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Listening to Landforms: Intersections of Ethnomusicology and the Environmental

Humanities

A Thesis submitted in partial satisfaction of the

requirements for the degree Master of Arts

in Music

by

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December 2019

The thesis of Brian Alexander Karvelas is approved.

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October 2019

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ABSTRACT

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This thesis addresses the emergence of ecologically and environmentally focused

research within ethnomusicology and situates this research within Anthropocene and

posthuman discourses in the broader environmental humanities. The opening section begins

with an overview of relevant literature in ethnomusicology, particularly in the subfields of

sound studies and ecomusicology. Several overlapping yet distinct approaches to the problem

of locating music and sound as relevant phenomena within escalating environmental crises

are identified within these subfields, and the relevance of environmental crises to

music/sound studies is established. In the second section, the multinaturalist framework and

its complication of the nature-culture binary, as well as its challenge to the hegemony of

scientific and Enlightenment epistemologies, is addressed. Focus is directed on the effects

that these hegemonic forces have had on ethnomusicological and anthropological

scholarship. The third section discusses the centrality of indigenous perspectives, knowledges

and scholarship as decolonizing frameworks. The following two sections offer a synthesis of

posthumanist, ecofeminist, and phenomenological perspectives as a theoretical preparation

for embodied re-engagement with the more-than-human world. In the final section of this thesis, an experimental field observation is presented which demonstrates a method of multispecies-oriented observation and interpretation of the acoustic phenomena of a creek bed in the Santa Ynez mountains of the central California coast. The methodological and theoretical challenges of listening to landforms are recognized and are positioned in relation to the perceived need to integrate human and more-than-human stories and perspectives in the context of global ecological crises.

The main question that this thesis identifies through synthesis of a wide breadth of interdisciplinary literature is this; how can the study of sound and music contribute to the incorporation of human stories with more-than-human stories? This incorporation, I argue, has been limited in ethnomusicological discourse by a commitment to the primacy of the human mind/body as the site of creative, meaningful musical expression. Recent environmental humanities scholarship, in contrast, offers modes of thinking and acting that destabilize the individual and shift primacy onto assemblage-based collaborations, nested ecosystems, or poly-corporeal beings as sites of creative expression. This thesis proposes a rethinking of musicality and acoustic expression from a posthuman frame, arguing that traditional, discipline-inherited conceptions of music as humanly organized sound can be productively transformed through rigorous engagement with the generative acoustic capacity of more-than-human, poly-corporeal forms.

I. Posthuman Ideals, Anthropocene Realities: Listening to Worlds in Crisis

This thesis focuses on the intersections of ethnomusicological and environmental humanities discourse. My intention is to articulate the relevance of recent environmental humanities scholarship to ethnomusicology, and vice versa. Largely in the form of a literature review, I will weave together scholarship from music and sound studies with environmental humanities, science and technology studies, and posthuman phenomenological frameworks in an effort to address what I understand to be some of the more pressing concerns within ethnomusicology as a discipline. Anticipating the trajectory of what he terms "ethnomusicology in times of trouble," Timothy Rice suggests that "as we engage with the political, social, economic, and ecological problems affecting today's world, our theories about the nature of music should contribute to research well beyond the boundaries of our discipline" (Rice 2017, 205). He argues further that eco-ethnomusicologists "cannot in good conscience or good scholarship adhere to the disciplinary boundaries of music study" (2014, 204). The interdisciplinarity that Rice calls for holds as a prerequisite rigorous engagement with the literature and praxes of diverse fields. Particularly in confronting the behemoth challenges of global ecological destabilization, it is crucial for environmentally oriented music and sound scholars to cultivate familiarity and generative discourse with environmental studies scholars. In his contribution to *Current Directions in Ecomusicology*, Anthony Seeger advises that "it is very important for ecomusicologists to take care with the way we define the central terms of the field…we have to be especially careful about the way the words 'nature,' 'animals,' 'humans,' and 'music' are defined and used…" (Seeger 2016, 89). I will return to the importance of Seeger's work in the body of this thesis, but I present

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his brief cautionary here to underscore the relevance of environmental studies to ecomusicology and, I will argue, to ethnomusicology more broadly.

Environmental humanities scholarship has articulated compelling deconstructions and repositionings of nature, animality, and humanity which offer posthuman, post-individual frameworks for understanding nature-culture entanglements. The question posed to ethnomusicology is, where does music (or sound) fit within these entanglements? Exploring this question is one way in which, returning to Rice's quote above, ethnomusicology can contribute to discourses beyond the boundaries of the discipline and, in turn, challenge and expand the boundaries of other disciplines—how might theoretical and methodological interventions from ethnomusicology not only contribute to but reconfigure and extend the contours and limits of the environmental humanities? The following literature review will hold this question as a central consideration.

There is strong precedent for environmentally-oriented work within ethnomusicology, and for generative interventions into human-environment and nature-culture theories. Anthony Seeger's work, along with Steven Feld's theorization of acoustemology, Ana Maria Ochoa Gautier's proposal of acoustic multinaturalism, and the deepening discourses of ecomusicology and zoomusicology, have offered diverse and illuminating perspectives on the position of music within and across particular understandings of human-environment relationality. In this thesis I will place these various works in conversation with a body of environmental humanities scholarship that I see to be, as of yet, relatively underrepresented in these various music studies discourses. My sense is that ethnomusicological discourse has remained committed to the primacy of the individual mind/body as the agent of creative, musical expression, even within group musicking contexts. Recent environmental humanities

scholarship, however, offers a mode of thinking (and acting) that destabilizes the individual, and shifts primacy to assemblage-based collaborations, leakages, nested ecosystems, or poly-corporeal beings as the site(s) of creative expression. Exploring the consequences of re-positioning musicality within these assemblages constitutes the core exercise of this thesis—in this way my writing is experimental, offering more questions than answers while deliberately pushing at the edges (and the seeming insides) of music, nature, and culture in an effort to understand what musicking might mean in a posthuman world. While I will focus mainly on the integration and synthesis of relevant publications in this literature review, I will conclude with my own tentative, experimental engagement—what Donna Haraway calls "speculative fabulation," through reflection on my preliminary field observations in the Santa Ynez mountains on the central coast of California. I must reiterate, however, that the majority of what follows is a theoretical working-through of various perspectives on the nature-culture question and its particular importance to our current moment of escalating eco-social crisis.

Posthuman discourse accrues urgency, somewhat ironically, in the emergence of the Anthropocene—this epochal shift in which the earth's regulatory capacities are unravelling, or mutating—in response to anthropogenic climate change and ecological destruction. The escalation of climactic disaster and irreversible ecological mutation has compelled a surge of scholarship across disciplines concerned with understanding and responding to the volatility of system collapse as well as the adaptive resilience of ecologies in recovery. As witnesses to and *participants in* proliferating events of mass extinction, sea level rise, severe drought and wildfire, human beings are increasingly tasked with confronting Gaia—those dynamic webs of meaningful relationship, multiform webs that cross through and *constitute* the bodies and

thoughts of human and more-than-human beings alike. Gaia is acutely perceptive and responsive, and these relational webs demand response-ability from all those who participate in their weaving. Negligent participation, it is observed, results in "system collapse after system collapse" (Haraway 2017, M47). It is in the midst of these cascading collapses that a growing network of scholars, researchers, organizers, and activists are formulating creative responses, gesturing to the importance of *noticing* and *reciprocating* the fundamental co-presence and co-constitution of lifeforms on this planet. Specifically within the discipline of ethnomusicology, this can be formulated as the importance of *listening for* this co-constitution and for the entanglements, both generative and destructive, in which human beings participate.

As the discursive frame of the Anthropocene hardens and becomes normalized, it remains imperative to articulate distinct realities, to critique and complicate the anthropocentric assumptions that undergird celebratory narratives of the *Anthropos* as the newly dominant geologic force. Donna Haraway's Chthulucene, Jason Moore's Capitalocene, and Ben Steigler's Neganthropocene, and Kathryn Yusoff's Black Anthropocenes are just a few of the counter-formations that have emerged in response to what Isabelle Stengers terms "the mirage of the Anthropocene" (Stengers 2015, 12). Rather than foregrounding and celebrating a universalized (patriarchal, white-normalized) Human as the director of global climate change, these various (and otherwise distinct) theorizations focus their critiques on the overlooked role of colonial and capitalist violence in environmental destabilization (Alaimo 2017, 89; Kauanui and LaDuke 2018; 159-169; Shiva 1988, xiv; Yusoff 2018, 56-61). These critiques assign liveliness, responsive capacity and moral worth to aspects of the natural world which the classical mind of the *Anthropos* (or

Homo Economicus) sees only as resources (free labor) open to extraction and exploitation (Moore 2016). Emerging from these counter-narratives are urgent calls to develop "arts of noticing" (Tsing 2015) and to experiment "with the possibilities of manners of living and cooperating that have been destroyed in the name of progress" (Stengers 2015, 12).

Scholars in ethnomusicology have generated a diversity of creative responses and contributions to this emerging discourse and the re-thinking of the nature/culture paradigm. The subfield of ecomusicology continues to expand through interdisciplinary collaboration, providing an important forum for methodologically hybrid projects. These projects combine naturalist and humanist modalities in ways that, ideally, challenge the core assumptions of each. For example, Jeff Titon's conception of "sound communities" gestures toward the combination of ecological theories of acoustic niches with ethnographic and phenomenological methodologies for understanding the expressive value and aesthetic and relational dimensions of sound making practices in (and as) places. Titon articulates sound communities as communities (human and more-than-human) which attend to the sonic realm and which orient their values toward those sonic relationships in which they are immersed as participants. The sense of soundness as physically vibrating matter is relevant for Titon, as is the sense of soundness as a rightness, a certain holistic accountability. Titon suggests that the materiality or physicality of sonic relationships can be considered as integral to and inseparable from the social and moral dimensions of these relationships.

Morality and ethics, and the debated moral status of the more-than-human, are topics of growing concern in a world of increasingly destabilized and degraded ecologies (Allen 2019; Rehding 2011; Seeger 2016). Within this intellectual environment, distinct scholarly orientations result in distinct formulations of moral and ethical questions that inspire and

frame divergent research goals and projects. Thus, there exists healthy plurality and internal contradiction throughout various threads of environmentally oriented ethnomusicology. Ana Maria Ochoa Gautier's critique of the ecomusicology framework and her counterproposal of acoustic multinaturalism stands as one productive example that will serve as a focus point for my discussion here. In the following pages I will position the breadth of ecomusicological literature within the context of Ochoa Gautier's critique and explore the ways in which recent publications have attended to her specific concerns around the problematic perpetuation of the colonial conceptions of nature and culture. This literature review will be contextualized within my own endeavor to build on Ochoa Gautier's articulation of acoustic multinaturalism as a decolonizing framework for investigating the phenomena of sound in multispecies realms. As such, my writing will engage with indigenous scholarship and activist approaches that offer successful challenges to dominant Anthropocene narratives. I will also identify phenomenological frameworks as crucial to the reworking of methodologies in more-than-human contexts. As such this thesis is an interdisciplinary amalgamation, stepping out from ethnomusicology into cultural anthropology, literary studies, science and technology studies, legal studies, indigenous and critical race studies, philosophy, and environmental studies.

The particular interdisciplinary collaborations and coalitions that have arisen recently in environmental studies contexts are primarily occupied with addressing the volatile and morbid socio-ecological issues of the present, in "facing Gaia," as Bruno Latour phrases it. Scholarship and community-oriented research furthermore endeavor to address effectively the many crises emergent in our ecological and social worlds. This is an urgent task with unclear parameters and only-just-forming strategies; as environmental historian Linda Nash observes in her contribution to the *Routledge Companion to the Environmental Humanities*

"even while the necessity of uniting studies of culture with studies of the material world has gained broad acceptance, it is far from clear how we should go about it. Humanist scholars find themselves struggling to find meaningful ways of incorporating what they once took to be the nonhuman(istic) world—environments, materials, animals—into human stories" (Nash 2017, 403). This is the intellectual and practical challenge that informs and inspires my writing here. *How can we as scholars and researchers integrate human stories with more-than-human stories?*

The concept of incorporation or integration is complicated by a recognition that "human stories" are, in some sense, fundamentally stories of separateness and non-integration. Boundaries of human identity are negotiated and maintained, fundamentally and necessarily, through narratives of exclusion. As Stuart Hall writes, "identities can function as points of identification and attachment only *because* of their capacity to exclude, to leave out, to render 'outside,' abjected" (Hall 1996, 5). While this statement, made in the introduction to his co-edited volume *Questions of Cultural Identity*, is concerned with the politics of identity in human-to-human relationships, Hall's argument can be extended to the construction of culturally imagined *ecological identities*. In this context, it is important to recognize that stories, as identification practices, facilitate various exclusions or inclusions not just of human beings, but of more-than-human beings as well. In the more-than-human context, these exclusions and inclusions take place across uneven ontological boundaries that are inevitably marked by historical, political, scientific, and ethical discourses. As will be discussed, these identification boundaries are often sites of violence (in human and more-than-human contexts) and they underscore the persistence of power differences that must be seen to weigh on any attempt to incorporate or integrate more-than-human stories.

It becomes quickly evident that the question of integration is burdened by a host of theoretical and practical concerns. Nonetheless, it sits as one of the prominent questions for environmentally oriented ethnomusicologists, as well as for environmental humanists. Scholars from diverse disciplines and theoretical orientations have converged upon the perceived need to formulate and propagate new stories about the ecological positionality of humans. Issues of cultural imagination frequently come to the fore in these projects. Ethnomusicological research, for its part, has demonstrated a unique ability to articulate critical conceptions of music and sound that contribute intellectual and methodological rigor to environmental humanities discourses, specifically concerning cultural imagination (cultures imagined) and acoustic phenomena (cultures ensounded).

