, the word “field” denoted little more than a stretch of open land. But the field, defined as “the sphere of direct or practical participation in work or research,”²⁷ was an invention of the nineteenth century, a necessary foil to its more contrived opposite: the laboratory. Both spaces came to be associated with different empirical functions: the field was characterized as a site of direct and spontaneous experience while the laboratory represented controlled observation. In its own way, each site became a metonym for a certain type of scientific investigation. Thomas Gieryn describes these conjunctions of geography and epistemology as “truth-spots.”²⁸ According to Gieryn, all claims to scientific knowledge have a provenance. However, as these claims become accepted as truths, they tend to lose any trace of having been formulated in a specific place and at a specific time. To hang a claim to truth on the idea of place requires a sort of scientific sleight of hand—empirically derived facts, after all, are supposed to be universal and independent of any specific location. This applies to both the field and the laboratory, although occurring along different lines of argument. The field is a truth-spot by virtue of its

²⁶ Peter Paul Kellogg, "Recording Sound in Nature," in *Techniques of Magnetic Recording* (New York: Macmillan, 1958), 92.

²⁷ "Field," *OED Online* (2012),

<http://www.oed.com.myaccess.library.utoronto.ca/view/Entry/69922?rskey=y0rTOa&result=1&isAdvanced=false>. The first cited usage of the term comes from 1610, however, it did not gain a wide currency until the nineteenth century.

²⁸ Gieryn, "Three Truth-Spots."

singularity. Truth claims derived from field sites are granted credibility by virtue of their specificity: such data could not have come from anywhere else. But this does not mean that local data cannot be used to describe more general phenomena. Taking Henry David Thoreau's intensely personal, solitary, and local explorations of nature, social critique, and subjectivity as an example, Gieryn argues that the transcendentalist writer fashioned Walden Pond into a truth-spot precisely by transforming its isolation into archetype. His profound local knowledge of the area gave Thoreau an authority to make claims about the place and to extrapolate out from his immediate experience. As such, Walden "stands in for anywhere, but because it is so close at hand, skeptical New Englanders might easily go there to check out with their own eyes what Thoreau has seen and recorded."²⁹ Most importantly, it was Thoreau's presence in the field, his *being there* that gave his observations weight.³⁰ It is the observer's direct experience that serves as currency in the epistemological economy.³¹ Prior to the mid-nineteenth century, the time of Thoreau's meditations on Walden Pond, scientists did indeed travel to collect specimens, but the destination did not factor—rhetorically or reflexively, at least—into either the empirical process or the results.

Since the advent of the laboratory, on the other hand, universality has always come first. Indeed, it was the rise of a new scientific culture committed to placelessness in the Victorian era that gave the field its geographical and ontological contours.³² Prefigured in the hermetic houses of experiment of alchemists like John Dee and proto-empiricists like

²⁹ Ibid., 117.

³⁰ Ibid. James Clifford makes a similar point about "being there," emphasizing the ways in which writing and other modes of documentation authenticate the observer's prerogative: "The predominant mode of modern fieldwork authority is signaled: "You are there . . . because I was there." Clifford, *The Predicament of Culture*, 22.

³¹ James Clifford's writing on anthropological authority eloquently captures the way in which situated knowledge underwrite claims to truth in the field: "Experience evokes a participatory presence, a sensitive contact with the world to be understood, a rapport with its people, a concreteness of perception." *The Predicament of Culture*, 37.

³² Kohler, *Landscapes and Labscapes: Exploring the Lab-Field Border in Biology*, 3.

Francis Bacon, empirical enquiry did have a life indoors prior to the advent of the modern laboratory. Early modern empiricists took refuge in bedrooms and cellars, away from both public and domestic life.³³ It was in the seventeenth century, at the dawn of the Enlightenment, that the site of experimentation began to play an important part in the ways in which “matters of fact,” as Steven Shapin and Simon Schaffer call them, came to be both produced and received.³⁴ For a claim to achieve the status of fact it had to be proven in the presence of a knowledgeable public. But the emergence of such collective scrutiny was by no means the natural condition of scientific enquiry: it was a convention arrived at through controversy and debate at a moment in which knowledge could no longer simply be authenticated through the good word of a reputable gentleman. Facts, as Shapin and Schaffer write, became the product of a somewhat paradoxical social practice of witnessing. While an experiment had to occur, in theory, in a space open to the public, its findings could only be ratified by a select group of experts: “What in fact resulted was...a public space with restricted access.”³⁵

Furthermore, matters of fact carried the weight of objectivity thanks to their having been derived and verified by mechanical means.³⁶ Technical instruments such as the microscope and Boyle’s air pump rendered the invisible observable while new techniques for tabulation and measurement systematized knowledge according to similarities and

³³ David N. Livingstone, *Putting Science in Its Place: Geographies of Scientific Knowledge* (Chicago: University of Chicago Press, 2003), 22-23.

³⁴ Steven Shapin and Simon Schaffer, *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life* (Princeton, NJ: Princeton University Press, 1989), 39.

³⁵ *Ibid.*, 336. See also Shapin, "The House of Experiment in Seventeenth-Century England."

³⁶ Lorraine Daston and Peter Galison make the case that the concept of objectivity did not emerge until the mid-eighteenth century. They caution that it cannot be confused with a notion of truth, a trope that predates objectivity by many centuries. For Daston and Galison, mechanical instruments played an important role in the production of a scientific culture preoccupied with the pursuit of knowledge about “how the world really is.” Lorraine Daston and Peter Galison, *Objectivity* (Cambridge, MA: MIT Press, 2007), 51.

differences.³⁷ Scientists began to banish the singular and the wondrous in their pursuit of the regular and the uniform.³⁸ The ostensible integrity of the laboratory was further bolstered by a commitment to replicability; if a fact was discovered in one place, it had to be replicated elsewhere to prove its universality. As Robert Kohler writes, “It is precisely the stripped-down simplicity and invariability of labs—their placelessness—that gives them their credibility.”³⁹ The rise of laboratory science has partly been the result of a concerted effort to banish all signs of local influence, to negate any trace of its dialectical twin, the field. Although it seems obvious to state that knowledge is always produced locally, in a particular place, at a particular time, amidst particular sets of social customs, it is precisely these parochial factors that laboratory science purports to transcend. Because any given laboratory can theoretically be substituted for another, and because scientists abide by standardized procedures yielding outcomes that can be replicated elsewhere, it supposedly follows that that their results are universal.⁴⁰ Ostensibly, it is this detachment from place that is meant to

³⁷ The idea of observation has a history, which is to say that it is not some transcendental or categorical feature of the world or of epistemology. See Gianna Pomata, “Observation Rising: Birth of an Epistemic Genre, 1500–1650,” in *Histories of Scientific Observation*, ed. Lorraine Daston and Elizabeth Lunbeck (Chicago: University of Chicago Press, 2011). With respect to the emergence of abstract techniques for the ordering of knowledge, see Michel Foucault, *The Order of Things: An Archaeology of the Human Sciences* (London: Routledge, 2002), 79–84; David Freedberg, *The Eye of the Lynx: Galileo, His Friends, and the Beginnings of Modern Natural History* (Chicago: University of Chicago Press, 2002), 367–96.

³⁸ Lorraine Daston and Katharine Park, *Wonders and the Order of Nature, 1150–1750* (New York: Zone Books, 1998), 350.

³⁹ Kohler, *Landscapes and Labscapes: Exploring the Lab-Field Border in Biology*, 11. See also Christopher R. Henke and Thomas F. Gieryn, “Sites of Scientific Practice: The Enduring Importance of Place,” in *The Handbook of Science and Technology Studies*, ed. Edward J. Hackett, et al. (Cambridge: MIT Press, 2008).

⁴⁰ The legitimacy of an epistemology based on replicability is currently under dispute. It has recently been noted that, when replicated, many experiments do not yield consistent outcomes. In fact, it has been noted that experiments tend to produce results with a decreasing level of consistency over time, a phenomenon known as the “decline effect.” Jonah Lehrer, “The Truth Wears Off: Is There Something Wrong with the Scientific Method?,” *The New Yorker* (2010), http://www.newyorker.com/reporting/2010/12/13/101213fa_fact_lehrer.

lend these findings the appearance of impartiality and objectivity.

The type of science practiced in the laboratory has, since its origin, has been held up as a corrective to the type of work performed in the field, a space in which things are neither predictable nor are they repeatable. As laboratory science came to be seen as the gold standard for empirical inquiry, that some of the tropes that had previously validated field research began to appear less persuasive. The literary mode of scientific dissemination, for one, began to move away from a subjective, narrative form towards the sober, passive-voice procedurals of laboratory science. In the literary style of Victorian naturalists, local description, lists of dramatis personae, and assiduous detailing of dates vouchsafed accuracy and authenticity. But as the epoch of laboratory took hold, these sorts of details come to be seen as distracting literary flourishes.⁴¹ The rising influence of experimental laboratory science required a correspondingly neutral and objective style of writing—one that did away with personal details and any “excess of local color.”⁴² Robert Kohler notes that this move towards a more impartial or dispassionate style was mainly a characteristic of biology. Other scientific disciplines—cultural anthropology, for example—continued to include details regarding location as a convention for contextualizing research.⁴³

The attributes of the ideal practitioner of science also changed. Nineteenth century field researchers were praised and admired for their heroic deeds; indeed, their credibility was partly due to the perception that they were brave explorers whose efforts pitted them against dangerous or extreme working conditions.⁴⁴ Richard Garner was one who disparaged the nascent class of comfortable laboratory researchers, cozy in their safe, controlled shells. “...I am willing to forego the comforts of, the endearments of home, and the blessings of

⁴¹ Robert E. Kohler, "Place and Practice in Field Biology," *History of Science* 40 (2002): 190-91.

⁴² Frederic Clements quoted in *ibid.*, 191.

⁴³ *Ibid.*

⁴⁴ Bruce Hevly, "The Heroic Science of Glacier Motion," *Osiris* 11 (1996).

health and plenty,” he wrote, “and take upon myself the hardships, undergo the privation, and endure the toil of such a journey that I may give to the world the ‘open sesame’ by which to pass the gates of speech; and for such a task I feel that my early life of hardship and my later years of study in this line have qualified me.”⁴⁵ But as scientific rigour came to be associated with more sober and methodical approaches to epistemology, heroism and daring lost their luster. It is not that fieldwork was abandoned; it adapted to meet changing empirical standards. In order to hew to these new norms, fieldworkers responded by creating conditions in the field that held up to the measures of laboratory science. “The trick,” writes Robert Kohler, “[was] to assimilate elements of laboratory practice and make them appropriate to field conditions, to seek out natural places that resemble laboratories in some way.”⁴⁶ That the field could be turned into a laboratory—or at least made to observe the same epistemological criteria—suggests that there neither is nor has there ever been any transcendental separation between the two sites. This was notable in the case of Louis Pasteur, who established a makeshift laboratory on a farm in order to study the causes and effects of the Anthrax virus. “No two places,” writes Bruno Latour, “could be more foreign to one another than a dirty, smelling, noisy, disorganized nineteenth-century animal farm and the obsessively clean Pasteurian laboratory.”⁴⁷ Pasteur had to establish a zone of purity amidst the messiness of supposed authenticity of the farm, one that also acted as a bridge with his fully equipped, hyper-controlled laboratory in Paris. He went on to develop a vaccine for the virus in his main laboratory, testing it in the highly publicized Pouilly le Fort field trial. Latour notes that there was something implicitly theatrical about the trial: for the

⁴⁵ Garner, "A Monkey's Academy in Africa," 292.

⁴⁶ Kohler, *Landscapes and Labscapes: Exploring the Lab-Field Border in Biology*, 11.

⁴⁷ Bruno Latour, "Give Me a Laboratory and I Will Raise the World," in *Science Observed: Perspectives on the Social Study of Science*, ed. Karin Knorr Cetina and Michael Mulkay (London: Sage Publications, 1983), 145.

results of the vaccine to appear credible, the public had to be convinced that the experiment was successful in situ, they had to believe that a cure engineered and tested in the lab was effective in the real world, under real conditions.⁴⁸ This, of course, entailed a belief there indeed existed dichotomous sites, separate from each other, spaces marked by geographical distance, but also by a fissure between very different institutional cultures and practices. But, with the establishment of any dichotomy, things are broken off, separated from each. To move from one pole of the binary to the other requires some sort of translation. This is when things tend to get political; this is when the ideological perimeter of location takes shape.

The border separating the field from the laboratory is fundamentally rhetorical; this division is the result of conflicts between parties interested in establishing credibility and guarding their corners of the professional landscape.⁴⁹ As supporters of laboratory science saw their disciplinary prestige grow they began to criticize their colleagues for their parochialism and lack of rigour. But it would be misleading to depict the conflict as one-sided; by the turn of the century, adherents of the “new natural history” were arguing that laboratory science had insulated itself from the very phenomena it was supposedly studying. The new natural historians singled out technical instruments—the microscope in particular—deriding them for the distance they created between researcher and subject.⁵⁰ Many felt, for example, that the microscope had become a crutch, an instrument that seemed to produce discoveries as if by magic. Taking Darwin as their patron saint, the new naturalists advocated a return to the immediacy of field research without sacrificing the precision engendered in laboratory culture. According to Kohler, “The ideal of the new

⁴⁸ Ibid., 151.

⁴⁹ Gieryn, *Cultural Boundaries of Science: Credibility on the Line*.

⁵⁰ Kohler, *Landscapes and Labscapes: Exploring the Lab-Field Border in Biology*, 28-29.

naturalists was a synthesis of sympathy and intellect, observation and experiment, spontaneity and control, laboratory and field.”⁵¹ Kohler describes the result as a “border culture”: a definite and distinct entity composed of two different and sometime conflicting bodies. Borders separate differing camps, but they also permit exchange and migration. The lines between laboratory and field, while appearing fixed and owing to some sort of pre-given, categorical distinction, are in fact the product of a long history of struggle and debate over the limits of epistemology and the importance of location.⁵²

Field recording is no less a product of this sort of border confusion. From the beginning recordists have traded on the credibility that “being there” affords. Richard Garner, for one, was adamant that monkeys in captivity had been corrupted by domestication. In order to truly understand the linguistic capabilities of monkeys he would have to record them in the wild.⁵³ The authentic behaviour of animals was affected by their captivity, as was the quality of the recording environment itself. As Ludwig Koch—the man credited with the creation of the first recording of an animal⁵⁴—stressed, “Bird-song must be captured in the open, from wild birds in ordinary conditions, in order to get satisfactory results. Attempts with caged birds have proved a failure, since the acoustics of the building distort the sound, sometimes beyond recognition.”⁵⁵ But recordists also complained of noise in the field, about having to contend with the vicissitudes of nature and the obstacles posed

⁵¹ Ibid., 34.

⁵² Etienne Benson’s history of animal tracking technologies, specifically radiotelemetry, is a compelling example of how the boundaries between field and laboratory are created and maintained. Remote sensing and transmission technologies made it possible for scientists to collect data with the same precision and elimination of variability that would be de rigueur in a laboratory setting. Etienne Benson, *Wired Wilderness: Technologies of Tracking and the Making of Modern Wildlife* (Baltimore: Johns Hopkins University Press, 2010).

⁵³ Garner, “What I Expect to Do in Africa,” 713.

⁵⁴ Eric Simms, *Wildlife Sounds and Their Recording* (London: Paul Elek, 1979), 2.

⁵⁵ E. M. Nicholson and Ludwig Koch, *Songs of Wild Birds* (London: H. F. & G. Witherby, 1936), xx.

by unwanted and unwelcome sonic interruptions. While early field recordists like Koch aimed to capture nature in its plenitude, they found that simply turning a microphone towards one's subject resulted in recordings that also picked up acoustic interruptions like the roar of airplanes passing overhead and traffic noise—even when the cars were hidden from view.⁵⁶ The “mechanical ear” did not have the same capacity as an ear/brain assemblage to filter out unwanted sound. Early recordings captured everything in equal measure. Friedrich Kittler writes, “Phonographs do not think...”⁵⁷ Which is to say that sound recording registers all frequencies without prejudice; it is not in thrall to a cognitive apparatus that combs all sensory input for meaning.⁵⁸

Koch's solution was to arrange as many as six separate microphones around his subject in order to capture the sounds that suited his purposes. In effect, he constructed a studio in the wild, an apparatus guaranteeing—or at least improving the odds—of a satisfactory recording. The development of the parabolic microphone in the 1930s, a specialized instrument developed at the Cornell Laboratory of Ornithology, would replace Koch's multi-microphone array, becoming the standard means of capturing animal sounds in that it minimized sonic contamination coming from an artificial, mechanical—that is, human—world. The parabolic microphone essentially served as a virtual recording studio in and of itself insofar as it was able to isolate the subject, pulling it out of its environmental context. “The parabolic reflector,” writes Joeri Bruyninckx “...seemed to ‘laboratize’ the recording...By reinforcing only those sounds at which the reflector was aimed, it also

⁵⁶ Ibid., xxii.

⁵⁷ Kittler, *Film, Gramophone, Typewriter*, 33.

⁵⁸ Interestingly, the concern that sound recording captured *too much* was at odds the call for “mechanical objectivity” that the development of photography inspired. As Lorraine Daston and Peter Galison note, mechanical means of representation were touted for their putative abilities to bypass scientists' human subjectivity and bias. Daston and Galison, *Objectivity*, 115-90.

isolated and detached them from their surroundings, enforcing an aesthetic of the individual.”⁵⁹ But beyond merely catering to the aesthetic tastes of the recordist, creating a recording free from background noise can be seen as crucial to its utility in experimental situations.⁶⁰

The playback experiment, while ostensibly a part of an approach to biology that would be classified as field science, is very much a hybrid practice. J. Bruce Falls, a pioneer in the playback technique stresses the importance of harnessing its twofold approach:

There is more precise control of the conditions and more precise measurement in the laboratory but precision doesn't necessarily imply accuracy. Especially for large and mobile animals, the laboratory is not a natural context. The field, with all its unknowns and uncontrollable variables is where behaviour may be most uninhibited, natural and complete. Ideally, we can have the best of both venues by linking laboratory and field studies. Playback helps us to do that.⁶¹

Playback, as Falls suggests, is effectively an interface between laboratory and field. The technique requires that the two locations to enter into a feedback loop with each other. Recordings captured in the field need to be compiled and processed in a laboratory-like setting. The transformation of direct observation into a system that deals largely with representations—photographs, sound recordings, etc.—is, according to Karen Knorr Cetina, a significant epistemological development in that it allows scientists to control both when

⁵⁹ Bruyninckx, "Sound Sterile: Making Scientific Field Recordings in Ornithology," 140.

⁶⁰ See, for example, Dorothy L. Cheney and Robert M. Seyfarth, *How Monkeys See the World: Inside the Mind of Another Species* (Chicago: University of Chicago Press, 1990), 63.

⁶¹ J. Bruce Falls, "Playback: A Historical Perspective," in *Playback and Studies of Animal Communication*, ed. Peter K. McGregor (New York: Plenum Press, 1992), 13.

and where observations are analyzed.⁶² Representations also allow scientists to do away with extraneous information, to perform substitutions and abstractions. In the field, researchers surrender a certain degree of control that they stand to regain through the repeatability of recording. Writing specifically on techniques of visualization, Latour argues that recorded representations—or “inscriptions”—are useful not only because they are amenable to wide varieties of manipulation, but also in that they allow scientists to do away with the object of study altogether: “Bleeding and screaming rats are quickly dispatched. What is extracted from them is a tiny set of figures.”⁶³

In the form of field recordings, sonic inscriptions perform a similar function by giving scientists access to a repeatable set of acoustic data, allowing them to bypass the need to house animals and/or to coax or coerce them to perform. Sound recording has served as a scientific instrument for over a hundred years and yet it is often seen as an unreliable medium in need of supplemental support. Perhaps this is because sound is taken to be inherently fleeting and evanescent—even when reified and made repeatable. Visual data, on the other hand, are taken to be stable and unchanging. This is at least partly the reason that while early experimenters like Garner and Koch relied almost exclusively on the phonograph in their analyses of animal sound, their contributions did not culminate in the formation of anything resembling a discipline. Ironically, a field organized around animal sound would only emerge after a tool was developed to sufficiently visualize sound recordings. “Bioacoustics,” as the field came to be known, to a large degree was made possible by the spectrograph, an instrument developed in the 1940s at Bell Laboratories. Techniques for

⁶² Karin Knorr Cetina, “The Couch, the Cathedral, and the Laboratory: On the Relationship between Experiment and Laboratory in Science,” in *Science as Practice and Culture*, ed. Andrew Pickering (Chicago: University of Chicago, 1992), 116-17.

⁶³ Bruno Latour, “Visualisation and Cognition: Drawing Things Together,” in *Knowledge and Society Studies in the Sociology of Culture Past and Present*, ed. Henrika Kuklick (Greenwich: Jai Press, 1986), 16.

visualizing sound already existed—the oscilloscope, for example, could monitor the amplitude, or strength of a signal—but the spectrograph made it possible to display sound at the level of both frequency and amplitude.⁶⁴ The spectrograph alone cannot take full credit for bringing bioacoustics into being. Developed in parallel, the tape recorder was equally important given its ability to capture sound with far greater fidelity than the phonograph. Necessary, but certainly not sufficient: sonic fidelity alone could not guarantee empirical legitimacy. Rather, it was the possibility of “reading” visual traces of animals’ calls rather than merely listening to source tapes that excited people like engineer Ralph K. Potter, one of the spectrograph’s developers. As Potter wrote,

“If detailed analysis of song patterns is possible, there would seem to be a wide new field of study open to the ornithologist. Perhaps bird books and periodicals of the future will be filled with song pictures, and serious readers may become well enough acquainted with this sound language to read visible patterns of bird music in the way a musician reads a musical score.”⁶⁵

That it would be important for serious researchers to acquire proficiency in reading “song pictures” rather than developing their listening skills speaks to a longstanding current running through the Western scientific tradition. Sound has remained a marginal form of empirical experience while, historically, vision has tended to be associated with rationality and objectivity. Indeed, Western science is founded in part on a sensorial dichotomy that is underpinned by what Jonathan Sterne calls an “audiovisual litany.” In this epistemological schema, the eye is describes as not having contact with the object of study while the ear cannot help but be immersed in intimate proximity to the stimulus; vision offers intellectual perspective and temporal distance while hearing places the observer inside of phenomena, a

⁶⁴ Radick, *The Simian Tongue: The Long Debate About Animal Language*, 265.

⁶⁵ Quoted in *ibid.*

position whose primary mode of experience is affective and temporal.⁶⁶

Improved sound recording technology, coupled with these nascent visualization techniques, promised to promote sound to a level of objectivity that had previously belonged only to sight. By 1957, a biologist such as Richard D. Alexander, an entomologist studying sound production in insects, could write, "Magnetic tape recorders and electronic sound analyzing devices now provide objective means of analyzing and comparing these intricacies of structure, and have been responsible for a surge of interest in insect sounds in many different parts of the world."⁶⁷ In recent years, even as critiques of ocularcentrism have grown, the conflation of vision with impartiality has lingered.⁶⁸ Published in his 2005 book, *Birdsong*, Don Stapp's description of the working methods of the biologist and birdsong expert Don Kroodsma speaks to the lingering preeminence of visual evidence:

Back at the house, Kroodsma placed the sonograph he'd brought with him on a

⁶⁶ Sterne, *The Audible Past: Cultural Origins of Sound Reproduction*, 15-19. Histories of how vision came to be equated with rational, objective investigation include Martin Jay, *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought* (Berkeley: University of California Press, 1993); Don Ihde, *Listening and Voice* (Albany: State University of New York Press, 2007).

⁶⁷ Richard D. Alexander, "Sound Production and Associated Behavior in Insects," *The Ohio Journal of Science* 57, no. 2 (1957): 101.

⁶⁸ Since at the least the 1960s, critiques of ocularcentrism have come from a variety of affiliated but separate schools, from philosophy to communications to anthropology to feminism. Critiques from philosophy include Foucault, *Discipline and Punish: The Birth of the Prison*; Jacques Derrida, *Writing and Difference*, trans. Alan Bass (London: Routledge, 1978). Marshall McLuhan and Walter Ong are the best-known proponents of the anti-ocular communications perspective. See Marshall McLuhan, *Understanding Media: The Extensions of Man* (Cambridge: MIT Press, 1994); Walter Ong, *The Presence of the Word* (Minneapolis: University of Minnesota Press, 1981). David Howes offers an exhaustive history of the ways in which sensorial hierarchies came to be established in anthropology. See David Howes, *Sensual Relations: Engaging the Senses in Culture and Social Theory* (Ann Arbor: University of Michigan Press, 2003). Donna Haraway famously sought to subvert the paradigmatic detachment of vision, instead reclaiming sight as an embodied sense, one that offers a position from which to begin to construct a feminist epistemology unburdened of postmodern identity politics. Donna J. Haraway, *Simians, Cyborgs, and Women: The Reinvention of Nature* (New York: Routledge, 1991), 188-96. For a general overview of ocularcentrism see Donncha Kavanagh, "Ocularcentrism and Its Others: A Framework for Metatheoretical Analysis," *Organization Studies* 25, no. 3 (2004).

folding table and connected his tape recorder to it...The sonograms would reinforce what he felt he already knew about the songs' structure and their frequency...The sonograph supplied objective data. It could produce a visual image on a computer screen in real time so that we could see the sonogram as we heard the song.⁶⁹

The spectrograph abets a visualist paradigm by converting sound into image, into a legitimate form of legible data, into a form that can be disseminated by science's medium of choice: print. A sonogram can be reproduced in a journal, inserting its author's findings into the peer-reviewed, intertextual web of legitimate science. Although the sonograph was primarily adopted for its capability to convert the fugitive world of sound into supposedly durable, concrete representations, its value has not been limited solely to its capacity to render visual traces. Rather, as Zuberbühler found, spectral sound pictures opened his ears to varieties of acoustic detail that he could not have previously perceived. The spectrograph furnishes graphic evidence, but it can also train users to listen differently, more precisely, more "visually." In other words, it transforms the ear such that it begins to function with the supposed analytical detachment of the eye. Not only has the spectrograph served to alter the way scientists hear, it has also become embedded in discourse as a metaphor for whatever capacities for analysis and logic implicitly possessed by the ear. Take, for example, the psycholinguist Stephen R. Anderson's recent explanation of hearing: "All primates have essentially similar auditory systems, at least to a first approximation. As in humans (and birds), we can regard the ear as a kind of spectrograph that provides a spectral analysis of incoming acoustic information to the brain via the cochlea and the fibers of the auditory

⁶⁹ Don Stap, *Birdsong* (New York: Scribner, 2005), 18.

nerve.⁷⁰ In Anderson's description the ear is conceived as isomorphic with a technology that produces visual inscriptions, a proposition that is telling considering Western science's longstanding desire to provide tangible or legible supplements to sound. Indeed, modern acoustics arguably began in the late seventeenth century when German physicist, Ernst Chladni, published his research on the resonance of solid surfaces. Chladni found that when he distributed sand across a flat surface and then ran a bow along its edge the resulting vibrations would displace the sand into complex patterns that changed according to frequency.⁷¹ In 1802, as in the present, attending to sounds in themselves is not enough; sound seems too fleeting and too immaterial to serve as evidence, to tell us things about the world without a visual supplement.

Not only does sound need to find a more material, visual support to be of use to science, to some degree it is even considered a nuisance in that extraneous acoustical energy—i.e. noise—can interfere with the prescribed workings of some scientific instruments.⁷² The struggle against noise in the laboratory suggests other latent ideological issues with noise or acoustical interference. While it is absurd to strive for a fully silent working environment, many laboratories are built as though this is an attainable ideal. Laboratories are often acoustically isolated from the external world, but they also guard against sonic disruptions from within—potential interference as banal as music or even conversation can affect some instruments.⁷³ Sound is an inherent part of the experimental

⁷⁰ Stephen R. Anderson, *Doctor Dolittle's Delusion: Animals and the Uniqueness of Human Language* (New Haven: Yale University Press, 2004), 179.

⁷¹ Robert T. Beyer, *Sounds of Our Times: Two Hundred Years of Acoustics* (New York: Springer, 1999), 14-15.

⁷² Cyrus Mody, "The Sounds of Science: Listening to Laboratory Practice," *Science, Technology, & Human Values* 30, no. 2 (2005).

⁷³ Cyrus Mody offers the telling example of a scientist who "plays music in her lab continuously, but when she encounters a problem with her microscope and calls the manufacturer, the company's support staff immediately ask her if she has the stereo on—

process, but it is often isolated as an impurity, even a threat, rather than addressed as an object of study. Even when sound is taken up as an object in itself by laboratory science, it is similarly treated as a capricious or volatile force that must be held still; it must be visualized. Instruments like the parabolic reflector and the spectrograph laboratize sound by subjecting it to processes whose precedents and ideal forms exist in the visual domain. In the case of the parabolic microphone, sound capture is modeled on the tight focal point of specular attention while the spectrograph literally flattens sound, transforming it into a graphical representation that can be examined all at once. Both technologies also allow scientists to “clean up” recording made in the field, to sanitize them thereby neutralizing the noise and unpredictability of nature.⁷⁴ Sound recording is frequently touted for its ability to capture the world as it is, neutrally, without distortion; however, it is also often the case that sound is reinserted into the specular, sanitized regime of laboratory science.

Although the spectrograph was developed long after Garner had fallen into obscurity, the simian linguist did himself experiment with sonic visualization. Garner experimented with a device called the phoneidoscope, a tube-shaped apparatus across which a thin soapy film was stretched, a membrane that would react to sonic vibrations by displaying coloured patterns.⁷⁵ However, his investigations into acoustic visualization had to do with confirming a theory of sound propagation that, by his own admission, was underdeveloped and apparently did not have much to do with his greater linguistic project. However, it is telling that, at a time in which the standards of laboratory science were becoming the norm, he saw a potential benefit in experimenting with visualization. But, for

suppressing sounds is a routine first step in clearing up problems with some instruments.”
Ibid., 18.

⁷⁴ Bruyninckx, "Sound Sterile: Making Scientific Field Recordings in Ornithology."

⁷⁵ Garner, *The Speech of Monkeys*, 213. See also Radick, *The Simian Tongue: The Long Debate About Animal Language*, 103.

the most part, Garner's main epistemological tools were his ears and his phonograph. Decades before the composer Pierre Schaeffer experimented with manipulating and deforming phonographic recordings, Garner was developing elaborate editing and playback procedures to glean truths about human and animal speech. By subjecting his recordings to changes in speed (and therefore pitch), Garner declared that he was now able to "detect the slightest shades of modulation," which meant that "the slightest variation of tension in the vocal chords may be detected, and every part of the sound compared to every other part."⁷⁶ By working with this raw sonorous material Garner trained himself to both recognize and produce subtle variations in vocal articulation: "In a few instances I have been able, by reducing the record of certain sounds from a high pitch to a lower one, to imitate the sound thus reduced with my own vocal organs, then by restoring this record of my voice to its normal speed have obtained almost a perfect imitation of the sound."⁷⁷

By the time Zuberbühler aimed his shotgun microphones into the forest canopy of the Taï Forest, visualization technologies had become *de rigueur* in the discipline that had come to be known as "bioacoustics." Indeed, studying the communication between primates has become unthinkable without them. Listening, for scientists working in bioacoustics, always passes through the lens of the optical; all data must eventually be filtered through visual media. By training his ears using what he saw with his eyes, Zuberbühler's became attuned to previously inaudible variations and subtleties in animal calls. But this is not the whole story. It would also be accurate to say that his hearing became laboratized. Zuberbühler is first and foremost a field scientist, albeit in the modern, laboratized mode. However, his induction into the simian linguistic community of the Taï Forest—a becoming-animal so candidly revealed in a non-professional setting and away from the all-

⁷⁶ Garner, *The Speech of Monkeys*, 211.

⁷⁷ *Ibid.*, 212.

important review of his peers—is revealing of the mystique that the field still holds. It is as though the field is and has always been a mystical otherworld, a space too teeming and complex to ever be fully graspable by science. Indeed, it is only through a systematic and laboratized set of interventions—which generate commensurately systematic and laboratized literary inscriptions—that the field can even enter into modern epistemological discourse. But when the veil of professionalism drops, when a scientist speaks for himself and not for his discipline, what slips through is a sense of awe, and wonder for a world beyond quantification.

1637/1871/1892: (Un)becoming Animal

What were the secrets of the animal's likeness with, and unlikeness from man? The secrets whose existence man recognised as soon as he intercepted an animal's look.

In one sense the whole of anthropology, concerned with the passage from nature to culture, is an answer to that question. But there is also a general answer. All the secrets were about animals as an intercession between man and his origin...Animals interceded between man and their origin because they were both like and unlike man.

- John Berger, *About Looking*⁷⁸

Differences of degree and not of kind; Darwin's claim in the *Descent of Man*, that all the higher faculties possessed by people are there in other animals, as yet unrealized, is a blow to the millennia-old assumption that humans stands alone in nature, perched high on two feet, blessed with a unique and privileged state of being. This line of thinking was already present, to be sure, in *The Origin of Species*, as Darwin delicately opened the chest containing the tools he would use to chip away at humankind's place at the centre of a now heliocentric

⁷⁸ John Berger, *About Looking* (New York: Vintage, 1980), 6.

existence. It was a canny tactic: to focus as he did, for example, on focus—on the development of a sensitivity to sunlight across species, tracing its development from a rudimentary ability to distinguish between light and dark to more sophisticated ways of seeing. The “perfected” eye, proposed Darwin, contained within it eons of simpler solutions to the task of converting light into sensation.⁷⁹ But, in his later work, Darwin set himself to breaking bigger boulders, to dismantling a much larger icon: the belief that human species was sovereign, exceptional, and fundamentally distinct from other creatures. In the *Descent of Man*, he posited that the distinctions between humans and other animals—both physiological and mental—were gradations of difference. While he supposed the mental faculties of a lamprey, an ape, and a human differed in sophistication, Darwin argued that the intervals between them were a continuum—the product of a history of evolution and development. Language, one of the capacities that had traditionally been cordoned off as a singularly human ability, was a similarly relative and contingent phenomenon. In Elizabeth Grosz’s reading of *The Descent of Man*, language is a “tendency,” a latent and virtual capacity nested within all creatures, waiting for its moment of articulation: “Language is not the uniquely human accomplishment that post-Enlightenment thought has assumed, but, for Darwin, is already a tendency, residing within the voice and in other organs capable of resonating sound, to articulate, to express, to vibrate, and thus in some way to affect bodies.”⁸⁰ Human vocalization is but one form of communication among many, a capacity commensurate with the physiology of the species. Language—be it the semiotic dance of honeybees, the luxuriating songs of birds, the pheromonal signaling of ants, or the transfer

⁷⁹ Charles Darwin, *The Origin of Species* (Edison: Castle Books, 2004), 223-28.

