

(In)Solid Sounds, Ec((h))o Locations:

Towards a Musical Praxis of More-Than-Human Solidarities and Climate Justice Futures

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This dissertation titled
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Abstract

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The climate crisis poses an existential threat to life on this planet and demands immediate action and forms of solidarity. In this dissertation, I explore how music can be leveraged to transform the shape and dynamics of solidarity frameworks in ways that are conducive to multi-species flourishing and modes of solidarity with a more-than-human world. I deploy a critical posthumanist (Braidotti, 2013, 2019) framework to amplify musical praxis as an ethical, affective, extra-linguistic, and “strategically transversal” mode of communicative engagement that opens possibilities for empathy and alliance beyond the particularist-universalist dichotomy that structures familiar but insufficient configurations of belonging—obligation. My central argument is that music can valuably contribute to more-than-human cartographic practices as they are articulated within a critical posthumanist paradigm and activate multi-species “response-abilities” (Haraway, 2016) and practices of care for the more-than-human world, and therefore has an important role to play in the service of climate justice.

Dedication

This dissertation is dedicated to the more-than-human.

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Chapter 1: Introduction

The United Nations hosted its 25th Conference of the Parties (COP25) climate summit in Madrid, Spain in December of 2019. As the summit kicked off, UN secretary-general António Guterres captured the sense of urgency surrounding the event, tweeting:

I expect a clear demonstration of increased #ClimateAction ambition & commitment out of #COP25. Leaders of all countries need to show accountability & responsibility. Anything less would be a betrayal of our entire human family and all generations to come. (Guterres, 2019)

The conference hosted close to 27,000 delegates and became the longest on record when it finished after more than two weeks of charged negotiations (“COP25: Key outcomes”, 2019). By its conclusion, the talks between scientists, business groups, NGO representatives, and other observer groups failed to congeal into a meaningful or binding agreement on global carbon emissions in what was “widely denounced as one of the worst outcomes in a quarter-century of climate negotiations” (Sengupta, 2019, para. 1). Despite this disappointing outcome, the conference was not without its moments of unity.

When Swedish climate activist Greta Thunberg arrived at the COP25 on December 9th, she called for a press conference. After Greta took her place on the dais in the reporter-filled room, a dozen or so indigenous youth activists crossed the stage in front of her as she looked on in silence. The activists joined hands, formed a chain, and began to stomp their feet and sing in unison. Their words reverberated throughout the conference hall: “We’ve got all of our medicine, right here right now. We’ve got all of our medicine, right here right now. Do you feel? Yes, I feel! Do you heal? Yes, I heal! We need all of your attention, right here right now!” The performance was short and

followed by brief statements from a few of the activists, as well as Thunberg herself, who took only one question from the crowd of gathered reporters.

Although this musical moment flew under the radar of mainstream media, I amplify it here as opening, as a flashpoint for curiosity and questions, and as a sign of something more significant than a small disruption in the scheduled programming of the COP 25 conference. Rosenthal and Flacks (2015) suggest music can “reinforce participant’s feeling that the movement is real” (p. 126), and when it travels far, can provide a link to “unknown others” (p. 126) and thus amplify a sense of solidarity and accelerate the trajectories of social change. In this project, I pursue these question how does music contribute to a sense of solidarity and how might it serve this moment in the context of climate justice? If Attali (2014) is correct in his assertion that music is often a harbinger of social change, then I wonder what futures might this emergent musical alliance be telegraphing? And of whom (and what) might these alliances be composed?

Within COP25’s scramble of diplomatic negotiations, policy-wrangling, and global media attention the activists’ demonstration offered something quite different to the negotiation table: *The sound of solidarity*. This departure from scheduled events took what Deleuze and Guattari (1987) might describe as a “line of flight,” or “line of becoming,” which is a movement that represents a deviation, or the emergence of a novel kind of object. Deleuze and Guattari (1987) describe lines of becoming in this way:

[A] line of becoming is not defined by points it connects, or by points that compose it; on the contrary, it passes *between* points, it comes up through the middle, it runs perpendicular to the points first perceived, transversally to the

localizable relation to distant or contiguous points. A point is always a point origin. But a line of becoming has neither beginning or end, departure nor arrival, origin nor destination. (p. 293)

Lines of becoming mark a differential trajectory of forces, and flow in the direction away from existing structures and patterns. Mitigating the most disastrous effects of climate change will require composing such lines of becoming that exit existing structures and ways of being for many on this planet. Music can help accelerate these movements, and redirect thoughts, affects, and behaviors towards different, less familiar, and potentially even strange patterns of living and collectivity. In this project, critical posthuman forms of musical praxis offer modes of more-than-human solidarity in the service of climate justice.

The stakes are too high—and the projected calamities too dire—to not come together in strange and unfamiliar alliances to develop and enact solutions. An estimated half of the world’s species are now in forced migration because of climate change (Peel et al., 2017). And it is not just non-humans being displaced. One report published by the National Academy of Sciences in 2020 estimates that close to 20% of the Earth’s surface could be unlivable within 50 years, a trend that has the potential to forcibly displace between 1 and 3 billion people (Xu et al., 2020). Climate shifts have already begun to accelerate the migration of people in many regions throughout the world, inspiring a recent New York Times headline: “the great climate migration has begun” (Lustgarten,

2020). 8.5 million people have already fled the effects of climate change in Southeast Asia, with an estimated 17-36 million more people facing similar decisions soon.

Thomas Nail (2019) situates these accelerations of movement and forced displacement within broader patterns of circulating materiality, arguing that we are now living in what he has dubbed the *Kinocene* (“kino” = motion; “cene” = era). This concept encompasses and links together multi-species forced migrations to flows of information and capital at hyper-sonic speeds, trans-global circulations of commodity goods, the extraction and dispersal of geological materials such as minerals, ores, and petroleum-based single-use plastics, as well as the overhead swirl of satellites, techno-gadgets, and other detritus launched into—and occasionally falling haphazardly back out of—our skies. And these accelerating flows, Nail notes, have become a positive climate feedback loop under the economic system of capitalism, as the management of borders, bodies, goods, pollution, waste, and other materials become increasingly lucrative industries. Due to forced displacements and accelerating circulations, climate change is increasingly showing up as a problem of placeless-ness, as Latour (2017) states “the migratory crisis has been generalized” (p. 6). Like lint balls tumbling in a clothes dryer, “all species are now caught in the spinning machine of the global economy” (Braidotti, 2013, p. 7). The massive displacements of humans and nonhumans underscore Verlie’s (2022) observation that “climate *is* more-than-human relationality” (p. 8) and so too, I would argue, are the forms of solidarity needed to address this situation.

A shift to more-than-human paradigms is supported by posthuman theory. As the issue of climate change continues to heat, posthumanist theory is gaining traction across a

diverse array of fields. For example, it has been deployed to develop frameworks for ecologically aware organizational development (Gladden, 2018), planet-and multi-species-oriented models of education (Alt & Eberly, 2019; Kruger, 2016; Lindgren & Öhman, 2018), models of climate justice (Verlie, 2022), the development of eco-centered climate change policies (Fox & Alldred, 2020), analysis of “lively” digital health landscapes (Lupton 2019, 2020), and much more. Critical posthumanism (Braidotti, 2023, 2019) is expanding as a theoretical resource in part because its post-dualist frameworks disrupt anthropocentric systems of thought that hold culture as separate and above the affairs of “nature.” The concept of naturecultures (Haraway, 2003) perforates this divide and enables a generative mingling of matters, forces, affects, and strategies for attending to and addressing the conditions for mutual flourishing on a shared planet.

These strategies including theorizing the place of technology in ecology, and responsibly tapping the technological through lines that connect ecological imaginations to social transformations. Creative reconfigurations of belonging and care are proposed where Braidotti (2013, 2019) promotes “experiments with intensity” that rupture the illusions of isolation, deepen capacities for “response-ability,” (Haraway, 2016). These interventions affirm and catalyze the composition of transversal connections, or those relations created and cared for with more-than-human alterities through open, affective, and ethical engagements (Braidotti, 2013). I hear the calls to broaden and defend more-than-human alliances coming from within critical posthumanist theory as resonant with the solidarizing capacities of musical techniques and technologies, and I set out here to theorize how music can actualize this potential.

This project unfurls across two central arguments. First, I argue that critical posthumanism intervenes in dominant frameworks of solidarity by intervening in notions of belonging, obligation, and duty, an intervention that productively mutates circumstances of “we” beyond a modernist—postmodernist binary. These philosophical traditions are not so much as disposed of as they are composted, upcycled, and reassembled differently through ethical, emergent, and communicative modes of more-than-human relations. Second, I argue that music can help engender these (re)configurations of solidarity and negotiate the dynamics of inclusion and exclusion that constrain more-than-human enactments of obligation and duty. How we understand, prioritize, and fulfill our obligations to self and planetary others directly implicates the possibilities of mitigating the effects of climate change and stabilizing the conditions for multi-species flourishing. Compos(t)ing solidaristic circumstances of belonging capable of responding to this moment asks us to seriously consider: Who is “we”? Music can help here. A substantial amount of scholarship has been produced that extols the capacities of music to bring diverse bodies together in defense of a cause, which suggests that it can perform some of the difficult boundary work involved in the negotiation of more-than-human solidaristic relations.

I hear these capacities of music working in powerful symbiosis with the more-than-human agents and ethics promoted by critical posthumanism. In the weaving together of diverse theoretical voices and disciplinary fields, my project is experimental in nature, and takes a “line of flight” that moves through, between, and beyond extant discourses on the subjects of solidarity, music, and the more-than-human. This

experimental admixture is intended to produce different intensities and resonances that transpose existing conceptualizations of solidarity into critical posthuman registers, while proposing ways they might be engendered through musical practices, techniques, and technologies. In the sketching of this proposed theoretical framework, I de/recompose solidarity through the terms of critical posthumanism (Braidotti, 2013, 2019) as a means of attuning musical practices to the tasks of caring for and standing with threatened entities and systems of life that constitute an imperiled more-than-human planet.

Strategic Transversalism

I argue that music can contribute to the formation of more-than-human solidarities as a mode of *strategic transversalism*. Transversalism is the principle and process of composing lines of flight. It is a way of both understanding and disrupting hegemonic flows, processes of organization, and subject formation through the introduction of unfamiliar and innovative principles, ideas, or actions. Guattari (1995) frames transversalism as a sort of technology of social and political transformation, one that unsettles established patterns and creates new, but unfinished connections, relationships and assemblages along its path. Channeling Guattari, Tinnel (2012) presents transversality as “a radically ecological concept in that it pushes us to constantly (re)articulate things at the relational level of their interactions” (p. 37). Transversalism is rooted in the principles of respect for standpoints and difference, but also openness to transformation and the development of collaborative knowledge (Hosseini, 2015; Tinnel, 2012; Massey, 1999; Yuval-Davis, 1999). For Braidotti, transversality is both a way of understanding the posthuman subject as a composite of emergent relations and

connections, and a grounded location from which subjects can act in relational capacities in and on the world. Strategic transversalism thus enacts “a praxis of composing ‘we, a people’, through alliances, transversal connections and in engaging in difficult conversations on what troubles us” (Braidotti, 2013, p. 29). Approaching solidarities under this rubric entails commitments to communication, openness, and change as ethical ideals.

I position *strategic transversalism*, and its emphasis on relationality, in contrast to *strategic essentialism* (Spivak, 1996), which constructs cohesion through the amplification of perceived essential and unchanging characteristics or group markers, and *strategic universalism* (Tsing, 2011), which seeks cohesion through the instrumentalization of appeals to universal values, categories, or metaphysical essences. Massey (1999) notes, “transversal politics is an attempt to find a way of doing things which is neither the imposition *of* a single universal which refuses to recognize that there really are 'differences', nor the retreat into those differences as tightly bound, exclusivist and essentialist identities” (p. 7). By sidestepping both culturally homogenizing and culturally erasing techniques, strategic transversalism cuts across the grain of the strategic universalism/strategic essentialism continuum and opens the door collaborative lines of flight and relational unfoldment.

In physics, transversal waves are those that move perpendicular to a traveling line of energy or force. Examples of a transversal wave include the vibration of a guitar string, the resonating of a struck drumhead, or the rolling passage of an ocean’s wave. Energy, resonance, and vibration is in part the product of transversal displacements of

energy, which can travel on to affect other bodies and spaces. In this project, I approach music in terms of *strategic transversalism*, as a more-than-human technology that creates openings out of existing, patterned, and sedimented ways of being in the world and carries the vibration of creative energies towards new horizons of understanding, resonance, and ethical attendance to ecosocial relations. I read the musical activism at COP26 as a transversal event, one that broke the bureaucratic frame that tends to hog the spotlight and dominate climate conversation with an alternative vision and sound of what recuperation of the more-than-human world could look and sound like. Transversal practices can facilitate and encourage the leave-taking of existing assemblages of despair, and the inauguration of emergent assemblages of care. This power is at the heart of music's material, affective, affirmative, and enthymematic capacities, which provide inducements to give-with and across channels of ontological co-becoming. For this reason, I believe music can be leveraged to transform the shape and dynamics of solidarity frameworks to address the exigencies of the posthuman era, and usher in practices conducive to multi-species flourishing and modes of solidarity with a more-than-human world. How the meanings of solidarity continue to be understood and applied can align political actions and orient attention to critical issues in everyday spaces.

Posthumanizing Frameworks of Solidarity

Tracking solidarity as a theoretical concept is not an easy, clear, or linear endeavor. Its documented uses are varied, widely debated, and continually mutating. Adding to the confusion here is the fact that solidarity, as a political catch word, has been overused and significantly diluted (Scholz, 2008). Yet, its continued circulation is an

indication that it retains some value as an organizing concept, both in the context of specific struggles and in the greater discursive scheme of things. Solidarity movements can significantly impact the gains made by marginalized, disempowered, and aggrieved groups (Scholz, 2008). Importantly, solidarities can affect important changes on the level of policymaking and within broader evolving moral, political, and legal frameworks. In short, how solidarities are theorized, articulated, and enacted *matters*.

In his book *World-Systems Analysis*, for example, Wallerstein (2004) notes that “(f)ar from dying out, [solidarities] are actually growing in importance as the logic of a capitalist system unfolds further and consumes us more and more intensely” (p. 36). Distraction, social division, and the fracturing of political movements are some of the strategies by which an elite class of corporate and political actors—which Latour (2017) has called the New Climatic Regime—undermine unity and further their profitable schemes. The continued exploitation of the planet “depends entirely on the requirements of maintaining utter indifference to the New Climatic Regime while dissolving all forms of solidarity, both external (among nations) and internal (among classes)” (Latour, 2017, p. 36). Advances in communication technology in the last three decades have expanded capacities for both engendering solidarity and mobilizing solidaristic movements on both massive and micro scales (Castells, 2015; Hardt and Negri, 2000). The George Floyd protests, for example, rapidly mushroomed into a show of global solidarity with the help of the Black Lives Matter movement (which started as a hashtag), and the capture of the brutal police lynching on a personal mobile phone. These observations shed light on

continued relevance and potential of solidarity as a topic of study within the accelerating political, ecological, and technological vicissitudes of the climate crises.