To clarify this interdisciplinary relationship, I will contextualize my discussion of ethnomusicological scholarship within a broader environmental humanities discourse which focuses on the theoretical and methodological dimensions of this re-storying. Ultimately, I am guided by a reformulation of Nash's reintegration challenge: *How can the study of sound and music contribute to the integration of human stories with more-than-human stories?* In an extension of Hall's discussion of identity as difference, I emphasize that integration must not be conflated with an equalization—that this process of integration must be understood as operating across physical and discursive boundaries, and that these boundaries are situated along lines of power. I will hold these tensions of integration and difference as I develop a consideration of landform acoustics, the multiform being-ness of landforms, and the generative possibilities for engaging with the sonic expressivity of these multiform beings.

II. Interdisciplinary Dialogues: Ethnomusicology, Ecomusicology and Multinaturalism

In a 2011 colloquy published through *JAMS*, Aaron Allen posed a simply-worded and densely-significant question: "Is the environmental crisis relevant to music—and more importantly, is musicology relevant to solving it?" (Allen 2011, 392). The project of ecomusicology, which Allen defined at that point as "the study of musical and sonic issues, both textual and performative, as they relate to ecology and the environment" (Ibid.), makes explicit this relevance. By better understanding the causes, consequences and qualities of musical and sonic issues in relation to the ecologies and environments to or in which they occur, Allen's aspiration for a "socially engaged musicology" would allow for more nuanced and critically aware actions on a societal level to confront ecological crises. As Rehding notes in the same 2011 colloquy, "the field [of ecomusicology] derives much of its relevance and topicality from a sense of urgency and from an inherent bent toward awareness-raising, praxis (in the Marxian sense), and activism" (Rehding 2011, 410). This orientation toward activism and awareness raising has certainly held true in the years since Rehding's observation.

Mark Pedelty's 2012 monograph *Ecomusicology: Rock, Folk, and the Environment*, for instance, articulated a harsh critique of the popular music industry's false environmentalism and the wasteful, hyper-consumerist lifeways that are practiced and perpetuated at large-scale concerts and events—a sort of polluting in the name of. If this was an ecomusicological perspective on what *not* to do, Pedelty's next monograph *A Song to Save the Salish Sea* (2016) constitutes an equally urgent explanation of what *to* do. In his ethnographic engagement with various activist groups in the Salish Sea region, Pedelty compiles and synthesizes strategies for listening and acting effectively as environmental

activists. While Pedelty's book is entirely focused on human activity, his analysis of activist strategies does incorporate challenges to anthropocentric narratives of music and culture. For instance, in presenting the environmentalist music of the group ART (Artist Response Team), particularly their piece "Waiting for Orca," Pedelty calls on us to try to "hear the music of place" (2016, 194). The phrase "music of place" can be mobilized with the intention of questioning the idea of music as humanly organized sound. Place, as Pedelty posits, is certainly shaped and organized by humans, but only to a limited extent, and to imagine that we have some ultimate control over the structures or processes of a given place is wholly and arrogantly in error. Pedelty's engagement with Salish Sea activists and musicians then describes how people make music and work toward social change from this perspective.

In his analysis, Pedelty stresses the importance of generating what he terms "actionable intelligence" (Pedelty 2016, 257). This he glosses as work that empowers communities and serves as a resource not just for critiquing existing relationships but also for *modeling alternative modes of belonging* (Ibid., 258). He does this effectively through his engagement with the various musical activists showcased in his monograph: he amplifies their message and their art, and the value and viability of their lifeways, through his writing. His Ecosong website also continues this broadcasting and modeling effort, providing a platform for musicians and filmmakers to collaborate in exploring creative responses to ecological crises.[1]

This praxis-oriented scholarship aligns strongly with Allen's sense of sustainability-change, which he sees as one of the guiding principles behind his own writing, research, and teaching. Allen defines sustainability-change as a mode of sustainability discourse and practice that is willing to "adopt new and different practices that preserve the integrity of

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[1] Ecosong website: https://www.ecosong.band

ecosystems and that respect human dignity" (Allen 2019, 44). He juxtaposes this change-oriented sustainability to his concept of "sustainability-maintain" which "keeps us navigating our established, destructive routes" (Ibid.). This language represents a development from his previous distinction between a "weak sustainability" which is "merely about maintaining human existences and practices without regard for the planet" and "strong sustainability" which centers "the ecology of all aspects of human societies in relation to the entire planet" (Allen 2017, 3). This latter juxtaposition of weak and strong sustainabilities is used by Allen in critique of Schippers' and Grant's co-edited musicological volume *Sustainable Futures* which, Allen argues, falls back on a weak conception of sustainability that treats human cultural forms as ultimately not responsible to or for the ecologies in which they are situated. *Sustainable Futures* focuses on the sustainability of musical traditions without seriously considering the environments and landscapes engaged or impacted by those music cultures. What we see in *Sustainable Futures* is an engagement with ecology as metaphor (Perlman 2014) and a disinterest, identified by Allen, in moving beyond this metaphorical use. Allen is quick to critique this superficial treatment, asserting that "ecology is not just a metaphor, nor is it just about humans" (Allen 2017, 4). He points out that by ignoring the actual ecologies of which music cultures are invariably a part, scholarship such as that found in *Sustainable Futures* does a disservice to more serious interdisciplinary efforts and also, perhaps more importantly, to the very music cultures being studied. In his words, *Sustainable Futures* "stands to undermine the very cultural traditions that the well-intentioned authors seek to protect" (Ibid.).

The co-edited volume *Current Directions in Ecomusicology: Music, Nature, Environment* (Allen and Dawe 2016) stands as a seminal text and one of the first publications

to address in a direct and comprehensive manner the relevance of music and sound to environmental discourse. The book is notable for its interdisciplinarity, with contributions from ecologists, biologists and environmental historians as well as ethnomusicologists and musicologists. By weaving together humanist and naturalist perspectives and methods, this volume represents an important step toward reintegrating human stories with the more-than-human. For example, in his contributing chapter, Kevin Dawe discusses guitar making in Spain as an ecological process in which the locally-made guitars "rather like the fauna one finds in the surrounding area, [operate] best in a particular physical ecotype; and, rather like the cultivars found in local gardens, [are] appreciated in a particular cultural setting" (Dawe 2016, 111). Dawe furthermore observes "a palimpsest of influences across a variety of human and non-human, technological and affectual, material and cultural fields all at work in the making of musical instruments," (Ibid., 119). The materiality of music thus becomes a multi-species collaboration, and Dawe reminds us that musical instruments "are made of the world—just like us—however much they have been taken in hand or made in our image" (Ibid.).

Ana Maria Ochoa Gautier offers a cautionary, though not wholly disaligned, perspective on these treatments of nature and culture. She argues that "ecomusicology has tended to affirm a multiculturalist ethos—that is to say, an ethos that accounts for all forms of diversity under a single epistemological umbrella, the concepts of 'nature' and 'culture'" (Ochoa Gautier 2016, 111). She observes that rather than "unsettling the very ontological grounds of 'nature' and 'culture,' [ecomusicology] seeks to establish a musicological holism on a disciplinary foundation that takes such terms for granted" (Ibid.). This observation can be readily confirmed, for example in Kevin Dawe's expanded definition of a musical

instrument as "a creation of nature and culture, where knowledge of how to exploit the acoustic and aesthetic properties of materials is developed as part of a 'sensual culture'" (Dawe 2016, 110). The normalization of nature and culture as unexamined categories and the normalization of exploitation as the prevailing relational mode between the two is hard to miss, and dangerous to ignore. Interestingly, Anthony Seeger's contribution in the same publication warns explicitly (as mentioned in the opening of this thesis) that "we have to be especially careful about the way the words 'nature,' 'animals,' humans,' and 'music' are defined and used…" and offers to "demonstrate how different concepts of nature, animals, humans, and music can be understood from the post-Cartesian Western philosophical perspective" through his case study of the Kisedje of Brazil. He places this academic discourse in a sobering context in his observation that "reducing the radical distinction between humans and animals is a contribution of both ecology and ecomusicology; some South American Indians arrived at that conclusion long before most Euro-Americans did" (Seeger 2016, 95).

As Seeger's chapter demonstrates, it is important to note that scholars in ecomusicology have not been blind or deaf to the task of ontological unsettling that Ochoa Gautier calls for. The problems of disciplinary inheritance have not entirely escaped the awareness of scholars in ecomusicology. Returning to the 2011 *JAMS* colloquy on ecomusicology, we can see a direct acknowledgement and acute discomfort around these terms. Allen, for instance, critiques the concept of environment as "the nonhuman world" which "while useful…can promote a problematic human-other duality" (Allen 2011, 392). Rehding acknowledges the importance of deconstructing such terminology but also issues this cautionary: "While the deconstructive movement has greatly advanced our understanding

of rhetoric and authority surrounding the term nature, it is often in direct conflict with specific ecological aims. From its skeptical post-structuralist vantage point, which centers on language as a site of conflict, it is all too easy to dismiss 'nature' as a discursive construct." In other words, "the step from identifying nature as a cultural construct to dismissing it as 'just' a cultural construct is but a small one" (Rehding 2011, 411). Rehding is reluctant to unsettle the ontological grounds of nature and culture, as Ochoa Gautier urges, out of pragmatic concern for the success of environmental movements which can tend to lean into these constructed notions and rely on them in community organizing, fund-raising, and legislative efforts. A focus on applied work motivates these pragmatic orientations while still demanding that a suspicious eye be cast to what Allen terms the "nefarious binary" which obscures the "necessary union of nature and culture" (Allen 2016, 9-10).

Recognizing this semiotic-grappling as fundamental to the project of ecomusicology, it is important to understand that while Ochoa Gautier's counter-formation of acoustic multinaturalism is sharply critical of ecomusicology as an operative frame, her critique can be read not as a call to abandon the project but rather as a productive intervention into the critical discourses taking place within ecomusicology.

Nature has remained a concept that is warily embraced, mainly for lack of a suitable replacement. The story of nature as the non-human is deeply rooted in a dualistic western cosmology, to which the academy remains, for the most part, committed. In elaborating on the problematic position of music with regards to nature and culture, Ochoa Gautier explains that "the history of Western music's analytical categories—melody, rhythm, and, perhaps most crucially of all, the voice—is traversed by a zoopolitics of the acoustic that is obsessed with separating the human from the nonhuman" (Ochoa Gautier 2016, 131). In her discussion

of the "transcendental values of Western epistemologies" (Ibid., 121), she locates this obsession with separation as an inheritance from the natural sciences which "provided the model for analysis and definition of a proper scientific object for the social sciences through the naturalization of the notion that all people 'have' cultures" (Ibid., 122). Contributions to *Current Directions in Ecomusicology* by Boyle and Waterman, as well as Guyette and Post, demonstrate this particular orientation toward the natural sciences as the authoritative standard for achieving and determining knowledge validity. As Boyle and Waterman (2016, 25-39) point to the need to incorporate data mapping rigor into eco-ethnomusicological work, Guyette and Post embrace unproblematically the narrative that "scientists more often remain external observers of the environment they are studying" (Guyette and Post 2016, 52). While there is some superficial truth here, this is precisely the type of positivist framing that Ochoa Gautier critiques in her gesture toward multinaturalism, and precisely the kind of methodology that ecofeminists such as Donna Haraway identify as "seriously unthinkable— unavailable to think with" (Haraway 2016, 34). The framing of knowledge *as* separation (with separation, importantly, being the pretext for domination) is fundamental to the colonial project. To continue operating in this framework without radical reconsideration, Ochoa Gautier observes, undermines important decolonizing efforts both within and outside of the academy.

Ochoa Gautier's alignment with multinaturalism places her in a camp of mostly anthropological scholars (Eduardo Viveiros de Castro, Phillipe Descola, Eduardo Kohn) who argue that the crisis of culture is Culture itself. This crisis is born of a cosmology that understands human bodies and human consciousness as somehow apart from, and exceptional to, the rest of existence: all humans have "culture" and none of nature has

"culture." Viveiros de Castro's pioneering theory of multinaturalism, based on his observations of Amerindian groups in the Amazon, directly counters the narrative of multiculturalism and offers a way of thinking and being in which culture and consciousness is shared across many natures, many diverse perspectives (bodies of different species). To demonstrate the significance of this reversal, I will contrast Robin Ryan's ecomusicological writing about forests in Australia and Eduardo Kohn's multinaturalist anthropological writing on forests in the Amazon. While Ryan asserts that "the musicalization of eucalypts…sets up a unique sonic arena contingent upon an audience's capacity to *invest nature with meaning*" (Ryan 2016, 57, emphasis added), Kohn uses his field observations to argue that "the world beyond the human is not a meaningless one made meaningful by humans" (Kohn 2013, 72). These two statements are rooted in wholly distinct epistemological/ontological bases. Writing from the lineage of multinaturalism, Kohn is interested in presenting a world of "living thoughts" that are not under the control of or within the exclusive domain of human beings, but which animate the world, traversing and converging in complex forms beyond the scope of human organizational systems. Rooted in a more conservative disciplinary alignment to the "natural sciences" (and specifically to ecology), Ryan's analysis is unable to accommodate a world of living thoughts.