⁸⁰ Elizabeth Grosz, *Becoming Undone: Darwinian Reflections on Life, Politics, and Art* (Durham: Duke University Press, 2011), 19.

of molecules between cells—is an “ongoing exploration of and experimentation with the forms of bodily activity that living things are capable of undertaking.”⁸¹

Richard Garner, while profoundly influenced by Darwin, offered his theory of language as a furthering of the evolutionary project. He felt that, while Darwin had admirably addressed the fluidity of filiation between species, Garner faulted his predecessor for a lack of engagement with speech.⁸² He argued that speech, like anatomical structures, differed amongst species by degree. Overlooking other forms of communication, Garner’s discussion focused solely on vocal expression; interestingly, he decoupled speech from signification, proposing that its symbolic content lay outside of the basic will to communicate. “Speech is not an invention,” wrote Garner, “and therefore is not symbolic in its radical nature. True, that much that is symbolic has been added to it, and its bounds have been widened as men have risen in the scale of civil life, until our higher types of modern speech have departed so far from the natural modes of speech and first forms of expression, that we can rarely trace a single word to its ultimate source.”⁸³ Speech, in this form, is a potentiality, an inchoate stirring that, through use and refinement evolved to become the complex, symbolic species of language that Garner held to be unique to human beings.

Speech had long been drawn as one of the significant boundaries demarcating the line between the human and the animal. There were others to be sure: stages of development through which humankind had passed, ever setting itself apart from the animal world. The ability to design and utilize tools was one such frontier. The emergence of *Homo habilis* two million years ago was thought to mark a unique stage in the development of humankind, a moment in which the species pulled away from the pack of primates in which it had once

⁸¹ Ibid., 22.

⁸² Garner, *The Speech of Monkeys*, 154.

⁸³ Ibid., 171-72.

been embedded. But tool making, as Jane Goodall observed in the 1960s, is not a distinctly human trait; chimpanzees, she found, would strip leaves from stalks of grass in order to “fish” for termites. Goodall wrote to her colleague, Richard Leakey, describing what she had seen; his telegraphed response read, “Now we must redefine *tool*, redefine *Man*, or accept chimpanzees as humans.”⁸⁴ Leakey’s reply is emblematic of the contortions that philosophers and scientists have performed for well over two thousand years in their efforts to separate the human from the animal. Giorgio Agamben traces these divisions and definitions back to Aristotle’s definition of life in *De anima*. According to Agamben, Aristotle fails to articulate what life is; rather, he circles around being, casting aside those entities that lack the vital, nutritive force that is inherent in something that can be said to be living.⁸⁵ This is the foundational articulation of the principle that the human must be defined but what is proper to it as a distinct species, but also by clearing away what is not. What Agamben calls the “anthropological machine” has for much of Western history posited *Homo sapiens* as a placeholder for human traits. “The anthropological machine of humanism,” he writes, “is an ironic apparatus that verifies the absence of a nature proper to *Homo*, holding him suspended between a celestial and a terrestrial nature, between animal and human—and, thus, his being always less and more than himself.”⁸⁶ The anthropological machine has been operational for hundreds, if not thousands of years. Its gears turn inside the anthropomorphic tales of antiquity—Aesop animals, for example, fancifully manifest human characteristics, traits that belong not to them but to us, so that we might draw them out and widen the gap.

But we cannot really speak of this project of creating the human without turning to Descartes and his infamous declaration that animals are little more than automata—

⁸⁴ Jane Goodall, *Through a Window: My Thirty Years with the Chimpanzees of Gombe* (New York: Mariner Books, 2000).

⁸⁵ Agamben, *The Open: Man and Animal*, 14-15.

⁸⁶ *Ibid.*, 29.

biomachines capable of locomotion, but fundamentally lacking in cogito, in reason. By virtue of our ability to recognize our being through reason, Descartes believed, we are able to discern our humanity. In what resembled a proto-Turing test, he proposed a thought experiment: imagine an artfully constructed mechanical ape, a contraption indistinguishable from a living animal. It could be made to react to stimuli in such a way as to convince an observer of an organic, fleshly, and authentic life. But a humanoid automaton, argued Descartes, could never fool another human interrogator. A human would be expected to *respond* creatively, in ways that would announce the subject's awareness of herself as human; an animal or an automaton could do no more than *react*. This distinction that Derrida teases out of Descartes's writing on animals is one that carries through virtually all the writings that follow in the Western philosophical tradition: the animal lacks the ability to respond, to recognize the quality of a question and then answer back. But what makes this lack all the more significant is that, while it is understood that humans also lack a perfect ability to rationally apprehend the world in its totality (a person might be in a perennial deception owing to a malevolent demon, for example), this lack is incommensurable with the faculties that other animals are missing; we both lack, but we lack differently.⁸⁷ One might even call this incommensurable form of lacking a difference in kind, one that does not fully vanish with an acceptance of the Darwinian argument that a particular capacity—such as the ability to respond—is variable, historical, and biologically contingent. Derrida, like Agamben, recognizes in this line of thought a suspension of judgment in the definition of the human; in order to determine what is proper to the human, Descartes must detach the subject from any quality that could be said to be proper to life, whether it be animal, human, or an attribute shared by both. “The presence to itself of the present of thinking,” writes Derrida,

⁸⁷ Derrida, *The Animal That Therefore I Am*, 81-82. See also Stephen Walker, *Animal Thought* (London: Routledge, 1983), 8-9.

meditating on Descartes, “the presence that presents itself to itself in the present, that is what excludes everything detachable constituted by life, the living body, animal life.”⁸⁸ The cogito that constitutes Descartes’s assurance of his own existence, of his humanity, is also what separates his human being from a lesser, animal state.

Agamben notes a similar suspension at play one hundred years later in the taxonomy of Linnaeus, who comparably disavowed all characteristics other than self-recognition in his definition of *Homo sapiens*. For Linnaeus there was no easy way of distinguishing between humans and apes according to the methods of natural science. Paraphrasing Linnaeus’s maxim, Agamben writes, “...man has no specific identity other than the *ability* to recognize himself. Yet to define the human not through any *nota characteristic*, but rather through his self-knowledge, means that man is the being which recognizes itself as such, that *man is the animal that must recognize itself as human to be human*.”⁸⁹ Self-recognition presupposes a particular cognitive ability: one cannot recognize oneself recognizing oneself without language—or so argued Garner. Indeed, his phonographic experiments, while ostensibly undertaken with the goal of proving that monkeys speak, was by extension an argument in favour of their ability to think. Garner’s proposition was a direct affront to the anthropological machine’s Victorian incarnation: the discipline that would come to be known as comparative psychology. In 1892, the year in which Garner published his best-known work, *The Speech of Monkeys*, the British zoologist, C. Lloyd Morgan, formalized his theory of animal mind. Morgan’s “canon” posited that one should not impute the functioning of a “higher” faculty to an animal if a given, seemingly intelligent, behaviour could be explained by a “lower” attribute. What was essentially the ethological equivalent of Ockham’s razor promoted what, according to Gregory Radick, is “the still influential view that objectivity and

⁸⁸ Derrida, *The Animal That Therefore I Am*, 72.

⁸⁹ Agamben, *The Open: Man and Animal*, 26.

anthropomorphism are mutually exclusive.”⁹⁰ Positioned against the Darwinian thesis that intelligence was a matter of degree and not of kind across species, Morgan’s canon equated reason with language: without words there is no thought and vice versa. But Garner saw a direct link between cognition and language, positing the very opposite, that speech evolved in direct relation to brain development. As a species’ cognitive abilities increased via natural selection, the sophistication of its speech would grow proportionately: “The function which speech discharges is the communication of ideas, and its growth must depend upon the extent of those ideas; and in all conditions of life, and in all forms of the animal kingdom, the uses of speech are confined to, and limited by the desires, thoughts, and concepts of those using it.”⁹¹ In the same passage Garner took aim at the figure of *Homo alalus*—non-speaking man—declaring it to be the invention of a scientific establishment incapable of recognizing the gradations of speech and intelligence that surrounded them. According to Garner, if the “savage races” whose cognitive abilities were of the same kind but inferior in degree to European minds had a commensurately more rudimentary language, then it was absurd to imagine that there had ever been a stage leading to *Homo sapiens* at which a creature lacked speech.

Garner was attempting to bridge the gulf between human and animal that many of his contemporaries had reaffirmed through the invention of a non-speaking human-animal ancestor. Ernst Haeckel, for example, an influential naturalist and a promoter of Darwin in the German-speaking world, upon learning of the discovery of a set of bone fragments morphologically similar to be a simian ancestor and a human descendent, declared it to be

⁹⁰ Radick, "Morgan's Canon, Garner's Phonograph, and the Evolutionary Origins of Language and Reason," 3.

⁹¹ Garner, *The Speech of Monkeys*, 175.

the missing link “in the evolutionary chain of the primates.”⁹² The proto-human alternately dubbed *Pithecanthropos erectus* and *Homo alalus* represented a stage through which the primate passed on the way to becoming human, a stage whose significant feature was its silence. As Agamben writes, “In reality, the passage from animal to man, despite the emphasis placed on comparative anatomy and paleontological findings, was produced by subtracting an element that had nothing to do with either one, and that instead was presupposed as the identifying characteristic of the human: language.”⁹³ The creation of the human at the end of the nineteenth century necessitated a dual move: the denial of language to the creatures that preceded the human and the assumption that language emerged in a primate that could no longer, at the moment be known as such. But, as Agamben notes, Haeckel and his followers were caught in a paradox: language is a historically contingent production that could only ever have manifested in the human; however, it is not a trait that was always already inherent in the species’ progenitors. They therefore had to invent the figure that could reconcile this contradiction. The human could only come into relief against the invention of a non-human lacking in language.

Crouched over his phonograph, Garner believed that he was uncovering a relation between humans and apes that turned around an intellectual capacity: speech. And while he would never have deigned to describe this cognitive affinity as anything other than a rudimentary version of a much more sophisticated human capacity, he was proposing that the lines between human and animal were far more complicated than had previously been supposed. Ultimately Garner’s amateur attempts to ground this porousness between species in language were overshadowed by the new orthodoxies of, on the one hand, comparative psychology, and on the other, physical anthropology. Comparative psychology patently

⁹² Quoted in Agamben, *The Open: Man and Animal*, 34.

⁹³ Ibid.

denied that animals could have language, always dismissing anything resembling intelligence as a simple reaction as per the dictates of Morgan's canon. At the same time, physical anthropology had little use for language as a marker of speciation, let alone for sound recording—the apparatus that might apparently prove the existence of language in nonhuman animals. As Gregory Radick writes, “On the matter of the evolutionary origins of language, it was skulls and jawbones, not simian utterances, that came to dominate.”⁹⁴ While the Darwinian hypothesis that humans had evolved from apes would become the status quo in the scientific community, the belief that humankind alone possessed language seemed to preclude any possible slippage between species. But, as the work of Garner shows, there were others that were unsure these lines were so neatly drawn. We find stirrings of the sorts of becoming-animal avowed by Zuberbühler in works of literature clustered around the turn of the century, as Gilles Deleuze and Félix Guattari point out, from *Moby Dick* to the stories of Kafka.⁹⁵ The work that Enlightenment thinkers had performed to purge the animal from the human, and to cordon off the human from the animal, began to lose its hold. Indeed, the policing of boundaries between species in the wake of Darwin suggests that there was more anxiety about the sovereignty of the human subject than many would have cared to admit.

This was also an era in which ideas about human communication were beginning to shift in tandem with the emergence of electrical transmission and storage media. In fact, the very idea of communication, the modern definition that has become so deeply internalized in Western thought, is a product of nineteenth-century anxieties about the barriers standing in the way of two (human) minds ever truly meeting, impasses both created and potentially bridged by communications media. As John Durham Peters writes, “Communication as a person-to-person activity became thinkable only in the shadow of mediated

⁹⁴ Radick, *The Simian Tongue: The Long Debate About Animal Language*, 182.

⁹⁵ Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, 243-45.

communication.”⁹⁶ Language had been one of the measures of the human at least since Aristotle, but in conjunction with the rise of media technologies and the erosion of humankind’s special place at the heart of creation, it became a zone of contestation over the humanness of animals, the animality of humans, both preventing and facilitating slippages between the two. Peters continues,

The nineteenth century pushes “man” toward both animality and mechanism via the assumption by machines of supposed human functions (speaking, memory) and the increasingly permeable intellectual and morphological membrane between humans and animals...The task is to find affinities not limited by our anthropomorphic dispositions. “Communication” gives us an image of humanity, not as standing on an ontological ladder betwixt the beasts and the angels, but as a nexus within a biological network and circuit of information flows.⁹⁷

Peters rightly notes that media technologies were integral to modern debates about animal communication, its relation to human speech, and the degree to which they were either homologous or fundamental dissimilar. And as the story unfolds over the next century and a half, it becomes apparent that machines will abet the crossing of lines between species, to allowing for the possibility that human and nonhuman animal intelligences are different but not incommensurable; it will even lead to a supposedly rational man of science speaking of his coming into alliance with another species.

It is hard to know whether Garner might have experience any sort of becoming-monkey that day at the zoo, the day he observed one primate subject either react or respond (he exclusively chose the latter term to describe the speech of monkeys) to a recording of an

⁹⁶ John Durham Peters, *Speaking into the Air: A History of the Idea of Communication* (Chicago: University of Chicago Press, 1999), 6.

⁹⁷ *Ibid.*, 243-44.

unknown simian interlocutor. He certainly did not believe that there was any great metaphysical gap between human and monkey. Again, it was a difference of degree and not of kind. Indeed, Garner wrote, “The classification of genera and species is in a great degree arbitrary; but much less so than are these abstract characters of life and mind. There is nowhere a line at which emotion stops and thought begins; there is nowhere a line at which thought stops and expression begins; there is nowhere a line at which expression stops and speech begins.”⁹⁸ But it is still hard to imagine the same of sort of slippage that occurred for Zuberbühler happening to Garner. In spite of his romantic pronouncements about the fluidity of capacities and the general continuity between creatures, the anthropological machine was still working within him, instinctively drawing lines to protect humanity, even in the fact of his disavowal that such lines in fact existed: “If man has risen from the low plane of brutehood which the ape now occupies, has scaled the barriers which now separate him from apes, and has climbed to the divine heights of mental and moral manhood, the ape deserves no praise for this.”⁹⁹ Here Garner was expressing his agnosticism about the debate as to whether the human was a perfect iteration of the ape (one that had left its lower cousin behind) or whether the ape was a fallen, debased human. But regardless of whether the separation came about through progression or degradation, what is important to note is Garner’s assumption that, no matter whether they are attributable to God or to some other vitalistic force, human capacities outstrip other creatures abilities so thoroughly as to be categorical. However, Garner paradoxically looked to what most considered to humankind’s unique and special capacity as means of crossing that categorical threshold: language. “I cannot regard the matter as proven beyond appeal,” wrote Garner, “that man has come from any antecedent type that was not man, nor yet do I deny that such may be the case; but

⁹⁸ Garner, *The Speech of Monkeys*, 191-92.

⁹⁹ *Ibid.*, 149-50.

I do deny that the broad chasm which separates man from other primates cannot be crossed on the bridge of speech...”¹⁰⁰

Mechanisms of Capture

Residents were warned of the predawn invasion. The island’s newspaper carried an article headlined “He’s baaaack.” The year before, Kroodsma had alarmed residents as he rode his bicycle past their homes in the gray of first light waving what looked like a gun. The police tracked him down, but discovered he was armed with nothing but a “shotgun” microphone, a wand-shaped mike with a short handle.

Don Stap, *Birdsong*¹⁰¹

It was my last achievement, rather late in the season, to get a recording of a blackbird in the vicinity of London...Meanwhile I was ordered to “bring back alive” the nightingale and the cuckoo.

Ludwig Koch

Sound recording, like all storage media, is both murderous and benign. Wax cylinders, aluminum discs, magnetic tape, solid-state flash cards; all bring about the death of a sound, entombing it without physically injuring the subject. Perhaps this is why the philologist E. P. Evans described Richard Garner’s recording apparatus as a “scientific weapon of phonetic precision.”¹⁰² If describing the gramophone as a weapon seems overstated, it was neither the first nor the only time that a storage medium would be compared to a technology of war. The very language associated with the recording animals—“capturing” animal calls with “shotgun microphones” while on sound “safaris”—suggests a latent predatory impulse

¹⁰⁰ Ibid., 150-51.

¹⁰¹ Stap, *Birdsong*, 14.

¹⁰² Quoted in Radick, “Primate Language and the Playback Experiment, in 1890 and 1980,” 462.

waiting to be activated each time the recordist hits the red button. Media are never innocent; they are accessories to all sorts of violence. Recording technologies allow their users to size up the quarry, to develop plans of attack. Or, they capture and hold the subject to scrutiny without its consent.

In 1882, the French polymath, scientist, and photography pioneer Étienne-Jules Marey announced the invention of his chronophotographic gun. The camera, capable of firing off twelve photographic frames per second, was inspired by the murderously precise, mechanical repetition of the Gatling gun.¹⁰³ According to Friedrich Kittler, “The history of the movie camera...coincides with the history of automatic weapons.”¹⁰⁴ Shooting with the device was more than just a metaphor; Marey’s device borrowed both the form and the operational logic of the machine gun. The shape of the camera was hardly incidental nor was it a unique solution dreamed up in isolation; the chronophotographic gun crystallized thirty years of discourse about the ability of storage media to stand in for actual weapons, particularly when it came to either capturing the likeness, or the corpse, of an animal. Marey’s images, many of birds and other animals, differed from the cinematographic seriality that was to come in that each successive image was captured on the same plate. Iterations of an animal in motion would pile up on the pictorial surface: a menagerie of one. Contained and comparable to itself, a given subject could be removed from the field in likeness in a sort of bloodless taxidermy.

According to Kittler, “With the chronophotographic gun, mechanized death was

¹⁰³ Paul Virilio, *War and Cinema: The Logistics of Perception*, trans. Patrick Camiller (London: Verso, 1989), 15.

¹⁰⁴ Kittler, *Film, Gramophone, Typewriter*, 124. Donna Haraway’s work on turn-of-the-century naturalist, Carl Akeley, reveals a similar connection between media and warfare. Akeley developed an eponymous camera for shooting in the field, an instrument that would be added to the arsenal of the Army Signal Corps during World War I. Donna J. Haraway, *Primate Visions: Gender, Race, and Nature in the World of Modern Science* (Routledge: New York, 1989), 43.

perfected: its transmission coincided with its storage.”¹⁰⁵ This paradoxical entanglement between the technological immortality promised by photography and the destruction threatened by the machine gun also occurred on a more literal level. In the 1850s, at the height of British colonial power, taxidermy and photography were employed almost interchangeably to preserve exotic game for both glory and science. Both techniques aspired to similar representational ideals: the naturalistic representations of exotic landscapes and the preservation of the authentic likenesses of their wild inhabitants. While taxidermy and photography were initially considered virtually interchangeable, the camera gradually became the weapon of choice for the peripatetic naturalist. A growing revulsion for the slaughter of exotic game that occurred in conjunction with the growing sophistication, convenience, and affordability of photography led to photographs becoming the dominant medium for the circulation of animal bodies.

That photography and not taxidermy became the standard for representing animals did not mean that the rhetorical conflation of photography with hunting, or of the camera with the gun, was transformed or abated. In his history of these twin colonial storage technologies, James Ryan underscores that stalking game with a camera was no less predatory a practice than hunting with a rifle nor was it considered any less heroic. Ryan singles out one individual, Edward Buxton, for his revealing attitude towards hunting and photography. Buxton, a wealthy British politician and conservationist, championed the camera as “an alternative weapon to the rifle.”¹⁰⁶ In his 1902 book promoting the conservation of African game, the reformed hunter extolled not only the virtues, but also the adventure of “camera stalking.” Buxton wrote, “[Photography] demands more patience and

¹⁰⁵ Kittler, *Film, Gramophone, Typewriter*, 124.

¹⁰⁶ James R. Ryan, ““Hunting with the Camera”: Photography, Wildlife, and Colonialism in Africa,” in *Animal Spaces, Beastly Places: New Geographies of Human-Animal Relations*, ed. Chris Philo and Chris Wilbert (London: Routledge, 2000), 212.

endurance of heat and other torments, more knowledge of the habits of animals—in a word, better sportsmanship than a mere tube of iron with a trigger; and when a successful picture of wild life is obtained it is a higher achievement, even in the realm of mere sport, than a trophy, however imposing.”¹⁰⁷ There was implicit in Buxton’s advocacy for the camera over the rifle a claim that non-lethal hunting was a more masculine pastime. This was expressed even more overtly by Buxton’s contemporary, Carl Akeley, the taxidermist and conservationist whose work is enshrined in his pseudonymous wing at the American Museum of Natural History. In spite of his extensive experience shooting animals with more lethal weapons, Akeley promoted camera hunting as a more valorous form of capture: “...camera hunting takes twice the man that gun hunting takes.”¹⁰⁸ What Buxton and Akeley’s championing of photography makes clear is that, while shooting with a camera replaces literal violence and killing, there is a figurative, symbolic remainder of a physical violation that lingers. As Susan Sontag writes,

...there is something predatory in the act of taking a picture. To photograph people is to violate them, by seeing them as they never see themselves, by having knowledge of them they can never have; it turns people into objects that can be symbolically possessed. Just as the camera is a sublimation of the gun, to photograph someone is a sublimated murder—a soft murder, appropriate to a sad, frightened time.¹⁰⁹

The entanglement of violence and storage, death and preservation, is hardly limited to the visual. Sound recording too, commits its own soft murders. And, as with the camera, the relationship between field recording and hunting goes beyond the metaphorical to the technical. As was the case with cinema, war machines have in some cases provided

¹⁰⁷ Quoted in *ibid.*, 211.

¹⁰⁸ Quoted in Haraway, *Primate Visions: Gender, Race, and Nature in the World of Modern Science*, 43.

¹⁰⁹ Susan Sontag, *On Photography* (New York: RosettaBooks, 2005), 10.

inspiration, if not a technical blueprint, for sound recording devices. Peter Paul Kellogg, the renowned ornithologist and recordist, based his parabolic microphone on the sonic reflectors used by WWI aircraft to locate enemy aircraft.¹¹⁰ The microphone was further ensconced in the arsenal of media weaponry in the 1950s with the invention of the “shotgun” microphone. Marey would know better than to dismiss this as mere metaphor considering the pedigree of its inventor; Fritz Sennheiser, the pioneering German sound engineer honed his skills during the Second World War transmitting coded military messages.¹¹¹ World War Two, as Sennheiser witnessed, was fought as heavily with media technologies as it was with ballistics. The Allies and Nazis were engaged in a media arms race, struggling to develop more portable, higher fidelity ways of storing sound. The German development of magnetic tape recording in the lead-up to WWII was a boon to the Nazi Ministry of Information. The new technology made it possible to broadcast prerecorded programming that was indistinguishable from a live transmission. The regime capitalized on this technique of sonic deception, disseminating ersatz live broadcasts from the Führer in order to propagate misinformation as to his whereabouts.¹¹² The Allied side was equally invested in recording technology’s potential to deceive. The US military took advantage of the all means of sound reproduction available, using disc recordings of construction, troop movements, etc. and then mixing them down onto magnetic wire. These sonic montages of a wartime soundscape were then played over loudspeakers in order to draw the enemy into firefights with ghostly adversaries.¹¹³ Magnetic recording did not simply yield sonic materials

¹¹⁰ Stap, *Birdsong*, 30.

¹¹¹ Margalit Fox, "Fritz Sennheiser, 98, Executive, Dies," *The New York Times* (2010), www.nytimes.com/2010/05/26/technology/26sennheiser.html.

¹¹² Steve Goodman, *Sonic Warfare: Sound, Affect, and the Ecology of Fear* (Cambridge, Mass: MIT Press, 2010), 43.

¹¹³ Philip Gerard, *Secret Soldiers: How a Troupe of American Artists, Designers, and Sonic Wizards Won World War II's Battles of Deception against the Germans* (New York: Penguin, 2002). See also

whose fidelity held the power to deceive the enemy (and eventually the object of biological research); because of its resistance to shock and vibration it allowed for a more consistent, more stable means of capture. Wartime refinements made the technology lighter and more portable making it the ideal medium for recording in the field.¹¹⁴

This history of military research also forces to reconsider the spectrograph, a technology equally entangled with warfare. Development on the instrument began with peaceful intentions. We have already seen that Potter imagined that the spectrograph could turn birdsong into a score, but his main hope for the technology was that it would allow the deaf to *read* telephone calls and improve their ability to enunciate the phonemes that they could not hear. In this respect, the spectrograph was another iteration in a line of technologies intended to train people to improve their ability to speak. The first known version of this technology, Édouard-Léon Scott de Martinville's phonautograph similarly worked to make sound legible. Scott's device transduced acoustic vibrations via a stylus that inscribed marks along a piece of soot-covered paper, creating pictures of sound. Alexander Graham Bell, the founder of company for which Potter would later develop the spectrograph and a well-known advocate for the deaf, adapted the phonautograph, attaching an actual ear to the device, in order to replicate and then represent a pictorial analog to hearing. Bell's machine would "hear for" the deaf, and essentially provide them with a sort

Goodman, *Sonic Warfare: Sound, Affect, and the Ecology of Fear*, 41-44. The entanglement of acoustic technology and warfare stands alongside the historical alliance between optical machinery and the military industrial complex. According to Paul Virilio, "...the battlefield has always been a field of perception. The war machine appears to the military commander as an instrument of representation, comparable to the painter's palette and brush." Cinematic technologies up the stakes of militaristic visuality: they extend perception beyond "normal" human faculties. They not only represent but reveal; they rationalize the field of battle, making it a unit of analysis. Virilio, *War and Cinema: The Logistics of Perception*.

¹¹⁴ Morton, *Off the Record: The Technology and Culture of Sound Recording in America*, 59.

of score for producing correctly enunciated spoken language.¹¹⁵ Potter's dream for legible speech was quickly reappropriated by the military; his invention was recast as a tool for submarine detection.¹¹⁶

It would seem that all sonic technologies emerge from or tend towards militaristic applications. Sound recording and playback have been used to commit physical violence,¹¹⁷ and, as we have seen, they have also functioned as technologies of detection and deception. It is this latter use—the practice of tricking subjects into believing a recording to be real—that brings back to the world of animals. After all, what is a playback experiment but a controlled way of fooling an animal into responding? Scientists use sound recording and playback to trick animals into giving up their voices, but others use similar means to capture the creatures themselves. Poachers in Cyprus and Italy often use recordings of songbirds to entice their quarry to land on tree branches slathered with an inescapable adhesive.¹¹⁸

Following sound recording into the field, a legacy of control and deception unites the hunter, the soldier, and the scientist. Sound recording is an *apparatus* that divides the world, separating the self and the other. Giorgio Agamben writes, “The term ‘apparatus’

¹¹⁵ Sterne, *The Audible Past: Cultural Origins of Sound Reproduction*, 31-51.

¹¹⁶ Peter R. Marler, "Science and Birdsong: The Good Old Days," in *Nature's Music: The Science of Birdsong*, ed. Peter R. Marler and Hans Slabbekoorn (San Diego: Elsevier, 2004), 1. It should be noted that various iterations of sonar had been in use since the early twentieth century, but it was limited in its ability to identify the sonic signature of specific objects. On the history of sonar and its role in naval warfare see Willem D. Hackmann, "Sonar Research and Naval Warfare 1914-1954: A Case Study of a Twentieth-Century Establishment Science," *Historical Studies in the Physical and Biological Sciences* 16, no. 1 (1986). For a discussion of the cartographic uses of sub-marine sound, see Sabine Höhler's history of the mapping of the ocean floor. Höhler ties the electrical technique of sonic detection at a distance to the mechanical practice of “sounding” the depths of the ocean floor. Höhler, "Depth Records and Ocean Volumes: Ocean Profiling by Sounding Technology, 1850-1930."

¹¹⁷ See Jürgen Altmann, "Acoustic Weapons – a Prospective Assessment: Sources, Propagation and Effects of Strong Sound," *Cornell Peace Studies Program* 22 (1999); Goodman, *Sonic Warfare: Sound, Affect, and the Ecology of Fear*; Mitchell Akiyama, "Silent Alarm: The Mosquito Youth Deterrent and the Politics of Frequency," *Canadian Journal of Communication* 35, no. 3 (2010).

¹¹⁸ Jonathan Franzen, "Emptying the Skies," *The New Yorker*, July 26 2010.

designates that in which, and through which, one realizes a pure activity of governance devoid of any foundation in being. This is the reason why apparatuses must always imply a process of subjectification, that is to say, they must produce their subject.”¹¹⁹ An apparatus intervenes in the world of inchoate beings, entities whose place in the world has yet to be determined by human epistemology. Agamben’s definition of an apparatus expands on Foucault’s already broad conception of governmentality and institutional control:

Further expanding the already large class of Foucauldian apparatuses, I shall call an apparatus literally anything that has in some way the capacity to capture, orient, determine, intercept, model, control, or secure the gestures, behaviors, opinions, or discourses of living beings. Not only, therefore, prisons, madhouses, the panopticon, schools, confession, factories, disciplines, juridical measures, and so forth...but also the pen, writing, literature, philosophy, agriculture, cigarettes, navigation, computers, cellular telephones, and—why not—language itself, which is perhaps the most ancient of apparatuses—one in which thousands and thousands of years ago a primate inadvertently let himself be captured, probably without realizing the consequences that he was about to face.¹²⁰

According to Agamben, one of the fundamental functions of the apparatus is the production of human subjects: “...apparatuses are not a mere accident in which humans are caught by chance, but rather are rooted in the very process of ‘humanization’ that made ‘humans’ out of the animals we classify under the rubric *Homo sapiens*.”¹²¹ As we have seen, the emergence of *Homo sapiens*—both as a biological being, and as a figure of knowledge—can be written as a dialectical process in which the animal is systematically expelled from the

¹¹⁹ Giorgio Agamben, *What Is an Apparatus and Other Essays* (Stanford: Stanford University Press, 2009), 11.

¹²⁰ *Ibid.*, 14.

¹²¹ *Ibid.*, 16.

realm of the human. Western thought, from Aristotle to the Bible, through to Hegel and Heidegger, has constituted the human and the animal as differing essences, both of which inhabit these bipedal bodies. To become human is to constantly create “caesura” between these dual natures, to transcend or evacuate all vestiges of bestiality.¹²²

The primate captured by the apparatus of language would become the human that went on to recapture the primate with the apparatus of sound recording. It was a linguistic apparatus that allowed *Homo sapiens* to cleanse itself of its simian origins. But not all apparatuses always create discrete, proper human subjects; sometimes they go awry and undo the categories they are meant to establish and police. After all, it was a sound recording apparatus that led a scientist to allow the animal that had, for millennia been cast out of the human, back in.

1980/199x/2010: Becoming animal

She uttered no more threats, but made the horns of a long-lived stag sprout where she had scattered water on his brow. She lengthened his neck, brought the tips of his ears to a point, changed his hands to feet, his arms to long legs, and covered his body with a dappled skin. Then she put panic fear in his heart as well. The hero fled, and even as he ran, marveled to find himself so swift. When he glimpsed his face and his horns, reflected in the water, he tried to say “Alas!” but no words came. He groaned—that was all the voice he had—and tears ran down his cheeks. Only his mind remained the same as before.

- Ovid, *The Metamorphoses*¹²³

Before being torn apart by his hounds, Actaeon, the mythical hunter who had the misfortune of catching a glimpse of the bathing goddess Diana, knew what it was to become

¹²² *The Open: Man and Animal*.

¹²³ Ovid, *Metamorphoses*, trans. Mary M. Innes (New York: Penguin, 1955), 79.

an animal. Not that he could have told anyone what it was like to be a stag had he been spared—as his body metamorphosed, so did his voice, and his capacity for human speech disappeared. Actaeon would have been an ideal interlocutor to Ludwig Wittgenstein, a respondent who, had he held on to his ability to speak as a human, might have elucidated the philosopher’s famous puzzle: “If a lion could talk, we could not understand him.”¹²⁴ But in the instants before his death, with a pained grunt, all that Actaeon could do was affirm in his own mind Wittgenstein’s proposition that language and bodily experience—the fact of being one species and not another—are inextricable.

Some respondents more contemporary to Wittgenstein, all of whom have the benefit of being both human and non-fictional, recognize in the philosopher’s enigmatic phrase an anxiety about the possibility that other creatures might also possess minds. The poet and horse trainer Vicki Hearne holds that this “skeptical terror” (a phrase she borrows from Stanley Cavell) is what motivates us to imagine animals do not imagine. For Hearne, the assumption that language is a positivity—couched in a real, verifiable access to meaning that animals lack—says much more about human anxiety than it does about a non-human creature’s apparent silence. Hearne writes, “...when we imagine the inner or outer life of a creature without that bustle [of written or symbolic thought], we imagine what we would be like without it—that is, we imagine ourselves emptied of understanding.”¹²⁵ Here the anthropological machine continues to churn, figuring the animal as a human that lacks so that the human can be constituted as a being notable for its absence of animal characteristics.

¹²⁴ Ludwig Wittgenstein, *Philosophical Investigations* (Oxford: Basil Blackwell, 1958), 225.

¹²⁵ Quoted in Cary Wolfe, *Zoontologies: The Question of the Animal* (Minneapolis: University of Minnesota Press, 2003), 2.