Although its etymological roots can be traced back to Roman law, the concept of solidarity did not begin to acquire its contemporary political connotations of a shared liability or “debt” (“obligatio in solidum”) until the French Revolution, when early socialist thinkers such as Pierre Leroux and Charles Fourier deployed it in the context of an emerging democratic socialist people’s movement (Wildt, 1999). Solidarity was later theorized in the writing of sociologist Emile Durkheim (2013) to try and account for the processes of modernization and their affects on “traditional” sources of social cohesion, such as familial structures, bonds of kinship, perceptions of similarity, and shared social rituals. Karl Marx and Friedrich Engels (1967) later distilled the concept of solidarity into an ideological framework for international proletariat class unity with the intention of alleviating collective alienation, binding workers in struggle against the bourgeoisie class, and reclaiming both the fruits of one’s labor as well as the means to produce those fruits. Max Weber (1946), while acknowledging the influence of economic factors in social cohesion argued that shared experiences of economic disenfranchisement does not automatically translate into a sense of community or togetherness. Instead, solidarity must be construed through the lens of complex social markers and perceptions, such as those based on honor and status as they are afforded through social rituals, political party affiliations, and other complex factors.

While the term “solidarity” retains many of the associations of labor and socialist movements of the early and mid-twentieth century (Sholz, 2008), it has been utilized in a

myriad of ways since then. These forms, while diverse and uniquely situated, can be classified according to a few criteria. A common feature across the many forms of “solidarity” in use today, Sholz (2008) argues, is the assumption of positive and/or negative moral obligations between individuals or groups, therefore, “the different forms or species of solidarity can be differentiated according to their varying moral priorities and constituent relations” (p. 19). Using these criteria, Bayertz (1999) organizes contemporary uses of solidarity into four main categories: a) civic/national solidarity, b) social solidarity, c) human/moral solidarity, and d) political/liberationist solidarity. Each of these categories offers an opportunity to theorize the shape and sound of musical more-than-human interventions.

Civic/national solidarities link moral obligation to the values of citizenship, civic duty, and/or shared identifications with a national identity. This type of solidarity is premised upon the existence of a state-sponsored social welfare system, which Rousseau’s (2018) “social contract” aims to do. *Social solidarities* develop within familial systems, kin relations, and other communities and are premised on feelings of mutuality, reciprocity, or a rational self-interest in the “common benefit” of maintaining cooperative relationships between actors in a social milieu. *Human/moral solidarities* are those founded on a moral obligation to the universal ideal of a shared “humanity.” This notion of solidarity guides the work of international organizations such as the U.N. and various other forms of cosmopolitan governance undergirding the work of transnational human rights groups and many religious organizations. Lastly, *political solidarities* are those that consolidate actors around a particular goal, action, or resistance to a shared

enemy. These types of solidarities are often oppositional in nature and while they can be limited in their aims, they have the potential to unite a diversity of people behind shared struggles for “liberation” or “justice” in some form or another. Bayertz’s typography is useful in its explication of how solidarities “work” and who they may (or may not) work for or include. A question that an emerging posthuman era forces us to ask is, how might more-than-human solidarities fit into, widen, and flourish within the cracks of this schematic?

How the notion of solidarity might materially serve more-than-human networks and webs of interdependency in political contexts is a topic of growing interest among posthumanist theorists. Calls for the development of more-than-human solidarities have grown louder and taken many different forms, including Haraway’s (2003, 2016) manifesto for “companion species” partnerships and “odd-kin” coalitions, Braidotti’s (2013) appeals for “transversal” multispecies alliances, Latour’s (2018) pleas for “Earth Solidarities,” and Morton’s (2019) bid for “solidarity with nonhuman people.” These conceptual propositions push the limits of human imagination and empathy in the direction of a more-than-human imaginary expanding the circumferences of belonging, obligation, as well as cultural norms regarding action taken on behalf of members of solidaristic groups. I take inspiration from these interventions while acknowledging the need to theorize more deeply the modes of their actualization, which do not materialize easily or without major practical and philosophical hurdles.

Why “More-Than-Human”?

The idea of a “more-than-human” world conjures a mix of anxiety and possibility. This can be seen throughout the diverse ways the term has been used in the popular and scholarly discourse over the years in the world of speculative science fiction (Sturgeon, 1953), debates regarding the ethics of human enhancement (Fukuyama, 2002; McKibbin, 2003; Naam, 2005), efforts to empower notions of collective flourishing care through the re-enchantment of the material world (Abrams, 1996; de La Bellacasa, 2017; Jaque, Verzier & Pietroiusti, 2021), interspecies modes of research and learning (Bastian, Jones, Moore, & Roe, 2016), debates regarding the political agency of nonhumans (Scholz, 2013), discussions of autism (Manning, 2013), social movement theory (Papadopoulos, 2018), frameworks of climate change activism (Verlie, 2022), and more. The “more-than-human” has emerged forcefully as a paradigm of research in the last two decades within posthumanist and new materialist schools of thought. My own thinking around the more-than-human borrows insights from an assortment of posthuman and new materialist scholars, namely Rosi Braidotti, Donna Haraway, and Karad Barad, as well as Brian Massumi and his translations of Deleuze and Guattari, and the foundational materialist philosophies of Baruch Spinoza, whose ideas have drawn attention to more-than-human worlds in different but related ways. Accelerating popular and scholarly interests in a more-than-human conceptual framework signals an ongoing desire to theorize and disrupt the nature/culture binary that has inhibited attention to and care for the ecological assemblages we “humans” are a part of.

In my efforts to theorize solidarities beyond familiar, anthropocentric circumstances, I am drawn to the “more-than-human” conceptual framework, which suggests the ways the category of the human is destabilized across constellations of human/nonhumans linkages that contribute to the vitality of life. More-than-human solidarities are suggestive of the ways the human species benefits from, and depends on these practical inclusions, as well as the philosophical shifts that prioritize and lift complex species entanglements above the needs of the human alone. These entanglements are thus “more-than,” and intervene in the atomized “ego” with notions of an expansive “eco.” Leveraging the heuristic capacity of this concept, I use “more-than-human” in a multiplicity of ways including biological, technological, philosophical, and political applications of the term.

The biological perspective simultaneously references the so-called “human” as well as beings held as taxonomically distinct from the human species. This perspective draws attention to material species interdependencies, and the biological fact that any distinct species is a symbiotic composite of many organisms, or “holobionts,” sometimes numbering in the millions (Gilbert, 2017). As Haraway (2014) observes, “we have never been individuals” (p. xx). The symbiotic nature of existence is found across nearly every dimension of biological being and process, including the anatomical, genetic, immunological, and physiological, developmental, and evolutionary levels. The organismic interdependences made and remade in nature shatter the myth of human individualism inherited from Enlightenment thought (Haraway, 2016), while their fragilities highlight both their volatility and the cost of their neglect. From a biological

perspective, the “human” is always already more-than itself, a fact that “we” so-called humans ignore at our own peril.

“More-than-human” is used in a technological sense to acknowledge the ways in which humans are fundamentally technological beings and have both used and co-evolved with technology to expand their capacities as humans in differing environments (Steigler, 1998). A natureculture perspective holds the organic and the technological in creative tension, while interrogating the effects of their minglings and coalescences. The valences surrounding the human relationship with technology can polarize, which means “the posthuman is usually coated in anxiety about the excesses of technological intervention and the threat of climate change, or by elation about the potential for human enhancement” (Braidotti, 2013, p. 57). Yet technologies, and the deep ambivalences it provokes, are here to stay. Ignoring or running away from this situation is both irresponsible and creates a power vacuum that ensures technology creep will run rampant and unchecked. Posthumanist theorists grapple with this conundrum in different ways, but their engagements with the technological question facilitates understandings regarding both its dangers and possibilities.

The technological dimension of the more-than-human concept amplifies and engages a list of paradoxes and ethical concerns. Technology is both integral to everyday human life and is significantly mutating the boundaries of human (and all) life itself; technology increases communication capacities enabling the (in)formation of a global village (McLuhan & Powers, 1989) while the manufacturing of digital electronics pollutes the planet with mountains of e-waste; technology offers breakthroughs in health

and science while quickly lubricating the pathway to their commodification and abuse; technology extends the capacities and reach of capitalist imperialism and surveillance as well as the proliferation of grass roots resistances and tactics to navigate it. These paradoxes and possibilities are extended to musical technologies as well. Music's perceived goodness, purity, and capacity to emancipate the human spirit is undercut by its uses to control and anesthetize publics (Rickert, 2013) and the harmful material impacts on environmental and human health linked to the industries and historical processes of musical production (Devine, 2019).

Yet, the explosion of media and social networks has accelerated the circulations and reverberations of musical effects, boosting the capacity of music as an “affective technology” or “a craft, an art, a skill, a way of doing or making something—that induces a particular affective response or constellation of responses” (Orbaugh, 2015, p. 88). Engaging with the technological paradoxes of a more-than-human framework amplifies the ways musical techniques and technologies link bodies together through affective inducements into larger socio-technological assemblages, and helps us to attend to *technicities* (Mackenzie, 2002)—or the ontological categories that entangle the human with the technological—and the cascading effects of these linkages as they are folded into the currents of social change. Invited or not, the promises and perils of technology impinge on perspectives of the “human” as pure, autonomous, or untangled from questions of technological futures.

“More-than-human” is used in the philosophical sense to emphasize a relational and process ontology, and modes of embodiment as they unfold across a diversity of

assemblages and networks and further destabilize the notion of an autonomous and unitary “human.” The task of redefining the “human” that stands as a central theme in posthuman conversations invites more-than-human ways of thinking, feeling, and communicating that amplify the intertwined, post-dualist configurations of being, belonging, and becoming, where becoming is always a process of “becoming-with” (Haraway, 2016). For Massumi (2014), to be more-than-human is to be “mutually included in the integral animal continuum as it follows its natural path in the direction of its *immanent* self-surpassing” (pp. 92-93). The notion of immanence indexes the always already embedded nature of assemblages within assemblages and the possibilities of rupture and deviance from these structures through experimental practices. These experiments consider deconstructed alongside emerging (re)definitions of the “human,” as well as methods of holding in tension the organic and the technological in ways that render intelligible and empowering the resonances of a fleshy, yet technologically networked posthuman world. My philosophical use of “more-than-human” is intended to link this project to a growing chorus of voices that are thinking through and developing strategies to address the phenomenon of ecological collapse through the “arts of living on a damaged planet” (Tsing et al., 2017). Thinking across these complexities augments the “response-ability” (Haraway, 2016) of intellectual, scientific, and artistic communities and the fluid, technologically mediated murmurations of multispecies-minded activists.

“More-than-human” is also used in a political sense. As the interdependencies of living systems come into sharper focus, so to do linkages of oppression and injustice wrought on all entities within exploited and exploiting systems. My use of “more-than-

human” is thus also a political decision that acknowledges these systems and seeks to intervene in their operation. “More-than-human” also disrupts binary perspectives that the term “non-human” can reinforce. Papadopoulos (2018) remarks that “the universalism and reductionism of the category ‘nonhuman’ may be even more dubious than traditional humanist categorizations because it can easily be presented as a progressive move to include the hitherto expunged nonhuman others into human business” (p. 95). The relational ontology of posthuman thought (Braidotti, 2013) does not seek incorporations of nonhumans into a human sphere of concern, nor does it seek to extend moral frameworks into the domain of the nonhuman. Rather it highlights the spillages and always already shared nature of political decisions and realities across a spectrum of more-than-human relations. The nature of these transversal entanglements interrupts familiar anthropocentric images and soundscapes of political practices, and opens out political agency to an array of “more-than-human” actors. A “more-than-human” approach to politics also acknowledges certain inevitable contaminations and complicities and questions notions of purity and retreats into cultural enclaves (Shotwell, 2016), which can undermine and weaken possibilities for both human and more-than-human solidarities.

A more-than-human approach maps the political contours of these ontological contaminations and queerings in terms of a “transcorporeality” and collaborative survivalism amidst the effluvia and toxins of capitalistic forces that now permeate all bodies (Alaimo, 2016). In the face of these dangers, more-than-human solidarities establish and affirm transversal relationships through experimental practice (Braidotti,

2013; Papadopoulos, 2018) and forms ethical communication and posthuman knowledge construction (Braidotti, 2019), that imagine and enable the emergence of new political subjectivities and radically inter-subjective more-than-human alliances. It is my belief that a transversal, more-than-human approach has implications for how musical practices and technologies are understood and approached by inducing all musickers to play more imaginatively and listen multidirectionally for the kinds of musical assemblages “we” are becoming and collective actions that “we” are capable of. Haraway (2016) summarizes this idea nicely, observing, “A common livable world must be composed, bit by bit, or not at all” (p. 40)

Music and/as More-Than-Human Material Assemblage

Posthumanist theory opens new ways of understanding ancient and evolving human/nonhuman interdependencies. One way to further the development of this theoretical philosophical terrain “in the making” (Ferrando, 2019) entails the disruption of anthropocentric representations that permeate existing discourses to re-entangle notions of an autonomous and unitary subject in the threads of vital human-nonhuman-more-than-human entanglement. Musical practices and technologies, I argue, offer a plethora of pathways toward these types of (re)entanglements.

As an object of study, music presents many challenges. Attempts to define music run immediately into two challenges from the vantage point of a *posthumanizing* discourse: ethnocentrism—or the privileging of culturally dominant definitions of what “qualifies” as music—and speciescentrism—or the anthropocentric assumptions that operate within and reinforce notions of human exceptionalism. As Higgins (2012) notes,

crafting one-size-fits-all definitions of music in a culturally incontinent world is tough: “(m)usic sufficiently different from what a person understands as paradigm does not sound to that person like music” (p. 20). While definitions of music can vary culturally, disciplinarily, and philosophically, two dominant patterns stand out in debates.

One camp defines music through a modernist mold, wherein it is understood to reflect universal principles and metaphysical ideals. This camp, while in decline, continues to be represented most saliently by the philosophy of Western music, which favors definitions linked to Platonic principles of aesthetics and rationalism over locally produced meanings found in culturally situated contexts (Kivy, 1983). A second camp defines music through a postmodernist lens, which embraces a relativist view of musical meanings as contingent, culturally bound, and historically situated. Most contemporary ethnomusicologists have adopted this latter perspective, which avoids Eurocentric definitions and guards notions of musical difference to a such a degree that it has made taboo any discussion of musical “universals.” Gioia (2019) has referred to this protectively “particularist” position in terms of a “bunker mentality” (p. 39). This tension—between universalist and particularist camps—indexes broader debates regarding identity, “authenticity,” and ontological “essences,” a tension that also runs through theorizations of solidaristic frameworks.

Ultimately, words are inadequate tools for the job of explaining or capturing the extra-linguistic capacities of music. Trying to understand the phenomenon of music through textual forms is a bit like trying to understand the living secrets of amphibians through the dissection of dead frogs (must we extinguish the objects of our fascination?).

They can help us to get at what it is music does, but words cannot necessarily *do* what music does, and the critical analysis of music is all too often a poor substitute for the embodied experience of it. Derrida learned this the hard way in front of a French audience in 1997 while opening for free-jazz pioneer Ornette Coleman. Derrida's spoken word performance, which involved reading from a pre-typed script that drew abstract parallels between Coleman's music and the postmodernist deconstructive turn, was ended prematurely when he was booed off the stage (Lane, 2013). Derrida's intellectualization, in other words, dead-frogged Coleman's music. (I face a similar risk in this project).