Ochoa Gautier argues that "we can no longer afford a particular Western ontology and its relation to academic knowledge, that is, the persistent anthropocentric effort of 'constructing' the human as the not given, as the being itself of the not given, as observed in all of Western philosophy, even the most radical" (Ochoa Gautier 2016, 116). Thus even while ecomusicology may align with radical political change and shifting paradigms that demand reconceptualization of nature and culture as categories of being, its recourse to

colonial conceptions of the human and of human music engages in "a mode of naming that sets the terms of the polemic a priori and, in doing so, erases different histories of framing the problematic of 'nature' in music" (Ibid., 111). She states that "in proposing a new discipline, ecomusicology ultimately appropriates the sense of urgency that the topic of sound/music and nature has acquired today" (Ibid., 113). It is important to note here that Aaron Allen and Kevin Dawe explicitly reject the idea of ecomusicology as a discipline in their edited volume *Current Directions in Ecomusicology: Music, Nature, Environment* (2016). In their words "ecomusicology seeks an alternative approach that is less constrained or convinced by boundaries that discipline or by attempts to turn peaks of excellence into ideological mountains" (2016, 12). Ochoa Gautier's critique can perhaps be interpreted as an emphatic elevation of the older work of Steven Feld and Anthony Seeger which she identifies as helpful models that had already "called for a transformation of the anthropological and musicological grounds on which ethnomusicology had been constructed" (Ibid., 112). These ethnomusicologists were engaged in "an inquiry into acoustic ontology that began to unsettle the very division between culture, nature, and sound/music." (Ibid.). More importantly, this work coming out of the 1970s paralleled and stood in dialogue with liberationist movements and postcolonial or decolonial critiques in which "the *conceptual ground* for issues of domination-territory, culture, nature, music and sound began to be radically interrogated" (Ibid., 113). Ochoa Gautier opines that the "multiculturalist ethos" affirmed by ecomusicology ultimately impedes this more fundamentally decolonial ontological interrogation.

Interestingly, while Ochoa Gautier accurately identifies a promising connection between Feld's work and Viveiros de Castro's multinaturalism, Feld's own engagement with

Kaluli worldview equivocates on the issue of multiculturalism vs. multinaturalism. For instance, while Feld's Kaluli interlocutors seem demonstrably animistic in their perspectives, Feld's own theorizing in *Sound and Sentiment* remains more or less within the realm of a structuralist cultural analysis. He recalls tension during his fieldwork between his understanding of bird song as "just birds" and his Kaluli interlocutor's understanding of bird song as "voices in the forest" of human ancestors (Feld 1990, 45). Further emphasizing this point, Feld remarks that his interlocutors were disappointed by his failure to communicate (in the first edition of *Sound and Sentiment*) "how all sounds in the forest are *mama*, 'reflections' of what is unseen" (Ibid., 265). Thus, while Kaluli worldview may be a multinatural one, the operational worldview in *Sound and Sentiment* is not. There is some tension in Feld's report that, in Kaluli cosmology, *kugun*, or uncut forest valley, is like a brother to *dagon,* mountain, and that such closely linked places are "like family to one another, yearning to be connected, like brothers" (Feld 1996, 132). The animism that constitutes the Kaluli reality is apparent in the understandings of and interactions of Kaluli people with the sounds of birds and of waters and other environmental entities. But these are understood, or presented, by Feld as cultural realities, cultural understandings of reality that depart from a rational truth, which is invisible in the text but faithful to the demands of the Euro-American scientific paradigm.

Tim Ingold's observations on anthropological interpretive methods is relevant in thinking through this tension. Ingold explicitly critiques the anthropological treatment of animist worldviews, noting that "astonishingly, we find a complete inversion, such that meanings that the people claim to discover *in* the landscape are attributed to the minds of the people themselves, and are said to be mapped *onto* the landscape. And the latter, drained of all significance as a prelude to its cultural construction, is reduced to *space*, a vacuum to the

plenum of culture" (Ingold 2000, 54). This idea of landscape (or soundscape) as a vacuum to the plenum of culture is precisely the formulation that multinaturalism, in theory, works to overturn. Multinaturalist realities do not await the animating force of culture, but are already alive and animate and full of meaning of their own. Thus, in the context of music and sound, multinaturalism challenges ecomusicology to reconsider the world as already animate, full of thought and meaning, and perhaps, full of music.

More recent scholarship in the interdisciplinary space of ecomusicology does indeed take up this challenge. In her contribution to Timothy J. Cooley's edited volume *Cultural Sustainabilities* (2019), folklorist Mary Hufford poses the following pair of questions: "By what mechanisms are the boundaries of the community enlarged 'to include soils, waters, plants, animals, or collectively, the land?' (Leopold [1949] 1989, 204). How does 'community' shrink to exclude its more-than-human members?" (Hufford 2019, 20). She uses Michael Bell's theory of bourgeois and grotesque ecologies to gesture toward a possible departure from capitalist (and more fundamentally Cartesian dualist) conceptions of the earth, making possible a perspectival inversion in which we can understand "our own possession, *by* the land" (Ibid., 3). This reversal allows for a reconsideration of music as a multispecies collaboration across bodies in which the human body is not necessarily always primary. Indeed, Hufford argues that "the reversibility of speech and perception locates us within a Sensibility and a Being that is much older than our own operations" (Ibid., 14). She contrasts the characteristic reversibility of intercorporeal perception (dialogue) with the irreversibility and non-inclusiveness of monologic modes of awareness which refuse dialogue. Drawing from Bakhtin's juxtaposition of monologic and dialogic forms, she argues that "the monologic discourse of the corporate state opposes the inclusivity of the dialogical

discourse of communing, violently shutting down reciprocities hard-wired into ecologies of social interaction, reciprocities that come to be seen as 'pathological'" (Ibid., 15). I will give more in-depth attention to Hufford's writing and this opposition of monologic and dialogic modes of perception and interaction in the final portion of this thesis. For now, my intention is to point out that this hegemonic tendency to pathologize dialogic perceptive modes plays a role in the anthropologist's decision to maintain a multiculturalist ethos and execute the complete inversion and misrepresentation that Ingold describes.

Ethnomusicologist and performance studies scholar Michelle Kisliuk, in contrast, embraces these pathologized dialogics in her call for "an agential *sur*realism that takes seriously this mythical time" when "animals and people were equal" (Kisliuk 2019, 220). In her reflection on her experience learning from the BaAka people of central Africa she emphasizes "the power of dynamic, multi-lectic, rhizomatic interaction, grounded among people within a community and manifested in song" (Ibid., 223). Kisliuk engages in semantically dense treatments of song and community, using BaAka worldviews to disrupt the ontological assumptions, prevalent in scholarship, of the human as the not-given. Her understanding of community is expanded, like Hufford's, into more-than-human contexts, and her conception of singing and listening across ontological boundaries complicates the sequestration of music within the domain of (human) culture. Kisliuk's ethnopoetic interpretation of BaAka cultural practices suggests that mythical time is not something that ended, but rather it is something that industrial civilization has stopped listening to (through force or choice), and importantly it something *real*, whether we think we perceive it or not.

This represents another thread in ecologically-oriented scholarship, namely the mobilization of indigenous, naturalistic worldviews with the goal of shaping humanist

discourse concerning the position of humans in holistic environments (Anthony Seeger's work, discussed previously, gives another example of this).

This kind of engagement with indigenous ontological conceptions must be situated within the tense history of academic-indigenous relations, which is marked by violent expropriation and essentializing narratives (Deloria, Jr. 2012, 199-206; Smith 1999, 58-69; Yusoff 2018, 2-3). Indigenous cultures have, for centuries, been subject to violations and thefts by academic researchers across disciplines. Kisliuk's intention is to counter this history, and at the same time she recognizes that the weight of generations of colonial trauma inevitably accompanies her actions, both in the field and as a writer. The challenges presented to non-indigenous researchers in indigenous contexts, to examine the ethical implications of their work, are certainly relevant to the confrontation of ecological crises. The concentration of extractive industries and toxic waste sites on indigenous lands, for instance, highlights the inter-relation between the perpetuation of racist systems and the destabilization of ecosystems (Brook 1998; Yusoff 2018, 49). Academic discourses participate, to various ends and with various intentions, in this inter-relation.

The ethical problems inherent here cannot be solved neatly or theorized away; scholarship like Kisliuk's can be understood as earnest efforts—both very personal and very public—to achieve some partial reconciliation through the cultivation of sustained reciprocal relationships. This endeavor, in the asymmetrical power-laden context of the researcher and the researched, brings to the fore many questions about representation, specifically the representation of ideologies, cultural values, and ontological understandings. It is relevant here to turn to Ochoa Gautier's call for an engagement with "indigenous ontologies from different parts of the world [which] provide models even if, and especially when, they do not

resonate with our own categories of knowledge and being" (Ochoa Gautier 2016, 141). As more indigenous scholars and communities begin to engage in this discourse, Ochoa Gautier's use of the first-person plural "we" may become happily problematic. Already within the academy there exist a growing number of scholars who do indeed take multinaturalist-type worldviews to be "their own." The normalization of indigenous-oriented thought *within* the academy presents serious opportunities, challenges, and tensions that must be confronted and explored. A short seminar *Keywords for an Indigenized Sound Studies* held in November of 2018 and co-chaired by Jessica Bissett Perea and Trevor Reed, for instance, took up this guiding question: "How might existing analytical methods and theories used in anthropology and ethnomusicology be reshaped to better represent indigenous music cultures and practices? How might Native American and Indigenous cosmologies and worldviews be incorporated into sound-based methods and theories?"

These questions call for a direct engagement with indigenous scholars and communities as leaders in decolonizing struggles. Given the intersection of environmental destruction and racist colonial violence that impacts indigenous communities across the globe, it becomes critical to consider how academic researchers can engage indigenous knowledges and practices in ways that do not reproduce or operationalize extractive and colonial logics. The deep embeddedness of colonial organizational patterns across academic disciplines and institutions makes this a difficult challenge and all the more necessary to confront.

III. Environmental Humanities, Indigenous Thought, and Environmental Justice

       The systemic imbalances inherent in neo-colonial structures (extractive capitalism and export-based economies) manifest inevitably as imbalances in ecosystem health. These imbalances in ecosystem health, for their part, put pressures on human social systems which in turn exacerbate existing problems or precipitate the emergence of new ones (Fitzgerald and Pellow 2014, 28). This is not a simple cause and effect relationship between society and ecology as discrete interacting entities, but a non-negotiable entanglement and co-constitution of the two. As Gregory Bateson writes, reflecting on the industrial poisoning of Lake Erie, "you decide that you want to get rid of the by-products of human life and that Lake Erie will be a good place to put them. You forget that the eco-mental system called Lake Erie is a part of *your* wider eco-mental system—and that if Lake Erie is driven insane, its insanity is incorporated in the larger system of *your* thought and experience" (Bateson 1979, 460). Bateson's concept of eco-mental systems reformulates consciousness as a collaborative emergence that occurs between and across bodies. This relates to Hufford's theorization of the "collective flesh of sensibility" which draws on Merleau-Ponty's phenomenological framework in order to emphasize the dialogic and transcorporeal nature of knowledge, awareness, and being. The insanity that Bateson describes is rooted in what Hufford describes as the monologic or "monocular gaze," which necessarily views environment and humanity as separate fields of existence and experience. The term *environmental humanities* itself inherits and plainly projects this legacy of false dualism, even as its scholars work urgently to mend this conceptual severing. Linda Nash describes the term as "a necessary oxymoron that stems from a Western intellectual tradition built upon the separation of nature and culture, body and mind, subject and object," adding that "it

should not be a surprise that such a term has emerged only when the contradictions of that tradition threaten to overwhelm us" (Nash 2017, 403). Indigenous Rarámuri scholar Enrique Salmón asserts more directly: "we have to change our language about this issue. We have to stop talking about the environment. We have to stop setting up this barrier, this wall between what we feel is good and proper behavior, and apply it to our language, and take it into a deeper sense, a deeper truth, which is what? That we are the environment, and if we are harming the environment, we're harming ourselves" (Nelson 2008, 102). Salmón's mandate rejects the separation of humans from environments, and he locates harm in one as *always copresent* in the other. This harm, as Nash points out, becomes overwhelming in the context of a globalized military industrial complex in which ideologies of hierarchical separation validate and facilitate the destruction and degradation of diverse forms of life. Importantly, it is ideologies, thoughts, and language structures that facilitate and ultimately make manifest this overwhelming destruction, hence Salmón's focus on language as both the source of violence and a key mode of reconstructing sustainable worldviews and worlds. This runs convincingly against Rehding's expressed reluctance to embrace processes of deconstruction. Rehding references Kate Soper's remark that "it is not language that has a hole in the ozone layer" (Rehding 2011, 411), but it is equally and urgently true that it *is* particular forms of language that *make* a hole in the ozone layer.

Both Salmón and Nash speak to the real physical manifestation of intellectual and linguistic traditions in their power to actually overwhelm, in a material sense, other thought forms and bodies. They point to the basic falseness (and danger) of the mind/body split and argue thought forms take/create physical form, just as they *arise from* physical form. This aligns with Donna Haraway's poetic consideration of the grave materiality of thought: "It

matters what thoughts think thoughts. It matters what knowledges know knowledges. It matters what relations relate relations. It matters what worlds world worlds. It matters what stories tell stories" (Haraway 2016, 38). Mattering here is not just about being important, but about *doing matter*, in the sense of becoming matter, controlling matter or destroying matter. From this understanding, it becomes clear that the biophysical sciences and social science are painfully incomplete without one another.