But Hearne calls Wittgenstein out for buying into a philosophical tradition that denies that animals do speak or communicate. The “if” in Wittgenstein’s remark, which seems to suspend any belief that the lion does actually have something to say, nevertheless ends with the conclusion that the question is moot: whether or not it can talk its experience is fundamental incommensurable with our own and therefore incommunicable. But Hearne argues that Wittgenstein is wrong; lions do talk to their trainers.¹²⁶ Clearly they do not articulate sounds that could be construed as human language, but according to Hearne there is in the animal/trainer pairing is a relation that “...creates the kind of knowledge all talking does, or ought to do—knowledge of the loop of intention and openness that talk is, knowledge of and in language.”¹²⁷ Trainer and animal exchange words, grunts, physical cues; in the in-between they fold into each other, creating a form of subjectivity that cannot properly understood to be human or not-human. If, as Wittgenstein proposes, “...to imagine a language means to imagine a form of life,”¹²⁸ then perhaps this shared moment of encounter, of understanding (or of diffidence or opacity or unresponsiveness), is a moment in which creatures slide into an uncertain territory, into a co-created space in which “affinity” (or “enmity”) is a more important category than “species.” Wittgenstein’s aphorism takes seriously the sorts of becomings described by Deleuze and Guattari—the slippage between species is not simply a short circuit in relations; rather, it produces something else, something more. They write, “Becomings-animal are neither dreams nor phantasies. They are perfectly real...For if becoming animal does not consist in playing animal or imitating an

¹²⁶ Ibid.

¹²⁷ Vicki Hearne, *Adam's Task: Calling Animals by Name* (New York: Alfred A. Knopf, 1986), 85.

¹²⁸ Wittgenstein, *Philosophical Investigations*, 8.

animal, it is clear that the human being does not ‘really’ become an animal any more than the animal ‘really’ becomes something else. Becoming produces nothing other than itself.”¹²⁹

That day in the forest, Klaus Zuberbühler experienced a slippage between species categories that evidently did not constitute a literal transformation. But what he experienced was definitely more than a recognition or understanding of primate speech; the verification of his hypothesis that the vervet monkeys’ calls denoted specific entities or phenomena, that their utterances constituted a language. Something less and something more: a becoming-monkey via the vector of language—that apparent last remaining distinction between human and animal. But sharing a language is not in itself necessarily enough to fully catalyze becomings. Other affects and alliances are required. When it comes to becoming close to animals, non-linguistic ways of relating are often what crack open a fissure in the border between very different forms of life. Donna Haraway, writing about training (with) her dog Cayenne in a sport called “agility,” describes the empathy that they have found with each other through play. For Haraway, the affective sharing that occurs in play opens up a line of flight into something other, into a non-dialectical sphere of contact: “...the figures of language and mind do not take me to the kind of inventiveness Cayenne and I experience in our game. Play is the practice that makes us new, that makes us into something that is neither one nor two, that brings us into the open where purposes and functions are given a rest.”¹³⁰ Alliances formed in contact zones exist in excess of language, of utility, of signification. For Deleuze and Guattari, language and signification are limits or thresholds that are breached or overcome when one becomes animal. “To become animal is to participate in movement,” they write, “to stake out the path of escape in all its positivity, to

¹²⁹ Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, 238.

¹³⁰ Donna J. Haraway, *When Species Meet* (Minneapolis: University of Minnesota Press, 2008), 237.

cross a threshold, to reach a continuum of intensities that are valuable only in themselves, to find a world of pure intensities where all forms come undone, as do all the significations, signifiers, and signifieds, to the benefit of an unformed matter of de-territorialized flux, of nonsignifying signs.”¹³¹ Language is certainly a vector for becoming, but it is not enough to bring about any slippage between species. When Zuberbühler became a monkey, the eleventh primate member of the forest, it was not simply because he understood what they were saying, it was because he became caught up in the affective economy of that environment. He was moved and undone not simply because he was finally able to make out what they were saying, but because he understood their calls as a warning that marked him and his simian relations off from the leopard that was tracking him. There were many instances in which Zuberbühler, out wandering the forest, might have had his first experience of comprehension. But it was not until the moment engendered by the affective force of the potential danger posed by a predator on the prowl—a moment that should, if anything, disrupt or overcharge signification—that he found himself in alliance with his research subjects. This is precisely what becoming-monkey entails: an alliance with the other in a state of symbiosis that is unconcerned with the filiations or categories of species presupposed by evolutionary theory. Evolution posits that the human emerged *out of* the monkey through filiation and descent, a process that implies differentiation, that entails progression or regression. Deleuze and Guattari insist that evolution does not only occur along lines of filiation, but that, in a sense, it is also operative across all orders of life. They propose the term “involution” to describe these becomings that cross species-borders, noting that they operate symbiotically and not through familiar resemblance. Involution does not move backwards or forwards along lines of ancestry, but rather runs laterally, between

¹³¹ Gilles Deleuze and Félix Guattari, *Kafka: Toward a Minor Literature* (Minneapolis: University of Minnesota Press, 1986), 13.

species.¹³² If evolution is the process that led from the monkey to the human over the course of millions of years, then involution is the force that allows them to come into alliance, if only for an instant.

Even if we humans accorded ourselves a privileged status in the great chain of being on account of our ability to speak, that is not to say that we have not always been prone to imagining such becomings, that we have not considered or conceived of slippages between us and them. From the human-animal transfigurations depicted in the caves of Lascaux to the metamorphoses of Greek mythology, on to Orwellian and Kafkaesque transformations, speciation has always had the quality of being provisional and porous. Even in its most obvious efforts to keep the human and the animal in order, we find the Western tradition unable to prevent their mixture. The Bible itself, the materialization of God's own Word, simultaneously documents the Lord's granting to humans dominion over every living thing while, just a few verses later, it recounts the story of the fall and expulsion from paradise of His chosen creature comes on account of the mendacity of a talking snake. In the Judeo-Christian tradition, history does not begin until an animal convinces Woman to eat the fruit of the tree in the midst of the garden. The first humans are too simple to do all that much other than ingenuously enjoy bliss and privilege; in the very beginning of the beginning, it is the animal that has the superior intelligence, that is full of cunning and guile. But after the Fall people begin to multiply and create new languages; animals go silent.

For the next several thousand years, the privilege of the human is first underwritten by the Book, and then upheld by Enlightenment philosophy and the nascent sciences. Anything deemed excessive to the human is shunted to the margins—into the unexplored

¹³² *A Thousand Plateaus: Capitalism and Schizophrenia*, 238-39.

reaches of the earth, where fabled human/animal hybrids lurk; into myth, fantasy, fiction; all that is atavistic is project onto other, “inferior” races. This is not to say that anxieties about hybridity and becoming cease to exist, they simply go underground. This is, as Bruno Latour argues, precisely what subtends the idea of being modern. Historically, we have emphatically denied that any mixtures of nature and culture exist within our tightly controlled, empirically structured world, all the while “purifying” knowledge of hybrids as they invariably pop up. Just as in Agamben’s anthropological machine, Latour’s “modern constitution” parses every hybrid in advance as though it were composed of “*two pure forms*.”¹³³ This is nothing more than ideological sleight of hand as unholy mixtures of social concerns, new technologies, political theories, and animal encounters continue to proliferate. Neither the anthropological machine nor the modern constitution can countenance becomings-animal—or even meaningful encounters between humans and animals, for that matter. This much is clear. But in the century between Garner and Zuberbühler we find the idea of a becoming-animal, a trope that was marginalized by the project of the human sciences and its expulsion of the animal both literally (from human communities) and figuratively (from the philosophical notion of the sovereign human subject), changing from a mythological notion to a recognition of the deeply contingent nature of subjectivity. Just before the turn of the millennium, Donna Haraway would proclaim, “By the late twentieth century in United States scientific culture, the boundary between human and animal is thoroughly breached. The last beachheads of uniqueness have been polluted if not turned into amusement parks—language, tool use, social behaviour, mental events, nothing really convincingly settles the

¹³³ Bruno Latour, *We Have Never Been Modern* (Cambridge, Mass: Harvard University Press, 1993), 78.

separation of human and animal.”¹³⁴ How did becoming come to be a subject about which a scientist could speak?

As we have seen, the first great blow to the notion of an autonomous and unique human subject came from Darwin’s theory of natural selection. But Darwin and his disciple Richard Garner both still believed humankind far more sophisticated than its animal relatives. In the 1930s the Estonian-German zoologist, Jakob von Uexküll, argued that Darwin’s decentering of the human had not gone far enough, that the evolutionist’s theories still held that *Homo sapiens* were perched at the peak of complexity and sophistication, and that his ideas also failed to account for the purposiveness of particular adaptations.¹³⁵ Von Uexküll proposed that every form of life, insofar as it possesses unique means of sensing the external world and interpreting those perceptions, inhabits its own sphere of phenomenal experience, what he called its *umwelt*.¹³⁶ No creature can ever fully inhabit another’s *umwelt*, to experience the world through its senses; each *umwelt* is unique and complex. For Agamben, it is no coincidence that Von Uexküll’s ideas questioned the objectivity of human perception and the supposed uniqueness of the species cognitive abilities at same moment that relativity and the artistic avant-garde were dismantling longstanding anthropocentric dogma.¹³⁷ There is no single, consistent world granted to *us* and our understanding and that also happens to include *them*; rather, there are millions of different, interlocking worlds, all of which are perceptually impenetrable to each other, but that remain connected through the “functional tones” that they share. Each tone is commensurate with an object that a creature

¹³⁴ Haraway, *Simians, Cyborgs, and Women: The Reinvention of Nature*, 151-52.

¹³⁵ Von Uexküll’s view on Darwin are not articulated in the text cited; each of these of the challenges is mentioned, respectively, in Geoffrey Winthrop-Young’s afterword, and in Dorion Sagan’s introduction. Jakob von Uexküll, *A Foray into the Worlds of Animals and Humans* (Minneapolis: University of Minnesota Press, 2010), 212, 4.

¹³⁶ "A Stroll through the World of Animals and Men," 6.

¹³⁷ Agamben, *The Open: Man and Animal*, 39.

can distinguish and is particular to the way in which that being apprehends it; the more tones, the more complex its umwelt.¹³⁸ Any given object might elicit overlapping tones from two different organisms, but in very different registers, so different as to be essentially incommensurable. Von Uexküll's world is a lattice of interconnected perceptual bubbles in which no particular sensory array can be said to provide the base tone of existence. Even human perception is merely one among many modes of experiencing the world.¹³⁹

Von Uexküll was silent on the question of language, preferring to leave questions concerning cognition to psychologists.¹⁴⁰ But his description of the “functional cycle”—a feedback loop in which a thing in the world appears to an organism via its perceptual apparatus, which is then translated into an action whose effects are perceived—would become the foundation of biosemiotics and proposed a model of cybernetic recursivity *avant la lettre*.¹⁴¹ Von Uexküll recognized the meshwork of perception and interaction that would eventually envelope Zuberbühler, the semiotic web that not only linked discreet umwelten, but also brought species close enough to fall into each others sphere of signification. His thought also anticipated the decoupling of information from bodies that began to take place following the Second World War under the sign of cybernetics. What N. Katherine Hayles diagnoses as the second half of the twentieth century's preoccupation with a technological, posthuman subject emerged in part out of the work of biologists such as Humberto

¹³⁸ von Uexküll, "A Stroll through the World of Animals and Men," 57.

¹³⁹ “Moreover, we may even grant Uexküll his relativistic cosmology in that there is no single universal objective time-space continuum functioning as a backdrop that different bodies experience differently but rather only the chain of onto-bubbles separating species from species (a scenario that has the benefit of avoiding the desire to carve up the world into two homogenous, cartoonish groups).” Dominic Pettman, *Human Error: Species-Being and Media Machines* (Minneapolis: University of Minnesota Press, 2011), 97.

¹⁴⁰ Jakob von Uexküll, *Theoretical Biology* (London: Kegan Paul, Trench, Trubner & Co., 1926), 177.

¹⁴¹ Thomas Sebeok, *Signs: An Introduction to Semiotics* (Toronto: University of Toronto Press, 2001), 144; Kari Y. H. Lagerspetz, "Jakob Von Uexküll and the Origins of Cybernetics," *Semiotica* 134, no. 1/4 (2001).

Maturana and Francisco Varela, theoreticians who proposed that living systems do not have access to objective reality via a sensory apparatus. Rather, organisms render their experience of the world through a circular, “autopoietic” process, producing “reality” in a self-contained, self-reflexive loop.¹⁴²

The model of autopoietic self-organization developed by Maturana and Varela proposed a significant challenge to objectivist/realist understandings of cognition and environmental engagement, but its insistence on the insularity of living systems left it open to criticisms of solipsism.¹⁴³ In fact, the openness of systems, their deeply contingent and collaborative nature has become an important area of investigation as contemporary science has begun to acknowledge the porousness of the human subject, indeed, of the idea of discrete subjectivity in general. In recent years biologists have learned that any given human body is made up of far more non-human cells—bacteria, fungi, and archaea—than cells containing an individual’s DNA.¹⁴⁴ At a rate of ten non-human cells to one human, you are not you; each human is a multiplicity highly specialized foreign bodies that contingently constitute the monad that has been taken for granted to millennia. The body is not a differentiated entity separate from the world: it is an always-changing, always-temporary limit. As Jane Bennett writes, “...it is thus not enough to say that we are ‘embodied.’ We are, rather, *an array of bodies*, many different of them in a nested set of microbiomes.”¹⁴⁵ Science

¹⁴² The torturous history of cybernetics is well beyond the scope of this chapter. For a history of the relationship between cybernetics and posthuman discourse, see N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: University of Chicago Press, 1999).

¹⁴³ *Ibid.*, 147.

¹⁴⁴ The Human Microbiome Jumpstart Reference Strains Consortium, "A Catalog of Reference Genomes from the Human Microbiome," *Science* 328 (2010).

¹⁴⁵ Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham: Duke University Press, 2010), 112-13.

has come around the notion that we are each more than ourselves.¹⁴⁶ If it is becoming scientific orthodoxy that there is a complex relationality at play within human beings, it is also becoming more common to find researchers questioning human exceptionalism with respect to language. As Haraway points out, even Noam Chomsky, once the most visible proponent of inherent, structural, and unique quality of human language, has in recent years acknowledged a “much stronger continuity between animals and humans with respect to speech than previously believed.”¹⁴⁷

This too-brief account of the varieties of posthuman experience in the twentieth century is meant simply to show, in the years leading up to Zuberbühler’s becoming-monkey, ideas about the limits and passages between species increasingly infiltrated the scientific discourses that had so steadfastly attempted to expel the animal from the human. This is most significantly the case in primatology, particular in ethological approaches to understanding the capacities for language and cognition possessed by apes. Working both in the laboratory and in the wild, researchers like Peter Marler, Jane Goodall, and Sue Savage-Rumbaugh have studied primates’ abilities to acquire language, to communicate amongst themselves, as well as with humans. Famous simian subjects—Washoe, Kanzi, and Koko—have learned to communicate with sign language and manipulate lexigrams, showing that they are able to create novel statements and represent absent objects or ideas—capacities

¹⁴⁶ That is to say, science is perhaps finally prepared to address the famous opening missive to Deleuze and Guattari’s *A Thousand Plateaus*, the writers’ declaration that we are each a multiplicity that our encounters with others engenders further, expressions of difference. “The two of us wrote *Anti-Oedipus* together,” they write. “Since each of us was several, there was already quite a crowd.” Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, 3.

¹⁴⁷ Haraway, *When Species Meet*, 235. There are of course staunch holdouts on the question of the possibility of animal language. See, for example, Anderson, *Doctor Dolittle’s Delusion: Animals and the Uniqueness of Human Language*.

that have long been solely attributed to humans.¹⁴⁸ For Savage-Rumbaugh, these similarities are more than a manifestation of human-like skills out of a similar biological circuitry; they create lines of affiliation that confuse the limits between species. “Even after many years of watching and studying bonobos,” writes Savage-Rumbaugh, “I still cannot help but sense that I am in the presence of the emergence of the human mind, the dawn of our peculiarly human perspective and feeling.”¹⁴⁹ Her bonobos subjects’ ability to understand and communicate linguistically is no longer in doubt, but even more significantly, Savage-Rumbaugh describes entering into a space of shared affects and understanding. Yes, language is an important bridge, but it is not the only point of passage. Savage-Rumbaugh describes, for example, an empathic connection between her and the bonobos that happens outside of linguistic communication, in the mutual interpretation of gestures and expressions.¹⁵⁰

Transmissions of Science

There is another element in Zuberbühler’s entry into a community of primates that cannot be underestimated: location. There is something lurking in the field/lab dichotomy that makes it difficult to envision a researcher ensconced in a laboratory, insulated from her subjects’ world, suddenly finding herself sucked into a state of affinity with a few experimental animals. Zuberbühler did not simply come to understand that he understood the Diana monkeys’ speech that day; his unconscious comprehension of their language was

¹⁴⁸ The literature on communication in primates is vast. For an overview of the history of the investigation of primate language, see Hillix and Rumbaugh, *Animal Bodies, Human Minds: Ape, Dolphin, and Parrot Language Skills*; Radick, *The Simian Tongue: The Long Debate About Animal Language*.

¹⁴⁹ Sue Savage-Rumbaugh, Stuart G. Shanker, and Talbot J. Taylor, *Apes, Language, and the Human Mind* (Oxford: Oxford University Press, 1998), 4.

¹⁵⁰ Ibid.

part of his realization that he had become a part of a multiplicity, a complex web of beings that, to some degree, understand each other; beings who divulge intelligence about the comings and goings of their shared predators. While, as we have seen, the distinction between the field and laboratory is largely rhetorical, a forest is dense and complex in ways that exceed summary or representation. No matter how mediated the experience of a researcher, no matter what conditions she establishes in the field to ensure verifiable, repeatable findings, there will always be events, moments, relations that elude description. Perhaps this is also true of the laboratory—that it is equally dense and sedimented, albeit in different ways. But in its native ecosystem, each creature occupies a niche that it establishes in accordance with its unique capacities. Animals' calls or other acoustic signals are an important part of how they inhabit a particular environment. This is bioacoustician Bernie Krause's "niche hypothesis," a theory that posits that each sounding participant of an ecosystem learns to limit its call to a particular frequency, effectively parceling up the soundscape's bandwidth between species.¹⁵¹ Evidently it would be impossible to recreate these unfathomably complex relationships between species in laboratory, to play Noah and usher representatives of each species indoors, or to replicate the full material plenitude of an African forest under one roof.

But maybe this is not the entire story. Shifts in subjectivity, reevaluations of the complexity of the inner lives of non-human others sometimes do occur in the laboratory, in spite of its particular empirical culture, with its predisposition to detachment and compartmentalization, transformation, metamorphoses; in which becomings are glitches to be guarded against. Laboratory science seems to erect too many boundaries to allow for such slippages. As Haraway suggests, experimental animals are generally treated either

¹⁵¹ Bernie Krause, "The Niche Hypothesis: A Virtual Symphony of Animal Sounds, the Origins of Musical Expression and the Health of Habitats," *The Soundscape Newsletter* 6 (1993).

instrumentally, as exchangeable quantities (much like everything else in the laboratory, which has been rationalized and fashioned to meet standards), or as victims of human abuse.¹⁵² In either case, there is an imperative to produce and maintain the category of the animal, to keep them separate from the ontological and juridical category of the human. Haraway argues for a different way of relating to laboratory animals, one that considers them “unfree partners.”¹⁵³ This would mean rethinking the laboratory logic that figures animals as abstract and exchangeable, recognizing their agency, their needs, their desires. She does not suggest that animal experimentation should be abolished, but that we have an ethical responsibility towards animals to consider their suffering, to find empathy in what she calls “non-mimetic sharing.”¹⁵⁴ That is to say that humans should not necessarily be obliged to experience the experiences of experimental subjects—their suffering or discomfort included; it simply means that we need to trouble the idea that our concerns and theirs are irreconcilable.¹⁵⁵

In the field, in an environment in which a scientist like Klaus Zuberbühler can find himself transformed into something other, ethics seem to take on a different valence. The ontological assumptions of plenitude and complex completeness apparently have the power to engender some sort of inversion of epistemological detachment: mimetic sharing, as it were. But this seems like a facile distinction, an ethics that trickles down through the division created by what are, as we have seen, rather arbitrary constructions. What we need, perhaps,

¹⁵² Haraway, *When Species Meet*, 72.

¹⁵³ *Ibid.*

¹⁵⁴ *Ibid.*, 75.

¹⁵⁵ Haraway further critiques the idea that we might appeal to the logic of the sacrifice to justify animal suffering, by looking to transcendental moral reasons to subtend cruelty. Rather, she argues that “mundane reason” or “felt reason” are more useful means of interrogating an inequality that cannot be properly addressed by humanist considerations, that in any everyday encounter between humans and animal others we must respond to their individual, actual (well)being. *Ibid.*, 75-77.

is a laboratory analog to the sort of mimetic sharing that can apparently take place in the field. And, if this is possible, what role does sound have to play?

The conjunction of monkey's alarm calls, the setting of the forest, and the technological means of recording and analyzing sound were pivotal in Klaus Zuberbühler's *Becoming Animal*. But what of sonic mediation in a laboratory setting? While they cannot be held exclusively responsible for changing our conceptions about the world, instruments do alter and extend our perception, occasionally affording a glimpse or a whisper of a strange otherness that had previously eluded us. The motion of a flagellum, invisible to a human eye, is magnified into plain sight by a microscope; the spiral contortions of a vine as it swirls to find a sturdy support to climb as revealed by time-lapse photography; the ultrasonic wayfinding emissions of bats transposed into audibility by a heterodyne bat detector. Each of these technologies seems to reveal something of the world, pulling back the veil from a realm beyond the limits of our senses; the more sensitive the technology, the further into the actual universe we seem to be able to peer. But these mediations necessarily entail a moment of interpretation, of questioning what one has just seen or heard, of asking what it all means.

In her scientific ethnography of a sonocytology lab, Sophia Roosth shows that instrument-generated findings are often folded back into or understood through tropes and metaphors particular to human experience. The technique at the center of Roosth's writing, sonocytology, listens in to life at a microscopic (or perhaps more appropriately, microsonic) level, converting the vibrations of cell walls into audible sound. The yeast cells studied by her protagonist, the scientist Jim Gimzewski, vibrate at frequencies perceptible to humans, albeit far too quietly to hear. Gimzewski has succeeded in amplifying the sound of the yeast which, when the specimens were quietly metabolizing nutrients, generate a peaceful hum. But when he introduced high-proof alcohol into their medium, the frequency and pitch of the yeasts'

vibration spiked, giving Gimzewski the impression that they were screaming.¹⁵⁶ As Roosth notes, attributing something akin to human expression to yeast seems to grant them a measure of agency—even consciousness.¹⁵⁷ We of course have no idea what it is like to be a yeast cell. To revisit Wittgenstein’s cryptic statement, if yeast could speak we would have no idea what they were saying; the attribution of a scream to an organism so different to us is a blatant anthropomorphization, one that, for Roosth says more about the culture of epistemology than it does about a unicellular phenomenology: “To say that a cell is speaking is to project cultural notions of what it means to be human, to be subjective and have agency, and even for something to be meaningful, into a cellular milieu...This possibility reminds us of the limits of scientific representations: to listen to a cell is always to speak for it.”¹⁵⁸ This “technological assemblage,” to use Jennifer Daryl Slack and J. Macgregor Wise’s term, which includes equipment capable of transducing cellular vibration, but which also factors the concerns, biases, and assumptions of the experimenters, might be described as an “articulation” of social practices and expectations, and material components.¹⁵⁹ Rendering cellular vibrations audible is more than a technological accomplishment or a curious trick: here we find it raising unexpected ethical concerns regarding the subjectivity and awareness

¹⁵⁶ Sophia Roosth, "Screaming Yeast: Sonocytology, Cytoplasmic Milieus, and Cellular Subjectivities," *Critical Inquiry* Winter (2009): 338-39.

¹⁵⁷ *Ibid.*, 339.

¹⁵⁸ *Ibid.*, 350. This notion of “speaking for” should recall the discussion of the political problems, discussed in the last chapter, that are manifest when a privileged individual or an institution takes up the representation of a marginalized other. Again, see Alcoff, "The Problem of Speaking for Others."

¹⁵⁹ Jennifer Daryl Slack and J. Macgregor Wise, *Culture + Technology: A Primer* (New York: Peter Lang, 2005), 129-33. Madeleine Akrich similarly explains how technical objects lead a double life in that, while they are initially inscribed with the intentions and values of their creators, when they are taken up by users, their design is liable to be “described.” What this means is that technical objects are effectively a fulcrum between the technological and the social: “...technical objects participate in building heterogeneous networks that bring together actants of all types and sizes, whether human or nonhuman.” Madeleine Akrich, "The De-Description of Technical Objects," in *Shaping Technology/Building Society: Studies in Sociotechnical Change*, ed. Wiebe E. Bijker and John Law (Cambridge: MIT Press, 1992), 206.

of organisms generally thought to be below the threshold of sentience. There is a difference, it seems, between dousing a single-cell organism with alcohol in silence, and *doing* something to a living organism that seems to be expressing distress—an action whose moral implications apparently owe everything to sound. As Gimzewski explains, “[The yeast] screams. It doesn’t like it. Of course, yeast produces alcohol as in beer production, but if you put strong alcohol like Absolut vodka on it, if you like, then it screams. It screams. It doesn’t like it.”¹⁶⁰ A change in the vibrational frequency of a cell wall only becomes an ethical issue insofar as it becomes an expression of suffering, an utterance that seemingly grants a yeast cell agency, occasioning potentially uncomfortable affects and empathetic responses.¹⁶¹ There are moments in the laboratory, it seems, when sound can bring about something resembling the kind of inter-species affinity experienced by Zuberbühler. Perhaps not a becoming. But certainly occasions arise that force us to reconsider the limits that we have historically projected—limits to reason and subjectivity—onto non-human others.

Richard Garner was critical of the rigidity of what was then an emergent laboratory culture and suspected that studying animals in captivity could only ever grant him partial knowledge of their capacities. Garner imagined that the same spark that kindled humans’ ability to reason, the aggregation of millions of years of development and perfection, also glimmered in every other living creature: “I cannot see in what respect the light of a lamp differs from that of a bonfire except in volume; they are the products of the same forces in Nature, acting through the same media, and, becoming causes, produce the same effects. That psychic spark which dimly glows in the animal bursts into a blaze of effulgence in

¹⁶⁰ Quoted in Roosth, "Screaming Yeast: Sonocytology, Cytoplasmic Milieus, and Cellular Subjectivities," 338-39.

¹⁶¹ Douglas Kahn writes that “screams demand urgent or empathetic responses and thereby create a concentrated social space bounded by their audibility.” Quoted in *ibid.*, 339.

man.”¹⁶² But there was an impediment to his witnessing the full luminescence of the humanity’s less incandescent relatives. The process of domesticating zoo animals apparently made it difficult to determine the relative radiance of his simian subjects’ psychic abilities. Although Garner had observed that monkeys in captivity could apparently name a thing and distinguish it from all the other things that it was not, he was suspicious that the influence of human training, observation, and control had influenced and altered their potential. Garner wrote, “I have observed such a trait in monkeys, but have not been able to tell as yet, with any degree of certainty, to what degree they appreciate these values, or whether they are indeed conscious of the real meaning of the act, as all the monkeys in which I have observed this act have been thoroughly domesticated specimens.”¹⁶³ *Thoroughly* domesticated. If there is a slight note of disdain in Garner’s writing, it is because he perhaps took himself to be among the last of the heroic men of science who sought knowledge at its source: in hardship and in forbidding, exotic circumstances. In 1892 he seems to find himself caught in a transition between to regimes of epistemology: direct observation conducted in situ, in the field, and the encroaching monopoly of bureaucratic, centralized laboratory science.

Garner was not one to hide his scorn for the armchair scientists comfortably installed in their labs: “Many who are called men of science spend their lives in acquiring knowledge of what others have done, and these men of letters are usually regarded as the high priests of science; but they are really the laymen, and in very few instances have they ever added anything to the volume of human knowledge...”¹⁶⁴ Garner’s rebuke contains an interesting trope, seemingly inconsequential, but worth considering. It is telling that he addresses his targets as “men of letters,” a phrase that would never be used to today to

¹⁶² Garner, *The Speech of Monkeys*, 197.

¹⁶³ "A Monkey's Academy in Africa," 290.

¹⁶⁴ *Ibid.*, 291.

describe these “men of science.” It is a formulation that speaks to changing conceptions about what it meant to communicate scientific research, about who the audiences for such information might be, and how to best address them.

As the disciplinary borders of science solidified it became specialized and detached from public discourse. Scientific discussion funneled into increasingly rarefied publications, which helped to create the conditions under which a popularized form of scientific discourse would flourish. This meant that scientific findings, assumed to be far too complicated for laypeople to understand, needed to be mediated by individuals—primarily journalists—with enough training to be able to translate them into more accessible forms. In what Massimiano Bucchi calls the “canonical account” regarding how scientific findings make their way into the public, there is the presumption of a one-way flow of information from specialists, through the mediating lens of science journalism (which invariably distorts findings through simplification or misunderstanding), on to a passive public.¹⁶⁵ However, as Massimiano points out, this model of unidirectional transmission does not account for the reality that specialists themselves regularly consume popularized science, often learning about or debating findings in mainstream sources like the New York Times.¹⁶⁶ Scientists do not uncover truths in their laboratories that they then release into the wild of the public sphere, watching as they go feral; the metaphors and translations that occur when science meets the media are always already feeding back into research itself.

And here we return to where we began: with a scientist evidently a little mystified, taken aback, by a strange experience that he shared with thousands of public radio (and podcast) listeners all over the world. Significantly, Klaus Zuberbühler described his

¹⁶⁵ Massimiano Bucchi, *Science and the Media: Alternative Routes in Scientific Communication* (London: Routledge, 1998), 3.

¹⁶⁶ *Ibid.*, 7.

induction into the world of animals, his becoming-monkey, in the context of a mainstream, public radio program. Radiolab, the whimsical general-interest science program that aired his compelling confession, is described on its website as "...a show about curiosity. Where sound illuminates ideas, and the boundaries blur between science, philosophy, and human experience."¹⁶⁷ That this description posits that there are indeed divisions between science and human experience is telling, boundaries that can be blurred by curiosity, speaks to the permission that is granted in popular media for journalists and scientists alike to express ideas that have no place in technical scientific literature. A jury of Zuberbühler peers would certainly dismiss the story of his becoming-monkey, a tale about a strange, subjective experience, as an anecdote impossible to be verified or replicated. Unsurprisingly, Zuberbühler's professional, scientific writing is silent about the experience. In fact, just like any researcher who wishes to participate in scientific discourse, in print the primatologist is always ducking behind the data, receding into a detached and impartial anonymity; covering his tracks, as it were.¹⁶⁸

There are, of course, certain things that one can and cannot say in different contexts. Professional scientific writing is a genre; there are conventions that researchers must obey for their statements to pass disciplinary muster. In a properly written scientific article, the presence of the author—and the biases or subjective shadow that she might cast over truth—is meant to vanish.¹⁶⁹ The conventional use of passive voice and the avoidance of

¹⁶⁷ "About - Radiolab," <http://www.radiolab.org/about/>.

¹⁶⁸ In his critique of the tradition that extends from Descartes to Lacan, Derrida notes that philosophers have denied the animals "power to respond—to pretend, to lie, to cover its tracks or erase its own traces." Derrida, *The Animal That Therefore I Am*, 33.

¹⁶⁹ Charles Bazerman, *Shaping Written Knowledge: The Genre and Activity of the Experimental Article in Science* (Madison: University of Wisconsin Press, 1988), 15; Bruno Latour and Steve Woolgar, *Laboratory Life: The Construction of Scientific Facts* (Princeton, NJ: Princeton University Press, 1986), 84.

first-person pronouns, for example, are meant to tacitly erase the author's presence; moves that are supposed to engender the truth of the report by eliminating any trace of subjectivity. These tactics are certainly not universal. In fact, in the years following the relativist critiques of scientific objectivity of the 1970s and 80s, more personal forms of expression have started to infiltrate the discipline. This does not mean that scientific writing has metamorphosed into a literary genre; truth and objectivity are still its goals.¹⁷⁰

Zuberbühler's journal publications serve as a good example of the ways in which scientific communication is still negotiating its voice. Interestingly, Zuberbühler regularly flips between passive and active voices, between personal pronouns and more anonymous ways of constructing sentences. In article describing his investigation of the potential semantic content of Diana monkey's alarm calls, in which he describes the experiments that directly led to his becoming-animal, he writes, "Data were collected in the Taï National Park, Côte d'Ivoire, between June 1994 and June 1997..."¹⁷¹ Here the author recedes into the forest as objective data seemingly propel themselves into recognition, bypassing any human agency. The truth reveals itself. But in the very next paragraph he writes, "We analyzed the vocalizations of ten different adult males from ten different Diana monkey groups..."¹⁷² A few short sentences later, Zuberbühler has reemerged to take his place as a participant in his

¹⁷⁰ John Kirkman, for example, urges authors to adopt the active voice as a means to achieve clarity of style. He maintains, however, "Active writing does not have to be personal." John Kirkman, *Good Style: Writing for Science and Technology* (London: Routledge, 1992), 47. Similarly, a guide to scientific writing published on the University of Toronto website explains to students that, while the passive voice has historically signified detachment and objectivity, active has gained acceptance in the scientific community. The guide states, "One reason for this is a philosophical shift in our thinking about science: we are more ready to acknowledge the role of the observer or investigator in the shaping of knowledge." Jerry Plotnick, "Writing in the Sciences," <http://www.writing.utoronto.ca/advice/specific-types-of-writing/science>.

¹⁷¹ Klaus Zuberbühler, "The Relationship between Acoustic Structure and Semantic Information in Diana Monkey Alarm Vocalization," *Journal of the Acoustical Society of America* 114, no. 2 (2003): 1133.

¹⁷² Ibid.

own experiments. These are small tics, but they reveal a fissure in the walls that science throws up to hide the complex relations between researchers, their subjects, and their instruments that must be concealed before any findings go to press.