Yet, while Derrida's performance landed flat (and may have momentarily weakened his fellow French national's *solidarity* with him), he and other postmodernist's work represent an important theoretical antecedent in critical posthumanism's genealogy. I open the chest cavity of this point further below. While acknowledging a few of the limitations of and dangers of language, I place a few (very permeable) parameters around the concept of "music" to begin a posthumanist deterritorialization of the subject. The post-dualist lens that critical posthuman advances powerfully implicates the relationality and solidifying capacities of music.

I orient music towards posthuman terms of emergence, process, and hybridization. Embracing a process ontology engenders understanding of music's capacities in transversal terms, as an affective and emergent force moving in speeds and trajectories that intra-act with, but exceed the constructs imposed on it. Taking this route enables me to blur and constellate multiple "middle-of-the-road" definitions of music that

exceed notions of cultural or metaphysical essences and to resist the universalist/particularist duality that can pre-ordain the study of music.

Posthumanist cosmologies promote and flourish within this kind of strategic transversalism, which produces lines of flight from established and familiar categories. Wolfe (2010) refers to this approach as “openness from closure,” or a receptivity to emergent forms of knowledge and knowing that challenge disciplines to “change and evolve if they want to remain resonant with their changing environment” (p. 117). An “openness from closure” approach can also help to decolonize musical understandings and to avoid falling into problematic dichotomies such as “new/traditional” or “modern/primitive” music, by making what Ingle (2016) has described as “a conscious decision to move away from an ‘either/or,’ ‘colonial’ mentality to a ‘both/and,’ ‘decolonized’ mentality” (para. 6). As such, critical posthumanist knowledge practices forge conceptual linkages across disciplinary boundaries as part of a broader ethical commitment to multiplicity, plurivocality, and diverse ways of knowing the world.

The tension between modernist and postmodernist approaches to defining music echoes a philosophical fault line that runs through conceptualizations of solidarity. As such, conversations regarding the ontological relationship between particular cultural identities and universal moral obligations run parallel to discussions regarding the reinforcement and policing of boundaries that cultural expression can perform, and the inclusion/exclusion criteria within those boundaries. I view both critical posthumanism and musical practices as a means of negotiating, inhabiting differently, and potentially diverging from this tension between modernist and postmodernist orientations. This

coupling deepens my capacity to attune to and trace the phenomenon of musical mutation and undergirds my desire to mangle their overlaps within a framework of more-than-human musical praxis.

With this freedom to transversally flow, I draw inspiration from different sources and definitions to (re/de)territorialize the subject of music and render sympathetic resonances with a critical posthumanist framework. Pushing back on anthropocentric and humanistic assumptions, I turn to Blacking's (1973) study *How Musical is Man?*, which challenges classical, Western-centric musical models through an exploration of complex musical forms and rituals found in African societies, offering a broad definition of music as "human organized sound," adding also "sounds produced by other species that we can hear as organized" (p. 10). Importantly, Blacking's definition flattens hierarchal cultural assumptions that plagued early ethnomusicological research and opens a space for thinking about music along a more fluid spectrum that resonates across Haraway's (1991) natureculture continuum.

I also draw from Christopher Small's (1998) emphasis on music as a relational practice by invoking his concept of *musicking*. Music contributes to processes of becoming for the self, community, and collectives large and intimate. Small (1998), taking inspiration from anthropologist Gregory Bateson, developed the concept of musicking to describe the practice of playing music as a process of knowing, building, and being in ethical relation to others and to the world. Musicking brings into existence:

a set of relationships that model the relationships of our world, not as they are but as we wish them to be, and if through musicking we learn about and explore those

relationships, we affirm them to ourselves and anyone else who may be paying attention, and we celebrate them, then musicking is in fact a way of knowing our world—not that pre-given physical world, divorced from human experience, that modern science claims to know but the experiential world of relationships in all its complexity—and in knowing it, we learn how to live well in it” (p. 50)

Musicking, thus, emerges out of the intersection of creative processes, relationships, organized sounds, and ethics. The gerund form (blurring boundaries of verb and noun) draws attention to music making as a process that implicates and constitutes relational networks by including a wide array of musical and extra-musical practices, including participation “in any capacity in a musical performance, whether by performing, by listening, by rehearsing or practicing, by providing material for performance (what is called composition), or by dancing” (p. 9). Musicking is thus an invitational space, a participatory and experimental space, where intensive processes of becoming-with are enjoined within a wider scope of personal and shared ideals, and emergent desires regarding a world-to-be.

I do not suspect Small had in mind the construction of a post- or more-than-human world. His valorizations of “human experience” in “all of its complexity” over the world of scientific understanding seems to exclude science as a facet of human complexity and deepens a devotion to a world that is cut in the shape of human experience. Yet there are valuable things working here in the concept of musicking that can be carried over into a musical praxis of more-than-human solidarity.

By drawing attention to vernacular forms of music as an object of serious scholarly attention, Sharp (2000) suggests that Small's approach ruptures at least one layer of humanist assumptions by questioning the canonization and privileged status of Western classical music. Further, musicking puts the object of music into motion: it is less an object to be fetishized, frozen in time, and endlessly analyzed to reinforce notions of humanity's transcendence over the forces of nature, Man's union with God, and so on. Small's musicking also links micro-processes of creative collaboration to the goal of positive transformation: it is interventional, a practice of care, and a practice of worlding, and it is ecological in its implications and potential, even if not its ultimate telos. Lastly, the concept of musicking references a complex of overlapping phenomena, including dancing, listening, rehearsing, recording, and multiple other facets of active musical experience, which resonates within a posthumanist understanding of phenomena as multifaceted assemblages of material practices, processes, and ethical social relations.

Tomlinson (2021) has found the term "musicking" valuable as a mode of theorizing musical practices in posthuman registers, which holds music as "a broad communicative stream in the biosphere that encounters much more than the human alone, a *parastream* that will further some aims of the posthumanist project" (p. 72). I, following Tomlinson, adopt and transpose the concept of musicking into more-than-human registers to carry forward the notion of music as processual, ethical, and complexly layered relational practice, that has the capacity to impact and touch all ecosocial bodies.

Feld (1984) reinforces Small's ideas by referring to music's "extra-musical reality" pointing to the "mental and material, code and message, individual and social, formal and expressive" (p. 7) dimensions of music that always exceed and spill beyond any attempts to reduce, isolate, or contain them. In other words, the discourse, dialogue, and meaning-making those musical phenomena inspire is a critical extension of music and its extra-musical effects (Feld & Fox, 1994). Born and Hesmondhalgh (2000) have argued similarly that music presents layers of "multitextuality" and "irreducible complexity" that resonate unpredictably at the intersection of sound, technology, socio-cultural relations, and socio-economic institutions. Every musical and musically related event presents an entanglement of multiple overlapping temporalities, histories, and embodied relations, Sterne (2003) observes, adding that "to understand even the simplest sonic or musical practice we have to open it out into the social and material world from which it comes" (p. 338).

These complexities, rather than overwhelm the goal of this project, serve as evidence of the complex networks and linkages that attract and compel a posthumanist enquiry. Thus, I "open out" this study to the exploration of what Born (2010) has termed "musical assemblages," or the "series or network of relations between musical sounds, human and other subjects, practices, performances, cosmologies, discourses and representations, technologies, spaces, and social relations" (p. 88). This view of music as an assemblage of multiple overlapping and interacting phenomena harmonizes well with a project exploring the capacities of music to reinforce a posthumanist imaginary of multi-species interdependency and obligation.

This Project's Method(s): Zigzagging, Diffraction, and Musical Nomad

Consonant with its central project of redefining the “human,” posthuman methodologies work to disrupt anthropocentric habits of thinking, feeling, knowing, and being in the world: they utilize leaps, sudden departures, and shifts in scale and vantage point. The uprooting and conceptual clear-cutting that this approach entails makes room for the emergence of new associations, inquisitive shoots, and conceptual regrowth. It is worthwhile to imagine that ways this kind of conceptual deforestation of old thinking might begin to offset and reverse the loss of actual old-growth forests.

In Ferrando's (2019) assessment, posthuman methodologies should be “dynamic and shifting, engaging in pluralistic epistemological accounts to pursue more extensive perspectives, in tune with a posthuman ontology which radically challenges the taxonomical borders of ‘life’” (p. 111). To critically engage perspectives across interdisciplinary fields of scholarship, I bridge together the posthuman methodologies of *nomadic thought* (Braidotti, 2006, 2014; Deleuze and Guattari, 1987) and *diffractive reading* (Barad, 2003, 2007). I situate these approaches within proximity to the post-qualitative turn (Lather & St. Pierre, 2013; St. Pierre, 2014), which avoids “methodological enclosure” through conceptual experimentation and writing as a legitimate form of inquiry.

Nomadic thought, as the name suggests, does not sit still. Following Deleuze and Guattari (1987), Braidotti (2017) promotes nomadic thinking and writing as practice of *defamiliarization* that provokes epistemic ruptures to challenge states of inertia and move “beyond the paralyzing effects of suspicion and pain” (p. 134) that limit certain traditions

of critical theory. This approach promotes a theoretical weaving and bobbing—or *zigzagging*, as Braidotti refers to it—to promote cross-fertilizations of scientific, cultural, and artistically grounded knowledge practices. Defamiliarization (or *detrterritorialization* in the language of Deleuze), offers “critical distance from the dominant visions of the subject” and “familiar habits of thought and representation in order to pave the way for creative alternatives” (Braidotti, 2013, pg. 88-89) that “collectively empower alternative becomings” (Braidotti, 2017, p. 54). Epistemological zigzaggerers transgress disciplinary lines by interweaving the arts with the sciences for example—or by integrating insights from the areas of indigenous cosmology, telecommunications, media studies, information and biotechnology, and so on. Deterritorialization enacts the principles of transversalism, which aims to produce “new universes of reference” through the “engendering of an existential territory and self-transportation beyond it” (Genosko, 2002, p. 55). Nomadism, therefore, foregrounds the genesis of new signifiers and shifts the terms of conversations.

My own efforts to compose a framework of more-than-human musical solidarities gathers conceptual insight from a multitude of established and emerging fields of study and theoretical schools. While critical posthumanism (Braidotti, 2013, 2019) constitutes my primary “lens,” I traverse the fields of anthropology, political science, social movement theory, postmodernism, poststructuralism, pragmatism, cultural studies, media studies, sound studies, ethnomusicology, ecomusicology, deep ecology, ecofeminism, post/decolonial theory, and beyond. I subscribe deeply to the notion that if we fail to disrupt the siloed ways of thinking and attending to the world that disciplinary boundaries hold in place, Barad (2003) notes, “we will miss all the crucial intra-actions among these

forces that fly in the face of any specific set of disciplinary concerns” (p. 810). As the threats and realities of climate change bear down on our planet, the stakes are too high to hole up into our disciplinary camps and narrow alleyways of specialization.

Critics have questioned whether nomadism produces anything “new,” and whether deterritorialization offers a route to “more-than-human” ways of knowing in the world. Clifford (1992) hastens to differentiate “travelling cultures”—which references modes of displacement and migration among diasporic peoples—from nomadology, which he characterized as a form of “postmodern primitivism.” This delineation underscores differences between diasporic people who have been historically forced from their ancestral land and those who freely choose to wander and borrow piecemeal from the disciplinary fields in the name of “deconstructing” master narratives. It is an important distinction, and one that has resonated with Indigenous scholarship. Bignal and Rignet (2019) observe:

historically speaking, deterritorialization is far less an Indigenous strategy of resistance against the formation of a state, than it is an imperial technique used in the dispossession of Indigenous peoples by claiming that their homelands are ‘terra nullius’, owned by nobody and free for the taking. It is not clear to us what a valorization of deterritorialization implies for an ethical response to actual colonial histories of Indigenous dispossession and forced transit. (p. 174)

Understandably, it can be difficult to discern epistemological shifts from obfuscation when following in the meandering pathways of zigzagging nomads. Such maneuvers can also begin to look like an evasion of certain ethical responsibilities where the figure of

the nomad seeks escape from the exact kind of accountability feminist theory and indigenous ontology demands (Wuthnow, 2002).

But it could be argued that whether nomadism and deterritorialization reasserts an imperial logic of displacement or not depends on how it is deployed and the relationships it (dis)assembles in its wake. This argument seems to hold water with Bignal and Rignet (2019) who recognize Braidotti as a posthumanist theorist who at least attempts to avoid the dangers of epistemic displacement and theoretical colonization, and thus sets a good example for the production of a “nonimperial posthumanism.”

For Braidotti (2013), nomadic thought and defamiliarization offer a mode of unsticking critical from its despairing refrains to generate affirmative assemblages of theorization and practice. I hear parallels between the aims of nomadic thought and the capacities of a musical praxis where these perspectival shifts are explained in musical terms, as a:

cartographic move, which aligns theoretically diverse positions along the same axis to facilitate the transposition of the respective political affects that activate them. . . . like a musical variation that leaps across scales and compositions to find a pitch or shared level of intensity. (Braidotti, 2006, p. 177)

As mentioned, I read the musical activism at the COP25 conference (described in the opening) as an example of this kind of “defamiliarization,” as an invitation to reorient habituated individualistic, nationalistic, and neoliberal modes of thinking, feeling, and orienting to the issue of climate change. These types of transpositions represent the potential of “experiments with intensity,” a set of epistemological techniques driven by

“efforts geared to creating possible futures, by mobilizing resources and visions that have been left untapped and by actualizing them in daily practices of interconnection with others” (Braidotti, 2013, p. 191).

As the posthuman convergence continues to push us deeper into unfamiliar terrain, fostering interdisciplinary dialogues and ruptures is crucial to the development of intellectual and creative communities needed to address the complexity of issues ahead. Tsing et al.’s (2017) work is suggestive of the benefits that could come from bridging ecological research with musical sensibilities where they observe, “(l)andscapes enact more-than-human rhythms. To follow these rhythms, we need new histories and descriptions, crossing the sciences and humanities” (G12). Generative dialogues and broader mobilizations around the issue of climate change are supported through the embodied epistemological approaches that interdisciplinary nomadic movements produce, as well as through the creative, affirmative, and critically accountable methodologies of translation/transposition that become available.