In her introduction to *The Routledge Companion to the Environmental Humanities,* Ursula K. Heise articulates this defining characteristic of the field's various interdisciplinary participants; they "envision ecological crises fundamentally as questions of socioeconomic inequality, cultural difference, and divergent histories, values and ethical frameworks" (Heise 2017, 2). This, she notes, constitutes "a fundamental challenge to the understanding of environmental crises as basically techno-scientific, with history and culture added on as secondary complications" (Ibid.). It is important to note that this basic interdisciplinary recognition of the fundamental co-constitution of the human and the more-than-human is aligned with and, more pointedly, *informed by* indigenous worldviews. The indebtedness of Western social and biophysical sciences to various indigenous sciences and thought traditions cannot be overstated. Particularly relevant to this thesis, Steven Feld's acoustemology and Viveiros de Castro's "intellectual bomb" of multinaturalism or perspectivism (Latour 2009, 2) must be understood as collaborative formulations of intellectual and philosophical modalities originating in indigenous worldviews. This is not to flatten the experiences, positionalities, or knowledge systems of hugely distinct and disparate communities such as the Kaluli of Bosavi and the Amerindian populations with whom Viveiros de Castro worked in the Amazon basin. Rather my intention is to underscore that

those scholars who have most profoundly innovated and invigorated their disciplines have

drawn inspiration heavily from diverse (and divergent) indigenous theories and praxes.

Charles Seeger gives an apt observation on this point, noting that "in the twenty-first century,

Euro-Americans have begun to recognize that other species use language and that other

species may not only make sounds but also experience them as we experience music. This is

a revelation to some; it is nothing new to many people who live in the Amazon…Humans

have a lot to learn from one another about the world, and we should not only be listening

carefully to each other, but using what we learn" (Seeger 2016, 96).

Environmental thought and activism are also fundamentally influenced and inspired

by indigenous thought and praxes (Bird et al. 2012, 4). Indigenous communities stand at the

forefront of environmental justice movements worldwide, both in community organizing and

legislative innovation. The Maori people of New Zealand, for example, have succeeded, in

cooperation with the national government, in establishing the legal personhood of the

Whanganui River (in the country's north island). Similarly, "indigenous peoples in Ecuador

played an important role in the nation-state's new constitution, which includes legal rights to

tropical rain forests, islands, rivers, and air" (Whyte 2016, 145; also see Berros 2017). As

problematic as the legislated relationship between personhood and rights can be (as

evidenced by the debauchery of legislated corporate personhood), there is a way in which the

Earth Rights strategy finds a chink in the ideological armor of the *Homo economicus* (Latour

2017, 107-108; Parr 2018, 66), and thus it has been identified and engaged as a worthwhile

pursuit by indigenous and frontline communities fighting for environmental justice. The

category of person has demonstrated relative durability against the neoliberal logic of

reducing all aspects of material and mental life to property. For this reason, communities

seek to shelter their valued relationships with landforms within this sanctuary-like word, personhood. It remains important to critique, in the first place, the idea that a thing must be a person (somewhere on a spectrum of forms that adhere to human characteristics as the ultimate standard) in order to have rights. The fact that these supposedly inalienable rights of personhood, even for humans, are regularly violated along lines of race and citizenship points to the necessity of more fundamental challenges to power structures and to the role of state legislatures. Fundamentally, legislated personhood reinforces the power of the state as an ultimate policing authority. Skepticism towards the will of the capitalist-state even toward the legislated sanctity of personhood, given its inherent entanglement with the military-industrial complex and prison-industrial complex, would thus be well-founded. The militarized power of the state may be an effective but ultimately problematic location for the safety of more-than-human persons. Environmental justice literature articulates the intersection of human violence and ecological violence and positions environmental crises as fundamentally tethered to power structures that devalue and degrade human bodies along lines of race, gender, sexuality, class, age and citizenship (Pellow 2017, 79). From this perspective, as long as the logic of white supremacy dominates court systems, as is evidenced by the racialized expansion of the prison industrial complex (Ibid., 80), the pursuit of more-than-human rights might seem premature or doomed to co-option. Reflecting on the growing interest in animal rights, Amy Fitzgerald and David Pellow caution activists and academics that "it is critical to conceptualize [species inequality] as intersecting with other forms of inequality. Failure to do so obscures the ways in which these forms of inequality are interdependent and mutually reinforcing" (Fitzgerald and Pellow 2014, 28-29). The intersection of genocide and environmental toxification in the United States (Brook 1998,

LaDuke 1994) as well as the forced labor of prisoners in toxic environments (Pellow 2017, 67-109) are examples of the total-environmental intersectionality of systems of inequality. In his outlining of critical environmental justice (CEJ), David Pellow asserts that "the CEJ framework includes nonhuman animals, ecosystems, and—perhaps most important here—the *built environment* as subjects and instruments of oppression, and as agents of social change" (2017, 79). The question of rights of nature then falls squarely with environmental justice discourses, and as I continue to develop this discussion in the following pages the important questions that the CEJ framework poses concerning intersectionality should be held as centrally relevant.

Bearing in mind the aforementioned concerns regarding the expansion of state power and the naturalization of the ideology of personhood and individualism, as well as the unresolved tensions of intersectional violence, it must be recognized that the pragmatism of earth rights strategies holds interesting lessons and should not be dismissed off hand. Indigenous-led grassroots movements, in New Zealand, Ecuador, and around the globe have increasingly begun pursuing this personhood approach, and the political and legal strength of their successes stand as hopeful precedents for affecting real *sustainability-change* (a la Aaron Allen).

The relevance of rights of nature discourse lies in its practical effectiveness in cultivating politically durable sustainable relationships across and between life-forms. To the extent that these relationships are enacted through sound practices and aesthetic frameworks (Allen 2019, 48), music and sound studies can contribute unique perspectives on the cultural, philosophical and ecological implications of this discourse. Here it is fitting to revisit Titon's articulation of "a sound commons for all living creatures" (Titon 2012). Titon defines the

sound commons as a conception of place in which "all living beings enjoy a commonwealth of sound," noting that a sound commons "embodies the principles of sound equity, encouraging free and open sound communication, and playing its important part in environmental, musical, and cultural sustainability" (Ibid.). Titon identifies sound as a specific and peculiar aspect or realm of environmental phenomena that is particularly receptive to his understanding of equitable ecological relationships. He mobilizes sound at once as a compelling metaphor and also a material, vibrational instantiation of the universal reciprocity of an idealized commons. Titon's self-described utilitarian argument was published in the Smithsonian Folkways magazine just one year after Ecuador wrote the rights of nature (Pachamama) into their constitution. Titon's theorization of the sound commons has relevance not only for sound studies as a discipline but within transdisciplinary conversations and broader environmental movements as well.

In 2008, the following addendum was inserted into Ecuador's constitution: "Art. 71. *Nature or Pachamama, where life is reproduced and exists, has the right to exist, persist, maintain and regenerate its vital cycles, structure, functions and its processes in evolution.*"[2] Vital cycles of nature are, as Titon argues, thoroughly dependent upon and emergent through acoustic phenomena. Thus, the right to maintain and regenerate vital cycles means, amongst other things, the right to an undisturbed sound commons. Sound studies scholarship can contribute critical perspectives on how sonic communication might be integral to the regeneration of the vital cycles named in these legislative acts. To my knowledge, rights of nature legislation does not explicitly mention acoustic niches or the crucial role of sonic communication. In this way there is a disconnect between sound pollution legislation

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[2] This quote was sourced from a pdf off of the website of the Global Alliance for the Rights of Nature (www.therightsofnature.org). The url for the pdf is: < https://therightsofnature.org/wp-content/uploads/pdfs/Rights-for-Nature-Articles-in-Ecuadors-Constitution.pdf>.

(primarily socially concerned) and earths right legislation which concerns itself more explicitly with the well-being of more-than-human forms. That earth rights legislation does not address sound directly does not necessarily mean that the sonic realm is completely ignored in court cases. Indeed, advocates of sound pollution legislation such as R. Murray Schafer, Barry Truax, Hildegard Westerkamp stand as helpful models for Earth Rights activists. While environmentalism has evolved in the decades since the inception of the World Soundscape Project, this group of scholars, musicians and activists was able to establish important precedents regarding the relationship between sound and environmental processes. It does seem that a more rigorous engagement with acoustic relationships in Earth Rights discourse could change the way that these legislative measures are strategized and conceived. To clarify this connection, I will examine two instances of this legislative struggle around earth rights.

First, consider the Ecuadorian case presented by Argentinian sociologist Maria Valeria Berros in her 2017 article, "Defending Rivers: Vilcabamba in the South of Ecuador," in which she reviews the successful legal defense of the river's right not to be diverted for construction. In this court case, which was settled in 2011, "it became possible to affirm that the *river itself has the right* to its own natural course, according to the new Ecuadorian Constitution" (Berros 2017, 37). Referring to the river's right to its "natural course" was, in this case, fortunately enough to defend the river in court, but to develop rigorous arguments for the *sonic integrity* of river systems could, seemingly facilitate the defense even of more peripheral aspects of these river systems. Where does a river's natural course end? With the last apparent fringes of willows in the riparian zone, the fur of the river? Or the flight paths of the birds that depend on the tree cover of that riparian zone? Or the patchwork territorial

lines of mountain lions who survive on the clean water that the river provides, whose bodies, literally and physically, *are made of* the river? If we choose, as Mary Hufford suggests, to live and think in a grotesque world of entwining and decomposing bodies, the boundaries of the river become blurry, muddy and expansive like a flood zone in a spring rain. The grotesque body of the river challenges classical and bourgeois notions of what a river should look and sound like, and what a river should *do*.

One of the awkward weaknesses with assigning legal personhood to nature is that it doesn't unequivocally deconstruct the functional normalization of the (human-normalized) individual body in the classical sense (Neimanis 2017, 2). The person as a discretely bounded entity becomes an even harder concept to defend when applied to natural formations such as rivers, mountains, or forests, which are so obviously the kind of multi-species, poly-corporeal collaborations that Anna Tsing calls "landscape assemblages" (Tsing 2015, 158). Biologist Margaret McFall-Ngai uses similar language in her observation that "we are now beginning to realize that 'individuals' aren't particularly individual at all. The organisms of developmental biology, along with Darwin's species, all turn out to be complex assemblages, typically made up of more cells of others than their 'own'" (McFall-Ngai 2017, M52). Some biologists have begun using the term *holobiont* to describe these complex assemblages of host organisms plus their symbionts (though even this center-periphery framework can become problematic; see Gilbert 2017; Haraway 2017). In thinking about how to *talk* about these complex assemblages of holobionts (nested ecosystems of symbionts), Donna Haraway offers this insight, which stages a return to the challenging idea of personhood of land-forms: "the array of names needed to designate the heterogenous webbed patterns and processes of situated and dynamic dilemmas and advantages for the symbionts/holobionts is only

beginning to surface as biologists let go of the dictates of methodological individualism and zero-sum games as the template for explanation. I suggest we might also need a term like *holoent*, so as not to privilege only the living but to encompass the biotic and abiotic in dynamic sympoetic patterning" (Haraway 2017, M26). The river-person is one such *holoent*, which derives being-ness and liveliness (sympoetic patterning) from a panoply of organisms and entities, from minerals to microbes to megafauna.

It should be acknowledged that while this literature, in its engagement with new synthesis discourse in biological sciences, represents a leading edge in ecofeminist theory, these deconstructions of individualism are not yet commonplace within (or outside) the academy. Epistemological and ontological commitments to human exceptionalism run deep through academic discourses. As discussed, even the extension of personhood to animals, plants and landforms belies a value system centered around individuality, with the human individual as the ultimate moral standard. The unmarked person is still human, and male-bodied, and white (Fitzgerald and Pellow 2014, 6-7), despite decades of critical scholarship. My sense is that the following observation made by Tim Ingold still holds: "Underwriting the Western view of the uniqueness of the human species is the fundamental axiom that *personhood as a state of being is not open to non-human animal kinds*" (Ingold 2000, 48). If Ingold is speaking to the exclusion of animals, then *non-animal* forms and land-forms are estranged even further from the realm of the person. It seems that as posthuman scholarship reconsiders more-than-human forms, careful attention must be paid to whether the intention is to *lift other lifeforms into the category of person* which is still ultimately centered around the human form, or if the intention is to *disarticulate the category of person* on a more radical level. There is a rift here between, for example, scholarship that celebrates the person-

like capacities of songbirds or other intelligent forms (Taylor 2017), and scholarship that refutes the ultimacy of the individual, favoring instead entanglements and between-nesses (Haraway 2016, Tsing 2015).

Haraway's holoent is decidedly not an individual, and in this way to understand the holoent as a person ruptures the assumed individuality of the person. This disruption of the person as a concept stands as a major challenge to zoomusicology and ecomusicology, which still hold (productively and not unjustifiably) to the individual as a basic research unit. Haraway posits that the bounded individual person will become increasingly "unthinkable" (Haraway 2016, 30) as the intrusive event of Gaia pushes further into the lived experience of academic communities. The task at hand, certainly in the case of earth rights, and in posthuman discourse more broadly, is to successfully reposition or reconstitute the "person" by building new discourses, vocabularies, and practices around holoent beings, who exist as dynamic nestings of diverse biotic and abiotic forms, lively forms variously persisting and perishing through shared cycles of growth and decay, expression and expiration.