While Zuberbühler was clearly awed by his experience, towards the end of the program he seems to recognize that his story might be beyond the pale, that he would do well to play down the significance of his encounter: “[In the end it became] just another story to tell each other over beers in the evening, I suppose.”¹⁷³ Just another story. Just another anecdote. But his experience cannot be so easily dismissed; not now that we have been primed by science itself to see the world, our animal counterparts, our bodies as incomprehensibly complex; not as we imagine millions of *Saccharomyces cerevisiae*, the yeast used to brew beer, pouring into Zuberbühler’s stomach, screaming as they encounter his digestive juices; not now that we know that, out in the Taï forest, there are multitude of animals speaking to each other, more concerned about sharing survival tips than debating Wittgenstein. We fashioned the field as a space where *everything* happens, a totality that we are unprepared to fully understand or appreciate in its wildly complex plenitude. Sound recording promises to reign in the chaos and preserve and order the incomprehensible cacophony. There is truth to this, yet it is also true that microphones, recording devices, and spectrographs alter our senses while at the same time amplifying or reinforcing the concerns and tacit knowledge that are already in play before any buttons are pressed. This articulation of material objects and intangible ideas has the potential to become a feedback loop, as it did for Zuberbühler, precipitating a cascade of effects and affects that can lead to a scientist becoming something other, something more, than himself.

¹⁷³ Abumrad and Krulwich, "Shorts: Wild Talk."

Chapter 3 – Sounding the Nation

There had been cause for optimism. In the 1950s and 1960s, Canada's economy was booming; Lester Pearson had helped to cement the nation's place in the global imagination as a paragon of peacekeeping virtue, winning a Nobel Peace Prize in the process; the Massey Commission had implemented policies that would lead to an efflorescence of distinctly Canadian cultural production. But the late 1960s and early 1970 would see the country slide into economic uncertainty as tensions between English and French Canada escalated into violence and the threat of secession. Buoyed by a booming economy and basking in the global attention attracted by Expo '67, Canadians could not have understood that they were in fact hurtling towards a precipice. It was, as Pierre Berton would later wryly note, Canada's "last good year."¹ It was in this period of cultural upheaval and economic uncertainty that some began, publically, to consider how all of this sounded. In the late 1960s a group of young composers led by R. Murray Schafer formed the World Soundscape Project (WSP). Schafer, already infamous in the Canadian music community for his brash and unconventional compositions, fought to bring attention to what he characterized as a growing threat from noise pollution. Schafer and the WSP's concerns were resonant with the then burgeoning environmental movement. They saw noise as the waste product of a decadent, consumerist society so blindly obsessed with progress that it was incapable of noticing the damage it was causing to the environment, its health, and its social wellbeing.

Noise has troubled city dwellers for millennia.² The growing din of cart traffic and hawkers enraged residents of eighteenth-century London while Victorians city-dwellers

¹ Pierre Berton, *1967: The Last Good Year* (Toronto: Doubleday, 1997).

² Emily Thompson notes that references to the problem "urban" noise can be found in Buddhist scriptures and scrawled across the ruins of Pompeii. Thompson, *The Soundscape of Modernity: Architectural Acoustics and the Culture of Listening in America, 1900-1933*, 115.

complained of organ grinders and pipers.³ But there was a profound shift in the quality and volume of noise at onset of industrial modernity: noise became mechanical. The clatter of steam engines, the thrum of industrial machinery, the cacophonous blanket of traffic noise, the racket of heavy construction—these sounds would have easily drowned out the archaic noises they replaced.⁴ Initially, the din of industrial noise was met with ambivalence, taken both as a sign and a symptom of progress.⁵ There were those who were optimistic that urban noise could be conquered. Fairfax Downey, a writer who seems to have introduced the term “field recording” into the popular lexicon, noted in 1936 that some were forecasting the end of noise in the city, and that there were efforts underway to preserve the contemporary urban soundscape for posterity:

Because many experts believe that modern street noises will be unknown in the cities of the future, records of typical street and sidewalk sounds were recently sealed into the cornerstone of a new building being erected in New York City. With light, portable sound apparatus, engineers made recordings of honking horns, squeaking brakes, police whistles, autos backfiring, newsboys shouting, and other familiar sounds of urban thoroughfares.⁶

³ On the noise-scapes of the eighteenth and nineteenth centuries, see John Picker, *Victorian Soundscapes* (Oxford: Oxford University Press, 2003); Emily Cockayne, *Hubbub: Filth, Noise & Stench in England* (New Haven, Conn: Yale University Press, 2007); Karin Bijsterveld, *Mechanical Sound: Technology, Culture, and Public Problems of Noise in the Twentieth Century* (Cambridge: MIT Press, 2008); Emily Thompson, "Machines, Music, and the Quest for Fidelity: Marketing the Edison Phonograph in America, 1877-1925," *The Musical Quarterly* 79, no. 1 (1995).

⁴ Karin Bijsterveld and Emily Thompson both offer thoughtful and detailed considerations of the history of noise. Bijsterveld, *Mechanical Sound: Technology, Culture, and Public Problems of Noise in the Twentieth Century*; Thompson, *The Soundscape of Modernity : Architectural Acoustics and the Culture of Listening in America, 1900-1933*.

⁵ *The Soundscape of Modernity : Architectural Acoustics and the Culture of Listening in America, 1900-1933*, 120.

⁶ Downey, "Name Your Noise...The Sound Libraries Have It Sealed in Wax," 104.

Evidently, the quiet future foreseen by Downey's experts never did come to pass, but it was not for a lack of struggle. As city dwellers tried to accustom themselves to the din of the twentieth century, interest groups tried to rise above the fracas, advocating for acoustical reform. According to The New York City Society for the Suppression of Unnecessary Noise, a group founded in 1906 by a wealthy Upper West Side socialite, the urban din was responsible for compromising health and undermining productivity.⁷ As Emily Thompson notes, early twentieth-century attempts to quell urban noise focused on abating the problem through law enforcement and public awareness. But these efforts, such as those mounted by the Noise Abatement Commission of New York, were ultimately ineffective; in its final report, the commission blamed public apathy for the persistence of noise. But, as Thompson suggests, the development of material for keeping sound out of indoor spaces might have ultimately made it less pressing to silence the street.⁸

The suppression of noise continued to be an object of concern into and after the 1970s with abatement being the most commonly proposed solution. In the context of a long, protracted battle against noise, much of what the WSP tried to contribute to the discussion was not particularly new. They warned of the health effects of noise and equated its inherent wastefulness with other forms of environmental pollution.⁹ Like the anti-noise activists whose cause they inherited, they blamed modern industrial technologies for causing measurable physical harm to people and to the environment, but they also focused on the ways in which caused social bonds to fray. "For some time," wrote Schafer in his influential 1977 book, *The Soundscape*, "I have...believed that the general acoustic environment of a society can be read as an indicator of social conditions which produce it and may tell us

⁷ Thompson, *The Soundscape of Modernity: Architectural Acoustics and the Culture of Listening in America, 1900-1933*, 120-28.

⁸ Ibid., 167-68.

⁹ R. Murray Schafer, *The Book of Noise* (Wellington: Price Milburn & Co., 1970), 22.

much about the trending and evolution of that society.”¹⁰ Schafer and the WSP took it upon themselves to document the changing acoustic environment and, perhaps more significantly, orchestrate its repair. In this respect they differed greatly from preceding anti-noise activists, groups that focused primarily on limiting the amplitude, or volume, of the sonic output of a given sound source, in a given area. Theirs was an aesthetic approach to aural activism, a plan to reshape the future the sonic environment by engaging in thoughtful acoustic design. In a 1973 pamphlet Schafer laid out a program for what he described as a positive approach:

Noise pollution today is being resisted by noise abatement. This is a negative approach. We must seek a way to make environmental acoustics a positive study program. Which sounds do we want to preserve, encourage, multiply? When we know this, the boring or destructive sounds will be conspicuous enough and we will know why we must eliminate them. Only a total appreciation of the acoustic environment can give us the resources for improving the orchestration of the world.¹¹

By focusing on more than merely abating noise, by proposing better alternatives, the WSP believed it could repair the damage that was being inflicted on society. It was an initiative whose scope was international, one that brought them to Europe, and would eventually implicate research and researchers from all over the world. The testing ground, however, for the group’s methods was their home and native land. The WSP first reported on the state of Canada’s acoustic environment in 1972 with the publication, *A Survey of Community Noise Bylaws in Canada*. The following year saw the release of *The Vancouver Soundscape*, a work in a style that would become the WSP’s signature. The document included a double LP of recordings featuring the sonic environment of the city, aural snapshots of its residents, along

¹⁰ *The Soundscape: Our Sonic Environment and the Tuning of the World*, 7.

¹¹ *The Music of the Environment* (Vienna: Universal Edition, 1973), 3.

with a lengthy lecture on acoustic design by Schafer and a conversation between several of the WSP members about recording techniques and processes. The accompanying book compiled a series of “ear-witness” accounts in the form of literary quotations describing the sound of the city over the decades and represented the WSP’s first practical application of its analytical and theoretical approaches to a particular sonic environment. *The Vancouver Soundscape* was a warm-up for a more sprawling and ambitious project, one that would not only document local environments, but would also attempt to listen in on the sonic character of the nation.

Soundscapes of Canada, a ten part series of hour-long radio works, similarly documented aspects of the country’s acoustic past and present and provided instructional and pedagogical exercises meant to encourage its audience to become better, more attentive listeners. The program aired in 1974 on CBC radio’s venerable program, *Ideas* and, to the uninitiated, *Soundscapes of Canada* must have been utterly perplexing. Some episodes featured long, uninterrupted stretches of environmental recordings presented with minimal context, save for the introduction provided by Schafer at the beginning of each segment. One installment, “Dawn Chorus,” consisted of an audacious montage of 24-hours worth of recordings edited down to six minutes. One can imagine a home listener tuning in to *Ideas* a few minutes after the program’s start, having missed Schafer’s introduction, only to hear the seemingly endless chirping of crickets and frogs; or a perplexed driver, scanning the car radio, landing on “A Radio Programme about Radio,” a challenging and lysergic work of sampling that poked at the conventions and clichés of the medium. *Soundscapes of Canada* was a bold and original work in and of itself; that it aired on national radio is almost miraculous. Although electroacoustic music had by that point become a legitimate form of composition,

it was certainly not something that often found its way into the sphere of public or popular culture.

But, in spite of its formal creativity and daring, *Soundscales of Canada* was a socially conservative and deeply nationalistic effort. Other episodes, two of which are the focus of this chapter, presented an apparently comprehensive summary of the nation, an exhaustive documentation of nationally resonant sounds and themes. One episode, “Soundmarks of Canada,” was dedicated to cataloguing and valorizing the country’s significant and recognizable sounds while the other, “Directions,” captured Canadians’ accents from coast to coast. But, as we will see, *Soundscales of Canada* is arguably more significant for its exclusions than for what it captures. Created at a time when Canada was coming into its own as one of the most multicultural nations in the world, the program almost completely ignored the country’s growing diversity. With the exception of a short passage in the first episode on language, in which an aboriginal man translates the names of Vancouver landmarks into an unidentified indigenous language, the nation they depicted was exclusively the domain of English and French-speaking Canadians. Indeed, that the only indigenous voice featured in the program is merely a translator for colonial place names is revealing of what the WSP saw as the cultural foundation of the country. It is perhaps unsurprising that, in an era in which national identity was a particularly fraught topic, in which Canadian artists like Glenn Gould, Michael Snow, and Joyce Wieland were similarly interrogating the country’s sense of self, the WSP would directly interrogate the nation’s sonic identity.

Given the era and the similar political and social terrain that they share, Gould’s exploration of landscape and identity in particular is an important foil to *Soundscales of Canada*. Gould’s canonical 1967 radio program (which also aired on the CBC program, *Ideas*) addressed the construction of the national myth in terms similar to those that Schafer and

the WSP would employ a few years later. Consisting of five recorded interviews with individuals tied to the Canadian Arctic, *The Idea of North* was a profoundly experimental work of radio art. Rather than give each interviewee space to stake a claim or outline a point of view, Gould treated each element as a unique, instrumental voice in a dense, polyphonic, and contrapuntal collage. At times a given voice speaks clearly, distinctly, and then, suddenly, it is brought into counterpoint with another. Voices overlap and intermingle, creating a palimpsestic effect that is at times unintelligible. More than simply an exploration in the formal or aesthetic qualities of sound, Gould's technique also stands a metaphor for the competing and contradictory attempts to define a national identity, exploring the North both as a site of lived experience and as a mythical construction. While the subjects are all Anglo-Canadians, the parameters of their "polylogue"¹² are broad and ambivalent. As Sherrill Grace writes, "Gould's North is, in fact, contrapuntal and multiple, just as are the voices that we hear. These refuse absolutely to be reduced or distilled to a single vision, a unifying idea, or a master narrative, despite the apparently privileged voice of one of the speakers."¹³ Even while the voices in Gould's work come from speakers ethnically similar to those that narrate and populate *Soundscape of Canada*, their assurance in their vision of and handle on the country's geography and politics is consistently undermined as, one after another, they are interrupted by each other or are forced to speak in densely mixed clusters that undercut coherence.

Aside from a more assured, prescriptive approach to national identity, what set *Soundscape of Canada* apart from Gould's work was its overtly pedagogical and polemical

¹² Sherrill Grace uses the term "polylogue" to describe the structure of Gould's work. Sherrill Grace, *Canada and the Idea of North* (Montreal: McGill-Queen's University Press, 2001).

Jacques Derrida's usage of the term predates Grace's. See *Cinders*. Jacques Derrida, *Cinders*, trans. Ned Lukacher (Lincoln: University of Nebraska Press, 1991).

¹³ Grace, *Canada and the Idea of North*, 13.

objectives. While Gould used formal a device—montage effects that obscured intelligibility—to undermine the notion that a coherent or stable national identity could ever be pinned down, *Soundscapes of Canada* employed a similar aesthetic strategy to very different political ends. For one thing, Gould’s work gave an early introduction to the concerns that would be taken up by postmodernism in the decades that followed in that it questioned the notion that a master narrative might ever capture as vast and heterogeneous a nation as Canada. By contrast, *Soundscapes of Canada* stood firmly at the threshold of the postmodern era and stuck by the ideology, if not the methods, of a modernism then on the wane. The program explicitly argued for a national mythology based on a shared acoustic heritage, proposing that sound had a unique ability to engender community. The move to ground cultural identity in a common origin story was a distinctly modernist phenomenon, one that emerged with the introduction of the printed word.¹⁴ Schafer and the WSP also espoused a sort of progressivist faith in the abilities of trained specialists to diagnose and solve large problems. True, the degradation of the soundscape was owing to the failure of modern technology to deliver sustainable progress, but the WSP saw itself as the experts who could implement the technical fixes that would repair the acoustic environment.

The aura of expertise requires jargon and, cannily, the WSP developed an array of terms and techniques meant to restore sound and hearing to a place of importance in the understanding of sensory perception, providing aural alternatives to the visual bias of the English language. Landscape became *soundscape*, landmarks turned into *soundmarks*, eyewitnesses recast as *earwitnesses*, the dislocation of schizophrenia reimaged as *schizophonia*, clairvoyance transmuted into *clairaudience*. The term soundscape in particular

¹⁴ See Anthony Giddens, *The Nation-State and Violence*, Cambridge (Cambridge: Polity Press, 1985); Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism* (New York: Verso, 2006).

was central to the WSP's analysis of sound and culture, an expression that would come to be commonplace, a word so familiar that it is easy to forget that it is a relatively recent invention. While Schafer generally receives credit for its introduction, the term has a history that predates the composer's supposed coinage by at least a decade.¹⁵ It is a term that bears unpacking precisely because of its ubiquity, but also because it gives insight into the WSP's epistemological and aesthetic aims. According to Schafer, "The soundscape is any field of study. We may speak of a musical composition as a soundscape, or a radio program as a soundscape or an acoustic environment as a soundscape. We can isolate an acoustic environment as a field of study just as we can study the characteristics of a given landscape."¹⁶ The notion of soundscape is effectively a tool for organizing perception, of placing a "frame" around a total sonic experience.¹⁷ A soundscape does not exist outside of the volition and intention of a listening subject, but this subject is historically contingent, a listener whose ability and desire to organize and frame a sonic environment is inextricable from the technologies and practices that constitute sound as an object. As Stefan Helmreich writes, "Telephony, phonography, architectural acoustics...permit sound to be apprehended as an abstraction. The soundscape is a back-formation from such technologies, an after-effect."¹⁸ Jonathan Sterne echoes Helmreich's diagnosis of a latent techno-centrism and notes that this is at the heart of a problematic circularity in Schafer's definition of soundscape: "In soundscape there is a bit of a phenomenological contradiction: while the concept is designed to get people to appreciate the sounds of both natural and built environments, to confront the world as it is, the concept demands that the listener relate to

¹⁵ Jonathan Sterne, "Soundscape, Landscape, Escape," in *Soundscapes of the Urban Past: Staged Sound as Mediated Cultural Heritage*, ed. Karin Bijsterveld (Bielefeld: Transcript Verlag, 2013).

¹⁶ Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World*, 7.

¹⁷ Akiyama, "Transparent Listening: Soundscape Composition's Objects of Study."

¹⁸ Stefan Helmreich, "Listening against Soundscapes," *Anthropology News* (2010): 10.

the world as if it is a recording or composition—in short, as a work—but a work that is also its own means of conveyance.”¹⁹ As we will see, a species of this contradiction would recur throughout the WSP’s approach to pedagogy and acoustic design.

The WSP was never shy about its intention of teaching a new generation of acoustic designers how to develop sonic competence. Indeed, significant parts of *Soundscapes of Canada* are dedicated to guided, self-training methods that Schafer called “ear cleaning” exercises. It was an ad-hoc program consisting of a variety of listening techniques—recording a classroom discussion and then listening for the sounds one did not intend to capture, or producing lists of desirable and undesirable sounds to group sound-making activities, for example.²⁰ Moving outside the classroom, Schafer and the WSP led students on soundwalks, teaching them to cultivate aural awareness and hone their aesthetic judgment. “A soundwalk,” wrote WSP member Hildegard Westerkamp, “is any excursion whose main purpose is listening to the environment. It is exposing our ears to every sound around us no matter where we are.”²¹ Soundwalking was not intended to be an exclusively passive activity; it was also recommended that participants use their voices, strike objects, and engage in any soundmaking activity that might deepen their connections to the acoustic environment. In a sense, to cultivate a sonic engagement with a place was to foster a sense of ownership, thereby laying the ground for intervention and action: “The closer we observe our environmental formations and conditions,” wrote Westerkamp, “the more acoustic possibilities we may discover in them. And once we have learned to differentiate sound qualities we will have become more discriminating and will no longer accept bad acoustic

¹⁹ Sterne, “Soundscape, Landscape, Escape,” 187.

²⁰ See R. Murray Schafer, *The Thinking Ear: Complete Writings on Music Education* (Toronto: Arcana Editions, 1986).

²¹ Hildegard Westerkamp, “Soundwalking,” *Sound Heritage* III, no. 4 (1974): 18.

situations.”²² Like Schafer, she had a deep conviction that the inevitable consequence of a sound sonic education would necessarily result in action, in a motivation to rectify the noisy, unhealthy conditions of modernity.

Soundwalking allowed a listener to open up to the immediacy of sonic experience, but it was limited in that it only allowed for a fleeting engagement with acoustic phenomena. The WSP recommended another method, a type of electroacoustic work they called “soundscape composition,” for a more methodical approach to acoustic pedagogy. Soundscape composition was a style that, while related to the European tradition of *musique concrète* and other recording-based forms, broke with its predecessors’ commitments to experiencing sound on a purely phenomenal, a-signifying level. While composers like Pierre Schaeffer, the father of *musique concrète*, advocated a form of reduced listening concerned more with the physical or formal qualities of sound, the WSP took an opposing approach by preserving and underscoring the referential content of their recordings. The tape recorder—the most sophisticated means of capturing sound available at the time—was, for the WSP, an instrument both of artistic expression and of empirical investigation. In that it allowed for both the sound to be stored and manipulated, sound recordings could convey or reproduce the specific qualities of one location in another. In this sense, the art of soundscape recording lay in “‘framing’ environmental sound by taking it out of context (where often it is ignored) and directing the listener’s attention to it in a publication or public presentation...”²³ In this sense, soundscape composition’s aesthetic program came directly out of the tradition established by John Cage and his call for the cultivation of an approach to listening that treated the world itself as one vast, always-unfolding musical work. But,

²² *Ibid.*, 26.

²³ Truax, “Soundscape, Acoustic Communication and Environmental Sound Composition,” 55.

paradoxically, sound recording also defamiliarized the object of representation, making it possible to listen with analytical detachment. By storing sound it became possible to listen repeatedly and closely, isolating details that would have otherwise escaped notice. As we have already seen, sound recording has long held an important place in empiricism, specifically thanks to its apparent ability to hone or alter perception. The WSP recognized that recording was a useful analytical technique, just as it was an important tool for training oneself to become a better listener. As Schafer observed, “The tape recorder can be a useful adjunct to the ear. Trying to isolate a sound for high-fidelity recording always reminds the ear of details in the soundscape that have previously gone unnoticed.”²⁴ Westerkamp similarly described the apparatus’s power to shift acoustic acuity: “The microphone alters listening. The mere comparison between how our ears listen and how the microphone picks up sounds in the environment, brings alerted awareness to the soundscape.”²⁵

There was a tension in the WSP’s members’ writing between the artificiality of sound recording, of its exteriority to experience, and its potential use as an agent of naturalistic representation. Schafer spoke out against the potentially disorienting effect of sound recording, the fact that it split a sound from its source, effectively creating a rupture in the natural acoustic order. Schafer held schizophonia responsible for a significant portion of the damage being cause to the soundscape because it produced counterfeit copies that both upset what he took to be the natural condition of a sound inhering to its source, and in that it allowed sound to be amplified, manipulated, and abused. But, paradoxically, the WSP also maintained that schizophonic recording techniques—when utilized correctly and responsibly—were also an integral part of the ear cleaning toolkit. The soundscape composition, in contrast to the many damaging applications of schizophonic technologies,

²⁴ Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World*, 208-09.

²⁵ Westerkamp, "Linking Soundscape Composition and Acoustic Ecology," 53.

aimed to preserve and enhance a connection between sound and source. Rather than perform manipulation on source material that would make them unidentifiable, “In the soundscape composition,” wrote WSP member Barry Truax, “...it is precisely the environmental context that is preserved, enhanced, and exploited by the composer.”²⁶ Soundscape composition was never supposed to work on an exclusively aesthetic or formal level; as with other ear cleaning techniques, it was meant to change the ways in which people related to the acoustic environment. According to Truax, “...the successful soundscape composition has the effect of changing the listener’s awareness and attitudes toward the soundscape, and thereby changing the listener’s relationship to it. The aim of the composition is therefore social and political, as well as artistic.”²⁷ In order for a shift to take place in the listener, she would have to identify with the sound source, recognizing and identifying with its naturalistic and referential properties.

As practiced by the WSP, soundscape composition helped to spark an entire genre of musical practice. While electroacoustic composition had made use of recorded sound for thirty years by the time the WSP came into being, very few had made a point of letting recordings be themselves—the 1970 work *Presque Rien* by French composer Luc Ferrari is a notable exception, a work that we will examine more closely in the conclusion. In addition, almost no one had gone out into the world in order to capture sounds and preserve them as raw material for art. While this activity had been known as field recording for decades, the phrase is notably absent, save for a few passing references, from the WSP’s writing in the 1970s.²⁸ Perhaps this is because the members of the WSP came primarily from musical

²⁶ Truax, *Acoustic Communication*, 237.

²⁷ Ibid.

²⁸ One WSP text contains a sort of appendix listing the “field recording equipment” used on a given project. However, it does not discuss the idea of field recording in any overt way. R. Murray Schafer, *Five Village Soundscapes* (Vancouver: A.R.C. Publications, 1977).

backgrounds and not the social sciences, the disciplines such as anthropology and ethnology in which the term was coined. That is not to say that they did not share a common understanding of what constituted an authentic or unmediated representation of the world in all of its complexity. In a sense, the WSP's use of the word "environment" stood in for what practitioners in other areas called the field. And while they gave very little direct attention to the idea of location—an omission that is surprising considering their rigorous (albeit unorthodox) documentation practices—questions concerning the veracity and authenticity of certain situations crop up again and again. It seems that they almost took it for granted that their listeners would understand what these recordings were and how they were made, that they were field recordings, pure and simple. That they were all recorded in situ is not merely a matter of inference; the very narrative conceit that holds their body of recorded material together is that of the field trip, of journeying to other places in order to represent them as they actually are. Insofar as the WSP ever encapsulated their approach in any concerted way, it is perhaps best articulated in a dialogue between Bruce Davis and Peter Huse. In Davis's words, "Whenever you record a sound, you're ripping it out of its social, historical, and general acoustic context, so that the difference, for instance, between our recordings and a sound effects recording is that the sound effects recording is just the sound, and our recordings are not only the sound, but also the related background material to that sound."²⁹ This is as good an outline of the rhetoric of field recording as any—that the form is fundamentally about objects and contexts, sounds and their situation in their native locales. In the sense intended by Davis, extracting a sound from its environment diminishes it to the level of a sound effect, that is, a generic object divorced of its connection with real life.

²⁹ Bruce Davis and Peter Huse, "Cross-Canada Soundscape Tour 1973," *Sound Heritage* III, no. 4 (1974): 32.

But the WSP also seemed to want have things both ways, to capture the world both as it was and as they wanted it to be. They were explicit about this, making no apology for intervening in a recording or choosing an opportune or token moment. Describing the WSP's pedagogical approach to sound recording, Schafer wrote, "We train students in soundscape recording by giving them specific sounds to record...It is not easy if the result is to be 'clean,' without distracting interferences."³⁰ This is essentially an admission that some sounds are more "natural," and therefore important, than others. Reality, it would seem to follow, can only be approached through the artifice of framing. We find evidence of this in their dismay when an undesired sound interrupted the object of recording. In their group diary documenting their sound collecting trip across Europe, WSP member Jean Reed expressed her disappointment about her intended object of recording being jarringly juxtaposed with the background material related to that sound: "Taking sound level readings in the Marktplatz, Stuttgart, at noon and listening to the various clocks and church bells. They were marred by a very noisy garbage truck."³¹

In the WSP's work, as with field recording endeavors in other disciplines, there was a tension between the rhetorical gesture of reproducing the world as it was, and of engineering a version of the world as it should be. For Alan Lomax, for example, the conventional understanding that field recordings were spontaneous and free of influence from the recordist guaranteed a certain type of empirical legitimacy. In Lomax's case, as we have seen, the rhetoric of field recording underwrote particular constructions of racial authenticity. This sort of trade in authenticity was no less true for the WSP. Their project of preserving the sonic heritage of the world before it was washed away by the din of modernity similarly took it for granted that there was such a thing as an authentic world of sound that stood to be lost.

³⁰ Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World*, 210.

³¹ *European Sound Diary*, (Vancouver: A.R.C. Publications, 1977), 19.

In the context of a massive project like *Soundscapes of Canada*, it was a particular vision of national identity itself that needed to be shielded from the noise of immigration and the crush of industrial technology. *Soundscapes of Canada* offered an apparently authentic and naturalistic portrait of a country teetering on the edge of a postmodern crisis, a nation that would apparently be well served by preserving and returning to the simpler past archived in the vaults of the WSP.

From Sea to Sea

In its totality, *Soundscapes of Canada* was not concerned exclusively with nationalist themes, but two episodes were fully and fundamentally preoccupied with the country's acoustic identity. Part four, "Soundmarks of Canada" was "a composition recreating the acoustic profile of community sounds unique to Canadian locales, coast to coast..."³² Part six, "Directions," was "a cross-Canada polyphonic composition of dialects and accents."³³ Both took the form of cross-country odysseys, expeditions whose importance and depth would seem to lie in their exhaustiveness, comprehensiveness, completeness. *A mari usque ad mare*—from sea to sea; Canada's motto. No one and nothing left out. Or so the gesture of a trans-national survey would suggest. This fantasy of completeness, this cartographic gesture, turns the unknowable complexities of a land and its inhabitants—indigenous peoples, settlers, and immigrants—into a reduced and reified set of symbols. We might think of this work as a sonic map of the nation, a survey that, like most maps, purports to exhaustively represent what is already there. Maps do not function simply as descriptions; they also produce new power relations and staking territorial claims. As Dennis Wood writes, "In effect, maps are systems of propositions, where a proposition is nothing more than a statement that affirms

³² Barry Truax, "Soundscapes of Canada," <http://www.sfu.ca/~truax/canada.html>.

³³ Ibid.

(or denies) the existence of something.”³⁴ Cartography played a foundational role in the making of Canada, particularly in the conception of the nation as an unfathomable expanse of land, bounded by two oceans, whose history was founded in land claims that extended along this east-west axis. In 1864, on the eve of confederation, the politician Sir Leonard Tilley famously drew inspiration from psalm 72, suggesting that the scope of the national project ought to constitute a “dominion from sea to sea and from river to the ends of the earth.”³⁵ This notion of longitudinal mastery underpins so much of Canadian geographical discourse, a trope that still held weight in the mid-1970s.

Evidently, this invocation of a cartographic logic is largely metaphorical; we are speaking about radio programs, not maps. But the format of these episodes reveals a deep assumption that it is significant to present the project as a journey over and across a real piece of land, an expedition to record the striking similarities and incremental differences in the Canadian soundscape, an action that would show the country’s makeup by revealing the subtle variations in shading, while always assuming its constancy as a swatch of solid colour on a world atlas. And there is also more, here, to this cartographic logic than the sense of wholeness and totality that a map seems to suggest; maps are also significant tools for the maintenance of national cohesion given that without social assent they have no meaning.³⁶ By conjuring up a narrative trajectory stretching from sea to sea, essentially the WSP was suggesting that their journey to capture and archive the national acoustic identity was thorough and exhaustive. But every road trip necessarily misses something important—each fork in the road is a turn away from something. And it is in the gaps in the itinerary of the

³⁴ Denis Wood, *Rethinking the Power of Maps* (New York: The Guilford Press, 2010), 34.

³⁵ Quoted in Robert Fulford, "A Post-Modern Dominion: The Changing Nature of Canadian Citizenship," in *Belonging: The Meaning and Future of Canadian Citizenship*, ed. William Kaplan (Montreal: McGill-Queens University Press, 1993), 117.

³⁶ Wood, *Rethinking the Power of Maps*, 52.

programs' producers, Bruce Davis and Peter Huse, that works' tacit, unintended messages lay. It is who and what was excluded that is every bit as telling as the sounds that made it into the final edit. That is to say, the Canada captured by Davis and Huse's microphones is white, Anglophone (or occasionally Francophone), and on the cusp of moving from the twilight of industrial modernity into the glare of a post-industrial simulacrum. What was left out—the problem with omissions is the impossibility of ever really knowing what is missing—are many significant facets of an enormous geographical entity, a vast stretch of land containing complicated multitudes of accents and unofficial languages and the sounds of what, in the mid-1970s, was an increasingly cosmopolitan country. Maps, as James Carey observes, necessarily present space in a reduced form, making it manageable through elision. The only map that can fully represent space in its fullness would resemble that absurd atlas imagined by Borges, one that matches the full scale of an empire in a perfect 1:1 correspondence.³⁷ Maps, writes Carey, “constitute nature itself.”³⁸ What he means by this is that they are objects that we entrust to represent, if even necessarily in abbreviated fashion, what is really there. They are units of communication that we use to stitch together an understanding of space and territory. Which means that whatever is left off the map is likely to be left out of the conversation.

There are similarities between the two episodes, both in style and in premise. But each is worth unpacking in its own right for the insights it gives into what it means to belong, to describe, and to construct to a nation. The “Soundmarks” program exemplified one of the basic tenets of the WSP's philosophy: that sounds create and sustain communities. In his introduction to the episode, Schafer defined a soundmark—derived

³⁷ Jorge Luis Borges, *A Universal History of Infamy*, trans. Norman Thomas di Giovanni (New York: Penguin, 1975), 131.

³⁸ Carey, *Communication as Culture: Essay on Media and Society*, 22.

from “landmark”—as “a special feature of a community that helps to give it its unique character.”³⁹ What followed was a cross-country taxonomy of a limited set of sounds: church bells and foghorns. That church bells dominated the WSP’s soundscape of Canada is unsurprising; church bells are the territorializing sound par excellence. For hundreds of years they regulated parish borders. “A parish,” wrote Schafer, “was...acoustic, and it was defined by the range of the church bells. When you could no longer hear the church bells, you had left the parish.”⁴⁰ Alain Corbin’s weighty work on the changing meaning of church bells in post-revolutionary France gives a nuanced description of just how deeply woven these sounds were into the fabric of a community. “The emotional impact of a bell,” he writes, “helped create a territorial identity for individuals living always in range of its sound. When they heard it ringing, villagers, townsfolk, and those ‘in the trades’ in the centers of ancient towns experienced a sense of being rooted in space that the nascent urban proletariat lacked.”⁴¹ Corbin’s association of bells with a traditional way of life, one whose existence was threatened by the encroachment of urbanization, echoes the WSP’s valorization of rural soundscapes. In their terminology, rural soundscapes were high fidelity, or hi-fi—meaning that they possessed a higher “signal-to-noise ratio” than urban environments. In this schema hi-fi was a measure of a sound signal’s audibility and its legibility against in the context of the total soundscape. “The hi-fi soundscape,” wrote Schafer, “is one in which discrete sounds can be heard clearly because of the low ambient noise level. The country is generally more hi-fi than the city; night more than day; ancient times more than modern.”⁴² There is some truth to the proposition that rural locales are quieter, this is certainly not always the case. In

³⁹ R. Murray Schafer, "Soundmarks," in *Soundscapes of Canada* (1974).

⁴⁰ *The Soundscape: Our Sonic Environment and the Tuning of the World*, 215.

⁴¹ Alain Corbin, *Village Bells: Sound and Meaning in the Nineteenth-Century French Countryside* (New York: Columbia University Press, 1999), 95.