The second component to my methodological approach is *diffraction*. Diffraction makes accounts of *the effects* of difference rather than prioritizing sameness, or the task describing (and hence, essentializing) difference itself (Barad, 2003). Barad offers diffraction as a middle ground between social construction and scientific realism, both of which remain loyal to the conceits of representationalism, or the perspective that language accurately and effectively stands in for, “represents,” or constructs the “real.” The assumption introduced by diffractions here is that all phenomena (as well as efforts

to represent them as “knowledge”) are the result of singular and irreducible instances of “intra-actions” between material and discursive forces. Barad (2003) writes:

The primary ontological units are not ‘things’ but phenomena—dynamic topological reconfigurings/entanglements/relationalities/(re)articulations. And the primary semantic units are not ‘words’ but material-discursive practices through which boundaries are constituted. This dynamism is agency. Agency is not an attribute but the ongoing reconfigurings of the world. (p. 818)

Diffractional reading is accomplished through the reading of one text through the prism of multiple others and maps the ripples of conceptual dissonance and disturbance that emanate from the interplay of conceptual elements. When “reading insights through one another” (Barad, 2007, p. 71), a *diffractional reading* approach circumvents direct claims to representation, authorial intent, or reflections of “reality,” common to “deep reading” approaches. Diffractional analysis also does not seek to control and eliminate the background noise, feedback loops, and interferences of conceptual or hermeneutic entanglement. Diffraction preserves and amplifies these impurities in order to interrupt the binary thinking that attends dialectical approaches to analysis (Barad, 2003, 2007; Haraway, 1992), thus making available “theoretical possibilities that are available but have not been seized” (van der Tuin, 2019, p. 28). Diffractional reading enables me to locate and sound out key points of convergence, disjuncture, and noise as I navigate and compose my own “lines of flight” between theoretical, philosophical, and historiographical texts.

Together, the methods of nomadic thought and diffractive reading compose a suitable suite of posthumanist methodologies that enable nimble movement across and between overlapping fields of research. This project bends a diffractive ear to a diversity of discourses linked and adjacent to the subjects of solidarity, posthumanism, music theory, and beyond. These reverberations amplify the strange negotiations, or “intra-actions” (Barad, 2003, 2007) of material, affective, and discursive forces between variously situated musicians, artists, historians, social theorists, and social movement figures engaged in creative political work.

(In)Solid Sounds → ← Ec((h))o Locations

My musically nomadic and nomadically musical efforts to theorize more-than-human solidarities dances and weaves between two “new universes of reference”:
(in)solid sounds and *ec((h))o locations*. *(In)solid sounds* reference the material yet open and fluid alliances composed in the oscillations of musical encounters. Rather than assert or question the existence of musical solidarities (a debate demanding a binary answer), I explore music in terms of capacities, particularly those that cultivate the conditions for generating solidaristic relations. *(In)solid sounds* flutter within a process ontology that emphasizes the ongoing oscillations between potentiality and actuality (Massumi, 2011), and the compositional ontogenic “intra-actions” (Barad, 2007) between bodies, discourses, vibrations, and other affective forces. My proposition here is a paradox: A process ontology questions the very notion of solidarity, while reaffirming the ongoingness of its potential.

Ec((h))o locations references the epistemological dimension of this project, and my speculations regarding the place of music in posthuman cartographic practice. In my research, I engage texts and contexts in terms of a strategic listening and with the aim of cultivating a “posthuman ear.” I situate this approach within an array of what Stern calls “audile techniques,” hold it to be a critical skill in the development of more-than-human literacies. The posthuman ear “reads” (Goodale, 2011) texts and contexts through processes of ec((h))o location that involve a mapping of the presences and absences of the “human” ((h)) in a broader ecological (eco) milieu. The concept of ec((h))o locations performs an epistemological reframe by transposing Barad’s concepts of “diffraction” and “intra-action” into sonic registers, to better account for the reverberations and intra-actions occurring at the interface between discourse, musical practices, and more-than-human ecologies. I approach ec((h))o location as an ongoing cartographical process to both understand relationships and also as a mode of being *in-relation*. This process includes accounting for the relationship between the human and more-than-human as they have overlapped, co-mingled, conflicted, and neglected one another across interdisciplinary conceptualizations of “solidarity.”

Echolocation is used throughout the natural world by numerous species to navigate their environment, find a meal, find each other, find a way. It is a relational technology and a technology of relations. Alexis Pauline Gumbs (2020)—whose poetic meditations on the Black feminist lessons of marine mammals highlights the theoretical value of interdisciplinary and interspecies engagements—draws attention to the ways care, collaboration, and collective action can be deepened through practices of listening

and attuning to both fellow humans and nonhumans: “I can make a whole world of resonance. And live in it. Swim through it. Reflecting you. Whistle, click if you can feel that I am here” (p. 18). Listening opens pathways to connection and learning, not so we can become masters of each other and the environment, but to enter more mindfully into sensorial apprenticeships of care for one another. Gumbs (2020) asks:

How can we listen across species, across extinction, across harm? How does echolocation, the practice many marine mammals use to navigate the world through bouncing sounds, change our understanding of “vision” and visionary action? Is social media already a technology of bounce, of throwing something out there and seeing what comes back? (p. 15)

Ec((h))o location helps me to understand my own relationship to and care for the ecologies that I am a part, while also broadening the boundaries and affective capacities of my ecological imagination.

Lastly, ec((h))o location also helps me to understand my own relationship to research, and my method of navigating and attempting to weave together expansive bodies of discourse as an embodied, sensing, singing, and hungry animal through the dark, deep dives that long hours of research entails. My intellectual curiosities have called me in too many directions to count, and at times, made nomadic methodologies feel more like a liability than a liberatory move. But my exploration has also given me a more expansive view of epistemological currents as they have been mapped by previous cartographers, and evinced pathways between and beyond the buoys of disciplinary boundaries and paradigmatic fault lines that have systematically reproduced siloed ways

of thinking. As a methodological tool, thus, ec((h))o location entails moving discriminately through a field of signs, signals, and vibrational messages using modes of decision making that wed sensing with sorting in order to pick out what is relevant from what is not. The research I draw from—while vastly diverse in its voicings, vectors, and viewpoints—is intentional, and can be placed within a Ven diagram that features posthumanism, theorization on “solidarity,” and music as the three primary overlapping subject areas. Keeping within these general topic areas made this project more manageable without compromising the possibilities for generative cross-pollinations. These movements have been guided and made meaningful through diffractive techniques, which have tested and honed my technologies of attunement, and helped me to also find my way. I wonder how research might in some ways be just that; a way for us all to find our way.

Praxis

In this dissertation, I explore the potential of music as a form of *praxis* through posthumanist orientations to both becoming-with and intervening-in. By *praxis* I refer to everyday, embodied, and theoretically informed action, with the goal of ethical eco-social change. This concept has been developed by a number of important theorists, including Aristotle, Marx (1845/1967), and Gramsci (1994). Gramsci—who has been considered a sort of proto-posthumanist due to his hyper attention to the materiality of everyday spaces and his resistance to notions of human “essence” (Papadopoulos, 2010)—framed praxis as a mode of resisting taken-for-granted, and everyday forms of power and hegemony. Freire (1970) adopted the concept of praxis in his efforts to democratize and refashion the

basic principles of pedagogy in Brazil, calling for, “reflection and action upon the world in order to transform it” (Freire, 1970, p. 36). For Guattari (2000), praxis calls for an inside-out and the bottom-up overhaul of human thought and relations as they have been structured by capitalist economic systems through the (re)integration of ecological, social, and subjective relations into a singular political frame: “it will be a question of literally reconstructing the modalities of ‘group-being’” (p. 22). Braidotti (2013) positions critical posthumanism as form of affirmative praxis that resists reflexes of negation and calls us into the fold of creation: “The answer is in the doing, in a praxis of composing ‘we, a people’, through alliances, transversal connections and in engaging in difficult conversations on what troubles us” (p. 29).

Praxis presupposes shifting from the epistemic to the ontic, ongoing and recursive movements between inward reflection and outward application, echoing the (in)solid oscillations of musical solidarities. As both a musician, and an inhabitant of material, embodied, and symbiotically embedded relationships with innumerable other beings, I engage questions regarding the role of music as an artistic and ethical mode of living on a “damaged planet” (Tsing et al., 2017). I leverage these reflections into historically accountable and ethically grounded projects aimed toward the development of emergent more-than-human knowledges, communities, and assemblages constituted through artistic expression and political action.

The Organization

This dissertation is organized in two parts. Part I entails a series of thought experiments that transversally explore the topic of solidarity across four chapters. To

guide this movement, I deploy Bayertz's (1999) "four uses of solidarity" typography. I do not critique Bayertz so much as use his categories as a starting point for my own cartographic purposes, as a conceptual lattice for the vines of my own zigzagging to weave across. My intention here is not to prove the "wrongness" or to vanquish existing solidarity frameworks through a mode of "conquest rhetoric" (Foss & Foss, 2019): the "civic," "social," human," and "political" solidarities that Bayertz identifies play—and will continue to play—an important and central role in political affairs of humanity. My primary aim, rather, is to question the adequacy of these existing solidarity frameworks and the ways in which the many anthropocentric assumptions built into them limit collective responses within this stage of human, more-than-human, and planetary histories. My defamiliarizations of these categories are propelled by the refrain, "who is "we?" to highlight the anxieties of identity and belonging and the uncertainties that the formation of solidaristic relations in the posthuman era entails. It is an open-ended question, one intended to loosen the conceptual ground that these ideas occupy, to make tiny cracks that might allow the trickle of your attention in, and to allow the seedlings of more-than-human solidarities to receive those affects and come through.

Part II of this dissertation devotes attention to the dovetailing of critical posthumanism and music theory. This section unfolds across two chapters split unevenly between the ontological and epistemological dimensions of critical posthumanism. Chapter 7, titled "(In)Solid Sounds," explores critical posthuman ontology and sounds out the resonances between a relational/process ontology perspective and theories of assemblage, affect, resonance, and transduction that evince the ontological force and

more-than-human potentials of music. Chapter 8, titled “Ec((h))o Locations,” explores posthuman epistemology in tandem with the potentials of music as a resource for posthuman knowledge production and cartography. I make the argument that as a transversal technology, music draws critical attention to the subject/society/ecology interface described in Guatarri’s (2000) ecosophical approach in ways that promote practices of care and the coalescence of solidaristic energy around more-than-human entities and systems of life.

Before embarking on this two-part saga, I present a “critical interlude.” Chapter 2 explores the ethical landscape of a putative “more-than-human” intervention with regards to various historical events and trajectories. The intention here is to amplify the “critical” dimension of critical posthumanism by putting it immediately into dialogue with issues raised by postcolonial, decolonial, critical, and feminist voices and frameworks. This dimension of praxis holds this project accountable to histories of oppression and a politics of location that problematize erasures of, and evasions from the entwined legacies of humanism, colonization, capitalism, and white supremacy, all of which have played an integral role in the current climate crises. I also explore the ways in which critical posthumanism holds itself accountable through various criterion and tendencies that promote vigilant attention to anthropocentric, speciesist, and humanistic assumptions. Attention to these elements is regarded as essential, but not an obsession, as this would perform a move to purity that the postdualist orientation of critical posthumanism holds in high regard.

While *praxis* entails oscillations between theorization and practical application, this dissertation comprises a space primarily for the former. Chapters 1-8 marinate in the deep end of theory and reflection, masticating on the ideas I have pulled from “out there.” In chapter 9, however, I pivot my attention to the other side of the *praxial* coin, and sketch out some of the ways in which my own musical practices embody, diffract, and aspire to the ideas explored within these pages.

Theoretically and practically, the ultimate and overarching aim of this project is to demonstrate how music can facilitate the actualization of more-than-human solidaristic reconfigurations in service of climate justice. As I hope to make resonant within the pages of this project, critical posthumanism lends itself well to musical modes of thinking, feeling, and intervening in an imperiled and unquestionably more-than-human world.

Chapter 2 - A Critical Prelude

More-than-human solidarities face many challenges and hurdles. Historical events have eroded trust and sedimented animosities in a way that deadens the resonance of “solidarity” among and between various cultural and political groups. These layers represent a cartography of complex historical entanglements that have implications for how climate change is differentially understood and the paths available to address it. In this chapter, I outline a number of those challenges to hold this project accountable to its own putative aspirations of being “critical,” and to contextualize these challenges in the trajectories of history. I also amplify the critical dimensions of critical posthumanism with the intention of demonstrating its analytical and practical worthiness amidst these challenges. The factors contributing to climate change are inextricable from the sedimented layers of more-than-human history. We can begin to bear witness to and interpret these complex layers through the prism of “deep time.”

One challenge that deserves mentioning from the outset is the challenge of theorizing the experiences of oppression that have historically linked the human and nonhuman without making false equivalences or diminishing the suffering of humans. Although these experiences are patently different, they are also linked. Achille Mbembe speaks to these complexities, stating:

(t)here is an explicit kinship between plantation slavery, colonial predation and contemporary forms of resource extraction and appropriation. In each of these instances, there is a constitutive denial of the fact that we, the humans, coevolve

with the biosphere, depend on it, are defined with and through it and owe each other a debt of responsibility and care. (Bangstad, 2019, para. 5)

The brutal legacy of slave plantation systems and the genocide of Indigenous populations throughout the Americas are in part why talk of human “solidarity” ring empty from various critical and decolonial perspectives (Gatzambide-Fernandez, 2012; Mills, 1997; Mignolo & Walsh, 2018; Wynter, 2003), and echo what Mbembe (2017) has referred to as the suspicious dogma and verbiage of the “civilizing mission.” Issues of racial reconciliation, reparations, and material redistribution hang heavy over the polished and smooth rhetorics of many theoretical frameworks of solidarity and present enormous challenges to the goal of theorizing and advancing more-than-human solidarities. In the following section, I attune this project to a number of discordant histories that challenge, slow, and prohibit quick moves to a unifying chorus on the path towards climate justice.

The Volumes of History, Deep Cuts of “Deep Time,” and Hollow Ring of “Solidarity”

First described in 1788 by Scottish geologist James Hutton, and coined 200 years later by American author John McPhee, the concept of “deep time” alludes to the processes and stages of planetary change as they are recorded in layers of geological strata (Farrier, 2019). Artifacts such as fossils and mineral deposits enable geographers to make estimations regarding key changes in the climate, flora and fauna populations, and other significant geological events, which are then used to differentiate and characterize different epochs. These epochs can stretch for millions of years, and hence, they are

“deep.” But so too are the cautionary tales they can tell us. Deep time offers a deep listening to these tales.

New materialist media scholar Jussi Parikka (2015) argues that the Earth’s capacity to archive major geological turning points and storylines makes it the planet’s oldest forms of media. That we can now read, listen to, interpret, and act on these codes illustrates how geological strata has become an “actant”—or an influential force in greater assemblages of forces, actors, and actions (Latour, 2005)—in the trajectories of human, more-than-human, and planetary histories. While this perspective is suggestive of the rhetorical work other forms of mediated communication circulating rapidly across the Earth’s surface might be able to perform—such as everyday musical practices, artifacts, and assemblages—let’s stay focused on the geological scale for a minute. These deep cuts offer insight into the political work that geology can do, but also the serious reparative work that lies on the road to any type of solidarity, more-than-human or otherwise.

The term “Anthropocene”—or “age of humans”—has become a dominant term within and beyond posthumanist discourse (Ferranda, 2019). The term was launched into academic orbits in the year 2000 by atmospheric chemist Paul Crutzen and ecologist Eugene Stoermer to ascribe the changes taking place in air, water, and soil compositions to their anthropogenic sources. The Anthropocene explicitly links the changes in the measured levels of atmospheric carbon dioxide to the emergence of the combustion engine at the beginning of the Industrial Revolution, as well as the burning of fossil fuels, the emergence of large-scale agricultural systems and other contributors, all of which are

considered among the primary drivers of the climate change. Considering the widespread uptake of the term and the sprawling debates it has spurred, one could argue that the Anthropocene fulfilled its purpose of drawing attention to the source of the crisis—Anthropos! Yet, a growing number of critics have taken issue with the term along with the upswell of discourses converging around it.