Crucially, for a river-being to "exist, persist, maintain and regenerate its vital cycles" (referring back to Article 71 of the Ecuadorian Constitution), all of its co-constituting life forms must be free to exercise the patterning of their relationship with the water of the river and all of the other entities that constitute its holoent existence. This negotiation of the free exercise of relational patterns relates directly to Titon's concept of the sound commons. Titon expresses his main aspiration for the concept as follows: "so that all creatures (ourselves included) may communicate in our acoustic niches in the landscape" (Titon 2012). This is not just a preference, but a necessity. Titon notes that "we cannot live if we're prevented from communicating in our sound-worlds" (Ibid.). So a construction project on a river can be

litigated against (in Ecuador or New Zealand at least) not only on the basis that a *river's water* has a right to its natural course, but that the river, as a *multi-species person* (we are all multi-species people in any case) has a right to healthy, unencumbered sonic communication between its various co-constituting aspects.

When these rights are not acknowledged, the destructive techniques of extractive industry enact intense violence on these landforms. In discussing the case of the Acheloos River in Greece, Sophia Kalantzakos, an internationally active Greek environmental humanities scholar, observes that numerous attempts (some successful and some abandoned, all eventually ruled unlawful in court) at dam construction have left the river scarred with excavations and dilapidated structures, ghosts of progress and the demands of modern industrial agri-business. The most recent attempt at a major diversion project on the river, re-initiated in 2006 by the Greek government, was ultimately thwarted by legal determinations of the Court of Justice of the European Union (CJEU) and the Supreme Administrative Court of Greece, arguing that the project "violated sustainability principles and adversely impacted the environment" (Kalantzakos 2017, 47-48). Sadly, Kalantzakos notes, "this apparent legal victory has been somewhat pyrrhic because the government was given time to continue building while the court reviewed the case. Indeed, a majority of the works—whether completed or semi-completed—now remain abandoned…this infrastructure has already damaged the ecosystem significantly" (Ibid., 49).

Kalantzakos argues that these skirmishes of construction were enabled by a legal framework that, at a basic level, sees land-forms as property, while the recognition of personhood for rivers such as the Acheloos would preclude them from the category of property and prevent this type of heedless infrastructural development and ecological

destruction. Such recognition would also call into question the presence of existing dams in the river's deltaic region (Vassilopoulos 2008, 211). Kalantzakos' prognosis is that "policy implementation is linked with the recognition of value, and as long as ecosystems are viewed, in general, as purely planning and development opportunities, the kinds of problems that afflicted the Acheloos case will continue, however stringent the legal basis for *protecting them qua property*" (Kalantzakos 2017, 50, emphasis added). Her insight on the relationship between policy and "recognition of value" as well as categorization of value, serves as a pivot point in returning to the position of sound/music in these complicated struggles over ecological well-being. How is value imagined, created, and wielded in environmental discourse, and how do specific ways of listening and sounding relate to the formation of value regimes?

IV. How Musical is Land? Soundscapes, Land-forms, and Sonic Expression

In his critical approach to sustainability discourse and musicological engagements with sustainability, Aaron Allen argues that "through the lens of a change-oriented, environment-based sustainability, it is in aesthetics that music and sound studies have their most obvious importance" (Allen 2019, 46). He explains that, by demonstrating how the valuing of sounds (musical and otherwise) is associated with cultural action, "we can show how those value-actions exist in contexts that are ethically charged" (Ibid.). He gives the example of violin bows made from Brazilian Pernambuco, an Amazonian hardwood which has been overharvested to near-extinction by violent colonial mechanisms (Ibid., 49-50). While these bows are assigned aesthetic value, they also clearly "are not right for Brazilians when considering equity and economics" (Ibid., 52). Allen emphasizes that "connections

between aesthetics and ethics are relevant to sustainability; aesthetics therefore makes sense in a sustainability framework, and aesthetics are an entry point for music and sound studies" (Ibid., 53). From Allen's entry point, I will shift this discussion of aesthetics and sound away from musical instruments and toward the landscapes from which their materials are extracted.

In considering human persons, it is certainly clear that no sound communication is devoid of aesthetic properties or of alignments with aesthetic value-regimes. The timbre and cadence of a yell is informed by a convergence of aesthetic tendencies particular to the culture(s) of the person yelling. The metallic loudness of excavation machinery projects a sense of aesthetic values across and into landscapes and bodies. The aesthetic value of untouched wilderness which has long dominated environmentalist thought in the U.S. (Apostolopoulou 2018), for example, has specific ramifications concerning sonic processes in bureaucratically stewarded forests. Similarly, aesthetic valuations privileging mechanization and standardization, as evident in obsessions with straight-line monoculture farming, have dramatic effects on soundscapes and communication channels for the creatures (invited and uninvited) of those farms.

R. Murray Schafer's 1977 *Tuning of the World* endures as a seminal, if battered, text in its elucidation of the value-regimes inherent in soundscapes, and in it he offers a provocative scenario for engaging environmental aesthetics: "The best way to understand what I mean by acoustic design is to regard the soundscape of the world as a huge musical composition, unfolding around us ceaselessly. We are simultaneously its audience, its performers and its composers. Which sounds do we want to preserve, encourage, multiply?" (Schafer 1977, 205). It is from this guiding question that Schafer's collaborative World

Soundscape Project drew inspiration. This framework also inspired and informed later

scholarly and scientific research in the developing fields of acoustic ecology (Farina 2014,

Krause 2017, Truax and Barrett 2011, Westerkamp 2002) and sound studies (Feld 1996,

Galloway 2014, Kelman 2010, Novak and Sakakeeny 2015, Thompson 2008, Stern 2003).

Schafer's thinking has been productively critiqued by multiple generations of scholars

over the past forty years, most relevantly (to this discussion) concerning his perpetuation of a

simple nature/culture binary which relegated the "natural world" to undeveloped spaces and

called upon the moral consciousness of a universalized (raceless, classless, ungendered)

humanity to appreciate and preserve the compelling beauty of a largely imagined, heavily

romanticized, pre-industrial naturalness. Schafer's theorizing aligns with a certain hegemonic

strain of nature and wilderness discourse that took shape, as environmental scholar Elia

Apostolopoulou notes, in the unique circumstances of the colonization of North America,

which culminated in the early twentieth century in the establishment of national parks.

Emphasizing the sociopolitical functions of national parks, Apostolopoulou argues that "this

[conservationist] policy of creating isolated refuges led to a mechanistic separation between

the 'ordinary' nature, which could be sacrificed, and 'wild' nature which deserved to be

conserved" (Apostolopoulou 2018, 1). These decisions, she explains, have always been

racialized (and gendered, see Shiva 1988). Issues of race and class in environmentalist

discourse are often dominated by a Schaferian tendency toward ahistorical history, nostalgia

for some past that never existed. The value placed upon "unspoiled" nature erases the

genocide and forced expulsion of native populations (Apostolopoulou gives the prominent

example of Yellowstone). The narrative of unspoiled nature also denies the naturalness of the

built environment—to be in nature means necessarily to be out of the city. This blinding

disassociation is perpetuated, as Ochoa Gautier notes, in academic environmentalist discourses that continue to draw on the trope of wild nature without examining the history and political function of the term and its ontological foundations. Returning to Allen's aesthetic-ethic discussion, the value placed on pristine natural environments in U.S. cultural imagination is thoroughly entwined with ethical problems and considerations.

While Schafer's writing demonstrates many of the pitfalls of twentieth century environmentalist thought, his theory of the world as a vast musical composition does hold some potential to displace anthropocentric-bounded notions of aesthetics. It runs aground, most simply, from a poverty of nomenclature; the words composer, composition, and even music itself carry hefty and unpacked baggage associated with (white-male-normalized) human exceptionalism, and within his model it becomes easy to imagine or assume that humans are the ultimate (and only) soundscape composers, the tuners of the world. Anna Tsing's framing of landscape assemblages as polyphonies seems, in the context of this critique, to prove more useful for thinking through post-human, post-individual worlds. In the following passage she explains her sense of assemblages through the metaphoric lens of polyphony:

> Since the time of the plantation, commercial agriculture has aimed to segregate a single crop and work toward its simultaneous ripening for a coordinated harvest. But other kinds of farming have multiple rhythms. In the shifting cultivation I studied in Indonesian Borneo, many crops grew together in the same field, and they had quite different schedules. Rice, bananas, taro, sweet potatoes, sugarcane, palms, and fruit trees mingled. The farmers needed to attend to the varied schedules of maturation of each of these crops. These rhythms were their relation to the human harvests; if we add other relations, for example to pollinators or other plants, rhythms multiply. The

polyphonic assemblage is the gathering of these rhythms, as they result from world-making projects, human and not human. (Tsing 2015, 24)

Tsing's polyphony metaphor is somewhat incomplete or mixed in that she only refers concretely to the existence and function of polyrhythm, and in her modeling she does not articulate how multiple melodic movements (true polyphony) take form in landscape assemblages. But, more importantly, she allows us to begin to think of landscape assemblages as creating or emanating polyphony through their various world-making projects. There is, at the surface, some certain cognitive dissonance here: music is guarded as one the prized pillars of human exceptionalism, it is something that *we humans* do that no one and nothing else does. The concept of music as "humanly organized sound" (Blacking 1973, 3) simultaneously *assumes and proves* our exceptional status, our separateness from other aesthetically and morally inert life forms. Certainly birds sing, but they don't *know* that they are singing. Certainly the chorus of evening crickets is hypnotizingly beautiful, but only because humans have placed aesthetic value on their sounding. Aesthetic determination and enactment are held firmly within a discretely and conveniently bounded conception of humanity as, amazingly and against all odds, the only self-conscious and artistic creature on the planet.

There do exist noteworthy challenges to this privileged positioning of the human in relation to music and musicality. Australian musicologist and ornithologist Hollis Taylor argues in her 2017 monograph *Is Birdsong Music?* that "the time has come to abandon our uncritical preference for human achievements—specifically for my purposes, to decenter the human in music—and instead be open to the possibility of creativity and agency in animals" (Taylor 2017, 270). Taylor asserts that "the view that only humans make music expresses a

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wider proposition that only humans dwell in worlds of meaning, that only humans act mindfully, and that only humans have and thrive by means of culture…The work sustaining human uniqueness in music entails defining music in a way best suited to humans in classical Western culture, controlling the parameters of music that must be in place for sound constructs to pass into the hallowed realm of *music*, and offering smokescreens whereby evidence can be ignored or the lack of seeking evidence is hidden" (Ibid., 270-271). This aligns with Ana Maria Ochoa Gautier's critique of musicological inquiries that take for granted epistemological and ontological frameworks that normalize (and make invisible) human-exceptionalist discourse which is valued for its positivist, scientific inheritance (Ochoa Gautier 2016). For Taylor, the recognition and study of aesthetic expression in more-than-human (in this case avian) life is a political project, particularly in the context of ecosystem collapse. In *Is Birdsong Music?* she is interested not only making theoretical arguments but in documenting the changing sonic practices and repertoires of songbirds as they negotiate survival in times of drought and warming climate (Ibid., 260-261). She notes that "The tenuousness of the planet's biodiversity is very much on my mind when I arrive every season at each field site. Will the birds still be present? Will they sing, and for how long? A bird's song goes right to the heart of our ethical responsibilities, our political institutions, our social relationships, and our self-understanding" (Ibid., 259).

Revisiting briefly Schafer's concept of tuning or composing the soundscape of the world, Taylor demands that songbirds be recognized as composers, or as a composer herself she refers to them explicitly as colleagues. Taylor argument that "animals and humans hold in common an aesthetic sense" (Ibid., 273-274) has far-reaching implications for re-approaching musicking as a cultural process, and re-approaching culture as an ecological,

rather than human, process. Notably, however, Taylor is still committed to the individual as the primary site of expressive capacity. She is invested in describing the minds and bodies of individual birds, whether singing together or alone, as legitimately artistic minds and bodies. Her theorization does not account explicitly for more porous, assemblage-based understandings of embodiment or aesthetic sense, but neither does her work preclude these post-individual interpretations (thinking back to Haraway's holoent). I am interested here in taking Taylor's arguments into a more poly-corporeal framework and exploring potential resonances between her theorization of animal aesthetics and Aaron Allen's discussion of aesthetics in the context of sustainability discourses.

Aaron Allen's four-part model of sustainability-change "adds the element of aesthetics, a concept that involves the arts, culture, education, ethics, and more," noting that "it is the values (ethics) that stem from aesthetics that can link those areas of a sustainability framework" (Allen 2019, 48). Importantly, his nested basket model has "nature cradling society" which in turn envelopes both economics and aesthetics. When he displayed this nested diagram at the Cultural Sustainabilities Conference in May of 2018, Chumash community leader Mia Lopez countered that "aesthetics comes before us [humans]," before society. She posited that "the land tells us which is the musical wood," and what kinds of sounds hold particular resonant meaning in which relational contexts. In her understanding "the music is there, the beauty is there" before, or enveloping society rather than the other way around as in Allen's model. While aesthetics as a word may be a uniquely human utterance, that which is attempts (without fully succeeding) to describe is, from Lopez's perspective, not a human construct but an ecological construct. This echoes Taylor's conception of animals' aesthetic sense but it also pushes further, out of the realm of animals

and arriving at a conception of aesthetic sensibilities as emergent from particular land-forms themselves.