⁴² Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World*, 43.

some ecosystems, the din of a cicada-populated environment, for example, can reach levels harmful to human hearing. At close range, certain species of the insect produce sound levels as high as 120 decibels in amplitude,⁴³ a noise louder than a power saw. If wild soundscapes are meant to provide the metric for a salubrious signal-to-noise ratio, it is important to note that nature is not always as quiet as the WSP might have assumed. The rural soundscapes with which they had in mind were the picture of pastoral placidity, spaces in which a strong signal like a bell washes over a tranquil environment, acting as a medium for social cohesion and identification. In the city, however, the bell's sonic footprint is diminished as it competes against the sounds of traffic and the various other hums and drones of industrial modernity. As Barry Truax would write ten years after *Soundscapes of Canada* aired,

Within the “hi-fi” environment, the listening process is characterized by interaction. One does not have to “fight” the environment to make sense of it. Rather, it invites participation and reinforces a positive relationship between the individual and the environment. The “lo-fi” environment, in contrast, seems to encourage feelings of being cut off or separated from the environment. The person’s attention is directed inward, and interaction with others is discouraged by the effort to “break through” that is required. Feelings of alienation and isolation can be the result.⁴⁴

Of course, the equation of urban living with alienation had been long established. Unlike thinkers from Marx to Simmel to Adorno, who argued that social bonds had been eroded by capitalism and the disenchantment caused by the bureaucratization and systematization of modern life, the WSP faulted (post)industrial urban life for sonically alienating subjects from

⁴³ Owen Craig, "Summer of Singing Cicadas," ABC, <http://www.abc.net.au/science/articles/2001/02/17/2822486.htm>.

⁴⁴ Truax, *Acoustic Communication*, 23.

the soundmarks that had once provided so much meaning.⁴⁵ This is what Peter Huse meant when, in the introduction to the program, he said, “I think that they’re doing a certain amount of psychological damage when they [eliminate a soundmark], to the community as a whole.”⁴⁶

The trip was a salvage mission of sorts—as so many field-recording excursions tend to be. Huse and his recording partner Bruce Davis were ostensibly interested in documenting the sonic character of the nation such as it was, but an important theme subtended their work: the acoustic signature of Canada’s disappearing industrial heritage. As they would write, “...one theme that developed later on, throughout the tour: the sound of disappearing, obsolete machines.”⁴⁷ Huse and Davis were concerned that a particular type of mechanical sound was fading into extinction: windmills, butter churns, and school bells. These were homely, parochial sounds, ones they associated with the prehistory of the industrial revolution. But their carefully curated version of the pre-modernity was somewhat disingenuous, if not naïve. After all, noise had been a problem, not just for city dwellers, but for almost all inhabitants of the industrial world for centuries. The windmill, for example—Huse and Davis’s symbol of an imminently archaic, tranquil technology—has served as a symbol for pastoral placidity for a long time; The British Anti-noise League chose the windmill for the cover of their 1936 publication, *Quiet*, drawing on its power as a symbol of tranquility. But, as Karijn Bijsterveld notes, wind and water mills, while representing the

⁴⁵ See, for example, Karl Marx, *Capital* (London: Penguin, 1976); Georg Simmel, *The Philosophy of Money* (New York: Routledge, 1990); Theodor W. Adorno and Max Horkheimer, *Dialectic of Enlightenment: Philosophical Fragments* (Palo Alto: Stanford University Press, 2002).

⁴⁶ Schafer, "Soundmarks."

⁴⁷ Davis and Huse, "Cross-Canada Soundscape Tour 1973," 30.

peace of a lost past to the dissatisfied listeners of a noisy present, were once themselves singled out as clamorous and obnoxious.⁴⁸

There was, of course, a profound irony to their nostalgically curating relics of early industrialization since it was precisely the noisy legacy of modern mechanization that they were trying to curb. It seems that amplitude and signal quality, the very measures of acoustic health, were not quite as important as they were made out to be. What sounds represented—in this case, the simplicity of pre-industrial life—seems to have been just as important, albeit less objective, a standard for evaluating healthy soundscapes as the measurements of calibrated instruments. Davis and Huse's discovery of these homely, anachronistic sounds off in the hinterlands, away from the reality of an urbanizing country, was not accidental. In a way, this echoed Lomax's strategic efforts to seek out the sounds of the past in places they might be protected against the corrosive forces of the present. Authenticity was out there, it just needed to be discovered and documented before being tainted by the noisy banality of modernity. While somewhat facetious, the dialogue between Davis and Huse speaks to their fear that widespread gentrification will ultimately mean the eradication of a particular sonic past:

MR. DAVIS: Alberta was a good place to get many of these old and disappearing sounds, because, for one thing, the . . .

MR. HUSE: NEW YORK SHARPIES HAVEN'T MOVED IN YET!⁴⁹

This sort of disdain for the urban soundscape is threaded through their dialogue. Their wistful descriptions of antiquated technology and the tranquility of Canada's rural soundscapes are invariably sidelined by dismissive recollections of the nation's noise-polluted

⁴⁸ Bijsterveld, *Mechanical Sound: Technology, Culture, and Public Problems of Noise in the Twentieth Century*, 28-29.

⁴⁹ Davis and Huse, "Cross-Canada Soundscape Tour 1973," 30.

cities. “Mr. Davis: Then Toronto, the armpit of Canada: construction noise, subways...”⁵⁰ Davis and Huse described Saint John, New Brunswick—“A good example of Harold Everyman Urban Canada”—in terms that similarly appealed to both the nose and the ears, mocking its stench and the noise of its neon lights.⁵¹

That so many of the soundmarks captured in the episode were industrial in nature apparently did not register as contradictory. While the health of communities seemed to always already be imperiled by the din of modern industry, certain varieties of mechanical sound were considered powerful markers of place. If these sounds had any common, defining feature, it is that they are analog and singular, not recorded or reproduced. According to Barry Truax,

Many churches, lacking bells and/or bellringers, have installed electronic chimes that broadcast from their towers. Even if they are functionally equivalent and seemingly appropriate (by playing religious music), the question remains as to whether they are as aesthetically satisfying as traditional bells...Moreover, all versions tend to sound alike, and if two churches install similar ones, they may be indistinguishable, whereas every bell has its own character. It is unlikely that such chimes could ever be regarded as a unique community soundmark, given their predictable timbre.⁵²

Apparently a copy cannot hold a community together; only unique and original sounds have the timbral complexity and the ontological solidity to create and sustain a coherent regional public identity; soundmarks were supposed to be authentic. But as our consideration of Lomax’s work shows, the notion of authenticity is historically inseparable from ideas about race and belonging, about wistfulness for a way of life feared lost or nostalgia for a time that

⁵⁰ Ibid., 44.

⁵¹ Ibid., 41.

⁵² Truax, *Acoustic Communication*, 208.

never even truly existed. If soundmarks were the authentic markers of community identity, then it seems fair to ask the question, who was to be included in the group and who was excluded? For many Canadians, both indigenous and recently arrived, the sounds that the WSP valued for as the glue that held communities together would have been tainted with associations of colonial dominance and/or systemic racism. For the scores of First Nations people subjected to the religious corrections of the Church, its bells might have rung sinister. For the immigrants that arrived by boat, the foghorns so deeply romanticized by the WSP might have connoted the ambivalence of an arrival in a strange, cold place full of foreign sounds and practices, sounds that would have alienated them rather than strengthen a sense of belonging.

Doubtlessly, generations of Canadians have found meaning and a sense of belonging in the sounds of their local parish church bells. But it seems hard to believe that church bells and foghorns were the only soundmarks with which all Canadians, no matter their backgrounds, identified in the mid-1970s. Absent is any sound that might speak to the experience of indigenous peoples, of the many distinctive sonic signatures emanating from the diverse urban communities that had been flourishing for decades. Immigrants from Western and Southern Europe and Scandinavia had been making their way to Canada since the turn of the century. And, by the early 1970s, non-European immigrants were beginning to outnumber those coming from the Old World. In 1966, 87 percent of immigrants to Canada came from Europe but, only four years later, 50 percent of those arriving came from all over the globe—the Caribbean, Hong Kong, India, and the Philippines among others.⁵³ Should we assume that these groups recognized themselves in the whispers of Old-World religion and Western industry?

⁵³ Valerie Knowles, *Strangers at Our Gates: Canadian Immigration and Immigration Policy, 1540-2006* (Toronto: Dundurn Press, 2007), 211.

We must also consider the sixth part in the series, “Directions,” for its omissions and absences. In this episode we find Huse and Davis playfully recording their interactions with locals as they ask them for directions to the sites that they intend to record. The conceit is that listeners follow the recordists across the country as the accents of their subjects change from east to west. What one notices almost immediately is a total lack of “foreign” accented English or French, let alone the presence of any unofficial language. The negation of what were already large and important communities in 1974, of their accented English and French, not to mention their first languages, must be read as an effort, whether intentional or not, to capture—if not promote—a particular version of national homogeneity. Produced three years after the official national multicultural policy was implemented, it is hard to determine whether the elision of any trace of cultural difference was willful or naïve. This is not to suggest that the WSP were working with any concerted racist intentions. But a glance at Schafer’s writings on sonic community gives some insight into a preoccupation with a social purity that could only be maintained through limited population growth (whose dark side is almost always a fear of immigration) and the reinforcement of an identification with cultural symbols. Schafer, who was never one to shy away from expressing his fear of overpopulation (a blight whose repercussions he felt most acute in Canada’s cities),⁵⁴ argued that one of the many problems with modern, urban communities was their scale: they were too large for their citizens to communicate without media technologies. For Schafer, the ideal acoustic community would be established on the principles of a distant past: “In his model Republic, Plato quite explicitly limits the size of the ideal community to 5,040, the

⁵⁴ “I happen to think that Canada is already overpopulated, and probably most people who live outside cities would agree with me; and sooner or later the rest will be forced to agree; and then Canadian culture will turn in on itself to produce its most original and perfected works.” R. Murray Schafer, *On Canadian Music* (Bancroft: Arcana Editions, 1984), ix.

number that can be conveniently addressed by a single orator.”⁵⁵ He also invoked the soundscape of Goethe’s Weimar, a town in which each of the six or seven hundred households could comfortably hear the voice of the half-blind night watchman, as a fine example of the “human scale which poets found so attractive in the small city-state.”⁵⁶ The assumption was that the common audibility—and understanding—of a single speaker was the fulcrum of social cohesion. But it is also implied a certain measure of homogeneity, or, at the very least, a working knowledge of the dominant language as a condition of participation in community life.

The WSP’s elision of a rich variety of linguistic difference makes more sense when filtered through Schafer’s thinking about the spatial and communicational aspects of community life. Although it was a putatively unnatural act to wrench all these voices out of their environmental—and metaphysical—context, assembling the collective, albeit homogeneous, voice of Canada into a montage created the possibility that a listening public might identify with the WSP’s chosen subjects. In his introduction to the episode, expressing his admiration for Peter Huse’s accomplishment of having sampled hundreds of voices from across the country, Shafer declares, “They are marvelous accents—I wonder if you’ll

⁵⁵ *The Soundscape: Our Sonic Environment and the Tuning of the World*, 215. Schafer does not give a reference for this statement and seems to have borrowed it, unattributed from Lewis Mumford. In his 1922 work *The Story of Utopias*, Mumford also attributes the notion that the size of a community should be limited to number of people simultaneously able to hear an orator speak, a number he gives as 5,040. Lewis Mumford, *The Story of Utopias* (New York: Boni and Liveright, 1922), 39. Mumford, in turn, seems to have misread a section of Plato’s *Laws*, in which, as stated, he calls for communities of no more than 5,040 men, a figure that indicates households and not total citizens (of course this seems like a pedantic distinction give then only men had citizenship, only they were have the privilege of listening to an orator). But Plato never connects this figure to audibility; rather, it is a sacred number, one that happens to also provide a suitable limit for the purposes of allotting land and managing fertility. See Plato, *Laws*, The Loeb Classical Library (Cambridge: Harvard University Press, 1926).

⁵⁶ Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World*, 215.

discover your own among them.”⁵⁷ There is a disingenuousness to this comment, in his speculation as to whether or not the listener will actually discover her voice among them. His “wondering” admits the possibility that she will not, but it seems as though it would be a shame were she not to find her accent in the crowd given their marvelousness. So while such a gesture did not overtly include or exclude the listener, it certainly would have had the effect of making her, were she a non-English or French speaker (or an accented speaker of either) feel as though she was an outsider. But then, her absence from this cross-country survey of the Canadian acoustic identity suggested that she had never arrived in the first place. The message these episodes delivered was that, in spite of Canada’s very public experiment with multicultural inclusion, a project that was officially adopted in 1971, three years before the airing of *Soundscapes of Canada*, there was a subject at the center of national identity to whom and from which everyone else was different. He was the “ordinary Canadian” that did not have put up with a hyphenated relation to citizenship. As Eva Mackey writes,

Canada has a proliferation of hyphenated peoples. Many Canadians identify themselves as German-Canadian, Ukrainian-Canadian, Chinese-Canadian, Greek-Canadian, Afro-Canadian, French-Canadian, Native-Canadian, Italian-Canadian, and so on...I most often call myself ‘Canadian’ with no hyphen attached.⁵⁸

Mackey recognizes that, as a white anglo-Canadian, she has the privilege of not having to put her identity into relation with another. Thanks to the vicissitudes of history and the powerful logic of colonialism, white English speakers like Mackey have been able to settle into their positions as “ordinary” and unhyphenated citizens. French-Canadians, as Himani Bannerji observes, were forced into a temporary period of hyphenation owing to their losses in the

⁵⁷ "Directions," in *Soundscapes of Canada* (1974).

⁵⁸ Eva Mackey, *The House of Difference: Cultural Politics and National Identity in Canada* (London: Routledge, 1999), 33.

battle to maintain control of the colony that would become Canada. They were able to shed the troublesome piece of punctuation by becoming Québécois, a designation that has given them a certain form of “ordinariness” that non-hyphenation affords while securing an adjacency to national identity. Bannerji argues that this colonial drama between English and French has cast visible minorities as both insiders and outsiders to the nation. They are insiders insofar as official multiculturalism has granted each demographically distinct ethnic group a prominent swatch in the Canadian mosaic, a gesture that bolsters the nation’s identity as an inclusive and tolerant haven in which immigrants can live safely and prosperously without having to surrender their cultural practices.⁵⁹ But this, to a large extent, is merely symbolic. In the end, cultural minorities are told that their contributions are unique and important, but they are invariably an aggregate to the state, a series of graded difference that blur together as any quilted pattern does from afar. Ultimately, the creation of a national culture is an exercise in hegemony, an effort to both manage and exploit difference.⁶⁰ But at the center of this dynamic, the one who stands invisible in his ubiquity is the figure that Sunera Thobani identifies as the “exalted subject”—the individual who embodies the characteristics that are enshrined in the nation’s best definition of itself. “Exaltation,” writes Thobani, “...provides both form and content to an attendant ‘structure’ of humanity, as it

⁵⁹ Himani Bannerji, *The Dark Side of the Nation: Essays on Multiculturalism and Gender* (Toronto: Canadian Scholars' Press, 2000), 90-103.

⁶⁰ “The powers of ‘Western modernity’, I argue, work not only through the erasure of difference and the construction of homogeneity, but are endlessly recuperative and mobile, flexible and ambiguous, ‘hybrid’ as well as totalising.” Mackey, *The House of Difference: Cultural Politics and National Identity in Canada*, 18. Richard Day makes a similar point in his critical history of multiculturalism in Canadian: “To escape the limitations of the modern-colonial nation-state, those who would be Canadian must traverse the fantasy of unity which underlies both the problem of diversity and its solution via state ‘recognition’ of a system of official identity categories. Only then can the potential of multiculturalism as radical imaginary, which tends towards spontaneous emergence, be separated from multiculturalism as state policy, which tends towards management, discipline, and uniformity.” Richard J. F. Day, *Multiculturalism and the History of Canadian Diversity* (Toronto: University of Toronto Press, 2000), 4.

were, which becomes available to these subjects and facilitates their experience of ‘belonging’ to the community through the recognition and cultivation of such shared nationality.”⁶¹

It is works like *Soundscapes of Canada* that show this process of an intensifying politics of self-recognition in action, forms of cultural production that ask citizens to gaze upon their own reflections in a series of representations that underscores the notion that they are, if not the only ones, then they are at least “ordinary” and incumbent. Projects like these promote and condition a sense of unity and similarity that constitute the nation’s imagination of itself. Benedict Anderson has famously observed that nations come into being and are maintained through the cultural work that leads its citizens to identify with the state. Institutions and practices from censuses, maps, nationally available print journalism, etc. all allow people in far-off locales to imagine themselves constituting a limited and sovereign community.⁶² In a brief, suggestive, and much overlooked section of his classic book, *Imagined Communities*, Anderson proposes that community has also historically been imagined and ratified through sound. Writing specifically of national anthems, Anderson coins the term “unisonance” to describe the power that sound can have to seemingly erode the boundaries between self and other: “How selfless this unisonance feels! If we are aware that others are singing these songs precisely when and as we are, we have no idea who they may be, or even where, out of earshot, they are singing. Nothing connects us all but imagined sound.”⁶³ The soundmark is a particular and concrete instance of unisonance, one whose immediate ties to nationalism

⁶¹ Sunera Thobani, *Exalted Subjects: Studies in the Making of Race and Nation in Canada* (Toronto: University of Toronto Press, 2007), 9.

⁶² Anderson uses the term limited with the objective of acknowledging that nations are not empires; they do not see their scope as infinite. Their limit is presupposed in their relations with other nations. The notion of sovereignty is a recognition of the Enlightenment inspired principles of an ontologically given concept of right and structural basis for the unification of a people under the sign of culturally derived features. Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism*, 6-7.

⁶³ *Ibid.*, 145.

are not quite so transparent. A soundmark is not necessarily conceived or constructed with the intention of fostering patriotic sentiments; its emergence is the result of a protracted and organic process. As Schafer suggested in his introduction to the “Soundmarks” episode, “It takes time for a sound to take on rich, symbolic character—a lifetime perhaps, or even centuries. This is why soundmarks should not be tampered with carelessly. Change the soundmarks of a culture and you erase its history and mythology. Myths take many forms. Sounds have a mythology too. Without a mythology, a culture dies.”⁶⁴ The WSP took it upon itself to collect and preserve the materials that constituted the sonic mythology of Canada. Whether or not this was ostensibly an act of patriotism is unclear, but, for all the talk of the importance of community and identity, it seems fair to suggest that the group had a clear stake in shaping what form that myth would take.

Broadcast on the CBC, the official channel of national communication, airing from coast to coast, *Soundscapes of Canada* was a call to the country to identify and imagine itself as a patchwork of people whose similarities outweighed their subtle differences. This, as Anderson shows, is the act that holds it all together: “Finally, [the nation] is imagined as a community, because, regardless of the actual inequality and exploitation that may prevail in each, the nation is always conceived as a deep, horizontal comradeship.”⁶⁵ It is worth reading Anderson literally here, in the context of the Canadian process of myth building and identity making. For Canada is perhaps the horizontal nation par excellence, the second largest country in the world, the vast majority of whose population resides in a narrow band along the border with the United States. But this horizontality, as Northrop Frye pointed out in 1971, must remain complicated and in a tension that balances local concerns with an overarching desire for unity. “Once the tension is given up,” wrote Frye, “and the two

⁶⁴ Schafer, “Soundmarks.”

⁶⁵ Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism*, 7.

elements of unity and identity are confused or assimilated to each other, we get the endemic diseases of Canadian life. Assimilating identity to unity produces the empty gestures of cultural nationalism; assimilating unity to identity produces the kind of provincial isolation which is now called separatism.”⁶⁶ This was the cultural and political context in which the program aired, a moment fraught with fresh exhaustion from the October crisis of 1970 which saw a provincial minister murdered, a trade commissioner kidnapped, the Montreal Stock Exchange bombed; a moment of anxiety for the future of the country as the sovereignty movement was taking hold in Quebec; a moment in which myths were badly needed.

The Few True Canadians

R. Murray Schafer was frank and unapologetic in his desire to help shape the national myth. While his was not the only voice behind the productions of the WSP, it is evident that he held a profound amount of influence over its members. An institutional history of the group has yet to be written but, given the Schafer’s outsized reputation and his constant, outspoken presence at the helm of the acoustic ecology movement, his views and politics have been often—occasionally unfairly, it should be noted—blanketed over those of other group members. A nuanced sociological study of the group’s dynamics and politics is beyond the scope of this chapter, which means that, here, Schafer often speaks too loudly and too often. But, after all, the WSP was his creation, the audacious vision of a well-established (albeit renegade) composer and academic, and the group’s work—the scores of books and recordings they produced between the late 1960s and early 1970s—are all deeply permeated with his presence. We have heard from and will continue to listen to other WSP members,

⁶⁶ Northrop Frye, *The Bush Garden: Essays on the Canadian Imagination* (Toronto: House of Anansi Press, 1971), xxiii.

but for now it should be enough to say that while Schafer's convictions might have unsettled or gone against his collaborators, his views are important to examine in that they offer uncompromising and unselfconscious insights into the political context of the creation and dissemination of *Soundscape of Canada*.

Schafer's writings, particularly those that deal specifically with Canada, invariably circle back to role that nature plays in the national culture. For Schafer, the Canadian climate and land are its richest cultural resources, the source of its strength and identity. He stresses "the importance of the Canadian climate and geography. As various as this is, it is our best unifier, transcending ethnic extraction or allegiance of any other kind. We are all Northerners, sharing a million acres of wildness in the imagination. That is our only uncounterfeit resource, and we should seek to draw more directly from it."⁶⁷ Of course, Schafer is hardly unique in his connecting national identity with its geography; if there is such a thing as a Canadian identity (a claim that was facetiously disputed by Marshall McLuhan, who wrote, "Canada is the only country in the world that knows how to live without an identity."⁶⁸), it emerges from the land. According to Harold Innis, it was the fur trade's mapping in the seventeenth-century of the Canadian wilderness that shaped both the political and cultural contours of the nation, a moment in which the northern tier of the New World became synonymous with natural bounty.⁶⁹ This has always been manifest in Canadian cultural production—an implicit relation of the national character with its wild, rich, and unforgiving landscape.⁷⁰ It is there in the paintings of the Group of Seven; the

⁶⁷ Schafer, *On Canadian Music*, x.

⁶⁸ Quoted in Marshall McLuhan, "Canada, a Borderline Case - Cbc Radio, May 29, 1967," in *Colombo's Canadian Quotations*, ed. John Robert Colombo (Edmonton: Hurtig, 1974), 396.

⁶⁹ Harold Innis, *The Fur Trade in Canada: An Introduction to Canadian Economic History* (New Haven: Yale University Press, 1930).

⁷⁰ Cole Harris, "The Myth of the Land in Canadian Nationalism," in *Nationalism in Canada*, ed. Peter Russell (Toronto: McGraw-Hill, 1966).

books of Suzanna Moodie, Farley Mowatt, and Margaret Atwood; in the compositions of Harry Somers, the songs of Gordon Lightfoot and Bruce Cockburn. A canon of work in which the vast, supposedly uninhabited spaces of the North are instrumental in determining the character and imagination of those that live in the south. There is a touch of mysticism inflecting the Canadian relationship to the land, as Erin Manning notes. “With the conflation of identity and territory,” she writes, “comes not only the promise of a spiritual oneness of nature and self, but also the covenant of the mythical unity of a people who are defined by the landscape they inhabit.”⁷¹ Observing the country through the paintings of the Group of Seven—a body of work depicting the Canadian wilderness as empty, vast, and mysterious—Manning sees this desire for connection with the land as a symptom of the mechanical ennui brought on by modernity and the smothering influence of the nation’s colonial legacy: “This quest for national identity through the image of the landscape recalls the modern desire for authenticity, where the unity of states and citizens is constructed on the putative ethnic or racial identity of a nation, which, in turn, is anchored to the representation of the landscape of the motherland as a nostalgic longing for a lost, presumably less alienated culture.”⁷² Manning could just as easily be describing Schafer and his longing for a simple, pastoral way of life uncomplicated by the incursion of modern technology. In Schafer’s telling, the history of Western society followed a relatively simple arc: it began with the bucolic days of antiquity, when “men lived mostly in isolation or in small communities, sounds were uncrowded, surrounded by pools of stillness, and the shepherd, the woodsman and the farmer knew how to read them as clues to the changes in the environment.”⁷³ Very little disrupted the tranquility of the premodern soundscape save for the occasional outbreaks of

⁷¹ Erin Manning, *Ephemeral Territories: Representing Nation, Home, and Identity in Canada* (Minneapolis: University of Minnesota Press, 2003), 7.

⁷² Ibid.

⁷³ Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World*, 44.

war or religious celebration. But all this changed for the worse with the coming of the machine:

The Industrial Revolution introduced a multitude of new sounds with unhappy consequences for many of the natural and human sounds which they tended to obscure; and this development was extended into a second phase when the Electric Revolution added new effects of its own and introduced devices for packaging sounds and transmitting them schizophonicly across time and space to live amplified or multiplied existences.⁷⁴

It is a history of a fall from harmony with nature, a disturbance in the sonic equilibrium whose reparation could only come through a restoration of balance to the soundscape. While Schafer's narrative was broadly concerned with Western history, drawing primarily on "earwitness" accounts from the canon of European literature, he was also deeply sensitive to the implications of a changing soundscape for Canadian culture.

For Schafer, as for generations of cultural commentators before him, Canada was synonymous with its landscape. And, like his intellectual forebears, he found its quintessential metonym in the idea of North. Schafer's most uncompromising statement on the Canadian connection to the north might be found in his program notes to the symphonic work, *North/White*, composed and premiered in 1973—the year before *Soundscapes of Canada* aired. The jarringly nationalistic program notes that accompanied the piece decried the environmental destruction of the North by industry—a "rape" that had been allowed to occur thanks to bureaucratic neglect and governmental incompetence. Its principle soloist—a snowmobile—was meant to signify the disruption and destruction of the unspoiled arctic. It was a fitting aesthetic provocation considering Schafer's worries that the

⁷⁴ Ibid., 71.

North, like the other three already-despoiled cardinal points, would be “broken up by men and machines,”⁷⁵ that the North held the remaining “few remainders from an authentic time.”⁷⁶ This would be an unqualified tragedy as the Northern terrain personified the Canadian spirit in its ideal form: “The North is a place of austerity, of spaciousness and loneliness; the North is pure; the North is temptationless. These qualities are forged into the mind of the Northerner; his temperament is synonymous with them.”⁷⁷ In tying all that is finest in the national character to the austerity of the North, Schafer was channeling one hundred years of discourse that equated Canada’s greatest strength and best hopes for global significance with its geography. In his classic essay, “The True North Strong and Free,” published in 1966, Carl Berger showed just how prominent a place the idea of nordicity had occupied in the constitution of Canadian nation identity. At the dawn of confederation, Canada’s founding fathers extolled the virtues of a frigid climate, insisting that it would prevent the infiltration of what they saw as degenerate Southern traits such as effeminacy, sensuousness, and laziness.⁷⁸ There was a pervasive Darwinian fantasy in the air, a narrative in which a wholesome race of gritty, steadfast Northerners would be molded by the Canadian climate. These specimens would of course be white—of Nordic or Northern European extraction—given that they were apparently the only races with the physical fortitude and the stoic disposition that its rugged latitude required.

Given this narrative, that Canada was a bastion in which the Northern European races would further perfect their culture, there was a perverse irony in Schafer’s calling on whiteness to serve as a metaphor for inclusivity. The “white” of the title ostensibly referred

⁷⁵ *On Canadian Music*, 63.

⁷⁶ *Ibid.*

⁷⁷ *Ibid.*

⁷⁸ Carl Berger, “The True North Strong and Free,” in *Nationalism in Canada*, ed. Peter Russell (Toronto: McGraw-Hill, 1966).

to the makeup of white light, of co-presence all visible frequencies in one bright beam, an effect whose intensity is magnified by the arctic air and climate. It is impossible not to read whiteness as a racially inflected term in the context of a century of dialogue about the ethnic makeup of the nation. After all, whiteness—of the racial variety—was what stood to be preserved and perfected amidst the climatic challenges presented by Canadian geography. Not only would the northern climate make it unlikely that Canada would ever develop “the Negro problem” which, according to the late nineteenth-century Principal of Upper Canada College, George Parkin, “weighs like a troublesome nightmare upon the civilization of the United States,”⁷⁹ its geography had ironically achieved—and was working towards perfecting—the unity of its white population. In other words, the harsh Canadian terrain would ultimately be responsible for the development of a harmonious union between those citizens of English and French origin. In an 1891 speech given by F. B. Cumberland to the National Club of Toronto, the Vice-President remarked, “...nature is welding together into Unity and by this very similarity of climate creating in Canada a homogeneous Race, sturdy in frame, stable in character, which will be to America what their forefathers, the Northmen of old, were to the continent of Europe.”⁸⁰ *North/White* begins to refract a far more nefarious light under the glare of a century of nationalized racism. Schafer upheld this romantic, Arcadian politics of race, focusing his ire on Canada’s urbanites (this is, of course, before the term “urban” circulated as a euphemistic adjective denoting African American culture): “There are few true Canadians, and they are not to be found in cities. They do not sweat in discotheques, eat barbecued meatballs, or watch late movies on television. They do not live in high-rise apartments, preferring a clean space to neighbours' spaghetti.”⁸¹ Here

⁷⁹ Quoted in *ibid.*, 9.

⁸⁰ *Ibid.*, 13.

⁸¹ Schafer, *On Canadian Music*, 63.

Schafer's text, ostensibly written in support of a work of sonic composition, veers into a familiar multi-sensorial form of chauvinism: immigrants, the text suggests, are unclean, impure, fond of smelly food.⁸² That any trace of non-Anglo or Franco-Canadian culture was omitted from "Soundmarks" and "Directions" is unsurprising considering the potential for the national identity to be diluted and confused. For Schafer, the arrival of outsider was one of the main reasons that a distinctly national culture had yet to take hold: "Another affair that has prevented Canadian culture from taking stronger or quicker root is that of immigration. The immigrant can't help but look outside the country for a good portion of his inspiration, even if this is mere nostalgia."⁸³ This, of course, presumed that there was such a thing as an unadulterated Canadian culture, one that was being prevented from flourishing by the presence of those whose ways of life were encroaching upon this fragile identity. Evidently, for Schafer, race and geography were deeply intertwined. Immigrants and urbanization went hand in hand, a reciprocal metonym, each signifying the erosion of sacred Canadian symbols and institutions: the simple, rural, quiet life; the integrity of its cultural production in the face of foreign and popular media; the self-reliant and stoic ethic instilled in Canadians by the rugged yet endangered landscape in which they lived.

While the program notes to *White/North* were evidently intended to be provocative, an attempt to jar Canadians out of a complacent drift towards a pernicious form of cosmopolitanism, there are too many points of contact with *Soundscapes of Canada* to ignore. For one, the subtle shunting of non-Anglo- or Franco-Canadians—those false citizens—to the inaudible margins of the nation points to an ideology similar to that which underpinned Schafer's personal opinions about race and nationalism. Both works proposed exclusion,

⁸² For a history of the fear around immigrants and hygiene, albeit one dealing primarily with the American context, see Suellen Hoy, *Chasing Dirt: The American Pursuit of Cleanliness* (New York: Oxford University Press, 1995).

⁸³ Schafer, *On Canadian Music*, ix.

although each excluded differently: *North/White* through a rhetorical desire for the purification of the Canadian people and preservation of a national myth, *Soundscape of Canada* through a quiet exclusion—a non-recognition—of the country’s others. In both projects, geography was the matrix for the formation and the maintenance of national unity and identity, and while *Soundscape of Canada* did not specifically address the North directly, its efforts to depict a cohesive nation—a country united by a shared sonic imaginary—resonated with the then century-old patriotic image of Canada as a state bound by latitude. That every province—Quebec included—edged up towards the Arctic Circle suggested that there was a common, singular experience of landscape that united the nation.⁸⁴

“The idea of North,” wrote Schafer in his notes to *North/White*, “is a Canadian Myth. Without a myth a nation dies.”⁸⁵ This last sentence was recycled, verbatim, a year later in *Soundscape of Canada*. The idea of North would not figure prominently in the radio series, but the legacies and ideologies that it had generated or abetted for over a hundred years haunted that work, tacitly forming the basis of a racial politics predicated on a problematic colonial legacy.

Technological Nationalism

It is significant that the WSP chose the radio, the CBC in particular, as the vehicle for their most ambitious recorded statement. They were harnessing the reality that, in the mid-1970s, not only did radio offer the widest reach of any sonic medium, but it also had a particular cultural resonance for Canadians. A nation as vast and varied as Canada could have only come about thanks to mediation. It is an expansive territory connected by mechanical means of travel and linked by communications technologies, but it is itself also, according to Arthur

⁸⁴ Grace, *Canada and the Idea of North*, 67.

⁸⁵ Schafer, *On Canadian Music*, 63.

Kroker, the mid-point between two technological regimes: “What makes the discourse on technology such a central aspect of the Canadian imagination is that this discourse is situated midway between the future of the New World and the past of European culture, between the rapid unfolding of the ‘technological imperative’ in American empire and the classical origins of the technological dynamo in European history.”⁸⁶ This in-betweenness speaks to the power and importance that space plays in Canadian imaginings of the nation and of citizenship; its vastness has always required means of traversing or shrinking space to secure its borders, both psychic and geographical. As Jody Berland notes, the westward expansion of the post-indigenous nation was accomplished first by canoe, then by rail, and, beginning in the 1920, by radio.⁸⁷ Appropriately, it was the Canadian National Railway (CNR) that produced the first transnational radio broadcast in 1927—the national anthem performed by bells on the carillon of the Peace Tower⁸⁸—broadcasting the event to railway passengers and home listeners alike. This moment represented the intersection of an array of technological means of ordering, bridging, and demarcating space—means that were implicitly and rhetorically oriented towards building and sustaining the nation. The rail and the radio, Maurice Charland suggested in 1986, each had a particular and powerful relationship to the question of space, to dominating and controlling the massive territories administered by a central, national government. Drawing on the work of the pioneer of Canadian media theory, Harold Innis, Charland argued that the rail had effectively collapsed the vast

⁸⁶ Arthur Kroker, *Technology and the Canadian Mind: Innis/McLuhan/Grant* (Montreal: New World Perspectives, 2001), 7.

⁸⁷ Jody Berland, *North of Empire: Essays on the Cultural Technology of Space* (Durham: Duke University Press, 2009), 104.