The Anthropocene has been critiqued as both an apolitical and ahistorical concept that attributes climate change to the actions of a generalizable “human.” This gloss obscures the disproportionate contributions coming from wealthiest nations and multinational corporations of the Global North (Bonneuil & Fressoz, 2016). Vandana Shiva (1993) has referred to this practice of pinning climate change to the whole of humanity—or to abstract concepts such as “globalization”—as a “monoculture of the mind.” This kind of ahistorical analysis is problematic for several reasons. Calls for rapid transition away from fossil fuels by those in developed countries in the North leave developing countries behind and ignore the advantages of generational wealth built through extractive relationships to land and peoples and the subsidizing and burning of dirty fossil fuels. When climate change is re-historicized, a distorted distribution of benefits and responsibilities comes into focus.

What the ledger of history reveals, then, has been referred to as a “climate debt” owed to the Global South by its northern neighbors, a discrepancy that morally obligates developed countries to reimburse and/or provide support to developing nations during the transition to sustainable futures (“African Activists: The Earth is in peril if Wealthy Nations Don’t Slash Emissions and Pay Climate Debt,” 2021). While the term

Anthropocene has galvanized debate around the impacts of human activity, the increased attention has led to a proliferation of cultural, scientific, and technological discourses that misrepresent, distort, or colonize climate change as a phenomenon: analyses have caused confusion and erased significant historical details, including power asymmetries that inhibit the development and implementation of equitable solutions (Braidotti, 2019).

The Anthropocene has also been critiqued as a narrative trope that promotes speculative apocalyptic tales and futuristic dystopian fantasizing while neglecting apocalyptic realities from the recent past and those still unfolding in the present. To many Indigenous peoples, climate displacement is merely an extension of the ongoing legacy of colonial displacement (Davis & Todd, 2017; Whyte, 2018). In this way, the climate anxieties being drummed up and triggered by notions of the Anthropocene have been characterized as a symptom of colonial amnesia, or what Byrd (2016) has elsewhere termed *colonial agnosia*—the incidental or willful forgetting of the ongoing nature of colonial oppression (Byrd, 2016). Many forms of speculative fiction, journalism, and academic research perform this forgetting while simultaneously stirring up and riding the wave of collective climate anxiety. Such efforts can promote imaginatively illustrated visions of the “end times” while omitting Indigenous experiences of genocide and dispossession, and the “end times” in which Indigenous peoples have long situated themselves (Whyte, 2018). Where one stands in relationship to the history of capitalist colonization affects both how it is perceived, and the anxieties that it triggers, or doesn’t (Ray, 2021). While the Anthropocene links the issue of climate change to a generic figure of the human, other “deep time” concepts make more specific and perhaps useful links.

The term “*Capitalocene*,” coined by Geographer Jason Moore, human ecologist Andreas Malm, and anthropologist Alf Hornberg, links climate change directly to economic systems that have historically incentivized the extraction of natural resources (Ellis, 2018). This rhetorical framing links climatic impacts to processes of capital accumulation, privatization, the dispossession of people from land, and the exploitation of planetary “others” on a global scale (Wood, 2017). While capitalism does not hold the patent on environmentally destructive practices (McNeill & Unger, 2011), this “deep time” framework sharpens focus on the economic structures and forces incentivizing modes of production/destruction, as well as forms of eco-managerialism, “green washing,” and other market-based solutions positioned to profit off the worst effects of climate change (Parr, 2014; Luke, 2019). Forms of advanced capitalism have proliferated and been welcomed with open arms into our lives, much of it in the form of thin coats of green paint over an undisturbed neoliberal world order in which all life is now subject to “the spinning machine of the global economy” (Braidotti, 2013, p. 7).

The deep-time term “*Plantationocene*” highlights the links between environmental degradation and climate change to the rise of industrial scale agricultural systems, chattel slavery and the trans-Atlantic slave trade. Acknowledging these links is important because—as Harraway (2016) notes—the colonial slave plantation system was “the model and motor for the carbon-greedy based factory system,” which “continues with ever greater ferocity in globalized factory meat production, monocrop agribusiness, and immense substitutions of crops like oil palm for multispecies forests and their products that sustain human and nonhuman critters alike” (p. 206). Both the

Plantationocene and *Capitalocene* highlight the accelerations of global interchange and trade beginning in the 15th century, which Crosby (2003) has referred to as the “Columbian Exchange.” This period saw the development of large-scale agriculture, livestock, and mining industries as well as massive voluntary and involuntary movements of human populations and nonhuman life, including invasive plant and animal species and communicable diseases. Ecologist Gordon Orian—as well as others—have referred to the large-scale, global introductions of non-native species as the “homogenization of the Earth’s biota” (Ellis, 2018, p. 96), or the “*Homogocene*,” pointing to widespread losses in biodiversity and ongoing threats to fragile regional ecosystems in locations Tsing (2015) refers to as “blasted landscapes” and “disturbance regimes.” The patterns of destruction, dislocation, and development that have pocked, scarred, and contaminated the Earth’s surface tell a multitude of stories regarding the costs, causes, and coefficients of power and more-than-human subjugation that surround discussions of climate.

The legacies of colonialism, capitalism, and the trans-Atlantic slave trade have exacted disproportionate tolls on societies and ecologies. These continuing historical trajectories present enormous challenges to any general project of solidarity. The brutal legacy of slave plantation systems and the genocide of Indigenous populations throughout the Americas are in part why talk of human “solidarity” ring empty from various critical and decolonial perspectives (Gatzambide-Fernandez, 2012; Mills, 1997; Mignolo & Walsh, 2018; Wynter, 2003), and echo what Mbembe (2017) has referred to as the suspicious dogma and verbiage of the “civilizing mission.” Issues of racial reconciliation, reparations, and material redistribution drop large stones into the polish of

many theoretical frameworks of solidarity. Some critics argue that the reasons compelling many solidarity movements renders cross-cultural coalitions into incommensurable projects, or as counterproductive to the goal of a decolonial praxis (Moreton-Robinson, 2004; Tuck & Yang, 2012). These tensions are particularly salient where calls for solidarity by environmentalist movements in spaces of settler colonialism “run the risk of reinscribing the narrative of white settler benevolence . . . and a colonial subjectivity that keeps white settler power intact” (Dhillon, 2015, p. 6). Where “solidarity” presumes “all-for-one-and-one-for-all,” history does not always yield to the audacity of this presumptuousness.

Calls for more-than-human solidarity face additional hurdles. This includes the challenge of theorizing the experiences of oppression that have historically linked the human and nonhuman without making false equivalences or diminishing the suffering of humans. But while these experiences are patently different (I avoid discussion of the ethical and scientific debates here) they are also linked. Achille Mbembe speaks to these complexities, stating:

(t)here is an explicit kinship between plantation slavery, colonial predation and contemporary forms of resource extraction and appropriation. In each of these instances, there is a constitutive denial of the fact that we, the humans, coevolve with the biosphere, depend on it, are defined with and through it and owe each other a debt of responsibility and care. (Bangstad, 2019, para. 5)

From this perspective, it is possible to think the phenomena of cultural genocide and species extinction side-by-side, as the same historical process have hewn them together.

Their boundedness becomes clearer through what Gomez-Barris (2017) terms the “extractive view,” which brings into a singular frame the costs of the excesses of colonialism, capitalism, and the spread of neoliberal policies to ecologies and peoples. But this perspective also encourages approaches that simultaneously recognize and rectify these overlapping injustices. Addressing climate change is indubitably a more-than-human project (Verlie, 2022).

In the context the climate crisis, solidarity is a proposal full of contractions, but not to a fatalistic degree. And efforts to collaborate to transform unsustainable and exploitative systems are necessary, despite criticism of their efficacy and contradictions. Curnow and Helferty (2018) argue that contradiction is a constitutive element of many coalitional projects, noting “solidarity interventions that rely on inequitable power relations and mobilizing individualized privilege may still result in changed conditions on the ground,” and despite potential contradictions and incommensurabilities, “we still have a responsibility to engage, and to engage accountably” (p. 154). As a framework for responsibility and obligation, solidarity endures as a viable mode of thinking and enacting collective change, however imperfectly. Critical posthumanism activates these response-abilities and does so in a way that is both accountable to the plurality of transgressions that undergird the climate crisis and is amenable to the shifting contours of our eco-social imaginations. Climate justice in more-than-human worlds asks us to think on the level of climatic systems, and to act on the level of localized relations, in spaces of bold, clumsy, and vital eco-social experimentation. That includes experimenting with circumferences of belonging and obligation that transversally guide the affective energies

of more-than-human solidaristic work. This circumstance calls for practices of care and the forging of multi-species alliances, a task that posthumanist theorists have heeded with critical energy and creative flair.

Each of these reviewed “cenes” perform different kinds of assemblage work, each drawing attention to actors, events, and historical processes, each shifting what is ground and what is figure, along with whose grievances are prioritized and how they should be appropriately addressed. They are reductive and incomplete but taken together these geohistorical assemblages also offer something valuable to an understanding of climate change and its contributing factors that exceed any singular explanation. Critical posthumanism praxis attunes to all the above “deep time” contextual framings, while at the same time listening beyond them. As a cartographical project that couples practices of accountability and critique with the exploration of emergent futures, critical posthumanism’s interpretations and prescriptions make significant departures toward an always already more-than-human world.

Creative Critique, Multi-Species Worldings, and Critical Posthumanist Climate Intervention

Critical posthumanist theorists, while acknowledging the gravity of the “man”-made crisis and the historical forces that have—and still contribute to it, have opted for an affirmative theoretical turn to generate hopeful paths to recovery and to distance themselves from the sad ironies and despairing dystopias of Anthropocene narratives. This is not to suggest there is no room for irony, as Braidotti (2019) notes, “(t)here is something ironic to say in the spectacle of European civilization, that was the cause of so

much devastation and multiple extinctions in its colonial occupied territories, becoming so concerned about extinction and the future of the species” (p. 157). These acknowledgements drop the pretension of purity, while making openings for collaborative futures, which move amidst and through the tensions of history while also moving beyond narratives of debilitation and despair. Haraway’s (2016) thoughts reflect this strategy she states:

Anthropocene discourse . . . is not simply wrong-headed and wrong-hearted in itself; it also saps our capacity for imagining and caring for other worlds, both those that exist precariously now . . . and those we need to bring into alliance with other critters, for still possible recuperating pasts, presents, and futures. (p. 50)

Critical posthumanism’s self-reflexivity—as well as its attention to forms of oppression, colonialism, and Indigenous worldviews—distinguishes it from other varieties of posthumanism and renders it into a more reflexive, ethical, and historically attuned lens to analyze the paradoxes of the Anthropocene.

Donna Haraway (2017)—a prolific player in the imagining of posthumanist futures—adds to the growing list of “cenes” dubbing the epoch we are living in the “*Chthulucene*”—a compound of the Latin forms of “beings” and “now.” This moniker redirects attention from the despairing prophecies inscribed in the strata of deep time into the muck of the immediate crises we collectively face, towards the difficult work of multi-species alliance building and recuperation on “a vulnerable planet that is not yet murdered” (p. 117). The task of theory today, Haraway stresses, is to decompose dying and dead-end storylines and recompose new ones through “art-science worldings,” which

(re)configure kin relations across transversal webs of human and nonhuman beings: “The unfinished Chthulucene must collect up the trash of the Anthropocene, the exterminism of the Capitalocene, and chipping and shredding and layering like a mad gardener, make a much hotter compost pile for still possible pasts, presents, and futures” (Haraway, 2017, p. 57). Latour (2017), expresses a similar urgency to generate new narratives and collective planetary orientations around the “wicked universal” of climate change, arguing “we can no longer tell ourselves the same old stories” (p. 44).

As the posthuman convergence continues to unfold, the pressure to make sense of and link growing social inequities and environmental exigencies deepens as well.

Braidotti (2016a) speaks to these convoluted and crucial conditions.

We—the dwellers of this planet at this point in time—are confronted by a number of painful contradictions: we are interconnected but also internally fractured by structural injustices and discrepancies in access to resources. Instead of new generalizations, we need sharper focus on the complex singularities that constitute our respective locations. We need careful negotiations in order to constitute new subject positions as transversal alliances between human and nonhuman agents, which account for the ubiquity of technological mediation and the complexity of interspecies alliances. (p. 387)

Across these calls for change, I hear a frustration with prevailing strategies of critique, and outmoded theoretical frameworks of belonging and obligation. I also hear a yearning for new stories, new modes of experimental knowledge production, and

adaptive modes of creative collaboration and critical solidarity that embrace the messy contradictions of the moment we are living in.

Embedded in these experiments is the assumption (and hope) that the ongoingness of diverse ecosystems might benefit from the cross-pollination of diverse ways of knowing, or at the very least, a paradigmatic shift away from old, comfortable, and received ways of knowing the world. Chakrabarty (2009) has argued that the crisis of climate change “requires us to bring together intellectual formations that are somewhat in tension with each other: the planetary and the global; deep and recorded histories; species thinking and critiques of capital” (p. 213). By expanding the ensembles of actors, processes, systems, and affected landscapes, and tracing their trajectories within entangled historical, political, and geographical flows, the mappings developed within critical posthuman cartographic practices attend to the paradoxical commitment between a situated politics of location and emergent locations yet-to-be—a tension that I believe modes of musical praxis rendered within frameworks of more-than-human solidarity can contribute to resoundingly.

The Posthuman Convergence

Critical posthumanism collates and builds on the rhetorical work theses “deep-time” framings do through the concept of the posthuman convergence. According to Braidotti (2013, 2019), the posthuman convergence maps the nexus of two merging macro-scale phenomena: the 6th mass extinction, which links large-scale climate disturbance and ecological collapse to anthropogenic forces, and the 4th industrial revolution, represented by rapid innovation and expansion of information and bio

technologies as they are propelled by various trajectories of scientific advancement and global capital. Braidotti (2019) interprets this convergence as one of both deep ambivalence and exciting potential, referring to it as “a multi-directional opening that allows for multiple possibilities and calls for experimental forms of mobilization, discussion and at times even resistance” (p. 9). This merger represents a confluence of contradictions, crises, and possibilities wherein the “human” as a transcendental concept and distorted ideal is faced with its own image as a historically destructive planetary force. The posthuman convergence is marked by a pervasive presence, dependency on, and growing inseparability from technology, a contradictory relationship that has rapidly accelerated human capacities, social inequities, and environmental degradation on planetary scales. Thus, the posthuman era is characterized by sharp paradoxes: the subject is simultaneously more diffuse and difficult to locate across entangled networks and yet more vulnerable to the threats of viral relations.

The posthuman convergence, however, has also proliferated the tools for understanding and spreading awareness about more-than-human interdependencies, vulnerabilities, and tales of mutual struggle and flourishing. Importantly, unprecedented levels of epistemological resources are available to reconstruct a more egalitarian world in radically relational terms to liberate so-called humanity from the “provincialism of the mind, the sectarianism of ideologies, the dishonesty of grandiose posturing and the grip of fear” (Braidotti, 2013, p. 11). Posthumanist knowledge production and cartographic practices flourish amidst the proliferation of advanced tools and technologies, gathering into evocative bouquets insightful fragments of scientific, artistic, and interdisciplinary

research. Several other dimensions of this emergent school of thought equip it well for collectively mapping, navigating, and shaping the evolving contours of these complex times.