In recognizing musical capacity as ecologically situated, and in considering the possibility of land-forms as compound-beings *with aesthetic capacity* and agency (Latour 2017, 52-53), new questions proliferate around the nature of musical awareness and choice. In thinking about choice and decision-making, particularly in times of ecological hardship, I am aligning with Hollis Taylors commitment to observe "the aesthetic *and* functional in music as a network that cannot be disentangled" (Taylor 2017, 276). The functionality and causality of sound practices are not external to their expressive quality, and the choices are made within land-forms reflect both survival needs and aesthetic orientations. Taylor remarks on the decision that songbirds make to raise the pitch of their courting songs in industrialized settings, which is likely a stressful, energy intensive shift for their small bodies to incorporate. This is one way in which "noise alone can affect overall body condition in birds" (Ibid., 262). What happens when this line of thought is extended into consideration of holoent land-forms? What aesthetic value-choices emerge from the being of a mountain creek in the winter? How do those choices change with shifts in nutrient availability, such as in times of drought or fire? Which flowers cease to bloom and which birds cease to call? What stones crash from the slopes, loosened from the failing grip of parched and dying roots in the dry earth? What opportunistic pioneer plants thrive in the disturbed and distressed soil? And what insects come to pollinate these plants as they flower? How does the calling of these insects signal or perform a complex multispecies action-set of resilience which is rooted in specific priorities, aesthetics (feeling-responses), and ethics particular to that place? What values and actions, human and more-than-human, inform and constitute the aesthetic

arrangements and priorities of the creek? And what tensions or violences within the holoent of this creek might resist or morph these variously prevailing or fading aesthetic patterns?

These questions may all seem a bit far-flung. But it is becoming increasingly apparent that we must fling our thoughts and questions further and in odder ways than we are accustomed as we move into this era of compounding precarity marked by the intrusion of ecosystem processes and forms across and through all physically and intellectually erected borders (Latour 2017, 7-8). Gaia, as theorized by James Lovelock, Lynn Margulis and a lineage of scientists and science and technology scholars, "is an intrusive event that undoes thinking as usual" (Haraway 2017, M47). In turning to face Gaia then, our questions must of necessity be unusual, or *sur*real as Michelle Kisliuk urges us. The advantage of *sur*real questions lies in their disruptive capacity, their ability to shift the way we notice things and relate to things. Their strength lies also in their unpredictability—surreal questions may have real or surreal answers, and in the context of questioning human and more-than-human relations, the web of questions that emerges, like the web of relations, is infinite and dense. "To question Gaia then is to question something that holds together in its own particular manner, and the questions that are addressed to any of its constituent processes can bring into play a sometimes unexpected response involving them all" (Stengers 2015, 45). By saying that Gaia is something that "holds together in its own particular manner," the Belgian philosopher and chemist Isabella Stengers argues that Gaia must be recognized and engaged as a multi-form being "not just endowed with a history but with its own regime of activity and sensitivity" (Ibid.). Sensitivity is the keyword here, semantically overlapping with aesthetics (from the Greek root *αισθητικός* meaning *of sense perception*) and bringing Gaia into focus as a sentient being. A similar ontology is operative in the legal recognition of the

sentient being Pachamama of the Ecuadorian constitution, "where life is reproduced and occurs" (Berros 2017, 39).

In questioning the particular sensitivities of Gaia and her co-constituent holoents (rivers, mountains, meadows) as well as holobionts (humans, owls, bees) we allow ourselves, importantly, to engage with a broader repertoire of ethics. As Aaron Allen reminds us, aesthetic activity exists in situations that are ethically charged. It seems to follow then, that if land-forms have capacities for aesthetic activity or sensitivity, as articulated by Stengers, these sensitivities would (at least some of the time) have accompanying ethical frames. Allen's example of colonial extraction of Brazilian Pernambuco for the construction of violin bows illustrates one particularly alarming ethical context; he observes that after centuries of colonial wars being fought over access to the bodies of these trees in Brazil's Atlantic Coastal Forest, and generations of irresponsible deforestation, "only 5% of Pernambuco habitat remains" (Allen 2019, 49-50). The anthropocentric colonizer and missionary ethics that facilitated this aesthetic value-choice have proven reckless and unsustainable. Much of the current literature in the environmental humanities is focused on addressing the outcomes of faulty ethical frameworks and enabling divergences from destructive (un)ethical thought patterns (Emmet and Nye 2017; Kennedy 2017, 271; Rose et al. 2012). While European and American environmental discourse, in the academy, has traditionally understood and theorized nonhuman forms as morally inert (Cronon 1992, 1368; Ingold 2000, 50-51), recent scholarship argues for the value of attending to moral and ethical frames that emerge *from* more-than-human forms themselves (Jamieson 2017, 17; Kimmerer 2013; Bird Rose and van Dooren 2017, 125).

Landforms can become ethical resources for human groups looking for new (or renewed) ways of surviving through large-scale ecological degradation. Enrique Salmón describes how a place becomes a moral landscape through what he, referencing Laguna Pueblo writer Leslie Marmon Silko, calls *cognitive journeys* through these landscapes: "find the plants. Connect with them and then your cognitive journey begins, and then your next metaphors will begin, and that place becomes your moral landscape" (Nelson 2008, 101). By watching the decisions of plants, landscapes, and waterways throughout the seasons, he explained, humans can come into wiser decision-making patterns. In attending to the motivations and consequences of these more-than-human decisions, we can observe the playing out of strategic and ethical actions. In his chapter contribution to the *RCEH* titled "The Anthropocene: Love it or Leave It" Dale Jamieson comments that "when nature is seen as amoral, it does not constitute a moral resource in anyway" (Jamieson 2017, 17). Conversely, as put forth by Salmón and Connard, when understood to be possessed of diverse moral modes and frames, landscapes can become practical resources on a personal and community level for conflict resolution, resource management, and ethical problem solving (Nelson 2008, 101).

V. Listening Differently: The Acoustic Challenges of the Anthropocene

Of the tools and faculties available in navigating these cognitive and moral journeys, and in our study of natures, acoustic perception is certainly invaluable and indispensable. Understanding the acoustics of the Anthropocene stands as an area of research and practice to which sound studies scholars and ethnomusicologists can offer particularly valuable contributions. As the environmental humanities turn to the difficult questions accompanying

the emergence of the Anthropocene (Neganthropocene, Capitalocene, Chthulucene, Necrocene, etc.), new modes of attentiveness are urgently needed. Specifically, there is a need to be able to listen in new and renewed ways. Amidst the intrusions and proliferations of ghosts and monsters in the Anthropocene, the thick filter of the Modern ear often fails to enable responsible action (my use of the capitalized *Modern* here follows Bruno Latour 2017, 199). The story of modernity is old (and outdated) and its ossification in our tissues has stiffened and obstructed our sense perception in all domains but particularly in the sonic realm. As Bruno Latour observes, "facing the ecological mutation, instead of getting all excited…we remain frozen, indifferent, disillusioned, as if, at bottom, nothing could happen to us. This is what we have to understand" (2017, 190). Latour points to religion and counter-religion, the placement of absolute certainty and authority in secular institutions of the State and Nature as known by Science, as facilitating and perpetuating this insensitivity/insensibility. His somewhat cryptic but cutting analysis comes through well in this statement; "The Moderns are the ones who have managed to shield themselves from passing time, by appropriating for themselves the most dangerous, the most unstable of all forms of counter-religion. How could they not be disinhibited? Believing they are fighting religion, they have become irreligious in the sense recalled in the previous lecture: they have made *negligence* their supreme value" (Ibid., 196). Anna Tsing comes into a similar, more down-to-earth assertion in her explication of multi-species world-making: "Twentieth century scholarship, advancing the modern human conceit, conspired against our ability to notice the divergent, layered, and conjoined projects that make up worlds. Entranced by the expansion of certain ways of life over others, scholars ignored questions of what else was

going on. As progress tales lose traction, however, it becomes possible to look differently" (Tsing 2015, 22).

Of course, it also becomes possible to *listen differently*. Listening differently, in keeping with Tsing's "arts of noticing" (Ibid., 160) might mean attending aurally to what world-making, human and more-than-human, *sounds like*. If it really is "dialogues all the way down" (Hufford 2019, 19), how can we begin to notice and hear these dialogues? What does a thriving river *sound like*? Does it sound like fish jumping, birds calling, humans wading along the banks with testing equipment? What are the sounds of a damaged or suffering river? The splash of mud and stone in the collapsing of barren, eroded riverbanks, bereft of plant life in the wake of toxic industrial run-off? The low roar of heavy machinery clearing an area for dam construction? It is worth noticing that by listening deeply to a river, the human observer is often actually listening to human actions. Close observation reveals the extent to which human lives are implicated in the lives and deaths of rivers.

In engaging with more-than-human implicated-ness and entanglement, Anna Tsing proposes an alliance based on commitments to observation and fieldwork between ethnography and natural history, or humanists and naturalists. This alliance is modeled in Jennifer Post's collaboration with acoustic ecologist Bryan Pijanowski who combine methodological approaches from ethnomusicology and ecology to place "sound at the core of the discovery process, but within the lens of an *acoustic community* which brings both the sounds of nature and those of people together to couple our epistemologies, methodologies, and diverse voices to address—and seek solutions for—problems society faces" (Post and Pijanowski 2018, 73). Even in their determination, however, Post and Pijanowski point to problematic barrier of "the characteristic separation between scientific and humanistic

epistemologies" in which "contrasting research models are reinforced by disciplinary expectations and paradigms" (Ibid., 74). The authors conclude that "a new model constructed around a landscape ecology-ethnomusicology framework that enlivens techniques with more in-depth and multidisciplinary methods will need to be developed in order to successfully bridge our disciplines" (Ibid., 78). This need for interdisciplinary collaboration has been noted and engaged productively by environmental studies scholars as well (Cheong et al. 2012, 8-9, Emmet and Nye 2017). However, as Post and Pijanowski observe, these collaborations are unfortunately rare (2018, 87). The bridge is not yet established and there remain methodological and epistemological challenges to its construction.

It is certainly evident that humanists seem to have by and large neglected the human's inescapable entanglement with the more-than-human, and conversely that naturalists have traditionally taken their object of study as wholly distinct from, though not immune to, human social worlds. The distinct fieldwork approaches engaged by humanists and naturalists have much to learn (and unlearn) from one another, methodologically, theoretically and ethically. In this regard the pairing of ethnomusicology and acoustic ecology or soundscape ecology holds significant potential, namely because these disciplines converge around a (roughly) common object of study; sound and its relational significance. By re-interpreting the concept of acoustic communities, "multi-species assemblages that experience sound" (2018, 77), to include humanist as well as ecological perspectives, Post and Pijanowski are able to settle on a common set of research questions and goals. They assert that "there are many potential places where the acoustic community nexus can help us to determine how biodiversity loss is fundamentally connected to human well-being through sound" (Ibid., 82). The intention here is similar to Tsing's commitment to develop arts of

noticing, and the focus on multi-species assemblages specifically aligns with her call to develop more dynamic modes of awareness.

Perhaps the lack of attentiveness that Tsing and Latour point to in their critiques of modernity can be thought of (somewhat more hopefully) not as an *atrophying* of attentive capacity but rather an extreme compartmentalization of this capacity. As the boundaries between humanity and nature begin to crumble along with the validity of the notion of progress, these compartmental divisions of observational power are also beginning to tear and decompose. As our perceptual blinders become more and more frayed in the hurricane winds of the Anthropocene, we become aware of just how unaware we are of *what else is going on*.

This emerges as simultaneously a disorienting and inspiring moment, particularly for ethnographers, expert and enthusiastic noticers tasked with the challenge now of noticing so much more. As Tsing, along with her co-editors Heather Swanson, Elaine Gan, and Nils Bubandt argues in *The Arts of Living on a Damaged Planet*, it is becoming necessary to notice the many beings and forms denied recognition by prevailing stories of industrial progress: "sometimes we can see the ghosts of relentless waste and manufactured poverty in the forms of stinking garbage and leaky sewers. But there are also ghosts we cannot see and those we chose to forget. They don't sit still. They leave traces; they disturb our plans. They crack through pavements. They tell us about stretches of ancient time and contemporary layerings of time, collapsed together in landscapes" (Gan et al. 2017, G8). We have much to learn from ghosts and the landscapes that they haunt. Lessons of survivance, and of perishing, are evident in the dialogues that take place, or have ceased to take place, in and across landforms. It is relevant here to think back to Hollis Taylor's grim determination to

document the quieting of birds as a result of drought and desertification. Listening for these dialogues, their changes or cessations, may or may not help in fashioning sound strategies for sustainable, life-enhancing futures. The massive forces that are mobilizing in this era of climate change demand a humility that precludes any sense of certainty regarding our ability to effect ecosystem stabilizations. Still, a willingness to listen seems fundamental to any attempt to confront unfolding climate disasters with efficacy, or at least with some small grace.

Such listening entails jumping into surreal stories of monsters and ghosts who haunt the ragged edges of our industrial world-making projects, who reclaim with bristling thorns and intoxicating aromas the half-finished excavations of abandoned dam sites, as the land draws on the collective memory of seeds and soil microbes, migrant pollinators and expectant predators, all re-membering that place. The place re-calls and re-creates itself in the wake violent mutation. Returning to Kalantzakos' case study of the Acheloos river, it is the river itself that performs acts of resurrection in the ghostly, monstrous sense articulated by Tsing, Swanson, Gan, and Bubandt. What are the roles of sonic communication and expression in these acts? How does an ecosystem recover from industrial violation/violence? What sonic pathways are severed or impaired, and how are they compensated for? What new dialogues emerge in the clearing of woodlands? What stories and memories do they whisper, and how are regenerative practices and principles embedded in these dialogues, these multi-species collaborative acts of resilient re-membering? What can we glean from listening to the sounds of damaged holoents as they re-create themselves? And how do landforms, in their resilient resurrection and mutation, have the potential to recreate *us* as human constituents, symbiont members of their holobiont forms? What different ways of *being human* might be

intimated by the dialogues that emerge from the violence of the unfinished (and finished) dam projects on the Acheloos?