⁸⁸ It is fitting that bells were the content of this maiden broadcast given the role that, as we have seen, they had traditionally played in organizing social space. It is also worth noting Marshall McLuhan’s dictum that the content of a new medium is always the medium that preceded it. In this case the territorializing force of the radio gained its power from a familiar sound that signified spatial continuity and social unity. McLuhan, *Understanding Media: The Extensions of Man*, 8.

geography of Canada, connecting points from one end of the country to the other to an enormous net that “bound” space.⁸⁹ “Radio, on the other hand,” wrote Charland, “does not so much bind space as annihilate it.”⁹⁰ For Charland, the transit of both goods and information by mechanical and electronic means played a central role in the construction of a particular discourse: “...in order to assert a national interest and unity, Ottawa depends upon a rhetoric of technological nationalism—a rhetoric which both asserts that a technologically mediated Canadian nation exists, and calls for improved communication between regions to render that nation materially present.”⁹¹ Rail and radio both functioned as rhetorical placeholders in the national imagination while simultaneously making manifest the ideological propositions they embodied. Charland described this state as paradoxical in that media were regarded by Ottawa as a way of presenting the country with an official national narrative, but, at the same time, government consistently took it for granted that media would bind the people together thanks to what they *already* held in common.⁹² Berland similarly recognizes the inextricable connection between communications technologies and

⁸⁹ Maurice Charland, "Technological Nationalism," *Canadian Journal of Political and Social Theory* 10, no. 1-2 (1986): 199. Innis argued that the particular character of any empire was deeply linked to its communications technologies, some of which tended to bind time (by embedding imperial narratives in indestructible, yet cumbersome media such as stone tablets) or to bind space (circulating messages far and wide through the use of light, easily reproducible media such as papyrus). Harold Innis, *The Bias of Communication* (Toronto: University of Toronto Press, 2008).

⁹⁰ Charland, "Technological Nationalism," 214. Charland's characterization of radio as “annihilating” space is somewhat ironic considering that very word was often used to describe the railway at its inception. Wolfgang Schivelbusch, *The Railway Journey: The Industrialization of Time and Space in the 19th Century* (Berkeley: University of California Press, 1986), 33. Also, that Charland describes radio's effect on space as similar to the railway's, that it is a matter of force rather than belonging to a different category altogether, is perhaps a misreading of Innis. For Innis, radio potentially stood to correct the spatial bias of print media, which had been dominated by monopolies. Harold Innis, *Empire and Communications* (Victoria: Press Porcépic, 1986), 169.

⁹¹ Charland, "Technological Nationalism," 202. James Carey describes the metaphorical and technical resonances between physical transportation and communications media in Carey, *Communication as Culture: Essay on Media and Society*, 11-28.

⁹² Charland, "Technological Nationalism," 205.

the nation, also noting the strange circularity between medium and message:

Citizenship was thus born from the imbrication of space and hardware, locked in an indissoluble embrace. Radio established a new topos whose participants could transcend their regional isolation and join in the realization of a political ideal, making explicit the technical process of their own geopolitical construction.⁹³

Soundscapes of Canada was a quintessential product of this sort of medial/spatial legacy, of the confluence of physical and immaterial means of both de- and inscribing a national narrative. Traveling across the country and then beaming back recordings of the journey, the WSP recaptured the circularity of CNR's maiden broadcast. Their program did what radio had always been meant to do in Canada: it gave a vast, diverse nation a sonic representation of itself, a portrait that was meant to capture the country in its proud uniqueness, while simultaneously proposing ways in which identity and unity might be further strengthened.

The advent of radio proved to be a mixed blessing for Canada, a technological development that offered both a means of self-reflection and self-representation, but it also opened a gap for a cultural incursion from outside its borders. By the late 1920s Ottawa had grown concerned about "...the threat posed to Canadian sovereignty by the burgeoning radio empires of the United States."⁹⁴ The sheer volume and reach of the American radio presence led Sir John Aird, the chairman of the Royal Commission on Radio Broadcasting, to recommend the formation of a nationalized broadcasting service that would stud the Canadian landscape with high-powered transmitters, a bulwark against American cultural hegemony. In 1932, Prime Minister, R. B. Bennett noted that the air, the ethereal medium

⁹³ Berland, *North of Empire: Essays on the Cultural Technology of Space*, 105.

⁹⁴ David Ellis, *Evolution of the Canadian Broadcast System: Objectives and Realities, 1928-1968* (Hull: Canadian Government Publishing Centre, 1979), 1.

through which radio waves travelled, needed to be considered a natural resource, one that, like the soil and land, should be exploited on behalf of the Canadian people.⁹⁵ Air space became conflated with sonic space, a stretch of acoustic connectivity that would territorialize the nation's holdings ever upward. Knowingly or not, Bennett was diagnosing a new technological epoch, one in which sound and electronic simultaneity would become fundamentally important. This spatial narrative, one that cast sound as an important force and radio its natural vehicle, continued into the 1950s, culminating in the famous National Report on Arts, Letters, and Sciences—better known as the Massey Commission, after its most prominent author. Twenty years after Aird and Bennett, after the doldrums of the Depression and in the middle of postwar buoyancy, Vincent Massey once again emphasized that cultural policy was of fundamental importance to sovereignty and, as Berland puts it, “highlighted culture as a component of national defense.”⁹⁶ The commission's report recommended a sweeping array of initiatives, culminating in the creation of a variety of cultural bodies charged with the promotion and incubation of distinctly national forms of expression. With respect to radio, the commission recommended that the CBC regulate as well as produce works of high culture—in contrast to the crass commercialism of the programming that was seeping across the border.⁹⁷

⁹⁵ Ibid., 8.

⁹⁶ Berland, *North of Empire: Essays on the Cultural Technology of Space*, 193.

⁹⁷ "Nationalism and the Modernist Legacy: Dialogues with Innis," in *Capital Culture: A Reader on Modernist Legacies, State Institutions, and the Value(S) of Art*, ed. Shelly Hornstein and Jody Berland (Montreal: McGill-Queen's University Press, 2000), 21.

The CBC would ultimately be divested of its mandated role as the sole regulator and provider of nationally significant content. The 1958 Act effectively demoted the CBC to the level of private broadcaster, giving the powers of policing the content of Canadian broadcasting to the newly formed Board of Broadcast Governors. This body would ensure that all broadcasters programmed a mandated percentage of Canadian content. Ellis, *Evolution of the Canadian Broadcast System: Objectives and Realities, 1928-1968*, 45-47.

Canadian radio-space has always been a site of contention and resistance against American cultural imperialism.⁹⁸ Successive commissions and governments used policy and programming to bend the medium to nationalistic purposes.⁹⁹ As Marshall McLuhan famously argued, the medium itself had an inherent and powerful ability to bring people together. It was fitting that the WSP presented their most ambitious statement about the national soundscape on the radio, the medium that McLuhan credited with having a tribalizing effect on societies in which print had previously predominated. According to McLuhan, “The phonetic alphabet and the printed word that exploded the closed tribal world into the open society of fragmented functions and specialist knowledge and action...”¹⁰⁰ Radio supposedly recalibrated the Western sensory apparatus, bringing it back to a state of simultaneous engagement in a medium of information whose imminent presence was afforded by the ubiquity of the electronic signal: “Media, by altering the environment,” wrote McLuhan, “evoke in us unique ratios of sense perceptions. The extension of any one sense alters the way we think and act—the way we perceive the world. When these ratios change, men change.”¹⁰¹ In an essay first published in the mid-1980s, Schafer attempted to recuperate a current in McLuhan’s thought he felt had been neglected:

⁹⁸ While this chapter focuses in particular on documentary-style programming, much of this struggle has been played out through popular music, a history that is beyond the scope of this chapter. See Berland, *North of Empire: Essays on the Cultural Technology of Space*, 185-209.

⁹⁹ This continued to be the case around the time of the *Soundscapes of Canada* broadcast. A 1981 report authored by the CBC and submitted to the Cultural Policy Review Committee, made the case for increased funding to the corporation, arguing that broadcasting was fundamental to national identity. The report equated cultural production with national wellbeing and put the CBC at the center of this effort. “Culture, Broadcasting, and the Canadian Identity,” (Ottawa: Canadian Broadcasting Corporation, 1981).

¹⁰⁰ McLuhan, *Understanding Media: The Extensions of Man*, 304.

¹⁰¹ Marshall McLuhan and Quentin Fiore, *The Medium Is the Massage: An Inventory of Effects* (Berkeley: Gingko Press, 1967), 41.

the return of contemporary society to an immersion in acoustic space.¹⁰² Schafer's reading of his erstwhile teacher focused on a phenomenology of the audible that posited, "Sound is all centre and no margin."¹⁰³ For McLuhan, sonic experience—a condition of all-at-onceness—was inextricably linked to the electrification of media. This technological development, for Schafer, signaled a return to more primeval forms of sociality, to archaic formations in which sounds—church bells, the call of a muezzin, the exclamations of a town crier—had been the primary means of demarcating space: "The community, which had previously been defined by its bell or temple gong, was now defined by its local transmitter."¹⁰⁴ In a sense, radio represented the restoration of a natural order that had been lost in the ascendancy of print media and the visual bias that it had brought about.

For Schafer, acoustic communication had, in a sense, always been radio in waiting. "What was the origin of radio?" wrote Schafer. "Of course it is not new. It existed long before it was invented... Listening back through history, we find that it was the original communication system by which the gods spoke to humanity."¹⁰⁵ Hyperbole stripped away, Schafer was suggesting that radio is an awe-inspiring medium because of what it withholds: the body or presence of its source. Radio is schizophonic (a term that we will unpack in the next section) in that it separates a sonic event from the time and/or space of its occurrence and reproduces it elsewhere—simultaneously, in the case of live radio. Schafer wrote of this effect, once again using McLuhan's terminology, noting that radio is a hot medium—that is, it floods a user with volumes of information in high definition, a user whose participation is

¹⁰² R. Murray Schafer, "McLuhan and Acoustic Space," in *Marshall McLuhan: Critical Evaluations in Cultural Theory*, ed. Gary Genosko (Milton Park: Routledge, 2005), 67.

¹⁰³ Quoted in *ibid.*, 73.

¹⁰⁴ *The Soundscape: Our Sonic Environment and the Tuning of the World*, 92.

¹⁰⁵ "Radical Radio," in *Sound by Artists*, ed. Dan Lander and Micah Lexier (Toronto: Blackwood Gallery & Charivari Press, 1990), 207.

preempted thanks to a surfeit of content.¹⁰⁶ Schafer's thumbnail history of radio swept back into prehistory, but ended in the present with broadcasting, in the dissemination of information from one fixed point to the masses as the ineluctable content of the form. It was a significant oversight, both on the part of McLuhan and of Schafer, to neglect the extent to which radio was initially a medium utilized by amateurs, communicating from point to point. But, it was an omission consistent with the conventional history of radio that had portrayed the medium as a technology seemingly birthed from a Platonic world of forms to spread signal from the few to the many. In fact, until the consolidation of the airwaves by government agencies and private networks in the 1920s, hobbyist DXers—amateur enthusiasts that communicated with each other, sending signals to and receiving them from across great distances—participated in an iteration of the medium that was characterized by a rhizomatic, non-hierarchical structure.¹⁰⁷ In Schafer's historical schema there were two modes of radio, both of which assume the broadcast form to be fundamental: the “political” model and the “enlightenment” model. The former was concerned with disseminating the voices of politicians in the hopes of gaining or consolidating power while the latter essentially sought to entertain and nothing more.¹⁰⁸ Schafer argued that this latter form of commercial radio erected a “sound wall” that isolated listeners in a cocoon of advertising and popular music, a sonic enclosure that resulted in alienation and disengagement.¹⁰⁹ Here Schafer parted ways with his mentor's deterministic understanding of radio: not only did

¹⁰⁶ Schafer's reference to McLuhan is in *ibid.* For McLuhan's thinking on hot and cold media see McLuhan, *Understanding Media: The Extensions of Man*, 22-32.

¹⁰⁷ Susan J. Douglas, *Listening In: Radio and the American Imagination* (Minneapolis: University of Minnesota Press, 2004), 55-82.

¹⁰⁸ Schafer, "Radical Radio," 207-08.

¹⁰⁹ Schafer's description of sound walls were as concerned with the character of the sonic signal as its isolating effect. He noted that commercial radio had compressed the dynamic range of music to the point that it formed a solid mass: a wall of sound. *The Soundscape: Our Sonic Environment and the Tuning of the World*, 93-96.

radio carry within it the power to isolate modern subjects (contrary to McLuhan's belief that it would retribalize contemporary society), programming and editing were fundamental to how the medium affected its listeners. According to Schafer, radio programming had moved from a relatively slow-paced, spacious approach to a more frenetic, choppy style of presentation. Commercial radio careened between advertisements, music, and talk, creating unnatural contrasts: "The modern radio schedule, a confection of material from various sources, joined in thoughtful, funny, ironic, absurd or provocative juxtapositions, has introduced many contradictions into modern life and has perhaps contributed more than anything else to the breakup of unified cultural systems and values."¹¹⁰

If radio programming could overturn the social order, it could also facilitate a return to a more wholesome state of being and of listening. Schafer noted this duality, writing, "If modern radio overstimulates, natural rhythms could help put mental and physical well-being back in our blood. Radio may, in fact, be the best medium for accomplishing this."¹¹¹ Schafer and the WSP took up this challenge quite literally in the *Soundscape of Canada* episode entitled "Summer Solstice." Compressing 24 hours of field recordings into one hour, the episode represented a full circadian cycle in a span more approachable than in real time. However, according to Schafer, "The CBC...were not very thrilled with it. They considered it boring. They had not learned to listen, as we had, with new ears."¹¹² But WSP's new ears were resolutely turned towards old sounds. This tension in their philosophy reflected a longstanding paradox in radio: historically the medium has simultaneously connoted modernity and technological advancement, while remaining affectively linked to the idea of intimate, present, oral communication. This was (and arguably continues to be) the strange,

¹¹⁰ Ibid., 94.

¹¹¹ "Radical Radio," 209.

¹¹² Ibid., 215.

contradictory nature of radio; by appealing to the seemingly timeless power of orality to foster authentic connection while expanding the scope of communication far beyond the geographical limitations of the unelectrified human voice, radio promises both a return to old values and an idealistic progress towards a better future.¹¹³ As Marco Adria writes, “Radio may at once mediate an image of the nation as technologically advanced, leaving tradition behind in its forward movement, while at the same time evoking tradition and the preindustrial mode of interpersonal communication...”¹¹⁴ Radio instantiated new separations in time and space, just as it promised to connect distances never before bridgeable. For their part, Schafer and the WSP evidently held conflicting, complicated opinions about the medium, exploiting it for its power to reach wide audiences and bolster community, while simultaneously viewing it with suspicion because it split sounds from their sources, creating a sonic confusion that threatened to drown society in noise.

A Voice, Split

For a thinker who approached sound recording with such suspicion, Schafer strangely saw the tape recorder as tool whose value was almost self-evident. While words might evoke particular sonic scenes, recordings captured the things themselves, preserving them for future study and analysis. In a 2005 lecture Schafer noted that “ear witness accounts are the only source material any researcher who might wish to know about past soundscapes has prior to the invention of the tape recorder.”¹¹⁵ Of course, sound recording predated tape technology by over half a century, but what seems to be couched in Schafer peculiar

¹¹³ On the fraught history of the face to face vs. mediated communication in radio, see Peters, *Speaking into the Air: A History of the Idea of Communication*, 177-225.

¹¹⁴ Marco Adria, *Technology and Nationalism* (Montreal: McGill-Queen's University Press, 2009), 111.

¹¹⁵ R. Murray Schafer, "The Sounding City," <http://alcor.concordia.ca/~senses/sensing-the-city-lecture-RMurraySchafer.htm>.

periodization is a statement about the feasibility of making high definition environmental recordings. The phonograph, while mobile, was cumbersome and also limited in its dynamic range. It was adequate for recording loud sounds at a close distance; however, it could not capture the subtle totality of a soundscape without covering quiet details with a blanket of hiss. The art of field recording extended back to the very beginnings of sound recording, but, as a technique, it had been generally concerned with capturing specific subjects—primarily singers and animals—in context. From Richard Garner’s monkeys to Alan Lomax’s prison gang vocalists, location was an important element of field recording in that it supported claims to authenticity, veracity, and spontaneity, but it was never really the focus of the recording itself. The WSP’s innovation, according to Schafer, was to enlarge the frame of sound recording to represent acoustic environments in their totality. In the same lecture, Schafer stated, “I honestly believe we were the first people to take the microphone out of the studio to make phenomenological recordings, that is to record phenomena in their native environment without trying to mediate or manipulate the material for other purposes.”¹¹⁶ For Schafer, it would seem that it is the studio—not the microphone—that is the source of mediation. His comments were in keeping with the standard trope of field recording: the studio is a non-space, a site of intervention and is therefore inauthentic, whereas the field is the site of reality such as it is. In a studio setting there supposedly is no such thing as an unmediated recording, no way of capturing and representing a complex and authentic sonic environment. This could apparently also be said of recording in the field if what is captured is then mediated or manipulated. But by underscoring the WSP’s commitment to not tampering with their materials, it was implied that such a thing as an unmediated recording—if captured in the right setting—could indeed exist.

¹¹⁶ Ibid.

Ultimately, this thread in Schafer's thought is difficult to square with his polemical stance on sound recording's tendency to disseminate copies of authentic and unique original sonic events, a phenomenon that, in his writing in the 1970s he termed "schizophonia." Schafer chose the prefix "schizo," or Greek for split, to denote the separation of a sound from its source via its storage and retransmission by electroacoustic means. For Schafer, this split produced impoverished, lesser copies of a transcendent, original event. The age of electronic media was a fall from the purity and simplicity of prelapsarian times: "Originally all sounds were originals. They occurred at one time and in one place only."¹¹⁷ Schizophonic media were dangerous because they unsettled an ontological understanding of sounds as being authentic only when they are self-identical, that is, when they issue forth from the sounding body, traveling outwards into the universe until they decay and disappear. Schafer believed that recording broke with the natural order in that it allowed sounds to be played back in times and in places different from those from which they were torn. For Schafer this was what paradoxically made recording both useful for research and dangerous agents of ontological disintegration. His suspicion of recording could be taken as a species of a common assumption described by Jonathan Sterne, namely that an object and the sound it produces "[exist] in some prior holistic, unalienated, and self-present relation."¹¹⁸ The assumption of an integral relation that preexists fragmentation relies on a particular metaphysical and idealistic understanding of identity, a position that assumes that there are such things as originals and that copies diminish not only the value of the authentic sound, but threaten its ontological status as well. In this respect Schafer was repeating Benjamin's thesis that, once it could be reproduced, the work of art's aura would be eroded.¹¹⁹

¹¹⁷ *The Soundscape: Our Sonic Environment and the Tuning of the World*, 90.

¹¹⁸ Sterne, *The Audible Past: Cultural Origins of Sound Reproduction*, 21.

¹¹⁹ Benjamin, "The Work of Art in the Age of Mechanical Reproduction."

According to Schafer, prior to the advent of electronic recording, “Sounds were then indissolubly tied to the mechanisms that produced them...Every sound was uncounterfeitable, unique.”¹²⁰ But this position, while perhaps intuitive, rests on shaky ontological ground. For one thing, as James Lastra suggests, a sonic event requires auditors, each of whom hears it under different conditions. If an original can only ever be known under less than ideal circumstances—if its reception is always already degraded—then what ontological power can it really hold? If the original is never fully present to the listener by virtue of her removal from it in space and time then is every hearing, questions Lastra, “in some way absent?”¹²¹ The problem with framing the issue in terms of loss and degradation is that it is impossible to conceive of a sound as being self-present and authentic without a dialectical understanding that the very notion of an original is conceivable only in relation to the existence of a copy.¹²² The coming into being of a copy is the condition that makes the original’s apparent unique and temporal precedence possible. In fact, in that an acoustic vibration is always experienced at a distance from the body that produces it, it is arguable that schizophonia is the natural condition of acoustics itself—not just of electronically mediated sound.¹²³ If we follow Schafer’s thought to its paradoxical conclusion we might take him to be proposing that, originally, no sounds were originals.

Schizophonia necessarily posits the dialectical tension between copy and original in technological reproduction. But it is problematic to assume that technology itself can ever

¹²⁰ Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World*, 90.

¹²¹ Lastra, *Sound Technology and the American Cinema*, 151.

¹²² “In essence, for some- thing to be original, its repetition must be recognized as conforming in some way to the original-or the original must possess a certain ideality that is capable of remaining recognizable in various contexts. Ideality then, would *depend* on repetition; would be, in a sense, an *effect* of repetition rather than a precondition for repetition.” Ibid.

¹²³ Jason Stanyek and Benjamin Piekut, “Deadness: Technologies of the Intermundane,” in *The Sound Studies Reader*, ed. Jonathan Sterne (New York: Routledge, 2012), 309.

fully exhaust, explain, or determine our understanding of the relationship between an event and a recording. Sterne argues that the ways in which we understand sound are always cultural, that an attempt to pin down a transcendental object of hearing will always be undone by shifts in discourse. One explanation for how hearing functions, what Sterne calls the “tympanic function,” emerged with modern acoustics, sometime in the eighteenth or nineteenth century.¹²⁴ This model, the one that still stands as the commonsense model of sonic transmission, described both objects of sonic transmission and reception as vibrating membranes that transduces sound waves into sensible experience. Schafer’s original sounding object would, in his understanding, vibrate causing the compression and rarefaction of air. But where Schafer’s preoccupation with originals breaks down is in its inability to account for the reception of sound waves. Transduction applies to both ends of the exchange; each listener is endowed with a similar but variable apparatus—a pair of ears—with which to tympanically transcode the sonic signal. In this sense, talk of originals and copies must give way to a more nuanced understanding that schizophonic technologies are not nearly as metaphysically pernicious as Schafer would have us believe.

Railing against the ontological disruption caused by schizophonia, Schafer was essentially repeating a refrain that has prevailed for millennia: sonic transmission, free of mediating factors, is self-present. That is, all traces of an “original” event are impoverished, degraded imitations of the original. This is exactly the received story that Jacques Derrida was questioning in the late 1960s at the very moment that Schafer was formulating his sonic ontology. Derrida argued that it is fallacious to assume that there is a metaphysical entity that exists prior to representation, showing how sound—specifically spoken language—had, in the Christian tradition been conceived of as that which is closest to thought and to spirit.

¹²⁴ Sterne, *The Audible Past: Cultural Origins of Sound Reproduction*, 22-23.

Mediation—in the form of writing for Derrida’s purposes—had conventionally been taken to be a sign of the spoken word, which makes it a sign of a sign.¹²⁵ Transposing Derrida’s analysis of logocentrism and its denigration of print, it is arguable that a similar assumption about the “metaphysics of presence” inheres in Schafer’s views on sound recording. After all, sound recording functions similarly to writing in that it supposedly inscribes a trace of that which issues forth from the primary, pre-mediated mode of being. But if a recording is the trace of a trace, if it is mediation all the way down, then Schafer’s anxiety about schizophonic technologies being counterfeit seems unwarranted. For one thing, Schafer’s use, and the later development of soundscape composition by the WSP was a classic example of what Derrida called the “logic of the supplement.” Writing on Jean-Jacques Rousseau’s denigration of writing as spurious and parasitical on speech, Derrida showed that the philosopher’s need to supplement speech with literary inscription pointed to a fundamental lack in speech itself. Insofar as the supplement adds something that cannot be provided naturally, it completes what was unfinished or impoverished. Paradoxically, the WSP advocated the use of recorded sound as a means of educating a population whose ears had been muddied by a century of industrial noise and schizophonic mediation—an electroacoustic supplement. Just as it was for Rousseau, the very technique that was found to be pernicious and duplicitous also promised to mend the rupture it had created in the first place.

While schizophonic technologies had populated the world with noise and counterfeit versions of authentic sounds, Schafer also made qualifications as to which variety of

¹²⁵ “There the signified always already functions as a signifier. The secondarity that it seemed possible to ascribe to writing alone affects all signifieds in general, affects them always already the moment they *enter the game*. There is not a single signified that escapes, even if recaptured, the play of signifying references that constitute language. Derrida, *Of Grammatology*, 7.

mediated experiences might be useful in combatting acoustic ignorance. One technology in particular held the promise to shut out the din of modernity and immerse a listener in a world of pure immediacy and interiority: headphones. Not only could they block out the noise of the world, Schafer argued that they reconnected the listener with authentic sound, even though the recordings played back into her ears were schizophrenically (re)produced: “While most twentieth-century developments in sound production tend to fragment the listening experience and break up concentration, headphone listening directs the listener towards a new integrity with himself.”¹²⁶ In Frances Dyson’s reading of Schafer, headphone listening represents the interiorization of sound, of wresting acoustic experience away from the troubled, noisy, lo-fi environment of the modern city by “finding new ears.” Dyson suggests that, for Schafer, headphone listening could lead the “recovery of positive silence,” and the cultivation of a stillness of mind that was a prerequisite for a centered and integrated way of being.¹²⁷ Dyson writes,

Not only is the sound contained within the ear of the listener, but the listener’s relationship to the world is virtually eliminated: sound is desocialized, and the threat of an overcrowded mind, or the din of the social, is temporarily reduced. In such a move, the schizophrenic disembodiment of sound is resolved through the technological interface.¹²⁸

Dyson’s account does not fully address the contradiction inherent in schizophrenia. Headphones might simulate the presentness of a sound object, but it is still a recording that streams into listener’s ears. Its mingling with the external soundscape is reduced, making the artifice engendered by schizophrenia slightly less pronounced. Ontologically though, there is

¹²⁶ Schafer, *The Music of the Environment*, 17.

¹²⁷ Frances Dyson, *Sounding New Media: Immersion and Embodiment in the Arts and Culture* (Berkeley: University of California Press, 2009), 80-81.

¹²⁸ *Ibid.*, 82.

no real difference here; we are still left with Schafer trying, paradoxically, to rectify the instability wrought in the world thanks to sound recording with a schizophonic technology. What Schafer did not offer, at least in writing, was a proposal for what such a soundtrack for centering the schizophonically re-embodied subject would sound like. Schafer's concern with field recording was apparently purely empirical: "We were not trying to produce works of art with these recordings; we were using them as source material for the study of past and present soundscapes and ultimately to assist us in what I might call soundscape design."¹²⁹ Other members of the group, notably Barry Truax and Hildegard Westerkamp would later explore the aesthetic and artistic possibilities of what they would call soundscape composition.

Writing several years after the WSP's initial flurry of activity in the 1970s, Truax laid out the formal and philosophical constraints for soundscape composition in his 1984 book, *Acoustic Communication*. As we have already seen, Truax stated that the soundscape composition had to, by necessity, maintain the integrity of the source. This meant a relatively hands-off approach to editing and montage. In *Acoustic Communication*, Truax briefly outlines that parameters of soundscape composition and discusses the political implication of utilizing transparent, contextually meaningful recorded sound. But his most nuanced and exhaustive statement on the form comes in a 1996 article focusing on the use of environmental recording in composition. For Truax, Western music has never adequately developed a system for discussing or evaluating referential sound because it has historically been exclusively concerned with abstract properties such as pitch or meter. Even electroacoustic music that deals with recorded sound has obfuscated or negated its signifying

¹²⁹ Schafer, "The Sounding City".

properties both in theory and in practice.¹³⁰ For Truax, the “serious use of environmental sound in music is potentially disruptive and even subversive to the established norms of the artistic field.”¹³¹ The textural richness and familiarity of environmental recordings are far too complex and nuanced to fit into a syntactical model of musical theory such as that proposed by musicologists like Jean-Jacques Nattiez, a system that has no adequate way of dealing with timbre.¹³² Soundscape composition also challenges the historical valorization of abstraction as a teleological condition of expression.¹³³

For Truax, soundscape composition subverts or disrupts traditional understandings of what recorded sound can do in an artistic context. This is in part because of the sacred function of source recordings in soundscape composition. Other traditions, such as the acousmatic approach, demand that the composer acts on and shapes the sound, that she is an autonomous creator manipulating a plastic material. In leaving recordings as they are—apparently transparently linked to their source—soundscape composition creates a situation in which “sound ‘uses’ the composer.”¹³⁴ For Truax, untreated environmental recordings capture the world in its full physical, social, and psychological complexity—with a nuance and authenticity that representational or referential modes of composition cannot approach.¹³⁵ Complexity, transparency, and authenticity are aesthetically valuable, but what soundscape composition supposedly offers is the restoration of a healthy and harmonious relationship with the environment. As Truax writes, “...the real goal of the soundscape

¹³⁰ Truax, "Soundscape, Acoustic Communication and Environmental Sound Composition," 49.

¹³¹ Ibid.

¹³² Ibid., 50.

¹³³ Ibid., 50-51.

¹³⁴ Ibid., 60.

¹³⁵ "The Inner and Outer Complexity of Music," *Perspectives of New Music* 32, no. 1 (1994).

composition is the re-integration of the listener with the environment in a balanced ecological relationship.”

Hildegard Westerkamp similarly feels that schizophonic media have the potential to rectify the damage caused by schizophonic media. Westerkamp, following Schafer recognizes that schizophonic sound is disorienting, but it is also a convenient and effective tool that commercial interests have exploited to influence the behaviour of consumers. Schizophonic music, in the form of what Schafer, corrupting the trademark of the hated brand, called “moozak,” was responsible for deadening the attention and aesthetic acumen of listeners. According to Schafer, music and had always been the figure of attention, but moozak flattened the listening experience, pushing aesthetic awareness back to the level of ground.¹³⁶ The point is similar to Adorno’s observation that what he called “light jazz” led to “deconcentration,” that its banality made it an unbearable object of attention.¹³⁷ Popular music was a distraction that was causing society to regress and, in sliding back into an infantile state, became susceptible to manipulation. Westerkamp argues that the very same technology, when harnessed to create soundscape composition, can actually bring critical awareness to the schizophonic condition: “Rather than lulling us into false comfort, it can make use of the schizophonic medium to awaken our curiosity and to create a desire for deeper knowledge and information about our own as well as other places and cultures.”¹³⁸ For Westerkamp, it is the contradiction itself that produces the solution: a soundscape composition is an artificial form that paradoxically grants access to the real world, indeed compels a return to it. But Westerkamp, in searching for a resolution to the ontological problem of mediation, in grasping for a way of explaining this paradox, returns again and

¹³⁶ Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World*, 98.

¹³⁷ Theodor W. Adorno, *Essays on Music*, ed. Richard Leppert, trans. Susan H. Gillespie (Berkeley: University of California Press, 2002), 305.

¹³⁸ Westerkamp, "Linking Soundscape Composition and Acoustic Ecology," 52.

again to the uncanny presence that dwells within the recording: “In soundscape composition the artist seeks to discover the sonic/musical essence contained within the recordings and thus within the place and time where it was recorded.”¹³⁹ If the schizophrenic condition calls out and casts wariness on the non-identity between a recording and the thing recorded, it would seem that there is no room for essences. Soundscape composition, both in the nascent form exhibited in *Soundscape of Canada*, and in its later, more mature form, is fundamentally concerned with identity and the unbreakable and transparent connection that a recording has to its source.¹⁴⁰

Retuning the Soundscape

It is the artists’ job to open the possibility of the impossible, and it is the writers’ responsibility and the listeners’ challenge to engage in the inaudible to tease it out, not to come to an ideal audibility but to constantly work on the boundary between the audible and the inaudible, to make the impossible re-sound the possible and pluralize the actual.¹⁴¹

- Wolfgang Ernst, *Digital Memory and the Archive*

The influence of Schafer and the WSP on how scholars, composers, and ecologists think about sound has been lasting and profound. Indeed, skip to the end of virtually any publication dealing with sound as an object of study and you will almost invariably find Schafer’s seminal work, *The Soundscape*, ensconced in the bibliography. As we have seen, the term itself has become a part of the common lexicon, but it is also a concept that has proved extremely productive in its forty-year-old life. Schafer and the WSP’s legacy is perhaps most

¹³⁹ Ibid., 54.

¹⁴⁰ See Akiyama, "Transparent Listening: Soundscape Composition's Objects of Study."

¹⁴¹ Wolfgang Ernst, *Digital Memory and the Archive* (Minneapolis: University of Minnesota Press, 2013), 175.

evident in the work of the World Forum for Acoustic Ecology (WFAE), an organization founded in 1993 dedicated to the study of the acoustic environment.¹⁴² It is striking the extent to which the WFAE and its various national offshoots have continued to hew to the conceptual tools and techniques proposed by the WSP in the 1970s. In the context of the acoustic ecology movement Schafer is granted almost messianic status, his prognostications and diagnoses regarding the degradation of the soundscape, along with his prescriptions for its repair, have encountered little critique. The words of Kendall Wrightson, published in the inaugural issue of the journal, *Soundscape*, are emblematic of the reverence that Schafer has enjoyed. Endorsing Schafer's program for developing "sonological competence" and "reduc[ing] the wasted energy that noise represents," Wrightson concludes, "...it is my view that the values espoused by Acoustic Ecology—the value of listening, the quality of the soundscape—are values worth evangelising."¹⁴³

There have been some dissenting voices within the ranks of acoustic ecology. For one, Andra McCartney, a scholar and artist that has long been involved in the movement, recently challenged the received wisdom of Schafer et al in her keynote address at the 2010 WFAE annual conference. Specifically addressing the politics and ethics implicit in the notion of hi-fi soundscapes, McCartney challenges the truism that a high signal-to-noise ratio is invariably indicative of a healthy acoustic environment. Schafer and Truax have consistently associated high fidelity with rural, "natural" locales and have denigrated urban soundscapes as noisy, low information environments. But, as McCartney notes, there are all kinds of milieus and situations outside of the built environment that might be characterized as lo-fi—waves crashing on a beach, the din of tropical insects, a torrential rainstorm, to give

¹⁴² "About the Wfae," <http://wfae.proscenia.net/about/index.html>.