Critical posthumanism recognizes and responds to the need to generate affirmative visions of the future that can sustain engagement with the challenges associated with shaping change in the present. This is approached through experimental and experiential knowledge practices that (re)orient attention, affective energies, and stewardship towards vital ancient and emergent systems of local and planetary consequence. I am drawn to these interventions, their creative and strange (re)articulation of ethical planetary relations, and their ability to synthesize what is promising about contemporary technology and media with open-eyed accounts of the legacies of colonialism, capitalism, patriarchy, and the technological devaluation of life. Taken together, critical posthumanism suggests modes of praxis that bring practical and transformative energies to critical issues.

What is so “Critical” About Critical Posthumanism?

Praxis involves heavy theoretical lifting, critical self-reflection, and in some cases, deep revisions of personally held assumptions and beliefs (Freire, 1970; Gramsci, 1994). Composing ethical multispecies relations and obligations requires the critical reevaluation of dualistic patterns of thought that support and reproduce racial, sexual, species, and other pejoratively based hierarchies (Braidotti, 2013, 2019; Plumwood, 2002). Critical posthumanism encourages these reflexive shifts through three related but distinct streams of critique, namely the critique Enlightenment humanism, the critique of

anthropocentrism, and the critique of binary thought (Ferrando, 2019). These critiques draw, extend, and depart in significant ways from several critical philosophical traditions, including postmodernism, poststructuralism, postcolonialism, feminism, ecofeminism, critical theory, Indigenous philosophy, animal studies, and other perspectives. In their interrogations of the foundations of Western hegemonic thinking, these discussions bring attention to the philosophical “roots” of many epistemologically imperialistic and ecologically destructive practices that bear significantly on the project of theorizing and enacting more-than-human solidarities. My goal in this section is to briefly differentiate critical posthumanism within the diversifying constellation of posthumanisms, and to justify *critical* posthumanism as an appropriate theoretical framework for the composition of more-than-human musical solidarities within the posthuman convergence.

Many attempts have been made to map the confusing contours of the posthumanist theoretical landscape. As Ferrando (2019) has noted, numerous mutating and even contradictory strains of posthumanism are now circulating, which causes some confusion for those who seek to understand or deploy it. But a common thread connecting these strains is the notion that the human species is materially embedded within evolving human and nonhuman interdependencies in a world that encompasses nature, culture, and technology, and that this paradox destabilizes the view inherited from Western philosophy of the “human” as a stable, discrete, and superior ontological category. This blurring raises practical, philosophical, ethical, and moral questions, which are taken up (and in some case, ignored) in different ways by each strain.

Posthumanism comprises a diverse field of loosely related and interdisciplinary strains of thought. For this reason, posthumanism should be understood more as an organizing concept, or umbrella term, than a single cohesive theoretical framework (Ferrando, 2019). Provided its roots in a process ontology, notions of multiplicity represent an ontological truism and normative value across posthumanist thought (Braidotti, 2019; Latour, 1993), thus, the proliferation of different posthuman strands seems appropriate. I consider the generative force of theoretical posthumanism, even where it produces contradictions, as one of its strengths. I also take it to mean that multiple posthuman futures are possible and emerging in real time. While some of these posthuman visions of the present and future are problematic—and in many instances, are already generating significant blowback among academics, scholars, and lay persons—many of these cartographies incite significant (re)compositions of collectivistic relations in the imagination that are conducive to the formation of solidaristic alliances.

Genealogically speaking, posthumanism links to and builds on postmodernism's deconstruction of the Enlightenment humanism and its homogenizing universals as well as poststructuralist questions regarding the links between representationalism, the institutional foundations of human knowledge, and the knowability of the human condition. Ferrando (2019) has gone so far as to call posthumanism postmodernism's second coming, although Braidotti (2013) is quick to differentiate critical posthumanism's emphasis on materiality, embodiment, synthesis, and generative affirmations from postmodernist and poststructuralist emphasis on discourse,

deconstruction, and cynical anti-foundationalism. Other contrasting typographies can further enhance the view of posthumanism's diverse theoretical landscape.

Sharon (2013), whose work explores ramifications of emerging biotechnologies for the "human," identifies four major strains of posthumanism in her cartography; "dystopic posthumanism" (Annas, 2005; Fukuyama, 2002; Kass, 1997; Sandel, 2007), which generally assumes a negative or reactionary take to the intrusions of self-enhancement and modification technologies into the realm of human life; "liberal posthumanism" (Bostrom, 2005; Hughes, 2004; Kurzweil, 2005; Savulescu & Bostrom, 2009), which embraces technology's promise for human enhancement, self-modification, and biological transcendence as a natural rights of the free, progressive, and future-oriented individual; "methodological posthumanism" (Latour, 1999; Pickering, 2005; Verbeek, 2005, 2011), which employs more-than-human frameworks of being and agency to analyze, better understand, and develop models of networks and the entangled relationships between human and nonhuman actors for future technological and scientific application; and "radical posthumanism" (Badmington, 2000; Balsamo, 1996; Braidotti, 2006, 2013; Harraway, 1991, 1997; Hayles, 1999; Zylinska, 2002), which holds the division between "nature" and "the human" as both unstable and unethical given advances in biotechnology and the problematic historical legacy of dualist thought linked to Enlightenment humanism meta-narratives.

Braidotti (2013) typologizes posthumanism from the question of subjectivity, asking what forms of relations, agency, and accountability are materially afforded and ethically demanded of the posthuman subject. She places various strains of

posthumanism along a continuum that distinguishes critical posthumanism from *analytical* and *reactionary* posthumanism. Analytic posthumanism (Rose, 2007; Verbeek, 2005, 2011)—akin in many ways to Sharon’s “methodological posthumanism”—occupies the middle of this continuum and approaches the posthuman through descriptive methodologies retaining the axiological commitments of neutrality and objectivity predominant in scientific and technology studies. Braidotti critiques this strain as one that stops short of adequately assessing the implications of techno-scientific forces on subjectivity and fails to acknowledge or explain the contradictions and harms of uncritically promoting scientific frameworks, innovations, and analytical methods.

While raising important questions regarding the boundaries between human and technological others, the “analytic” approach sidesteps questions regarding what forms of agency and accountability the subject retains within the context of human-techno blurrings. Instead, Braidotti (2013) advocates for the pursuit of “a better, more thorough and in some ways more intimate ethnographic understanding of how these technologies actually function” (p. 42). She cautions:

The pride in technological achievements and in the wealth that comes with them must not prevent us from seeing the great contradictions and the forms of social and moral inequality engendered by our advanced technologies. Not addressing them, in the name of either scientific neutrality or of a hastily reconstructed sense of the pan-human bond induced by globalization, simply begs the question.

(Braidotti, 2013, p. 42)

While exploring important questions around the impact and role of technology in human subjectivity, the “analytic” posthumanist approach assumes description as the ultimate goal leaving important ethical, historical, and political questions regarding the effects of technology on human and more-than-human ecologies unanswered.

The “reactive” posthumanist approach, Braidotti suggests, tethers questions of scientific and technological advances to moral philosophy and seeks to reinvigorate liberal humanist universals, such as valorizations of individualism as a strategic approach to globalization, resource scarcity, and the rising tides of nationalism and ethnocentrism. Akin to Sharon’s (2004) “liberal posthumanism,” reactionary posthumanism represents a despairing return to detached and dehistoricized notions of a panhumanity. Martha Nussbaum’s (2010) work is held as a prime example of this retrenchment approach, which, Braidotti (2013) observes, “embraces universalism over and against feminist and postcolonial insights” and leaves “no room for experimenting with new models of the self” (p. 39). The critique of the “reactive” approach underscores critical posthumanism’s commitment to experimentation within the processes of subject formation as well as to a politics of location that undergird both feminist and postcolonial perspectives. On the posthuman theoretical spectrum that Braidotti constructs, she places the “reactionary” approach on the furthest end away from critical posthumanism.

Braidotti (2013) presents critical posthumanism as an intervention in the universalizing frameworks of humanism and the human exceptionalism of anthropocentric thought. Critical posthumanism’s critiques of humanism confront the generic—that is to say, Euro-centric—image of Man as it was contrived by key actors

during the Enlightenment era. Critiques of this trope sharpen where it has been used historically as a tool expand imperial projects and to underwrite violent exclusions and erasures of cultural groups (Federici, 1995). Critical posthumanism works in the fallout of these histories drawing attention to instances where the “human” functions as a normative construct that performs an ongoing regulatory function across social imaginations and practices, preserving the privileges of those reflected in its ideal image (Wolfe, 2010).

Critiques of humanism aim to disrupt the generic and unitary figure of the “human” under the assumption that “appeals to the ‘human’ are always discriminatory: they create structural distinctions and inequalities among different categories of humans, let alone between humans and nonhumans” (Braidotti, 2019, p. 85). These interventions take numerous forms, including the embrace of hybridity, methodological nomadism, and a relational ontological perspective that offers a post-dualist understanding of subject formation as an embedded, relational, material, affective, differential, and ongoing process. Efforts to redefine the human from a critical posthumanist standpoint aim for incomplete, pluralistic, and non-normative understandings of an emergent posthuman subjectivity.

Braidotti’s theorization around posthuman subjectivity addresses problematic and inherited Western notions positing the autonomy of the “human” while also addressing a small but growing chorus of posthumanist theorists who overcompensate for the individualistic excesses of liberal humanism by relegating the human subject to a place of obscurity or disappearing it altogether. The question she asks is an important one: what

forms of agency and accountability can the subject be said to possess in a philosophical field deferential to the ubiquity and force of objects (Bryant, 2011; Harman, 2002; Morton, 2010), and enchanted by theses of distributed agency across a limitless array of non-human actants (Bennet, 2010, 2011)? Braidotti's theorization on posthuman subjectivity, which strikes a balance between the over-generalization and annihilation of the human subject, is differentiated through her reclamation of complex, material, and embodied forms of agency for the posthuman subject that allow for the catalyzation of alliances and other more-than-human interventions that available (albeit distributed) forms of agency make possible.

The second major critical pillar of critical posthumanist is the critique of anthropocentric thought. These interventions seek to break the spell of human exceptionalism that uphold what Braidotti (2013) calls the "mould of species supremacy" (Braidotti, 2013, p. 80). Critiques of anthropocentrism call attention to the prism of Anthropos through which the world is viewed, and the ethical configurations of recognition, belonging, obligations, rights, and privileges structured along human/nonhuman lines. Critical posthumanism's gestures toward a post-anthropocentric world entails close analyses of anthropocentrism's historical roots and its present-day forms.

During the Enlightenment period, anthropocentric beliefs provided a stable position from which to orchestrate the ordering and subsequent ransacking of the natural world. The supremacy of the human was linked to its perceived language capacities, which served as evidence of consciousness and a higher order of being (Derrida, 2008).

Eventually, the metaphysical sway of the Church gave way to the sermons of philosopher kings and knowing subjects, and Enlightenment humanism “gave the word its discursive authority” (Davies, 2008, p. 117). The key point here is that mastery of language ensured human’s departure from the animal world and diminished moral obligations to the world of *things* altogether. Wolfe (2010) has linked this shift to “fantasies of disembodiment and autonomy” (p. xv), a delusion that enabled the human’s “escaping or repressing not just its animal origins in nature, the biological, and the evolutionary, but more generally by transcending the bonds of materiality and embodiment altogether” (p. xv). From this perspective, anthropocentrism can be addressed as a fissure between symbolic and material orders, or as an issue regarding the values differentially assigned to orders of meaning and materiality.

This binarist picture of reality is addressed by posthuman thinkers in several ways. Haraway (1988, 2016) (re)composes reality and relationships in terms of material-semiotic world-making, which weds the materiality of signs to the semiological nature of matter. Barad’s (2007) concept of “agential realism” underscores the co-constitutive “intra-actions” of the textual and material, which implicates human/nonhuman co-becoming in the space of knowledge production. Posthumanist theorists address this semiotic/material disconnect through several other moves, including decentering language (and consciousness) as the ultimate measure of Man, recognizing the communicative and agential capacities (and thus, the subjectivity) of nonhumans, and the development of languages (and modes of communication) capable of reembodying, repairing, and (re)constituting more-than-human relations.

Guattari's (2000) makes strides in this direction through his ecosophical approach, which promotes a "logic of intensities," or flows of affects and effects between immanently overlapping dimensions of individual awareness, embodied socio-techno relations, and living planetary systems. These posthumanist modes of subject and collective (de)formation exceed rational, linguistic, and symbolic modes of relating, and are advanced through (con)fusions of interdisciplinary weavings, intermodal channels of communication, and the (re)appropriation of media networks to perform "effective practices of experimentation" on micro, institutional, and planetary scales (Guattari, 2000, p. 22). In these communicational encounters, taken-for-granted systems of human signification are not abandoned, but reworked and rewired to deemphasize dominant anthropocentric frameworks of signification and compose new political subjectivities that rewire and reboot tired techno-phobic modes of resistance. A "logic of intensities," thus, works as a kind of language, one that is also a technology of deterritorialization that ruptures habits of thought and creates new associations, networks, and relationships to and with socio-ecological others. Given its philosophical importance to critical posthumanist theory, I give more attention to this "ecosophical" perspective further below.

Within calls to decenter language as the measure of man, I am speculative about the potential of music to offer a "logic of intensity," or alternative modes of composing new political subjectivities and collective more-than-human relations. Derrida, viewed by many as an important precursor to critical posthumanist thought, seemed to both understand this need to defuse anthropocentrism at the level of language and to think

music could play a role. Considering what actions could be taken to fix the oppressive order imposed on the nonhuman world, he writes:

I was dreaming of inventing an unheard grammar and music in order to create a scene that was neither human, nor divine, nor animal, with a view to denouncing all discourses on the so-called animal, all the anthropo-theomorphic or anthropo-theocentric logics and axiomatics, philosophy, religion, politics, law, ethics, with a view to recognizing in them animal strategies, precisely in the human sense of the term, stratagems, ruses, and war machines, defensive or offensive maneuvers, search operations, predatory, seductive, indeed exterminatory operations as part of a pitiless struggle between what are presumed to be species. (Derrida, 2008, p. 62)

Braidotti (2013) echoes the urgency to not only reconfigure inter-species relations, but also the systems of representation that have hierarchically structured those relations to account for the entanglements of interdependency that arrange Life in *eco*-logic rather than *ego*-logic forms:

We need to devise. . . . a system of representation that matches the complexity of contemporary non-human animals and their proximity to humans. The point now is to move towards a new mode of relation; animals are no longer the signifying system that props up the humans' self-projections and moral aspirations. (p. 70)

In the space of these interventions the task of composing multispecies relations takes precedence over the habits of marking them as linguistically or communicatively deficient, a move that disrupts species hierarchy, because "language is no longer seen (as

it is in philosophical humanism) as a well-nigh magical property that ontologically separates *Homo sapiens* from every other living creature” (Wolfe, 2010, p. 120).