The Acheloos river, named after (and thus identified as) the ancient river god of the pre-Hellenic (and Hellenic) pantheon, certainly holds ghosts, "the vestiges and signs of past ways of life still charged in the present" (Gan et al. 2017, G1). As the body of the Acheloos has been slashed and burned, severed by dams and flooded with agricultural runoff, the surreal story of the water-deity fades under the fanfare of progress. At the same time, as the industrial monocultures of the delta sterilize and erode the topsoil to the point of irredeemable ecological (and economic) collapse, the tenacity of the water-spirit shows itself anew—deformed, mutated, rebar protruding from its sides, flesh bleached from pesticides and sickly green from nitrogen additives. The voice of Acheloos is perhaps thin and agitated, wind blowing across bare earth where riparian trees have been felled for access by heavy machinery.

In writing these images and sounds, I am speaking to what Donna Haraway calls "speculative fabulation, science fiction, science fact" (Haraway 2016, 31); these images and sounds give form to the intrusions of Gaia into our world-making. Thinking of the mutated form of the Acheloos and its many voices (human and otherwise) both requires and facilitates our noticing these intrusions. In the following section I will turn to a speculative fabulation of my own, a presentation of a recent etho/ethnographic encounter not with a river but with a dry creek bed in the Santa Ynez mountains. In discussing the phenomenological approach that informs my observation and interpretation, I will develop and expand Haraway's notion of intrusion as well as Tsing's conception of the monstrous and ghostly character of the Anthropocene. I also align with Post and Pijanowski's assertion that "some of the solutions

for the biodiversity crisis can be found in acoustic communities and their dynamic social, cultural, and ecological networks" (2018, 87). Approaching the creek bed as a multi-species assemblage, I am primarily interested in the ways in which sound is experienced by this assemblage and its constituent beings, including my own self as an intrusive element. My intention is to explore the multi-directional character of ecological intrusion, and to present one way of listening for this intrusion.

VI. Grotesque Resonance: Phenomenological Methods for Mulitnatural Frames

It was midday, mid-December, in a creek bed near Rattlesnake Trail in the Santa Ynez Mountains. I had been sitting, very still, in this dry creek bed, for an hour. I was listening to the careful rustle of foragers as they sift through fallen leaves in the dense tangles of toyon and bay and tan oak. The bushes and trees are crowded in around the contours of the creek, roots thirsting and reaching for the cool water that runs, hidden, beneath the dry surface of silt and stone. Sunlit leaves swayed in a slow wind, tiny sounds of affirmation communicating that, yes, the water flows well here beneath us. I was immersed, sonically, in the lifting and dropping of infinite leaves as the foraging birds seek out grubs in the thick-blanketed earth. The moment was broken harshly by a sudden cascade of high-pitched calls immediately to my right, just a couple paces off. Squeaky, almost electric sounding, they fell upon one another in complex organic rhythms, rolling in and out of acceleration, pausing and returning. It was a startled and startling sound. Scanning the thick shadowy brush my gaze locked with two tiny jet-black eyes, a chipmunk perched on a sturdy branch of tan oak. The chipmunk stared at me and continued to give these forceful, rapid sequences of sound. I felt the shrill pulsings come squarely against me and press into my body. Soon, other creatures of

the brush joined in—scrub jays began to caw and one swooped low across the top of the canopy, landing on a burnt skeleton of manzanita and casting sideways glances down at me. The raspy call of the jay joined the thin pulsings of the chipmunk in a lilting, wheeling syncopation for several minutes before the bird flew off, down-slope in the direction of the ocean. Some minutes later, the chipmunk also ceased, clambering nimbly down the slender limbs and merging with the shadowy browns of the underbrush. The crackling rustle of fallen leaves, which had halted during this long dialogue, picks up again as the thin-legged foragers resumed their stepping about.

This is my memory of an encounter in a creek bed. In the following discussion I will position this memory within several theoretical, interpretive, and phenomenological experiential frames with the intention of opening a line of inquiry into the relationship between sonic expression and more-than-human knowledge practices. I am, particularly, curious about the potential relationships between musical perception and more-than-human, transcorporeal, perceptive modes. Perception here is not be equated with, or limited to, communication. More than communicating, I am concerned with how bodies merge and extend into one another, across time, to create environments and circumstances. How can I understand the shrill voice of the chipmunk to be, in part, my own body's presence folding back on itself? How can I understand the flight and caw of the jay as a dialogic responsiveness, a porousness to the chipmunk's alarm? How can I understand the trees, twisting and winding around the burnt bodies of their forebears, to be engaged in patient, collective rememberings, weaving the present around the past? Listening for the past in the present, how can I hear the pervasive ghost of wildfire in this thick brush? What can I receive from rasped resonance of dry leaves turning and crackling on the ground?

"All elements of experience depend on our physical engagement with the world" (Berger 2015, 12). These are the words of Harris Berger, in his writing on the value of phenomenological methodologies for ethnomusicological research. In this moment, Berger is synthesizing the phenomenology of Merleau-Ponty, who himself writes that "human life 'understands' itself…*because it is thrown into a natural world*." (Merleau-Ponty [1945] 2014, 341). The idea of thrownness, which characterizes Merleau-Ponty's phenomenology, sets up the fundamentally dialogic texture of experience and intersubjective relationality. Particularly in the interactions of lifeforms, this thrownness is mutual in that creatures are thrown toward each other and each constitutes what Merleau-Ponty calls the *intentionality* of one another's consciousnesses. This is the idea that consciousness is always conscious of *something*, that it has no prior existence outside of its relational engagement with phenomena. Importantly, as Mary Hufford clarifies, "perception [for Merleau-Ponty] is not the operation of an active subject on a passive object. Rather perception is a collaborative, mutually constitutive activity" (Hufford 2019, 25). Thus, as I listen to the chipmunk call from amidst the branches, I also know myself to be audible, by my breathing and my shifting limbs. To paraphrase Hufford, I know that I must be audible as an object in the chipmunk's acoustic sphere, just as the chipmunk is audible to me. This reversibility, of both perception and discourse, is also definitive of Merleau-Ponty's phenomenological theorizing. Wielding this reversibility allows for a critical inversion of Berger's quote, and a realization that "all elements of experience depend" on the world's physical engagement with us.

I return here to Hufford's engagement with Merleau-Ponty's work, which was touched on earlier in the context of anthropological interpretation. Hufford's insights are central to my thought process here, particularly her success in bringing phenomenological

thought and technique into the realm of more-than-human inquiry. Her concept of the

"collective flesh of sensibility," as a poetic expansion of Merleau-Ponty's "intercorporeal

perceptual schema" locates sensibility, and the expression of sensible knowledge, within a

collaborative process of sensing, remembering and knowing that takes place across bodies

and awarenesses (Ibid., 27). Thus, perception can be rearticulated as a web of collaborative

sensibilities, a thing that arises between, rather than within, thinking bodies.

The emphasis on this between-ness, or shared-ness of perception, situates

phenomenological thought nicely in relationship to ethnography, and in particular to

ethnomusicological ethnography. As Berger remarks, "if the phenomenological literature in

philosophy has mapped the space of lived temporality, phenomenological ethnomusicology

has revealed dynamics within that space that could only be revealed by ethnographic

methods" (Berger 2015, 20). Perhaps ethnomusicology's commitment not simply to music as

an object of study but to music "in the lived experience of social persons" (Berger 2008, 70)

makes it particularly receptive to phenomenological methods. Berger's understanding of

partially shared experience, as presented in his chapter contribution to *Shadows in the Field*,

highlights the productive synthesis of phenomenological ethnography. As he writes, "treating

partially shared experience as its object of study, phenomenological ethnography attends to

both the commonalities and the differences in the participants' perception of the music"

(Ibid., 70). As Berger explains, fieldwork itself becomes "an attempt to partially share

experience" and thus "the phenomenological ethnographer places her/himself on the same

plane as the research participant, thus forwarding the dialogic agenda" (Ibid.).

It is important to recognize that Berger's conception of phenomenological

ethnomusicology remains committed to a certain humanism that normalizes and reinscribes

the exclusive human-ness of cultural expression and social meaning, particularly as it concerns the category of music, which has been destabilized in preceding pages. For Berger, the value of phenomenological techniques lies in their facilitation of our capacity to "respect the things we care about most—people, their music, and the meanings they find there" (Ibid., 75). Nonetheless, his discussion of partially shared experience and dialogic relations does offer a pivot-point to Hufford's phenomenological *decentering* of the human. Hufford ends her chapter in *Cultural Sustainabilities* with a radical provocation of perspectival inversion that gestures again to Haraway's holoent form: "Seeing ourselves as rocks and trees might see us, we fleetingly grasp something of what it is to be in *their* environment" (Hufford 2019, 29-30). What happens when this ambiguous "we" attempts to "partially share experience" with more-than-human entities? How much do humans care about trees, or the sounds they make, and the meanings that they find there? This is an insightful intervention that Hufford offers for phenomenological ethnomusicology, and it gestures toward the reframing of ethnomusicological inquiries into thoroughly more-than-human contexts.

Caring, incidentally, emerges as a critical aspect of environmental humanities discourse. Deborah Bird Rose and Tom Van Dooren, for instance, describe their method of "becoming-witness" as an approach which "works against the 'reductive stance' (Plumwood 177) which in Western thought over several centuries, at least, has abandoned or consigned nonhumans to oblivion. One of the great terms for this arena of rejection is 'social death,' a socially constructed power relation wherein the lives of some humans and most nonhumans are deemed to be either useful to the powerful or superfluous, their meanings (if any) irrelevant, their deaths and destruction non-events except, perhaps, as property loss" (Bird Rose and van Dooren 2017, 124-125). Ana Maria Ochoa Gautier's work speaks to the ways

in which discourses about (and performances of) vocality, aurality, and musicality are particularly aligned with the facilitation of this social death, a component of "the persistent anthropocentric effort of 'constructing' the human as the not given, as the being itself of the not given" (Ochoa Gautier 2016, 116). Part of the work of undoing the nature/culture binary then, consists in learning how to care about more-than-human lives, and how to talk, write and act about that caring.

Jeff Titon remarks that ethnomusicologists operate with a certain commitment to an epistemology that privileges "knowledge arising through experience, ours and others" (Titon 2008, 36). In a more-than-human context, knowledges and experiences proliferate across thinking bodies, and these complex between-nesses all demand ethnographic attention. So when I observe the scrub jay join in the chipmunk's vocalizations and physically approach the two of us, I witness knowledge arising from representations of experience. The chipmunk becomes a storyteller through the scrub jay's embodied and resonant response. The momentary halting of foraging activity (which I can discern indexically from the cessation of crackling leaves), also represents a meaningful, sensible knowledge. These are knowledge-expressions that arise in dialogue, an awareness that thickens around and across the various bodies inhabiting the creek bed. By listening to the calls, and by noticing the silences, I myself come to know more about this community, about its history, and about the cautious awarenesses that pervade and constitute this place. By attempting to partially share in the experiential field of the creek bed, I become aware of a perception that, to paraphrase Hufford, locates me "within a Sensibility and a Being" that is much older than my own operations (Hufford 2019, 28). This sensibility is that "collective flesh" that weaves and thickens between scrub jays and chipmunks, between thriving young oak limbs and burnt,

sun-bleached manzanita branches, meanings and stories that cannot be found in any one body, but which emerge through collaborative acts of sounding and being.

In his 1996 co-edited volume *Senses of Place* Steven Feld poses the question; "How is a place actually sensed? How are the perceptual engagements we call sensing critical to the conceptual constructions of place?" As academic discourses come to terms with the sensibilities and thoughtfulness of more-than-human forms, and the meaningfulness of their experiences, it becomes possible (and in some sense necessary) to morph Feld's question; how does a place actually sense? How are the perceptual engagements we call sensing *constitutive* of place? Hufford's collective flesh of sensibility stands as a promising avenue in generating responses to this reversal. The sensibility and being of the creek bed certainly precede my sensual engagement with it, and the knowledges and memories embodied and ensounded in this place are things that I can share in only partially and only through my own being there. Following Berger's advice, I try to place myself "on the same plane as the research participant" (Berger 2008, 70). That my research participant is a vocal chipmunk in one moment and a collaborative scrub jay in the next may challenge, but does not preclude, my ability to find a common plane. I occupy a common plane within what Eduardo Kohn calls an "ecology of selves." Kohn asserts that "what we share with nonhuman living creatures…is not our embodiment, as certain strains of phenomenological approaches would hold, but the fact that we all live with and through signs," adding that "semiosis (the creation and interpretation of signs) permeates and constitutes the living world, and it is through our *partially shared* semiotic propensities that multispecies relations are possible, and also analytically comprehensible" (Kohn 2013, 9). The rhetorical overlap in Kohn's and Berger's writings about partially shared communicative experiences underscores the relevance of

Kohn's "anthropology beyond the human" to ethnomusicological theory and methodology. His argument illuminates possibilities for "ethnographic attention to that which lies beyond the human" (Kohn 2013, 7). As creatures in the world, human beings have an array of representational and communicative resources to rely on for understanding and communicating across boundaries of species and form, and vice-versa. The acoustic is a crucial domain of communication and representation across (as well as within) bodies. Thus the chipmunk, having determined that that I am too near, squeaks and chips at me - looks me straight in the eye while calling out, indexically representing and projecting my presence. They climb up the thin tan oak branches and positions their body safely above my head, a versatile iconic embodiment of escape and attack. I have been strategically and intelligently interpellated by this being. I can remain silent and still, but this is not in itself a non-response, it is more of a challenge both to the chipmunk's power over this space and to their perception, namely the perception of me as a predator. In my non-voiced response, I enter into an embodied dialogue and I inevitably collaborate in weaving a "collective flesh of sensibility" in which, for this one phenomenal moment, the chipmunk is not prey and I am not predator. As the chipmunk stops calling and slips into the brush, and as the foraging birds resume their turning over of dry fallen leaves, a new sensibility, a new memory pervades the creek bed.