¹⁴³ Kendall Wrightson, "An Introduction to Acoustic Ecology," *Soundscape: The Journal of Acoustic Ecology* 1, no. 1 (2000): 13.

a few examples.¹⁴⁴ Soundscapes like these would, by most measures, qualify as ecologically sound. It is also sometimes true that lo-fi soundscapes in urban contexts are not as confusing or uninviting as orthodox acoustic ecology makes them out to be. McCartney suggests that the commotion and clatter of restaurants and cafes can be convivial, producing a social drone that smears the intelligibility of neighbouring diners, creating zones of privacy in a crowded, public space.¹⁴⁵ In addition, there is a deeper ethical inconsistency in the uncritical promotion high fidelity. McCartney notes, for example, that silence is not necessarily a quality freely sought, that is sometimes an imposition. She gives the example of the controlled acoustic environment of prisons established by Quaker reformers. Isolated in their cells, with little to no sonic stimulation, many inmates went insane in their hi-fi enclosures.¹⁴⁶

Significantly, McCartney, a professor at Concordia University in Montreal, critiques the ideology of high fidelity with respect to its genesis in a Canadian context. She connects the WSP's thought with some of the narratives that we have already worked through, noting in particular the hold that the supposed solitude of Canada's northern spaces has over the national imagination. McCartney suggests that soundscape discourse has tended to repeat these pastoralist tropes: "By referring to the hi-fi soundscape as an example of an ecological soundscape, are we shaping soundscape studies through a particularly northern and isolationist framework?"¹⁴⁷ The question is meant to serve as a provocation the acoustic ecology community, a call for its adherents to search their souls and examine the ethical dilemmas that follow from an uncritical acceptance of the idea that a return to a pastoral

¹⁴⁴ Andra McCartney, "Ethical Questions About Working with Soundscapes," in *WFAE International Conference* (Koli, Finland 2010).

¹⁴⁵ Ibid.

¹⁴⁶ Ibid.

¹⁴⁷ Ibid.

soundscape is desirable and necessary for the health of the environment. The WSP has indeed brought much needed attention to the consequences of noise pollution. Their work has had an important influence on a growing community of ecologists and bioacousticians who are arguing that human-generated noise is adversely affecting a wide variety of animals that rely on sound to communicate, attract mates, stake their territory, etc.¹⁴⁸ However, as we have seen, the brand of pastoralism promoted by the WSP is inextricable from a social ideology that favours a particular type of subject. The true Canadian described by Schafer—the individual that wants nothing to do with the city and, if he were to unwillingly find himself in a high-rise apartment, would shun the smell of his ethnic neighbours' cuisine—is of a group whose privilege has been so deeply central to the national narrative that it has become all but invisible—the backdrop against which difference stands out. The true Canadian—white, English or French-speaking—whose habitat the WSP documented and tried to protect in *Soundscapes of Canada* came of age at a time when the virtues of nature were being sold to a middle class that had almost exclusive access to the parks and preserves that were created after the Second World War.¹⁴⁹ The WSP's vision for a soundscape designed by the experts they hoped to train was one that apparently had little room for the multicultural, urban world that was quickly becoming a fact of modern life. The group's environmental

¹⁴⁸ The main proponent of this theory is Bernie Krause whose “niche hypothesis” states that, in a healthy ecosystem, all creatures occupy a particular range of the acoustic spectrum, a sharing of sonic bandwidth that allows them to communicate with members of their own species without interfering with other members of the community. When humans introduce new noises—air traffic, chainsaws, etc.—parts of the acoustic spectrum are drowned out, preventing normal communication. Krause, “The Niche Hypothesis: A Virtual Symphony of Animal Sounds, the Origins of Musical Expression and the Health of Habitats.” For a more recent review of the scientific literature on acoustic communication and habitat loss see Paola Laiolo, “The Emerging Significance of Bioacoustics in Animal Species Conservation,” *Biological Conservation*, no. 143 (2010).

¹⁴⁹ Alexander Wilson argues that the nature tourism has largely been an escape for the North American white middle class for reasons of wealth and mobility. Alexander Wilson, *The Culture of Nature: North American Landscape from Disney to the Exxon Valdez* (Toronto: Between the Lines, 1991), 27.

recordings and compositions, the mediated cognate to Schafer's concept of the soundscape, captured and promoted a selective version of the nation and then employed these materials to maintain what they valued and slant sonic communities towards an ideal, seemingly homogenous and noiseless future.

◁

Conclusion – Constitutive Utopias and Spaces of Sonic Fiction

Brief snatches of sound suggest the ambiance of urban car culture—the haphazard scanning of the radio spectrum, the thrum and drone of a car in motion, rushing wind through a half-opened window—perhaps. But it is hard to tell. For the most part, pulsing electronic kick drums, bass pulses, and jagged, rhythmic glitches mask any semblance of the material world buried beneath digital artifacts. But straining, it seems as though the recognizable soundscape has been altered, deformed into the most extreme electronic parody of itself—low-end frequencies amplified at the expense of the remaining acoustic spectrum, the unnaturally brief staccato of a sound squeezed or truncated into a fraction of its typical duration. But then, heard in a car, or at home, or in headphones, the music of Ultra Red itself becomes a part of the soundscape. Of course, acoustic vibrations are acoustic vibrations whether they emanate from a loudspeaker, tree leaves rustling in the wind, or the squeal of rubber on asphalt. This is where the serpent opens its mouth wide and devours its tale: these recordings, like any others made with a microphone, document space, and then, when activated, become objects in it. They appear to represent the world as it is, committing it to the record, holding it stable. But, on playback, they then enter back into the soundscape, producing new events, contributing to the flux of the sonic environment. This is just as true of electronically produced or digitally altered sound as it is of naturalistic, untreated field recordings. Each becomes part of the world of sound, a series of vibrations emanating from a quiver paper cone, although each quickly becomes implicated in different sets of politics and possibilities. It seems, then, to be fair to say that it is more important to ask what a sound can *do* than to speculate on what it *is*.

As we have seen, in the writings of the WSP, sound recording is taken to have a transparent relationship with the place from which it is taken. Working in the early 1970s,

well after the introduction of analog tape, sensitive microphones, and light, portable sound recorders, it is perhaps easy to understand the ease with which this claim was made. After all, the materiality of the apparatus seemed to vanish in the act of audition. But the WSP's understanding of how social or political change might be inspired or brought about by sound recording was based on the belief that recordings—untreated or at least minimally altered to maintain their connection with the original event—should present authentic renderings of the soundscapes in which they were made. The assumption was that the spirit of the place, its *genius loci*, somehow rubbed off onto the recording and, if left more or less unedited, would register something with a listener regardless of her ability to identify its source. An audience could not help but be changed by the acoustic tranquility of an old growth forest; changed, but then inspired to protect its unsullied peace. Never mind that they also theorized this link between place and recording to be untenable, a rupture that occurs when the real is copied; for the WSP, politics and ethical responsibility lay in clarity, in an authentic connection between the listener and the soundscape represented in the recording.

For Ultra-red, there is no such thing as a “transparent medium.” Oxymoronic, the term tears at itself. Better then to help with the tearing, to exaggerate the so-called schizophrenic properties of sound reproduction, to work in service of (instead of against) flux. It is in the separation of sound from source that difference can be imagined, in which utopias are conceived. And, it is in reintroduction of sound into space—sounds twice removed from their place of capture and multiply reworked—that music or sound art (call it what you will) can radically transform a listener's relationship to a milieu. Set against R. Murray Schafer's denunciation of sonic mediation, Ultra-red's position on fidelity could not be more opposite: “A political aesthetic of field recordings, as we've come to understand it,

is not organized around the truth of the record,” writes Dont Rhine, a founding member of Ultra-red. “Instead, the field recording tests our memories against the truth of our desires...The political site takes shape the moment those actors involved in the event listen to the recording and reflect on it in relation to their memories and desires. The record is never the same as we remember it to be.”¹

We have so far considered field recording in a variety of contexts, each positing a certain stability to a sound recording. But Rhine’s statement fundamentally inverts—and subverts—the rhetorical leverage that field recording has historically claimed on account of its truthful, unstaged relationship to reality. If a field recording’s importance lies in its ability to store without distortion, then what does it entail if any engagement with this supposedly stable object is always marked by a slippage between memory, desire, and truth? If this is the case, then a field recording’s power does not have to come from a story about it containing some sort of metaphysical residue of an original event; its force is occasioned by use, by its giving rise to new sets of relations, connections other than those presumed to exist between a copy and an original. A field recording isn’t a window; it is a brick, a thing whose purpose is undeclared until it is put into use.² It cannot do anything by itself—preserve a dying culture, reveal an animal’s cognitive abilities, or foment revolution—without its terms of engagement somehow being understood in advance. And if a field recording’s use has primarily been defined by disciplines concerned with its epistemological or preservational value, by discourses invested in sonic reproduction’s representation of the world as it *is* or

¹ Quoted in Cameron Macdonald, "Ultra-Red," *Grooves Magazine* 2004, 16.

² “A concept is a brick. It can be used to build the courthouse of reason. Or it can be thrown through the window. What is the subject of the brick? The arm that throws it? The body connected to the arm? The brain encased in the body? The situation that brought brain and body to such a juncture? All and none of the above.” Brian Massumi, "Translator's Forward," in *A Thousand Plateaus: Capitalisma and Schizopbrenia* (Minneapolis: University of Minnesota Press, 1987), xii.

was, then we might turn to the sonic arts for an account of how mediation can speak to how things *could* be. Sound art, like its creative cognates, does not necessarily trade in truth claims. As we will see, sometimes it is interested with no more than its own materiality, but sometimes it ingests the world and spits it back out, idealized, defamiliarized, politicized, transformed.

The Sound Object in an Unsound World

“What you hear on *La Selva* is not *La Selva*.”

- Francisco López, *Profound Listening and Environmental Sound Matter*³

The critique of transparency we have developed over the past three chapters does not easily come to rest in dialectics. It is tempting to counterpose a corrective theory of opacity or a reduced, a-signifying approach to recording against the realist or essentialist mode that dominates the social and hard sciences. It would be tempting to hold up, for example, Pierre Schaeffer’s acousmatic philosophy as a way around the ideology of fidelity. Schaeffer called for an approach to composition that would render opaque any reference that a sound recording might bear. This meant altering sounds—changing their speeds, cutting and splicing, reversing, etc. The “sound object,” as he called it, was to be reduced down to a state of imminent sonic experience prior to language and association. But to set up such a dichotomy would be to fall into what Christoph Cox diagnoses as a categorical error: “Contemporary cultural theory...manifests a problematic Kantian epistemology and ontology, a dualistic program that divides the world into two domains, a phenomenal

³ Francisco López, "Profound Listening and Environmental Sound Matter," in *Audio Culture: Readings in Modern Music*, ed. Christoph Cox and Daniel Warner (New York: Continuum, 2006), 85.

domain of symbolic discourse that marks the limits of the knowable, and a noumenal domain of nature and materiality that excludes knowledge and intelligible discourse.”⁴ This distinction between culture and nature has served cultural theory well by laying the groundwork for the post-structuralist proposition that there is nothing outside of language or the text. Here, nature is bracketed off as little more than a product of discourse.⁵ The problem is, sound art has generally avoided directly dealing with language and discursivity, positing sound as a material, abstract, and formal phenomenon that exists outside of signification.⁶ As Seth Kim-Cohen suggests, the sonic arts have been far too concerned with “sound-in-itself,” with a mode of listening that is content to attend to little more than its phenomenal or formal qualities. Comparing sound art to its visual analog, it is as though the tradition never really found its Duchamp, its conceptual rupture with the primacy of the physical object.⁷ It is as though sound art got stuck in the sort of modernism championed by Clement Greenberg, never breaking away from a formalist form of engagement. Sound art has never had its Rosalind Krauss, its diagnosis of postmodernity, because it has never really existed in an expanded form. Kim-Cohen uses an analogy that is suggestive for our purposes, describing the historical trajectory of engaging with art as being like the ways in which one might experience a window. On one level, we might see *out* or *through* the window, a way of looking akin to pictorial realism, to treating the space of the painting as a portal onto a space of representation. Or, we might look *at* the window, noticing its material qualities, its suchness, the way we might observe the painterliness and physicality of a Rothko. Kim-Cohen proposes that we ought to apply to sound art the sort of conceptual

⁴ Christoph Cox, "Beyond Representation and Signification: Toward a Sonic Materialism," *Journal of Visual Culture* 10, no. 2 (2011): 147.

⁵ *Ibid.*, 146-47.

⁶ Kim-Cohen, *In the Blink of an Ear: Towards a Non-Cochlear Sound Art*, xvi-xvii.

⁷ *Ibid.*

engagement with language, politics, and philosophy that characterized the post-Duchampian art of the 1960s—he asks us to look *about* the window.⁸ Duchamp’s call for a “non-retinal” visual art, one more concerned with ideas than objects was taken up conceptualists including the Fluxus group, Joseph Kosuth, and Hans Haacke and still reverberates and inflects, for example, the recent turn to social practice as a form of artistic expression. Decades later, we are, according to Kim-Cohen, still waiting for sound art’s conceptual moment, which has prompted him to call for a “non-cochlear” approach to sonic practice, one that is similarly concerned with the extra-material: “A non-cochlear sonic art does not accept the resolution of sound-in-itself...An expanded sonic practice would include the spectator, who always carries, as constituent parts of her or his subjectivity, a perspective shaped by social, political, gender, class, and racial experience.”⁹

For Kim-Cohen, the ideology of reduction, of material specificity—of sound-in-itself—is suspect because it leaves no room for conceptual, social, or political engagement. Outside of the arts, field recording tends towards an opposite ontology, towards transparency and realism. But a sound artist like Francisco López, a composer and biology professor whose work is based entirely on environmental recording, can permit himself to completely disregard signification and focus solely on a sensory experience utterly outside of the social “I have a completely passionate (sic) and transcendental conception of music...Of course, I have lots of ideas about the world and politics and whatever, but I think these things shouldn’t contaminate, shouldn’t pollute the music. I’m very purist.”¹⁰ A López composition might incorporate an environmental recording of a tropical rain forest, the grinding noise of an unidentifiable machine, the strident whine of a thousand cicadas.

⁸ Ibid., xvii.

⁹ Ibid., 260.

¹⁰ Quoted in Christoph Cox, “Abstract Concrete: Francisco López and the Ontology of Sound,” *Cabinet*, <http://cabinetmagazine.org/issues/2/abstractconcrete.php>.

Experiencing his music in concert borders on sensory assault. The blindfolded audience sits with their backs facing a control station shrouded in black fabric. López's concerts generally begin in near silence, daring a listener to distinguish any trace of recorded sound from rustling fabric or the soft breathing of her neighbour. Gradually, vaguely familiar sounds fade into audibility and slowly rise to a crescendo so violent and engulfing that it seems as though there is no space except inside of sound itself. López's "absolute music" is so physically immersive and overwhelming that at a certain point is almost impossible to attach sounds to sources as meaning is subsumed under the sensuous immanence of sound. Naturally, López vehemently aligns himself with Schaeffer and against Schafer, contending that the only truly artistic or musical approach to composing with field recordings is to renounce any documentary tendencies, to strive for an abstract and expressive form unburdened by attachment to a "reality" outside of immediate sonic experience.¹¹ Kim-Cohen finds López's sonic essentialism problematically closed off to the world and therefore "uniquely unavailable to non-cochlear recuperation."¹² But for all López's talk about occasioning a moment of pure listening uncontaminated by representation, one whose spatiality extends no further than the encounter with a recorded sonic event, such an experience, irrespective of the composer's intention, nevertheless produces new forms of space, new modes of sociality. Of course, so do all sonic events—recorded or actual, electrical or mechanical. While Kim-Cohen rightly calls out sound art for its self-stated and theoretically cultivated tendency to evacuate worldly concerns from a realm of pure aesthetics, his commitment to sound-out-of-itself inverts the problem, prioritizing content at the expense of form. But the two are not nearly as indissoluble as this—it is not as though

¹¹ Francisco López, "Schizophrenia Vs. L'objet Sonore: Soundscapes and Artistic Freedom," Canadian Electroacoustic Community, <http://cec.sonus.ca/econtact/Ecology/Lopez.html>.

¹² Kim-Cohen, *In the Blink of an Ear: Towards a Non-Cochlear Sound Art*, 128.

sound-in-itself is ever fully situated outside the social, nor is it the case that a non-cochlear work ever escapes aesthetics. In his critique of Kim-Cohen, Brian Kane argues, "...to say that sounds are social is not to say anything of interest, since that is simply given; everything humans do is part of the 'cultural lifeworld'...A theory of sound art must take account of sound art as an art of sounds, where sounds are heard in all their sociality."¹³ Even the most absolute or reduced form of sound art is experienced in social space and structures or disturbs relations. Conversely, a literal commit to non-cochlearity renders the very idea of the sonic irrelevant and makes any attempt to group artists together on the basis of their interest sound rather arbitrary. If an artist deals purely in concepts, then it should make no difference whether she aligns herself with visual or aural arts.

An alternative to the Schaefferian tradition does not have insulate itself from materiality or formalism. We might start by listening for work that does not shy away from its sonority, but also somehow gestures at concerns outside of the purely aesthetic. Two such works, each identified by Kim-Cohen as exemplary of non-cochlearity, are worth considering insofar as they craft spectral sonic experiences whose full and haunting power cannot be appreciated without going outside the work itself. Jakob Kirkegaard's 2006 album *Four Rooms*, for one—a series of pieces constructed from field recordings of spaces at Chernobyl—on a purely perceptual level has little to say about environmental catastrophe. But its delicate drones—modulated and intensified as Kirkegaard records the ambiance of a room, then plays it back into the same space, again and again—cannot but be heard as inflected and dusted with a radioactive presence once we know their provenance. Stephen

¹³ Brian Kane argues that in polemically returning sound to the social, Kim-Cohen overlooks the extent to which sound—especially in the form of music—is always already a collective or cultural experience. Brian Kane, "Musicophobia, or Sound Art and the Demands of Art Theory," *Nonsite*, no. 8 (2013). See also Will Schrimshaw, "Any Place Whatever: Schizophonic Dislocation and the Sound of Space in General," *Interference Journal*, <http://www.interferencejournal.com/articles/a-sonic-geography/any-place-whatever>.

Vitiello's 1999 work, *World Trade Center Recordings*, another subtle composition owes much of its eerie beauty to events that must introduced to the listener outside of the sonic encounter. Two years before the spectacular and shocking collapse of the building on 9/11, Vitiello fastened contact microphones to the window of the ninety-first floor of one of the World Trade Center towers. Effectively transforming the building into an enormous microphone, he captured everything from the wind shaking the giant structure to faint sounds of the street below. Vitiello could not possibly have known how significant his recordings would be, but in the wake of the attacks they could no longer be anything but fraught, overshadowed by a story of such enormity. In both requiring and offering a conceptual pivot that exists outside of or alongside the work, Kirkegaard and Vitiello make it extremely difficult to reduce sound to a purely phenomenological experience. Of course these works could be heard without introduction, without the narrative scaffolding that gives them their uncanny presence. But would Kirkegaard's drones crackle radioactively? Would the creaking skyscraper caught by Vitiello stand as a harbinger of disaster? Probably not.

The work of Ultra-red operates in a similar register, offering a documentary object, much of whose force is given from without. We might take the collective's 1999 album, *Second Nature*, as an even more powerful expression of social and political engagement than the examples offered by Kim-Cohen, albeit one that still delivers a forceful aesthetic experience. *Second Nature*, an "electro-acoustic pastoral," is a document of, an ode to, and an intervention in the culture of gay public sex in Los Angeles's Griffith Park.¹⁴ The album's opening track, "Lewd Behavior," begins with a digitally stretched, distended and spectral sweep that resolves in the familiar hum of chirping crickets. As an introductory gesture, it frontloads the artifice of digital representation, exposing the listener to the materiality of

¹⁴ Ultra-red, "Ps/O2.B. Second Nature," <http://www.ultrared.org/ps02b.html>.

recording before letting her find herself on more familiar, naturalistic terrain. One minute in: the faint noise of rustling fabric and clinking metal give way to soft flesh-slapping, furtive humping, and muted grunting; twenty men fucking clandestinely against the quiet night ambience of the park.¹⁵ Four minutes in the crickets begin to shimmer and pulse as the recording is modulated by a tremolo effect, a penultimate revelation of digital duplicitousness before the track literally “comes” to a close.

As the album unfolds, it becomes clear that, for *Ultra-red*, the microphone is not simply treated as a portal, and that our access to these private acts in public space is anything but transparent. In “Public Address (C. B.),” the album’s second track, a narrator measuredly states, “In his official history of Griffith Park, historian Mike Eberts writes, quote, the park has long been associated with sexual activity, real and fictional; heterosexual and homosexual, end quote.” He speaks from a space outside of space, from inside a recording studio. “Nonetheless,” he continues, “iiiiittttt iiiiiissssss stilexaaaaaa fortheeeee debadebate.” And then silence. Playback falters and the curtain that presumably hid a human speaker falls away revealing a tetchy digital armature. The voice continues on, but it is once again swept into a vortex of electronic signal processing, only returning to intelligibility one noisy minute later. But at this point, the reemergence of his address blends with an outdoor ambience—chirping birds, wind swishing through trees. The voice is suddenly spatialized—it reverberates off nearby objects, it is less full and present than it sounded at the moment in which he seemed to be speaking to us directly through our speakers or headphones, and not from within a recognizable or naturalistic spatial context. But this spatial signature keeps changing, as though we are moving through the park one edit at a time. The album’s liner notes confirm that this is the case: “Public Address (C. B.)” documents an action, an

¹⁵ Ibid.

occupation of the park in protest of the crackdowns on “lewd behavior” mounted by the LAPD in response to pressure from a local home-owners association. We have been hearing this speech from various vantage points throughout the park, each of which lends its own suchness to the re-recorded voice. The recording, then, is both a document and a tactical instrument; it both captures and intervenes in the space represented. Space is not simply *in* the recording—an objectified field—it is something that the recording creates and populates. It is, as Ultra-red describes it, concerned with ambience, although not of the benign sort that the word usually connotes:

Essentially, any music which privileges spatial relations over temporality or even traditional structures of song-form, can be considered ambient music...However, what we would like to suggest is that by privileging spatiality over temporality...ambient music opens a way for us to think the politics of sound.¹⁶

They critique those artists who trade in the sound of everyday life, objectifying it, reducing it to a mere “sound effect.” A decade before Seth Kim-Cohen, Ultra-red denounce the tendency in sound art to depoliticize the acoustically mundane, to ask no more of sonic experience than to provide aesthetic pleasure. “Thus it is, when sounds are appropriated from the everyday,” they write, “traffic sounds, machinery, sidewalk traffic, water et al., these sounds are employed for their own sake. Cage’s phenomenology of sound ‘in itself’ serves as a sort of bureaucratic management of the spectacle of noise.”¹⁷ The ideology of sound-in-itself does not demand that things not get too loud, but it is apparently concerned with things getting out of control. Noise is implicitly unwieldy and volatile; it threatens to overturn established orders. This is why it must be contained and managed. Jacques Attali writes, “Since it is a threat of death, noise is a concern of power; when power founds its

¹⁶ "Postscriptops: Notes on Space Music," http://www.ultrared.org/lm_postscript.html.

¹⁷ Ibid.

legitimacy on the fear it inspires, on its capacity to create social order, on its univocal monopoly of violence, it monopolizes noise.”¹⁸ Sound-in-itself is not essentially an ideology of the State, but it does have similar ambitions for noise. Let the people hear noise, but let it be cathartic, an experience unto and of itself;¹⁹ most importantly, do not let it call attention to anything outside of itself.

Ironically, the noise—the volume, the abrasiveness, the atonality, the disorder—of the post-classical avant-garde, of punk, of metal, of noise music is not the only timbre of dissent. It is counterintuitive, but Ultra-red proposes that ambient music—a style or approach normally associated with tranquility, that is meant to draw as little attention to itself as possible—actually re-centers politics in the space of the everyday: “For ambient artists and audiences, the notion of everyday life as the political domain is truly radicalizing in hearing sound as the context, the spatiality of the political.”²⁰ It is a mistake to equate amplitude with critique since noise can so easily be coopted. And power itself is not necessarily loud. Muzak, for example, the most insipid incarnation of organized sound, manages affect, desire, and public movement by exerting a subliminal gravity from the background.²¹ “Programmed music,” as Jonathan Sterne calls it, influences mood to corporate ends, but it also articulates and produces the spaces in which these affects might be gently stimulated to consume.²² Ambient music similarly affects affect and brings space to the fore, even if it is meant to recede into the background. However, for Ultra-red, it does so

¹⁸ Attali, *Noise: The Political Economy of Music*, 27.

¹⁹ *Ibid.*, 19.

²⁰ Ultra-red, "Postscriptops: Notes on Space Music".

²¹ Joseph Lanza, *Elevator Music: A Surreal History of Muzak®, Easy-Listening, and Other Moodson®* (Ann Arbor: University of Michigan Press, 2004); Jonathan Sterne, "Sounds Like the Mall of America," *Ethnomusicology* 41, no. 1 (1997); Attali, *Noise: The Political Economy of Music*, 8.

²² Sterne, "Sounds Like the Mall of America," 25.

not to in order to bring listeners into a rapt alignment with a particular program, but to articulate the sonic milieu of the everyday.

Brian Eno, the pioneering composer and producer responsible for coining the term “ambient music,” both related it to, and distinguished it from, Muzak. In the liner notes to the first of his four *Ambient* records, the first of which was released in 1978, Eno wrote, “Whereas conventional background music is produced by stripping away all sense of doubt and uncertainty (and thus all genuine interest) from music, Ambient Music retains these qualities.”²³ While Eno’s version of background music was as calming and placid as Muzak, it was designed not to produce a homogenized form of listening, but a varied and multifarious engagement with sound and space: “Ambient Music must be able to accommodate many levels of listening attention without enforcing one in particular; it must be as ignorable as it is interesting.”²⁴ In the late 1970s, it made sense to discuss and critique background music, to offer a retuned version stripped of Taylorist motives. But, as Anahid Kassabian argues, in the decades since the advent of background music, the corporate game has changed. The bland, unobtrusive string arrangements associated with Muzak, a form that remains synecdochal of a capitalist organization of sound, have largely been replaced by Top 40 hits or other musical genres meant to engender brand identification in consumers.²⁵ We now live in a condition, as Kassabian suggests, of “ubiquitous listening,” in which music meant for the foreground now fills virtually every form of space. We listen alongside virtually any activity—while washing dishes, driving, in public space, even in the shower—often to

²³ Brian Eno, “Ambient Music,” in *Audio Culture: Readings in Modern Music*, ed. Christoph Cox and Daniel Warner (New York: Continuum, 2006), 97.

²⁴ Ibid.

²⁵ Anahid Kassabian, *Ubiquitous Listening: Affect, Attention, and Distributed Subjectivity* (Berkeley: University of California Press, 2013), 4-7.

recorded sounds whose provenance is unknown, emanating from speakers concealed in rocks, walls, or even from within our clothes.²⁶

Ultra-red seems to have gleaned that something was happening at the intersection of music and capital early on. In 1992, riffing on Attali's observation that music has become the sonic backdrop to life, that in channeling social activity towards consumption, Ultra-red observed that no one any longer had time to listen attentively, exclusively. As music recedes into the background, whatever genre happens to be playing, it achieves something of the ubiquity described by Kassabian: "The one place left to actually experience music is every place; every place where a soundtrack backgrounds all of life's activities, from accounting to commuting, from shopping to sex."²⁷ But distinctions between background and foreground start to seem irrelevant in an age of ubiquitous listening. In its entanglement with the capitalist economy, becomes something of a fundamental part of the environment— atmosphere. "We need music to function;" writes Ultra-red, "we function as consumers and we consume resources needed to accumulate music... Thus, background music becomes— for the transmission of a certain economy—most indeed foreground."²⁸

The Politics of Sound / The Sound of Politics

So much talk of how sound and music occupy space, but what of the spaces that recordings seem to contain? What happens when the recordings seem to recreate the ambience of everyday life, as though they are themselves vessels for other spaces? A field recording, of

²⁶ Ibid., 9-10.

²⁷ Ultra-red, "The Background Is a Front," http://www.ultrared.org/lm_background.html.

²⁸ Ibid.

course, cannot exist but through association.²⁹ By nature, it must be recognizable as having come from a particular local—even if its origin is foreign or unfamiliar. As we have seen, the soundscape composition, as formalized by the WSP, was one of the earliest attempts to integrate field recordings as compositional materials while maintaining and underscoring their attachments to the places in which they were made. While all avant-garde artwork is inherently political—even the desire to overturn existing aesthetic regimes can be seen as a deliberate engagement with history and power³⁰—field recording, as it was taken up in contemporary composition, was often overtly political, even polemical. For the WSP, field recording opened the possibility of appealing to the latent affective attachments of hardened city-dwellers to the vanishing soundscapes of rural North America and Europe. Because they were intrinsically linked to the sites from which they were taken, field recordings were meant to play on the emotional and the intellectual knowledge, expectations, and hopes of the people that heard them. Soundscape compositions were political in that they were meant to fulfill a particular pedagogical and political agenda, one that was supposed to produce an educated public that would demand an end to the noise pollution wrought by industrialization and a return to the wholesome pastoral acoustic ambiances that were become endangered.

At around the same time, in the late 1960s, another composer associated with the classical avant-garde began using field recordings as a primary material. Composed from 1967-1970, the French composer Luc Ferrari's work, *Presque rien ou le lever du jour au bord de la*

²⁹ Joanna Demers notes that the question of signification is at the heart of the discourse on electronic music. Joanna Demers, *Listening through the Noise: The Aesthetics of Experimental Electronic Music* (Oxford: Oxford University Press, 2010), 22.

³⁰ “An art practice can be aesthetically political, inventive of new life potentials, of new potential forms of life, and have no overtly political content.” Brian Massumi, *Semblance and Event: Activist Philosophy and the Occurrent Arts* (Cambridge: MIT Press, 2011), 54.

mer, was assembled from hours of field recordings captured in a fishing village on the Black Sea.³¹ What plays as the height of naturalism—a seemingly untouched twenty-one minute document of village life—turns out to be an edited composite. Often described as a radical break with the entire history of Western tonal music, an attack on “the bourgeois myth of the composer,”³² *Presque rien* was notable not only for its total refusal of a conventional musical palette, but also for its utopian approach to sound recording. As Eric Drott notes, Ferrari’s piece was deliberately produced as an example of how music could be composed without any more technical expertise than was required to operate a tape recorder. Following the cultural upheaval of 1968, Ferrari exploited his position as *animateur* of the *Maison de la culture* at Amiens to reconsider how avant-garde art could be integrated into the lives of his jurisdiction’s provincial residents, most of whom had little use for a the high culture that had been foisted on them from the capitol. “Rejecting formalism,” Drott writes, “Ferrari suggest[ed] that a more fruitful approach to the problem of public engagement may reside less in ‘explaining’ music than in connecting it to the quotidian world.”³³ With this in mind, Ferrari set out to rework the parameters of composition such that amateurs might be admitted to a game that had been rigged against them, a system of professionalization and inaccessible formal standards that made it impossible for the average person to compose music that might ever be taken seriously. His strategy was to take composition down a peg, to abandon sophisticated forms of instrumental scoring or studio-based manipulation in

³¹ It is interesting to note that the aesthetic affinities between his work and that of Schafer were not lost on Ferrari. In an interview with the composer published in 1998, Ferrari expresses his dismay, even resentment towards Schafer whose theorization of soundscape composition followed Ferrari experiments with representational recording. Schafer, it seems, never acknowledged Ferrari’s achievements or contributions to the discipline that he would go on to popularize. Brigitte Robindoré, "Luc Ferrari: Interview with an Intimate Iconoclast," *Computer Music Journal* 22, no. 3 (1998): 13.

³² Quoted in Eric Drott, "The Politics of Presque Rien," in *Sound Commitments: Avant-Garde Music and the Sixties*, ed. Robert Adlington (Oxford: Oxford University Press, 2009), 145.

³³ *Ibid.*, 152.

favour of a more humble, direct technique of working with everyday sounds: “My intention was to pave the way for amateur concrete music much as people take snapshots during vacations.”³⁴ This basically amounted to a strange hybrid of populism and elitism, of melding the sonic analog of a decidedly middlebrow visual practice—snapshot phonography—with the aesthetic rigour of an approach to recorded sound informed by the tradition of *musique concrète* proposed by Schaeffer. For Ferrari, the mere act of recording the world and then (re)presenting it with a minimum of intervention was an important political gesture, an attack on bourgeois expectations of what music should be. In a sense, then, he could have been pointing his microphone at anything. Indeed, that was essentially the point.

Some were not convinced by this model of aesthetic production and critiqued Ferrari’s ostensible abdication of authorial voice and compositional intent. The composer François-Bernard Mâche, for example, put it to Ferrari that since *Presque rien* was in fact a montage he was “still a composer, figurative rather than realist.”³⁵ Mâche went further, suggesting that if realism and transparency were Ferrari’s aim, then he might do better establishing an agency that would lead to tours to sites with pleasing acoustics, letting them listen to the real thing for themselves rather than experience a recorded simulation. For Mâche, Ferrari’s gesture was ironically not worldly enough; that *Presque rien* bent sound to meet the aesthetic vision of a composer brought it back into the realm of formalism. His criticism is surprising in the context of the debate about worldliness instigated by Seth Kim-Cohen, for whom *Presque rien* stands as a foundational work of non-cochlear sound art, as an engagement with “sound-out-of-itself.” Ferrari’s work, in this frame of analysis, is an important antidote to the purist, reductive approach to composition favoured by Schaeffer and his acolytes at the Groupe de Recherches Musicales (GRM), a coterie that simply

³⁴ Ibid., 154.

³⁵ Ibid., 162.

dismissed the piece on account of its naturalism.³⁶ Not transparent enough for Mâche (although his critique was largely facetious) and too naturalistic for the GRM. While allowing the world to leak back into the realm of recorded composition was a radical gesture, it was only a part of Ferrari's musical engagement with the extra-musical. In his writing on Ferrari, Kim-Cohen reveals himself to be in thrall to the ideology of transparency: "Unlike with the Schaefferian acousmatic, [in Ferrari's work] sound is not stripped of its meaning, neutralized as sound-in-itself, to be reconstructed as a composition. Instead, its connection to a social reality is left intact."³⁷ Its power resides in its pointing to a world outside of itself, but, the problem here is that ultimately it is the work that is sovereign. It may be a conduit, letting the world in and out of its frame, but it is the only space in which things happen. If all that matters is whether or not the *work* opens onto something other than its own materiality or the phenomenological encounter that it occasions, then we lose something important of what the work *does* in the world—the very feature of sonic art that Kim-Cohen is invested in engaging. Because, on this level, what is perhaps most interesting about Ferrari's work is its implication in a set of debates and controversies that raged in the 1960 about taste and culture, elitism and populism. What his work *did* was offer the means of production of avant-garde composition to the social groups that had long been excluded from high culture.