This perspectival shift resonates within a critical posthumanist framework of ethical multispecies relations and obligations. For example, Braidotti (2013) advocates for a contract inclusive of human and nonhuman rights through what she terms *zoē*-centered egalitarianism. The concept of *zoē* has been deployed differentially across history, and with varying moral valences and connotative baggage. The term was used in Ancient Greece to refer to the world of living things (generally speaking), which was distinguished from *bios*, or the state-recognized life lived purposefully. Drawing from Hannah Arendt’s (1951/1973) analysis of totalitarian regimes and Foucault’s (1990) concept of *biopower*, Agamben (1998) deploys *zoē* to denote “bare life,” or the level of expendability that the human is reduced to without the qualifications of citizenship. This application enables Agamben to link the formation of nation-states with the terrorism of Modernity’s most inhumane projects, including the Holocaust and the trans-Atlantic slave trade. Mignolo (2011) echoes these linkages, noting, “A new figure of exteriority was necessary when the concept of ‘citizen’ was introduced: the ‘foreigner’ enriched the list of ‘exterior human,’ that is, of ‘defective humans’ next to pagan, Saracens, Blacks, Indians, women, nonnormative sexual preferences” (p. 164). Citizens of the U.S. don’t have to look beyond their own borders to see the bodies immigrant children locked *inside of cages* as a result of being locked *outside* of citizenship status.

Without ignoring these atrocities, Braidotti (2013) flips the meaning of *zoē* here. She reframes the notion of *zoē* as a conceptual common ground that affirms the

embodied, embedded, and material interdependencies that constitute the web of human and non-human Life. *Zoē*-centered egalitarianism levels the species playing field and enables the envisioning of a “transversal alliance” (Braidotti, 2013, p. 103) between and across all domains of the living. Prioritizing solidarities with living systems and networks of symbiotic species-relations resists the myth of the individual and autonomous subject that is liberalism’s basic unit of reference. This deterritorializing move promotes the development of rights-based frameworks beyond post-national identities and “results in radical posthumanism as a position that transposes hybridity, nomadism, diasporas and creolization processes into means of re-grounding claims to subjectivity, connections and community among subjects of the human and the non-humankind” (Braidotti, 2013, p. 50). I explore what this kind of transversal solidarity might look (and sound) like, and the capacities of various communication techniques and technologies to actualize them in greater detail below.

Strategies decentering anthropocentric biases proliferate the possibilities for more-than-human relations. This is another one of the intended effects of nomadology, to promote thinking along networks of transversal connection and modes of “post-anthropocentric vitalism” (p. 141) that emphasize “radical relationality, that is to say non-unitary identities and multiple allegiances” (Braidotti, 2013, p. 144). Critical posthumanism promotes the possibility of moving beyond self-referencing tautologies and the myths of individualism that liberal humanist thinking promotes. Another way it does this is by directly intervening in the binaries that have upheld, and continue to

uphold the epistemic practices of segmentation, reduction, and tidy categorization of the so-called “modern” world (Latour, 1991).

According to Ferrando (2019), there is an important—but more tacitly presented—third critical pillar of critical posthumanism: the critique of binary thought. In problematizing binaries, posthumanist perspectives reclaim complexity, paradox, and contradiction as legitimate models of thinking the world. Making space for paradox is a way of moving beyond the certain logical systems that have governed the construction of knowledge in Western paradigms of thought and recognizing how these dualisms have historically been instrumentalized to advance the intertwined ideologies of racism, sexism, ableism, and speciesism. Challenging binaries, thus, also affirms the excluded middle ground that binary thought exterminates and tends to the growth of the world (Massumi, 2002) through the proliferative opening of conceptual spaces and relational linkages. These interventions are conducive to a praxis of radical relationality and “becoming-with,” (Haraway, 2016) and are key to critical posthuman’s capacity for imaging and actualizing justice across a social, transnational, and interspecies axis.

For Braidotti (2019), a central task of the posthuman era entails a “re-grounding of ourselves in the messy contradictions of the present” (p. 38). The posthuman convergence underscores the urgency of developing messy, broad, and diverse coalitions to address what Latour (2017) has called the “wicked universal,” or “the universal lack of Earth” (p. 47) that looms on the horizon. This task requires a commitment to unlearning, to deprogramming, to questioning and quieting the will to essentialize, reduce, discriminate, and to creating sanctuaries for alternative becoming in the middle grounds

and in-between spaces of differently located struggles. This includes the problematic tensions that persist in the middle ground between social and environmental movements. Latour (2017) notes, contemporary environmental movements have largely adopted and continue to work within frameworks and values that dichotomize the relationship between nature and politics in such a way that collaborative possibilities between environmental and social movements are difficult to imagine (Latour et al., 2018). Conversely, social movements entrenched in modernist terminology of “revolution,” “liberation,” and “emancipation” often lack the theoretical and collaborative tools needed to address environmental and land-based conflicts. Perhaps unsurprisingly, the philosophical and rational assumptions that uphold these divisions manifest between conceptual frameworks of solidarity as well (Bayertz, 1999). This is a conundrum that the posthuman convergence has exacerbated as ecological degradation intensifies the effects of social inequalities and social inequalities intensify the calls for material redistribution.

Critical humanism actively addresses the collaborative-quashing effects of binary thought through a natureculture framework, and ongoing engagement with ecosophical and Spinozist philosophical frameworks. Donna Haraway’s (2003) foundational post-anthropocentric concept of “naturecultures” dissolves the nature-culture binary and challenges the stability of ontological boundaries and the process of subject formation. The shift to natureculture inaugurates a cascade of critical moves: it promotes critical thinking and in-habitation within spaces of liminality, processes of mutation and mixture, and emergent kin relations between biological and technological others. What we call “culture” includes, and is organized around, the knowledge practices and technologies

used to make sense of, perform, transform, and inhabit our surrounding environment more equitably with planetary others. The “nature-culture” continuum performs vital (de/re)constructive moves that perforate the boundaries of anthropocentric thought and recuperate possibilities for solidaristic multi-species relations in the face of the posthuman convergence.

The reconciliation of nature and culture into a continuum resists a stark binary between notions of a natural and a “man-made” world, highlighting the ways the world we inhabit is natural and technological, and always more-than-human. This shift counters reductionist understandings of nature as devoid of traces of the human, a notion that has been used historically to perpetuate myths of nature as a *terra nullis* and to instrumentalize the displacement of Indigenous communities (Dowie, 2011). Environmentalist coalitions between Indigenous and non-Indigenous groups are severely inhibited where definitions of “environment” continue to exclude the active presence of humans and the historical relationships of environmental stewardship that are the lifeblood of Native ontology (Agrawal & Redford, 2009). A natureculture continuum links the ecological and the technological in ways that overcome reductive and self-limiting effects of techno-phobic thought and productively problematizes “back-to-nature” solutions that essentialize the human/nature dichotomy, limit the resources available for subject (re)formation, and overlook the ways in which technology is currently playing a critical role to both decode the language of nature (Anthes, 2022), and in the strategic resistances being fought by Indigenous groups on the front lines of the climate justice movement (Gómez-Barris, 2017).

Naturecultural frameworks draw attention to humans as technical beings within evolutionary processes shaped within a human/more-than-human plane of interaction, wherein mutual modifications are ongoing and mutually constitutive. In this view, Steigler (1988) notes, the technical object “becomes the interface through which the human qua living matter enters into relation with the milieu” (Steigler, p. 49). This idea is given theoretical traction in Braidotti’s (2016) concept of medianaturecultures, which embeds the natureculture continuum in a monistic plane of vital materialism to bypass “the binary between the material, the technological, and the cultural” to focus on their interactions and better “interrogate the boundaries between them” (Braidotti, 2016. p. 384). The proliferation of flows, digital nodes, circulatory networks, points of virtual contact, and naturalcultural interfaces calls for expansive lenses to better analyze them. The acknowledgement of technology’s ubiquity as both an everyday presence and as a co-constitutive element of evolutionary process should not be confused as an uncritical welcoming of all experiments with the technological. Rather, this perspective considers ways technology suffuses and mediates the process of living; Highlighting processes of becoming-with media technology and other machines cultivates awareness and understanding around ways to better live with and through technology, (including the ways in which we are perhaps being sold into it).

For Braidotti (2013) navigating the complexities of techno-human entanglements is one of the defining cognitive challenges of these times, a challenge that knee-jerk rejections of all things technological deeply obstructs: “One of the most pointed paradoxes of our era is precisely the tension between the urgency of finding new and

alternative modes of political and ethical agency for our technologically mediated world and the inertia of established mental habits on the other” (p. 58). A medianaturaculture continuum lends itself to an array more-than-human literacies so that we may increase our capacity for transforming ourselves, our social milieu, and our ecological systems into more just and livable places for all beings.

Ecosophy

Ecosophy—a portmanteau of ecology and philosophy—is a philosophical perspective that seeks to explain the processes and relationships found in the environment. Two related but distinct approaches to ecosophy were developed by Norwegian philosopher and founder of “deep ecology” Arne Naess and French philosopher, psychoanalyst, and semiotician Felix Guattari. Naess’ (1973) “deep ecology” approach advocates for the restoration of ecological harmony and activates care for beings in nature through processes of identification with ecological others. This approach has been critiqued as a “soft” environmentalism with limited value due to its emphasis on philosophy over practical interventions (Luke, 2019), and its tendency to pin responsibility for nonhumans to perceived similarities, which performs a type of “moral extensionism” that reinforces binaries by leaving anthropocentric orientations and reified notions of natural “essence” in place (Plumwood, 2002).

In contrast, Guattari’s ecosophical approach circumvents essentialized notions of nature or the human in order to explore the area of their embeddedness and mutual becoming. In his book *The Three Ecologies*, Guattari (2000) fuses together psychological, sociological, and ecological frameworks into an analytical tool that

enables a flexible diagnosis and prescription for power, political subjectivity, and ecological responsibility. This fusion serves a counter-move to the pathological illusions of an eco-social divide (Bateson, 1973), intervening in inherited binaries of thought and the fractures of postmodernity, which have scattered and reorganized the logics of political agency and of Capital. Shifting arrangements of power necessitate adaptive, fluid, and multi-scalar approaches to resisting them.

Guatarri's (2000) three ecologies approach provides a mode of understanding the implications of technological advancements on political subjectivity within the broader sweep of evolutionary histories. The ecosophical approach links a process ontology to modes of resistance in a technologically networked world, promotes understandings of an evolving subjectivity and collectivity that:

completely exceeds the limits of individuation, stagnation, identificatory closure, and will instead open itself up on all sides to the socius, but also to the machinic Phylum, to techno-scientific Universes of reference, to aesthetic worlds, as well as to a new 'pre-personal' understanding of time, of the body, of sexuality. (Guatarri, 2000, p. 46)

This perspective is helpful to understand technology's role in the fracturing social bodies as well as its role in the proliferation of experimental forms of subjectivity and collectivity, which diffuse information, affects, and a myriad of communicative nutrients through transversal lines of becoming. It also underscores the potential of music to circulate more-than-human understandings and engender transversal modes of solidarity through expanding technological networks and experimental modes of communication

and (a)signification. Approaching solidarity through an ecosophical lens of transversal relations entails a recalibration of the codes governing communicative action and political coordination.

Material Semiotics and Solidarities of the “Collective” Middle:

Posthumanist theorists’ efforts to recover paradox opens the floodgates of conceptual creativity, a move that irrigates and loosens well-trodden pathways of signification to produce new hybrids, fissures, aggregates of meaning and materiality. These interventions can take many different forms, including storytelling, speculative fabulation, neologistic word play, art, and other communicative mediums that (re)define the social sphere of the “human” along with familiar notions of family and kin. These practices cross-pollinate and unleash streams of thought stocked with tales of symbiotic, parasitic, hybrid, queer, cyborgian, spectral, biotechnologically mediated, and inter- and multi-species relations and agencies. These lines of flight—sometimes outlandish and dizzying, sometimes profoundly grounding—set the imagination ablaze through strange entanglements of human/nonhuman beings and other frontiers of the emergent and weird. While these interventions can vary wildly, most of these narratives share the goal of disrupting and exploding imaginations open to the ways in which social worlds are composed of and shaped by diverse casts of more-than-human actors. The resulting view is what Braidotti (2019) terms a “multi-scalar relationality”: “Life is not exclusively human: it encompasses both *bios* and *zoe* forces, as well as geo- and techno-relations that defy our collective and singular powers of perception and understanding’ (p. 45).

This creativity is linked in part to critical posthumanism's post-identitarian approach, which emphasizes the mingling of substances and playful ambiguity over the stability of metaphysical essences. Braidotti (2015) elaborates on this point stating:

Posthuman feminists look for subversion, not in counteridentity formations, but rather in pure dislocations of identities via the disruption of standardized patterns of sexualized, racialized, and naturalized interaction. Feminist posthuman politics is an experiment with intensities beyond binaries, that functions by “and, and,” and not by “either-or.” (p. 689)

While slowing the march of binary thought, and-and orientations generate expanses of middle ground for conceptual experimentation. Feminist thinkers who traverse posthumanist and new materialist terrain have carved a philosophical space that celebrates the materiality of embodiment alongside the shedding of false binaries and dead cultural skins.

Importantly, the middle is not significant only because of its relation to opposing values or “originals” perceived as authentic and pure. Rather, this shift promotes the ontological status of the middle *as* an original and generative location offering new modes of identification, belonging, and alliance. Massumi (2002) has referred to this location as “the being of the collective middle: belonging in becoming” (p. 79). Freed of normative inscriptions, the semio-materiality of existence is molded into new visions of membership and belonging that span a diverse array of creative, empathetic, and strange alliances across the human-more-than-human nexus (Hayward, 2012). In other words,

posthumanism has aided in the “queering” the human/nonhuman boundary (Giffney & Hird, 2008).

New materialist and posthuman theorists make deft alliance-building use of these post-dualist strategies through practices of “material semiotics” (Haraway, 2017), which fold into a singular view the materiality of signs and the semiological nature of matter. A wide array interdisciplinary insights and approaches are fused into hybrid zones and spaces of a collective middle belonging that implicate the dichotomizing grains of colonial structures (Bhabha, 2004; Latour, 1991), racism (Gilroy, 2000), sexism and gender norms (Colebrook, 2014; Firestone, 1970; Grosz, 2004; Giffney & Hird, 2008; Halberstam & Livingston, 1995; MacCormack, 2008, 2012), speciesism (Hayward, 2008, 2012; Livingston & Puar, 2011), and Leftist politics (Pickering, 2005; Morton, 2019). Halberstam & Livingston (1995) stress, “(p)osthuman bodies are not slaves to master discourses but emerge at nodes where bodies, bodies of discourses, and discourses of bodies intersect to foreclose any easy distinction between actor and stage, between sender/receiver, channel, code, message, context” (p. 2). Purities are suspect (Shotwell, 2016), transcorporeal contaminations the norm (Alaimo, 2016), and the composition of more-than-human assemblages challenge “taxonomies of power” (Kim, 2015) by “emphasizing relationships over types and by joining a politics that queries the origins, products, and uses of classificatory hierarchies” (Livingston & Puar, 2011, p. 7).