How can I understand the meanings, intentional and potential, in these sounds and actions? Kohn argues that "*mean*-ing (i.e. means-ends relations, significance, 'aboutness,' telos) is a constitutive feature of the world and not just something we humans impose on it" (Kohn 2013, 16). Kohn understands *symbolic* meaning as uniquely human, but he positions it as rather an alienating dimension of semiosis, and also as a significant obstacle in post-

humanist discourse which often betrays a reluctance to abandon symbol-centric "world-as-text" modes of interpretation, theory and praxes. Kohn identifies iconic and indexical sign-processes as the semiotic dimensions in which cross-species communications become comprehensible and appreciable. He writes that "appreciating life and thought in this manner changes our understanding of what selves are and how they emerge, dissolve, and also merge into new kinds of *we* as they interact with other beings" (Ibid.). This, as Tim Ingold accounts for comprehensively in *The Perception of the Environment*, runs counter to the traditional (and still operatively dominant) Euro-centric intellectual framework in which "personal powers—of awareness, agency and intentionality—can form no part of the organism *as such*, but must necessarily be 'added on' as capacities not of the body but of mind, capacities that Western thought has traditionally reserved for humans" (Ingold 2000, 50-51).

In Kohn's multinaturalist framing, and in the indigenous Runa worldview from which he draws inspiration, all life is mind. All thinking bodies inherently produce meaning and representation. To achieve the denial of meaningful intention in the chipmunk's yelling, or the scrub jay's call, or the rustling of leaves in the underbrush, requires staunch commitment to what Hufford calls a "monological discourse" whose "monocular gaze sees nothing looking back" (Hufford 2019, 28). In Diana Taylor's similar conception of "unidirectional gaze," dialogue is refused even as an option on the grounds that "live embodied practices not based in linguistic or literary codes, we must assume, have no meaning" (Taylor 2003, 25). This literary bias or symbol-centrism, acts as a "percepticide" (Ibid., 28) in that it renders other representational performances void of the possibility of meaning.

Taylor's discussion, importantly, is set within her analysis of the Spanish colonial context and the indigenous-to-settler relationships in which "domination depends on

maintaining a unidirectional gaze and stages the lack of reciprocity and mutual understanding inherent in discovery" (Ibid., 64). Scenarios of Spanish colonization, specifically in the missionary efforts to remove indigenous Chumash populations from these Santa Ynez mountains, are certainly relevant to my interaction in this creek bed. The restriction of human stewardship practices that accompany colonial genocidal frameworks has a direct impact on more-than-human ecosystems. In a very real (and very surreal) way, the impenetrable, impossibly dense, tangle and of branches holds like scar-tissue to this colonized mountainside. The colonial as a monologic or unidirectional mode must be understood as a violent refusal to recognize the intelligence and moral worth not just of indigenous human populations, but of entire landforms. Refusal or incapacity to recognize and engage dialogically with the knowledge practices of beings, human or more-than-human, predicates the discursive expulsion and perceptive erasure of those beings from semiotic, ethical, and moral frames.

This opposition of dialogic and monologic discourses, for Hufford, is related to Mikhail Bakhtin's opposition of grotesque and classical bodies, and to Michael Bell's parallel pairing of grotesque and bourgeois ecologies. For Bakhtin the grotesque does not recognize "the movement of finished forms, vegetable or animal, in a finished and stable world; instead the inner movement of being [is] expressed in the passing of one form into the other, in the ever incompleted character of being" (Bakhtin 1984, 32). Similarly, grotesque ecologies "display all of the stages of life: birth, death, decay, going to seed, composting, harboring all manner of creatures" (Hufford 2019, 22). As the foraging birds sift through dead leaves for seeds and grubs, they collaborate in grotesque resonance. The rustlings that pervade the underbrush are resonances of regenerative logics (thoughtfulness)—in the piling

of leaves and the sifting through, the living and dying and offering and taking of bodies, becoming soil and water and wings, becoming place.

Bourgeois ecologies pathologize the grotesque realities of life, and indeed the word itself in English is strongly indexical of repulsion. But the word is derived from the Italian *grotta* meaning simply cave or cavern, with etymological roots in the Greek word *krypte* meaning "hidden place." Another English cognate with this Greek root, cryptic, can then add to our understanding of the grotesque as that which, in its repulsiveness, is unintelligible. Crucially though, the grotesque does not *resist* meaning, rather, its meaning is resisted, or silenced. The association of caves with the feminine and with gestation, emergence, and regenerative power suggests, not surprisingly, a gendered dimension to this pathologizing, silencing discourse. Indigenous Chickasaw writer and literary scholar Linda Hogan suggests that "caves are not the places for men. They are a feminine world, a womb of earth, a germinal place of brooding" (Hogan 1995, 31). She describes her own experience seated in a cave, saying "I see all around me the constellations of animals. Rabbits are etched by minerals on wet stone walls. Deer are revealed in the moisture…there are the fetal beginnings of life to come, of survival" (Ibid., 32-33). The regenerative unfoldings that Hogan presents are grotesque in that the borders between life and lifelessness, animal and mineral, are seriously transgressed. Despite the most violent and herculean efforts to maintain the classical masculinist body and the bourgeois ecology that it purportedly deserves, grotesque, cavernous logics persist and intrude.

Intrusion, moreover, is multi-directional. Water diversion projects which provide critical sustenance to urban centers simultaneously destroy watersheds in "wild" lands, turning wetlands into drylands and bringing disease and death to forest communities.

Negligence toward wild ecosystems is rooted in the racialized, class-inflected discourse of "unspoiled" nature that facilitates the conservation of recreational "wilderness" and simultaneously bolsters commitments to bourgeois ecologies and extractive property rights (Voyles 2016, 234), as discussed earlier in the context of Elia Apostolopoulou's critique of the U.S.'s national park paradigm. This asymmetrical narration and treatment of nature as a cultural construct leaves forests increasingly vulnerable to catastrophic wildfires. As these fires grow in severity within destabilized ecosystems, they bring escalating traumas to national parks and cities alike. The mudflows here in Santa Barbara county after the 2017 Thomas fire, and the razing of Paradise in the north of the state in 2018, are two of the most salient and horrific examples locally, of how completely and non-negotiably the grotesque and the bourgeois bleed into and fall upon one another. Traumatic cycles are inevitably coextensive across these porous zones.

In the aftermath, as healing and recovery begin, the boundaries can become hardened, like scar tissue or an immobilized joint. But the wounds that are opened can also present opportunities for reaching across and moving into these traumatic points of contact. Engaging sincerely in the experiential knowledges of more-than-human beings constitutes a necessary step in the overturning of genocidal and ecocidal narratives as they are inscribed on colonized lands. By stepping out of the classical body and into the grotesque body, always becoming and always in dialogue, knowledge-building practices can arrive at more nuanced understandings of environmental co-extensiveness and the resonant expressions of trauma, regeneration, and survival that characterize ecologies in recovery. The cultivation of grotesque repertoires can be understood as a cultivation of ways of being and listening in the world that allow for dialogue across perspectival boundaries of species and lifeform.

VII. In Conclusion: Music and Sound in More-Than-Human Discourse

The arch of this paper has drawn from a broad range of scholarly discourses while always returning to the challenge of confronting catastrophic ecological mutation. Earth rights discourse, and its accompanying legal and economic considerations, have been presented in the context of environmental humanities and posthumanities scholarship which makes a parallel call for a radical reassessment of moral and ethical boundaries concerning the more-than-human. Ethnomusicological work has been considered for its contribution to this reassessment project; Allen's four-pillar model of sustainability and his foregrounding of aesthetic value-regimes places musical practice and musical materiality squarely within the matrix of ethical dilemmas surrounding climate change. Jeff Titon's sound commons concept shifts the object of study from music to sound, making a broader argument for the ethical implications of sonic practices, whether considered musical or not. This re-orientation is, to some extent, compatible with Ana Maria Ochoa Gautier's suspicion of music as a concept tethered to colonialist euro-centric ontological frameworks. Disarticulating music as a bounded realm of human performance has been taken up by recent scholarship within ethnomusicology, musicology, acoustic ecology and zoomusicology. Ethnomusicology stands well positioned to make important contributions to deepening posthuman frameworks, particularly given the discipline's intimate familiarity with musical thought and expression as a human activity—as the category of the human becomes destabilized, its essential defining attributes are also called into question.

As has been discussed, the guarded relationship between musicality and humanity figures strongly in the maintenance of nature/culture oppositions. To the extent that musical intentionality is understood as the exclusive domain of the thinking mind of the human

individual, musical discourse is also entangled in notions of discrete individual boundedness, a concept which is also thoroughly critiqued by posthuman and ecofeminist scholars (Alaimo, Haraway, Neimanis, Tsing) who emphasize the fundamentally poly-corporeal textures of life, thought, and expression. Recognition of this poly-corporeality presents new methodological challenges in the field in processes of interpretation. I have found phenomenological approaches potentially promising in their focus on direct, immediate sensual engagement with external and internal materialities and temporalities. Mary Hufford's extension of Merleau-Ponty's work offers a mode of engaging more-than-human beings that does not fall back on notions of discrete, bounded individualism, as is the tendency in animal studies (including zoomusicology). Astrida Neimanis' articulation that "the human is always also more-than-human" (Neimanis 2017, 2) does the crucial work of pulling human-ness *into* environmental discourse. Human beings are always part of a what Haraway calls holoent beings, dynamically unfolding assemblages of co-constituting and inter-animating members.

In the later part of this thesis I drew a connection between the holoent or assemblage-based ontological frames of Haraway's and Tsing's and Hufford's interpretations of the grotesque in order to position holoent beings as possessed of emergent, immanent sensibilities. The collective flesh of sensibility that pervades and constitutes holoent beings is expressed, as I have argued, in grotesque manners. These are expressive modes that challenge the logics of the discrete classical body and emphasize rather the co-extensiveness of lifeforms. Grotesque resonance, from this theoretical frame, is a poly-corporeal ensounding through which the logics, memories, and intentionalities of holoent beings can perhaps be perceived and comprehended.

It seems important to reiterate the implications of Gaia as intrusive event, particularly concerning environmentalist discourse that historically locates Gaia as somewhere outside of the social, especially outside of industrialized social spheres. The directionality implied by the word intrusion seems potentially misleading here in that it reifies an assumption that nature was at some point something "out there" that is now entering into what had previously been a separate realm of society. This intrusive response is furthermore understood logically to be a complex systemic reaction to the meddling of humans in the *external* realm of nature. This divisive logic reifies human exceptionalism and runs counter, in my view, to the crucial work of paradigm shifting to which more-than-human discourse aspires. The harsh lessons of the Anthropocene and the ruination of progress narratives speak rather to the undeniable sameness of wild and urban space and place. Gaia was never absent from the freeway overpass or the high-rise apartment building. While the intrusion that Haraway and other scholars note is materially and conceptually very real, it is an intrusion from within, a short-circuiting of monologic denialism that reveals an always already condition of grotesque co-extension beneath the convenient myth (to return to Neimanis) of the bounded rational Anthropos and "His" built environment.

It is important to acknowledge that, while my chosen field site of a creek bed in the Santa Ynez mountains is located in a space understood to be wild, my intention is not too reify the cordoning off of Gaia in national forests, but rather to disrupt the notion of wild spaces as separate from and irrelevant to urban spaces. Fire, in this case, is an obvious co-constituting material force that is explicitly addressed. Water, specifically the reliance of urban centers on wildland watersheds, also clearly demonstrates the shared-ness and

sameness of urban and wild bodies. There is no condition, no circumstance, in which intrusion is not already the case.

The way in which sound crosses thresholds, moves through and ultimately constitutes matter, makes it a useful thing to think with in this context. Sounds are, in this way, thoroughly grotesque phenomena. They decay through time and space, they propagate and echo, they fracture and split and bleed into one another. Sound waves pervade matter and can even break and reorganize material forms. Life and death are also resonant processes, and the constant crossing back and forth between these material and ontological states does not have a merely abstract or metaphorical relationship with sound but rather an integral and constitutive one. As such, the acoustic realm is one in which grotesque dialogues of becoming are always taking place, and *making* place. These dialogues occur, furthermore, within histories and specific relationships of power. Attending to the grotesque resonances of specific places and entities enables understandings of the resilient strategies and knowledges that emerge in these places and entities. In closing, I will return Linda Nash's observation, discussed earlier in this thesis, that "humanist scholars find themselves struggling to find meaningful ways of incorporating the nonhuman(istic) world—environments, materials, animals—into human stories" (Nash 2017, 403). I want to pose this exploration of grotesque resonance, the acoustics of entanglement, as one possible mode of working toward this incorporation or reintegration. Amongst the diversity of arts of living on this damaged planet, the art of listening provides one means of boundary crossing by attending to the experiences and expressions of diverse forms of life. The specific task that I have identified is, simply put, that of hearing, fully, the lives and deaths of other creatures, and of hearing our own lives and deaths in their expressions. This work is contributive to the more expansive and

urgent project of cultivating actually sustainable futures, moving beyond metaphor and confronting the challenge of sustainability-change (Allen 2019, 44). Taking up this task is one way in which music and sound studies scholars can answer affirmatively Aaron Allen's question on the relevance of musicology to environmental crisis.

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