Artwork does not really do anything on its own, no matter its "content." Of course what occupies it is important, but just as consequential, perhaps more so, is how a work is wedged into the world. This is not to suggest that this tension is purely dialectical—every work that finds an audience *does* something, but the sorts of processes and reactions that it might set in motion are never fully dependent on what it contains or seemingly represents.

³⁶ Dan Warburton, "Luc Ferrari "

<http://www.paristransatlantic.com/magazine/interviews/ferrari.html>.

³⁷ Kim-Cohen, *In the Blink of an Ear: Towards a Non-Cochlear Sound Art*, 179.

This is why political art does not always or implicitly catalyze important political events. As Brian Massumi writes, “Artistic practices that explicitly attempt to be political often fail at it, because they construe being political as having political content, when what counts is the dynamic form.”³⁸ In other words, it is not what is *there* in the work that produces an effect, it is its “semblance” that is the modality of its being in the world. Massumi’s theory of semblance submits that the entirety of an event is never self-present; we only ever register its virtuality: “the form in which what does not appear effectively expresses itself, in a way that must be counted as real.”³⁹ Art manifests a potential to bring otherwise inchoate semblances of an event into perception: “This is precisely what makes art political, in its own way. It can push further to the indeterminate but relationally potentialized fringes of existing situations, beyond the limits of current framings or regulatory principles.”⁴⁰ It is not enough to purport to show things as they are, because this is never fully what is experienced when one encounters the work. Which is why we cannot unquestioningly accept that representations, for example, of activist interventions or protests necessarily lead to or incite the political engagements that they portray or propose. Sound artist and activist Christopher Delaurenti’s field recordings of the 1999 WTO protests in Seattle, for example, are certainly loaded with political content, but this is no guarantee that they can or will do anything other than mutely document a crisis. Delaurenti himself recognizes this tension in his work, noting that the potential of documentation in and of itself is limited. As he describes it, the force and importance of this particular work only emerged through its use, for an end that he seems not to have foreseen:

³⁸ Massumi, *Semblance and Event: Activist Philosophy and the Occurrent Arts*, 54.

³⁹ *Ibid.*, 23.

⁴⁰ *Ibid.*, 53.

Does Activist Sound have any practical uses? Here's one of many: What some have called "protest porn," frank sections of cruelty and battle, do more than merely document our selectively enforced right to assemble. During the last decade, political organisers have told me that sections of my album *N30: Live At The WTO Protest November 30, 1999* helped acclimate novice protestors to the chaos and trauma when law enforcement attacks. "It's not music," said one, "it's a training manual."⁴¹

Delaurenti's recorded testimony of the violence and chaos of the clash between protestors and police ended up being exploited for purposes apparently consistent with his political beliefs and aesthetic goals, but we would do well to avoid assuming that intentions invariably steer a work toward an expected or acceptable end. As a counterexample we might take, for instance, the popular antiwar films of the post-Vietnam era—*Apocalypse Now*, *Full Metal Jacket*, *Platoon*, *The Deer Hunter*, et al. Each was meant to expose the horrors of war and ensure that never again would American soldiers be so absurdly dispatched to their deaths. Well-meaning as they were, for Anthony Swofford, the author of *Jarhead*—a memoir of his service as a Marine sniper in the First Gulf War—these films' directors inadvertently produced some of the finest "war porn" ever created. "There is talk...that many Vietnam films are antiwar, that the message is that war is inhumane..." writes Swofford. "...But actually, Vietnam films are all pro-war, no matter what the supposed message, what Kubrick or Coppola or Stone intended...Filmic images of death and carnage are pornography for the military man...The supposedly antiwar films have failed."⁴² Swofford suggests that for every bleeding heart who watched any of these movies and shuddered at the monstrosity of war,

⁴¹ Christopher Delaurenti, "Towards Activist Sound," *The Wire*, http://www.thewire.co.uk/in-writing/columns/christopher-delaurenti_towards-activist-sound.

⁴² Quoted in Lawrence Weschler, "Valkyries over Iraq: The Trouble with War Movies," *Harper's* 2005, 66-67.

there was a young man on some military base reveling in the simulated bloodshed, psyching himself up in the hours leading up to his being unleashed onto the battlefield. The glorification of war unintentionally promoted by these Vietnam films ended up stoking a bloodlust in the soldiers who used them for violent and sensual gratification, as a way of firing themselves up to meet the surely terrifying prospect of armed conflict. Ironically, Delaurenti, who recounts that his composition helped to steel protesters against the chaos they were likely to encounter in the streets, seems to effectively be boasting about having facilitated a similar end. Strangely, he makes no effort to dissociate his work from the label of protest porn, nor does he problematize the objectification of conflict, whatever its purpose. He seems to equate objectification with acquiescence, to suggest that protest porn is a viable medial mode for effective activist engagement as long as it is doing something more than passively documenting a crisis.

It is tempting to separate Swofford's soldiers from Delaurenti's protesters, to demonize the former for their bloody bravado while applauding the latter for their tactical approach to hardening themselves for a noble battle. But in reality, are they so different? Are both camps not composed of frightened young people preparing themselves for potentially violent situations about to unfold? In the end, it is hard to say that there is anything inherently noble or ignominious about either war porn or protest porn. Some saw in the Vietnam films representations of an absurd violence that should be prevented at all costs, while others used them to become better killers. Delaurenti seems to expect that his field recordings could only ever be useful to his side in the conflict, but it hardly seems unreasonable that a government agency could not just as easily exploit such vivid representations to similarly inure police to the sound and affect of insurrection or to reconstruct the anatomy of a demonstration in order to better manage its outcome. No

aesthetic object dictates its own destiny, nor can its creator. It is ushered into a world in which ideology decides what it means and determines what it can do. Susan Sontag saw this in photographs, arguing,

Though an event has come to mean, precisely, something worth photographing, it is still ideology (in the broadest sense) that determines what constitutes an event. There can be no evidence, photographic or otherwise, of an event until the event itself has been named and characterized. And it is never photographic evidence which can construct—more properly, identify—events; the contribution of photography always follows the naming of the event. What determines the possibility of being affected morally by photographs is the existence of a relevant political consciousness.⁴³

Critical intentions do not simply leap, fully formed, out of a work; the artist cannot chastise her audience for missing the point or for misuse once it escapes into a world that has myriad ways of making images and sounds work towards a given purpose. Yet none of this is to say that the event or object that a photograph or any other form of recording represents is fully neutral; it is the conjunction of a particular political *a priori* and something piercing and vital lurking within the work—the *punctum*, as Roland Barthes called it⁴⁴—that holds the potential to make things happen.

Evidently, making things happen, inserting a work into a chain of both action and creation, is a considered concern for Ultra-red. This much is clear when Dont Rhine writes, “Personally, I’m quite skeptical about the potential for someone’s consciousness to be raised

⁴³ Sontag, *On Photography*, 14.

⁴⁴ Barthes designated what he called the *studium* as the *punctum*’s complimentary condition. If the *punctum* is that ineffable and powerful force that “pricks” the viewer of a photograph, then the *studium* is a mode of disinterested engagement. But Barthes establishes the latter mode as one in which the viewer encounters the authors intentions, a claim that, as we have seen, is problematic insofar as intentions are never fully knowable and never fully condition a work’s reception. Roland Barthes, *Camera Lucida: Reflections on Photography*, trans. Richard Howard (New York: Farrar, Strauss and Giroux, 1981), 27-28.

by simply listening to a song, reading a book, or watching a movie...Consciousness is radicalized in the direct participation in struggle.”⁴⁵ An artist who wants to change the world must do more than make objects; an artwork is a tool for political struggle, but without a revolutionary by whom it is wielded or deployed, it is as inert as a hammer without a carpenter. Which is why Ultra-red are unequivocal about taking matters into their own hands, using sound recording not as only a document, but as a strategy for opening spaces of engagement. “A political aesthetic of field recordings, as we’ve come to understand it,” writes Rhine, “is not organized around the truth of the record...Instead, the field recording tests our memories against the truth of our desires...The political site takes shape the moment those actors involved in the event listen to the recording and reflect on it in relation to their memories and desires. The record is never the same as we remember it to be.”⁴⁶ For Ultra-red, the field recording is a fulcrum for constituting utopia. Recording the world is not a politically valuable gesture because it captures things as they are; this simply objectifies and reproduces the status quo. Electronically mediated sound gains its power not through representation, but through the ways in which it defamiliarizes and détournes, constitutes and creates public spaces that sound and feel different from those envisioned by the experts—the architects, the planners, and technocrats—who have the mandate to build. Concrete architecture and *musique concrète*—each consolidates, reduces a manifold to a singular, material encounter. The question, then, is how does one open both built space and the sound object to the world in all of its complexity? And how does one bend the world away from what it is towards what it might be?

⁴⁵ Quoted in Macdonald, "Ultra-Red," 16.

⁴⁶ Ibid.

The Artworld Redux / The Relational Space of Field Praxis

The field, as we have seen, is inherently relational and always in dialectical torsion with a space represented as its opposite. This is no less true of the sphere of aesthetics and art production as field recording—as a sub-practice of sound art—has become recognizable as a genre. Like most terms meant to catch those things that more established categories miss, the term “sound art” is provisional, mutable, mercurial. Sound art is often described in the negative as “not music”; it is a refuge for those who refuse to remain constrained by centuries of Western tonality. But neither does it settle easily in the traditionally quiet spaces of display proper to the visual arts. Within the artworld,⁴⁷ the field finds its antipode in the gallery, a space of display roughly analogous to the laboratory or the studio, a space purged of worldliness, placefulness. The white cube deals with space and location much in the same mode—with its featureless, universally blank walls the gallery is, as Brian O’Dougherty noted in the mid-1970s, “devoted to the technology of esthetics.”⁴⁸ The white cube brackets off the world both spatially and temporally; it is neutral and eternal, an ever receding, always-almost vanished space in which the conditions of exhibition are standardized and universal.

Sound art has always had an uneasy relationship with the white cube given its predisposition to *showcasing* visual art. According to Brandon Labelle, that sound art arose in the 1960s alongside other “site-specific practices,” such as performance or installation art, is no coincidence. Labelle writes, “It is my view that such correspondence is not by chance, for the very move away from objects toward environments, from single object of attention and toward a multiplicity of viewpoints, from the body toward others, describes the very

⁴⁷ Arthur Danto, "The Artworld," 61, no. 19 (1964).

⁴⁸ Brian O’Dougherty, *Inside the White Cube: The Ideology of the Gallery Space* (Santa Monica: The Lapis Press, 1976), 15.

relational, spatial, and temporal nature of sound itself.”⁴⁹ Labelle, to an extent, is right to associate sound art with the radical break from status quo of the gallery mounted by conceptualism, but this does not mean that it unequivocally established its viability as a discipline in the institution of the fine arts. Sound art has certainly not always been unconcerned with the gallery; by some descriptions, sound art aspires to the condition of the visual arts, to be enshrined in museums and addressed as a materially oriented practice just like sculpture or painting. “Sound art,” writes Alan Licht, “belongs in an exhibition situation rather than a performance situation...Sound art rarely attempts to create a portrait or capture the soul of a human being, or express something about the interaction of human beings—its main concern is sound as a phenomenon of nature and/or technology.”⁵⁰ But Licht’s definition is by no means exhaustive nor is it unanimous. By limiting sound art to only those works rooted in ahistorical, apolitical aspects of sound, he neglects all those sound works with activist or polemical intentions. By focusing solely on sound art’s phenomenological properties, Licht writes off its potential to create situations of either disruption or conviviality. Sound, by this description, is a passive object of contemplation. As Licht understands it, sound *is*; it does not *do*. As history, Licht’s analysis is not fully wrong; sound art has tended to be preoccupied with materiality and not with sociality—a proposition with which we are already familiar thanks to Seth Kim-Cohen. But, in carving out a space for sound art to become a discipline, a recognizable set of practices complete with a canon, Licht necessarily prescribes what the form might be. Even if, in the past, sound art has avoided turning outwards towards more conceptual or political concerns, that is not

⁴⁹ Brandon LaBelle, *Background Noise: Perspectives on Sound Art* (New York: Continuum, 2007), xii.

⁵⁰ Alan Licht, *Sound Art: Beyond Music, between Categories* (New York: Rizzoli, 2007), 14.

to say that it has not or cannot engage with subjects other than perception or the conditions of its own making.

In its early years, Ultra-red would likely not have been mistaken for a collective of studio artists. Its natural habitat was the streets and the world of experimental music, not the gallery. But their activities have since spilled with more regularity into the artworld. This is not to say that they have shifted the locus of their operations to the gallery, confining to the rarefied, musty space of the white cube. If anything, their entry into the sphere of practice identified with the museum and the gallery has come in conjunction with a newer wave of interrogation into the site and social conditions of art production. It is no coincidence that Ultra-red developed its philosophy of radical ambient music, of a form of sonic production that activates and engenders social relations and transformations, in the years following the explosion of what Nicolas Bourriaud (in)famously called “relational aesthetics.” For Bourriaud, relational art encompasses “a set of artistic practices which take as their theoretical and practical point of departure the whole of human relations and their social context, rather than an independent and private space.”⁵¹ For Bourriaud, the most significant break between the idealism of 1960s conceptual art and the contemporary episteme is the disavowal of utopian leanings—the desire to build a future according to predetermined ideals or systems—in favour of “microtopias” or situations of conviviality in the present.⁵² However, in locating the future of art in the everyday, Bourriaud has been called out for replacing the lofty ideology of conceptualism with a formalism whose material is social relations themselves. In her critique of *Relational Aesthetics*, Claire Bishop argues that Bourriaud is so preoccupied with the production of social forms that he completely neglects

⁵¹ Nicolas Bourriaud, *Relational Aesthetics* (Dijon: Les Presses du Réel, 2002), 113.

⁵² *Ibid.*, 13. For a more detailed reflection on this distinction, along with a more sustained critique of relational theory, see Claire Bishop, “Antagonism and Relational Aesthetics,” *October*, no. 110 (2004).

the content that might give these relations any sort of political charge. “For Bourriaud,” writes Bishop, “the structure is the subject matter—and in this he is far more formalist than he acknowledges.”⁵³ Bishop critiques Bourriaud through the lens of Laclau and Mouffe’s theories of agonistic politics, which proposes that democracy is not and must not be the coming together of people with the objective of consensus. For them, politics should ideally maintain a culture of sustained dissent; a dynamic space in which the way things should be is always up for discussion. While Bourriaud eschews utopian thinking, Laclau and Mouffe argue that it is a necessary part the work that societies do in the process of self-constitution:

Now, without “utopia,” without the possibility of negating an order beyond the point that we are able to threaten it, there is no possibility at all of the constitution of a radical imaginary—whether democratic or of any other type. The presence of this imaginary as a set of symbolic meanings which totalize as negativity a certain social order is absolutely essential for the constitution of all left-wing thought.⁵⁴

The problem with Bourriaud’s approach to relational art practices, according to Bishop, is that it naively begins and ends with the production of consensus, an ironically autocratic vision of a sovereign artist and architect of social experience. Microtopias do not desire anything more than their safe constitution outside of the bitter world of global capital. Under the sign of relational aesthetics, artwork is just as insulated from political struggle when mounted as a site-specific public action as it is when exhibited inside the rarefied confines of the gallery.

In that Ultra-red’s work is largely concerned with the creation and alteration of social relations, it is perhaps unsurprising that their work ended up in an exhibition curated by

⁵³ "Antagonism and Relational Aesthetics," 64.

⁵⁴ Ernesto Laclau and Chantal Mouffe, *Hegemony and Socialist Strategy: Towards a Radical Democratic Politics* (London: Verso, 2001), 190.

Bourriaud, who included Ultra-red's project *We Come From Your Future* in the 2009 Tate Triennial. But what is strange is the way in which the collective's avowed utopian leanings rub up against Bourriaud's resistance to predetermination. Part of the problem is Bourriaud's assumption that utopianism fundamentally operates in service of some sort of master narrative, that not only is it chasing after clichés and well-worn tropes, it is an outmoded strategy that is bound to fail: "Social utopias and revolutionary hopes have given way to everyday micro-utopias and imitative strategies, any stance that is 'directly' critical of society is futile, if based on the illusion of a marginality that is nowadays impossible, not to say regressive."⁵⁵ But this is certainly not how everyone sees it—least of all Ultra-red. In fact, their self-declared utopianism stems from an almost opposite intention: to defamiliarize the social logic that underpins oppression. In this sense, their vision of utopian politics is sympathetic to the one described by Frederic Jameson. "The fundamental dynamic of any Utopian politics (or of any political Utopianism)," he writes, "will...always lie in the dialectic of Identity and Difference, to the degree to which such a politics aims at imagining, and sometimes even at realizing, a system radically different from this one."⁵⁶ Radical difference, not teleological striving; utopianism does not necessarily have to have a blueprint for the future. If anything, as Paul Ricoeur observes, utopianism has tended to be criticized for its lack of a concrete vision of how change should unfold: "Often a utopian vision is treated as a kind of schizophrenic attitude towards society, both a way of escaping the logic of action through a construct outside of history and a form of protection against any kind of

⁵⁵ Bourriaud, *Relational Aesthetics*, 31.

⁵⁶ Frederic Jameson, *Archaeologies of the Future: The Desire Called Utopia and Other Science Fictions* (London: Verso, 2005), xii.

verification by concrete action.”⁵⁷ Like Jameson, Ricoeur believes that the utopian gesture has the power to change what is by making the familiar seem strange.

A similar notion of radical difference lies at the core of Ultra-red’s utopian political strategy. Field recording, they announce, defamiliarizes the overdetermined quality of urban space: “Only by artifice can we even conceptualize urban space as distinguishable from its ambience. Separating sound from context produces the most artificial results: a utopia so to speak...the artifice we construct gives shape to our own position in public space.”⁵⁸ Field recording, then, is not a transparent act of framing the real; it is an intervention in the fabric of public life and urban space. For Ultra-red, the separation sound from source does not degrade some presumably integral and pure original; rather, it creates new experiences and affects that can be reinserted into the field, thereby effecting social change. In their 2008 pamphlet, *10 Theses on Militant Sound Investigation*, the collective outlines a theory of sonic activism predicated on the idea that technology is never neutral, that it is always a fulcrum, a point of articulation that performs and fulfills a multitude of functions. “The microphone,” they write, “does not represent an objective site of political struggle. Despite the longing for technology to provide a disinterested position, the microphone does not stand apart from the struggle and represent it dispassionately. Rather, it and the listening it organizes is a part of the production of the conditions of struggle.”⁵⁹ The microphone is not a window. It is not neutral. It is a tool wielded in the service of political struggle. It is through the capture and release of sound that Ultra-red is able to return a social form to the world in an altered state.

The point is not to isolate or memorialize but to propagate feedback, in the both senses of

⁵⁷ Paul Ricoeur, *Lectures on Utopia and Ideology* (New York: Columbia University Press, 1986), 1-2.

⁵⁸ Ultra-red, "Constitutive Utopias: Sound, Public Space and Urban Ambience," <http://www.temporaryservices.org/ultratext.html>.

⁵⁹ "10 Preliminary Theses on Militant Sound Investigation," (New York: Printed Matter, 2008).

the term. The microphone, as they claim, is not passive or removed from the field; it is an entity whose agency and presence is just as important as the people on whose behalf it supposedly operates. When Ultra-red announce, “Listening is organized on behalf of the microphone,”⁶⁰ they mean this very literally. The microphone does not reproduce reality; it produces affects. Interviewed by the electronic music and culture magazine XLR8R in 2006, Rhine underscored the collective’s complicated relationship with art as politics:

Political messages are not the point. I, personally, have little interest in communicating a political point in a piece of music. Rather, I am more interested in how music already activates us socially, sexually, intellectually, aesthetically. I see all these modes of being—structures of feeling, if you will—as having political currency. It is not the case that our politics merely reproduce our modes of being. Rather, it is through these that the conditions for our politics are reproduced.

Rather than stating a political goal and then agitating for its realization, it is necessary to ground political action in sonic practices that create or activate already latent desires for change.

In this respect, Ultra-red’s utopian project is prefigured in Gilles Deleuze and Félix Guattari’s notion of a minor literature, a vernacular not marked fully by otherness, by its linguistic exclusion from the majority, but in “which a minority constructs within a major language.”⁶¹ A minor literature—which we can surely take to include modes of expression other than text—does not have the luxury of remaining apolitical, unlike its majoritarian counterpart whose concerns might be uniquely individual, for which the sphere of the social is little more than backdrop for personal expression. A minor literature is by necessity attached to political action, connected to collectivity, whether or not consensus exists. A

⁶⁰ Ibid.

⁶¹ Deleuze and Guattari, *Kafka: Toward a Minor Literature*, 16.

major literature posits its objects in advance. These are known knowns, to paraphrase Donald Rumsfeld, whose expression follows content. We might imagine, then, a majoritarian model of field recording, roughly like the one promoted by the WSP, in which sonic capture represents things as they are, and as they should remain. On the other hand, Ultra-red's minor practice, as Deleuze and Guattari would say, "begins by expressing itself and doesn't conceptualize until afterward..."⁶² Minor literature, in this sense, is utopian much in the way imagined by Ricoeur and Jameson, as a force of defamiliarization and deferral of definite plans. Unlike its counterpart, it does not hold content and expression to be separate, as though the latter is a window through which the former emerges. Minor literature does not subscribe to a dichotomous medial ontology; it is invested in the entanglement of what might be said and these enunciations are delivered: "Thus, we find ourselves not in front of a structural correspondence between two sorts of forms, forms of content and forms of expression, but rather in front of an expression machine capable of disorganizing its own forms, and of disorganizing its forms of contents, in order to liberate pure contents that mix with expressions in a single intense matter."⁶³

We find this commingling and confusion of message and delivery throughout Ultra-red's work, a meshwork that is fundamental to their aesthetic activism. We find this, for example, in their 2006 work *Silent|Listen*. Bringing together survivors of and witnesses to the AIDS epidemic, the piece asks the public to revisit their experiences of the pandemic in a time in which its visibility has been diminished. Joining the public in university auditoriums, museums, and public parks, Ultra-red invites its audience to submit statements describing the impact that HIV/AIDS had made on their lives both literally and figurative for the record. Looping these recordings and digital processing them in real time, Ultra-red gradually

⁶² Ibid., 28.

⁶³ Ibid.

transforms the testimony of its audiences into palimpsests of suffering and of survival. As Laurent Berlant notes, *Silent|Listen* treats *the record* not as a “field archive that exists to establish and legitimate norms, but a circulating thing that engenders rhythm.”⁶⁴ Rather than capture their stories, Ultra-red releases them into immediate circulation within the physical space of the intervention thereby reformulating the record as a vital form of feedback. Instead of documenting—a gesture that is always marked with the will to hoard and retain—Ultra-red redistribute the affective energy of its audience, building it into a collective action of mourning and of militancy. The work’s power lies in its ability to bring into being shared structures of feeling, spaces that coax stories out into the open.

Ultra-red’s politico-aesthetic approach to the production and multiplication of space is rigorously articulated in *Silent|Listen*, in the group’s move to “occupy major American art institutions” so as to reconnect “the art world and AIDS activists with memories of when the arts served as a crucial arena—in some communities, the only public space—for open discussions about the pandemic.”⁶⁵ It is an effort to reinject the spaces that had once been instrumental in raising awareness about AIDS with a discourse that had fallen silent. Like so many of their projects, Ultra-red’s primary strategy is to fill a space typically saturated with the power and authority of institutional elitism with the discourse of the marginal. If the museum, like the recording studio and the laboratory, is a dialectical pole that helps give the field its shape, then filling such an institution with a style of documentary witnessing and performance identified with an out-there-in-the-world quality constitutes a serious confusion of institutional boundaries. If not an inversion then at least, as Ultra-red suggested, an occupation

⁶⁴ Lauren Berlant, *Cruel Optimism* (Durham: Duke University Press, 2011), 248. Berlant refers to this work as *Organizing the Silence*, a work that, so far as I can tell, does not exist. However, the piece described by Berlant is more or less identical to *Silent|Listen*.

⁶⁵ Ultra-red, "Ps/O8publicmuseum," <http://www.ultrared.org/ps08.html>.

Art is always, to some extent, political in that it is either engaged in maintaining the dominant order or in questioning it.⁶⁶ Of course, this plays out at very different registers and with differing degrees of intensity, but, as Chantal Mouffe writes, “There is an aesthetic dimension in the political and there is a political dimension in art.”⁶⁷ Echoing Walter Benjamin’s observations on the inextricable link between aesthetics and power,⁶⁸ Mouffe proposes that art can either cement individuals’ identification with hegemony or it can throw ideology into question. She identifies in the work of some canonical philosophers of public space, thinkers like Arendt and Habermas, a problematic focus on consensus (even if such accord is arrived at through persuasion, as Arendt suggests). For Mouffe, a vibrant democracy cannot be brought about through reason alone, as though there exists a model that best addresses the needs and desires of a people. A politics that grasps only at consensus must necessarily be exclusionary. Better, then, let an “agonistic struggle” be the mode of (dis)organization, an always-unfinished project that recognizes reconciliation as being tantamount to hegemony. So what is an agonistic art and how can it intervene in public space? How might art counter hegemony, if avant-garde critique has run out of steam on accounts of its continual appropriation by capitalism, as Mouffe and others lament?⁶⁹ If public space is the substrate of the liberal, consensus-based form of politics, a space that is “always striated and hegemonically structured.”⁷⁰ Agonistic art practices do not promote the visions of unity and consensus upon which the state rests, they incite dissensus and call attention to the hegemonic organization of the space of politics that would otherwise remain

⁶⁶ Chantal Mouffe, "Artistic Activism and Agonistic Spaces," *Art & Research* 1, no. 2 (2007): 4.

⁶⁷ Ibid.

⁶⁸ Benjamin, "The Work of Art in the Age of Mechanical Reproduction," 242.

⁶⁹ Hal Foster, *Recodings: Art, Spectacle, Cultural Politics* (New York: New Press, 1998); Philip Auslander, "Toward a Concept of the Political in Postmodern Theatre," *Theatre Journal* 39, no. 1 (1987); Mouffe, "Artistic Activism and Agonistic Spaces."

⁷⁰ "Artistic Activism and Agonistic Spaces," 3.

obscure. Agonistic art intervene in public space not by reflecting concern back so that they might be ground into uniformity in the crucible of consensus, they produce new subjectivity and proliferate difference.

For Ultra-red, space is anything but a neutral or empty container; it is a vibrant material that is shaped, contested, and created through social interaction. In this they explicitly acknowledge Henri Lefebvre's critique of the prevailing spatial reality that underpins capitalist society. For Lefebvre, capitalism is predicated on "abstract space." It is a system based on equivalences and coordinates, on rationally constructed networks along whose lines societies should be reproduced. But, "abstract space," writes Lefebvre, "carries within itself the seeds of a new kind of space. I shall call that new space 'differential space,' because, inasmuch as abstract space tends towards homogeneity, towards the elimination of existing differences or peculiarities, a new space cannot be born (produced) unless it accentuates differences."⁷¹ Diffracted through Ultra-red's utopian approach to sound art, Lefebvre's spatial politics speak to the power that can come from dissociating a sonic event from its context. By amplifying the fundamental and ontological difference that a recording bears from its "origin" through electronic processing or by radically changing its context, such gestures can help to produce new spaces, milieus that accentuate difference. Thus, when Ultra-red asks, "Do audio recordings of a social space yield more than simply documents of a time and place but actually a technology of spatial meaning?"⁷² we should assume that they answer, emphatically, yes. By recognizing, producing, and reproducing difference technologically Ultra-red underscore the potential that sound recordings have to alter the affective ambiance of a social milieu. But what is also manifest is their latent ability to multiply space—or at least reinforce what geographer Doreen Massey recognizes as the

⁷¹ Lefebvre, *The Production of Space*, 52.

⁷² Ultra-red, "Ps/O6.B. Encuentrolosangeles," <http://www.ultrared.org/pso6b.html>.

basic plural and heterogeneous nature of space. As Massey writes, "...we understand space as the sphere of the possibility of the existence of multiplicity in the sense of contemporaneous plurality; as the sphere in which distinct trajectories coexist; as the sphere therefore of coexisting heterogeneity. Without space, no multiplicity; without multiplicity, no space."⁷³ The space supposedly captured by a field recording is itself a manifold; reintroducing a recording into the world multiplies difference even further, such that it is problematic to assume that any one spatial register might predominate.

Play a recording of a gurgling mountain stream into a parking lot and note what happens. Close your eyes; try to let the asphalt melt away, to let yourself be transported into the space of the recording. Evidently, you have not passed through a portal; the acoustic energy you register as stream-like is inflected with reflection of cement and steel. The soundscape of the parking lot has, of course, changed too. Each rings with stories about unspoiled pastoral beauty or the blight of urban car culture—to list but two possible readings—and as they collide these narratives pile up, variously amplifying or cancelling each other out. Neither the recording nor its embeddedness in space reflects something essential or authentic about streams or parking lots; the diffraction of acoustic energy through the environment brings about new understandings and ways of relating sound and space. When Ultra-red fantasizes about streaming the sounds of a downtown LA sweatshop into the posh capitalist refuge of Santa Monica's Third Street Promenade, they dream about the irony and semiotic dissonance that would surely ensue, the bad vibrations that might disturb the ears of those that exploit cheap labour. It is an imaginary tactic straight out of the Situationist playbook, a stab at what they called *détournement*, a strategic act of appropriation meant to

⁷³ Massey, *For Space*, 9.

turn the message circulated by hegemonic sources against themselves.⁷⁴ It is a ploy to let the meanings sedimented in political and cultural objects cannibalize each other until their skeletons are revealed. Here we find an agonist pedigree for further phantasies of agonistic sonic practice:

What if Mrs. Doheny Avenue stepped out of her house to the sounds of a swap-meet enveloped by a choir of helicopters? What if Mr. Brentwood mis-stepped his Excursion into the informal economy of street vendors and front-yard eateries? Would either say hello to Juanita and buy a couple of quesadillas? Reaching in her purse, fishing in his pocket, use value, exchange value, ambience of everyday struggles.⁷⁵

There is no plan here, no convergence of content and form that should lead to any specific outcome. Utopia lies in the deferral of results and expectations; it promises its arrival not on account of consensus or congruity, but through agonistic actions that make the present seem strange and contingent and the future appear full of unknowable possibilities.

Ultra-red's field recording-based collages are subtly semiotic. They do not necessarily disclose their source; their raw material is often, if not usually shredded, processed beyond easy or immediate recognition. But this does not mean that the resulting work is untethered

⁷⁴ The definition of *détournement* given in the International Situationist journal reads, "Short for "détournement of preexisting aesthetic elements." The integration of present or past artistic productions into a superior construction of a milieu. In this sense there can be no situationist painting or music, but only a situationist use of those means. In a more elementary sense, *détournement* within the old cultural spheres is a method of propaganda, a method which reveals the wearing out and loss of importance of those spheres."

"Definitions: *Détournement*," <http://www.cddc.vt.edu/sionline///si/definitions.html>. See also, Greil Marcus, *Lipstick Traces: A Secret History of the Twentieth Century* (Cambridge, Mass.: Harvard University Press, 1989), 179; Mackenzie Wark, *The Beach beneath the Street: The Everyday Life and Glorious Times of the Situationist International* (New York: Verso, 2011), 39-42.

⁷⁵ Ultra-red, "Constitutive Utopias: Sound, Public Space and Urban Ambience".

from the context of struggle. An Ultra-red track is always set against and released back into political ecology of some sort, always deliberately and carefully deployed within a socially charged context. Provocatively titled, exhaustively documented, strategically disseminated, their compositions are almost impossible to disentangle from their politics. The works themselves do not always clearly enunciate an agenda. But that isn't necessarily the point; the meaning of an Ultra-red track only emerges in relief, in conflict and context with a particular, pressing matter of concern. This not to say that it is willfully obscure; their work is supposed to be read, decoded against a political discourse—a set of recognizable signs and messages whose meanings it is meant to contest or subvert. For Ultra-red, space—public space, the space of discourse—is so thoroughly suffused with the semiotic byproducts of global capitalism that resistance can only take place by destabilizing its messages, by tweaking the affective ambiance in the theatre of struggle:

Furthermore, protest as a way of producing public space becomes less about speaking truth to power (a realist definition of social relations in space) than the affect of specific strategies: theatre, re-signification (sic), deterritorialization, occupations—the ambience of counter-systemic spaces.⁷⁶

Record the ambience, the soundscape of resistance, but do not assume that this is enough, that something truthful of the struggle will be transmitted clearly, without distortion. This is the essentially how field recording has been understood by the ethnographers, biologists, and acoustic ecologists we have encountered in previous chapters. Here the assumption endures that sound is a perishable commodity that can be preserved for some future use, its integrity more or less protected. Empirical evidence, claims to authenticity; each requires an ontological understanding of sound recordings as being self-similar to the things they

⁷⁶ Ibid.

capture, and that these congruous traces nested in records, CDs, or on hard drives can be transmitted from one moment in space and time into another. Ultra-red's agonistic field recordings show us that there are more complicated ways of understanding the relationship between space, media, and politics. Ultimately, field recordings are not the things that we tend to assume them to be. They only *are* insofar as they *do*. That function, that doing, might take the form of an attempt to staple back onto the world this presumed fragment of something sonic that once was, to let an ideology of continuity, transparency, and wholeness rule. Or it might very well be the thing that awakens in a listener the suspicion that what is often most salient about a recording is the power it has to occasion new, different, various, complex events and situations whose outcomes could never be anticipated by its content, by what was apparently *there* when someone stepped into the field, raised her microphone and hit record.

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