Similar binaries and reductionist taxonomies continue to operate in and demand intervention within music theory. As an object of study, musical worlds are frequently organized and presented in dichotomies, such as human/animal (Blacking, 1973),

noise/music (Higgins, 2012), serious/vernacular musics (Small, 1998) listener/musician (Born, 2010), and audience/artist (Rosenthal & Flacks, 2015). These categories gain a productive permeability through the post-dualist lens of assemblage, which highlights musical encounters as discursive/material entanglements, as polyrhythmic, intermodal, and multidirectional hybrids, and resonantly “extra-musical” phenomena. Thinking musical encounters through the lens of medianatureculture also helps me to think-feel and theorize about the role music might play in the mediation of more-than-human matters and the cultivation of a critical posthuman ear. Through a cascade of ruptured binaries, critical posthumanism reclaims the power of paradox, and the coexistence of seemingly contradictory ideas. The commitment to post-dualism sponsors productive oscillations between critical deconstruction and ontological generativity—critique is bound to creation—a feature of critical posthumanism that opens musical doors to revised notions of community, society, ecology, and non-binary modes of more-than-human belonging and obligation.

Indigenous Cosmologies: Epistemological Resonance or Appropriation?

The vital materialist perspective has many parallels with Indigenous philosophy and traditions of thought. This fact has been pointed out by Indigenous and new materialist scholars alike (Barad, 2017; De Line, 2016; Higgins, 2017; le Grange, 2018; Rosiek & Kinslow, 2016; Todd, 2016; Tuck, McKenzie & McCoy, 2014, Watts, 2013). Although I do not ignore Indigenous cosmologies in this project, my engagement when them is limited for a few reasons that I outline in this section. I am considerate of the potential implications of this limited engagement. As Rosiek, Syner, and Pratt (2020)

have succinctly outlined, while there is great potential for new theoretical possibilities in the synthesis of these literatures, there are also risks of cultural appropriation. On the flipside, failing to acknowledge these traditions perpetuates a narrative of “discovery” and the continued neglect of Indigenous voices and culture. My choice to limit analytical contrasts and cross-pollinations comes down to this: Borrowing inspiration from Indigenous cosmologies must be done with care, commitment, and in deep engagement with Indigenous voices if it is to avoid reproducing the epistemic practices of colonial extractivism (Gomez-Barris, 2017). That said, given their capacity to shift the ways in which more-than-human relations are imagined, lived, and defended, I hold Indigenous cosmologies as conceptually resonant and affirming of key aspects of critical posthumanism.

Indigenous resistances have long coupled the struggle for decolonization with the fight more-than-human justice and relations (Estes, 2019). Where it seeks to generate affirmative visions of the future—a defining feature of its approach—critical posthumanism (and the planet) stands to gain from the lessons found in Indigenous thought. Haraway’s (2016) integration of the Navajo string game *na’atl’o’*—which elucidates the continuous weaving, entanglement, and interdependency of the web of life—represents one potent example of this kind of emulsification. Experiments such as this hold promise in the dialogic bridging of world views, and I am drawn to instances where new materialism and posthuman thought overlap with Indigenous scholarship. The continuing mutation and reconfiguring of naturalcultural solidarities in cross-cultural

contexts—as illustrated in the opening vignettes—calls for continued transversal dialogue between diverse epistemologies and the development of complex analytical tools.

I realize calls to synthesize can raise red flags as acts of incorporation and cultural subsummation. But I find the idea of synthesis both more interesting and conducive to solidaristic relations than decolonial calls to cleanly “delink” from Western epistemologies and hegemonic definitions of the human all together (Mignolo, 2011). If we are to believe Mignolo’s assertion that “colonialism is not over, it is all over,” then we would also have to ask where a pristinely preserved cultural space might be found. As Harding (2018) has observed, “(h)ow delinked could any culture become in this kind of ever more densely linked world?” (p. 48). From a posthumanist perspective, delinking, or efforts to find a space “outside” is complicated by a post-dualistic perspective, favoring philosophical provocations that prioritize permeations of in-betweenness and collapse clean notions of inside/outside altogether. I read calls to “delink” as a move to purity (Shotwell, 2016) that is symptomatic of the rhetoric of much of contemporary decolonial thought, and a reflex that obstructs the development of creative, hybrid, and syncretistic forms of resistance that transform existing hegemonic structures and institutions, rather than replicate the impulse to purify, a practice that has historically circulated under the nomenclature of “Modernity” (Law et al., 2014). That said, I believe it remains important to consider and include decolonial and Indigenous theoretical perspectives where it helps to deepen my analysis of power relations in the context of the posthuman convergence.

Importantly, climate change presents novel challenges and unprecedented conditions to all cultures of the planet, proliferating the issues problems that exceed the resources and limits of *all* existing knowledge systems. Latour (2017) acknowledges the value and limitations of Indigenous ontology, commenting, “Without lulling ourselves with illusions: for them, too, there is no precedent” (p. 44). Critical posthumanism, while acknowledging and attuning to these lessons and modes of being, also acknowledges that the problems the planet faces require a diversity of epistemological approaches.

Holding Critical Posthumanism Accountable to Itself

The critical aspirations of critical posthumanism are turned on itself through a number of theoretical frameworks. Wolfe’s (2010) explanatory model helps us to understand the obstacles dotting the posthumanist theoretical landscape and offers a set of criteria for the development of critical posthumanist pathways. Reviewing this discussion is helpful to understand how critical posthumanism’s assumptions distinguish it from other strains, and how its cartographical work stays accountable to its own tenets. For Wolfe, posthumanist frameworks can be distinguished according to the topics they pay attention to and the assumptions they work within and reproduce. Therefore, interrogation of posthuman frameworks must happen at both the level of *content* (the strategic and argumentative choices made to decenter the human, etc.) and *assumption* (the guiding rules and disciplinary frameworks deployed that validate those arguments and strategies). The assumption here is that de-centering is not enough. We must interrogate knowledge production on the ground floor of its assembly. Doing so helps to reveal the tacit rules of correlationism, or what Foucault (2005), critiqued as “the positive

unconscious of knowledge,” and the “rules of formation which were never formulated in their own right” (p. xi).

Wolfe organizes these two levels—content and assumption—along and x and y axis to organize and situate various strains of thought as either; a) humanist humanism, b) humanist posthumanism, c) posthumanist humanism, or posthumanist posthumanism. For example, Wolfe classifies the work of animal rights theorists Peter Singer and Tom Regan as “humanist posthumanism”; they explicitly address issues of animal welfare (a post-humanist topic on the level of *content*) but do so by applying a rights-based framework borrowed from liberal humanism (a method that leaves the category of the “human” intact). Braidotti (2013) has referred this kind of extension of human moral frameworks to the animal world as “compensatory humanism” in the way it reproduces and reinforces hierarchies linked to an Enlightenment era cosmology. In contrast, Wolfe places the work of Jacques Derrida and Donna Haraway in the “posthumanist posthumanism” quadrant as they develop theories of a more-than-human ethics that work to actively interrogate and deterritorialize the category of the “human” and the assumptions that preserve its place in a hierarchy of beings. Scrutiny on both levels—both the issues being analyzed and the assumptions working within the analyses—enables the critical evaluation of various applications of posthumanist theory.

The critical, multi-level evaluation of posthumanist frameworks elucidates assumptions that can jeopardize or overestimate the possibilities for solidarity. In his analysis of the field, Wolfe (2010) explicitly calls out approaches that substitute invocations of pluralism for the necessary work of disrupting frameworks of liberal

humanism, noting “(i)n that event, pluralism becomes *incorporation*, and the projects of humanism (intellectually) and liberalism (politically) are extended, and indeed extended in a rather classic sort of way” (p. 99). Jackson (2020) echoes these critiques where members of African diasporic groups are saddled with the “burden of inclusion” (p. 18) by calls for “recognition” within the category of the “human,” a strategy that can in some instances degrade rather than liberate or engender solidaristic feelings. An alternative route is suggested in the breaking free from the assumptions that have constructed the human to begin with: “If being recognized as human offers no reprieve from ontologizing dominance and violence, then what might we gain from the rupture of ‘the human’?” (Jackson, 2020, p. 20).

Jackson’s work, while enriching the field of posthumanist theory, draws attention to a few of its potential theoretical pitfalls: posthuman theory that does not situate itself somewhere within, or explicitly discuss the trajectories of history is limited as a tool for theorizing in abstract terms the material realities of a racialized, sexualized, and naturalized world. Many strands of posthuman theory, Jackson points out, trade on assumptions about the human-animal divide that do not reflect the historical relationship of black(ened) people to either the “human” or the “animal” category. This critique establishes a warrant for theorizations and ontological flourishing beyond calls for “inclusion” and the consolation prize of “recognition” that this allots. What is the value of “recognition” without the material protections, benefits, and guarantees conferred to those recognized *as* “human”?

Reducing the humanist assumptions being smuggled into posthumanist theorizing requires reflecting on the unstated assumptions as well as the political and historical forces that have conditioned critical consciousness, or as Wolfe (2010) gives it, the “nature of thought itself must change if it is to be posthumanist” (p. xvi). I believe this applies equally to the task of theorizing more-than-human solidarities, wherein moves to “include” in solidaristic relations a broad array of planetary actors can reproduce erasures through incorporation and ontological containment. “Critical” posthumanism—which Braidotti (2013) distinguishes from the “analytic” and “reactionary” approaches—can help, however imperfectly, through its situatedness in the political and historical dimensions of lived experience. Further, these commitments to a politics of location are extended to the material and temporal entanglements of human and more-than-human worlds, a move that catches discussions of livable futures up with the messy and migratory pursuits of multispecies thinking.

Concluding Caveats

Critical posthumanism promotes accountability through historical analyses of systems that have generated and benefitted from humanist and anthropocentric thought. But these critical dimensions of critical posthumanism, while attuned to the ethical contours of historical trajectories, do not subscribe to a historicist view, which can take history at face value or present history as an absolute. Nor do these critiques take historical revisionism to be their main objective. Written and oral histories and other accounts of the past are not discarded, only filtered through a multi-species, evolutionary view of history that problematizes assumptions of history as “natural” and not a product

of Anthropos, a situation that inevitably (re)produces certain gaps, biases, hierarchal relations, and inequities (Wolfe, 2010). A politics of location given over to a relational and process ontology presents a paradoxical set of ethics that holds emergence, change, and possible futures in productive tension with historical interpretations: history influences and puts constraints on what is considered possible, and for whom, but it is not deterministic of these possibilities.

Critical posthumanism offers a way to flexibly navigate the entangled historical ethics of the posthuman convergence. Within broadened frameworks of material symbiosis, transversal connection, and more-than-human *planetary* belonging, critical posthumanism reframes duty and obligation in terms that implicate but do not erase a wide spectrum of ontological locations, histories, and experiences. The *historically-grounded-but-not-bound* approach that critical posthumanism offers provides a complex, but not complete, picture of converging crises and opportunities. A critical posthuman analysis therefore presents a “sharper focus on the complex singularities that constitute our respective locations” with “careful negotiations in order to constitute new subject positions as transversal alliances between human and nonhuman agents, which account for the ubiquity of technological mediation and the complexity of interspecies alliances” (Braidotti, 2016b, p. 387).

Critical posthumanism stands out from other strains of posthumanism in ways that make it a useful tool for theorizing solidarities and alliances with respect to the issue of climate change. Its rich theorization of more-than-human interdependencies and systems is born out of postmodernist and poststructuralist deconstructions of Enlightenment

humanism, a focused critique of anthropocentric thought, and axiological commitments to postcolonial and feminist politics of location, enabling complex analysis of the historical, political, economic, and philosophical drivers behind climate change as well as the actors, technologies, and artistic practices available to address it (Braidotti, 2013, 2019). Broadly speaking, critical posthumanist theorists weave an “eco-philosophy of multiple belongings” that “expresses an embodied and embedded and hence partial form of accountability, based on a strong sense of collectivity, relationality, and hence community building” (Braidotti, 2013, p. 49). These cartographies of “multiple belongings” intervene in modernist *and* postmodernist frameworks of solidarity and compel the formation of transversal obligations and duties within more-than-human networks of life. How these relations are theorized activates my own thinking about the role of music as a medium through which these visions might be composed, circulated, and emulsified in the space of musical encounters and political movements. In the next chapter, I outline key ontological dimensions of critical posthumanism that compel a (re)drawing of solidaristic boundaries as open and emergent, and inform an array of more-than-human musical practices, techniques, and technologies.

Part I: Who is “We”?

Part I of this project turns on the question: “who is ‘we’?” It is an open and increasingly salient question as ecological systems continue to buckle under the weight of destructive anthropogenic forces, as processes of globalization displace and further compress cultural groups into tighter spaces, and as technology embeds itself deeper into our lives (and we into it). I deploy this question as a refrain, to guide speculation regarding the possibilities of more-than-human solidarity within the conditions of a posthuman convergence. A critical posthuman perspective furnishes this kind of inventory and reweaving of taken-for-granted relations by (re)orienting critical attention to enmeshed and endangered living systems that re-story the definitions, roles, and responsibilities of the “human” within broader tales of ethical multi-species relations.

The primary goal of the chapters included in Part 1 is to deterritorialize the theoretical landscape of “solidarity,” to make the terrain arable for the emergence of musically-mediated, more-than-human seedlings. “Our” sense of collectivity has implications for how “we” understand and fulfill or neglect “our” obligations and responsibilities to planetary others. The climate crisis and exigency of multi-species survival underscores the importance of expanding perceived circumferences of belonging and cultivating what Haraway (2016) refers to as a “response-ability” to planetary others. This expansive effort must include developing transversal strategies to work within and beyond the residues of neoliberalism, divisive social constructs, and racist, sexist, ableist, and speciesist ideologies that dissolve moral and ethical obligations to non-human and perceived less-than-human others. Transversal, more-than-human frameworks can

powerfully inform musical praxis in the context of climate change activist networks and broader ecologies of emerging social and ecological movements.

In my engagement with the question “who is ‘we’?”, I diffract contrasting political, sociological, anthropological, philosophical, and scientific perspectives with the important rhetorical work of envisioning desirable futures done by social theorists, artists, poets, musicians, teachers, and activists. These experiments reconsider “old,” and pursue new hybrid modes of knowing, being, relating, and becoming-with that exceed a modernist/traditionalist binary and compose cosmologies of radical multispecies *inter*-subjectivity that deserve greater attention, wider audiences, and actualization through sonic and musical modalities.

(Re)Conceptualizing “Solidarity”

As a phenomenon, solidarity resides within a nexus of many tensions, dialectics, and paradoxes. Uses of “solidarity” can refer to both what *is* and what is *aspired to*. The *factual* dimension of solidarity points to shared understandings regarding belonging and obligation, and the *normative* dimension guides supportive actions in the scenarios where aid, assistance, or some other type of action is warranted (Bayertz, 1999). This fact-norm dialectic underscores the emergence of solidaristic relations and the imperatives to defend them offering a productive tension that encapsulates its social value and rhetorical potential (Pensky, 2008).

Solidarities can coalesce around efforts to initiate, curtail, or continue certain behaviors in step with a specific or generalized group’s needs. Bayertz (1999) refer to the actions that we take for a solidarity group as *positive* obligations, and conversely. the

actions members of a solidarity group discontinue or refrain from doing are *negative* obligations. Solidarities may form out of the need to consolidate around and conserve traditions, or to break free from them (Crow, 2002). These inducements to solidarity are negotiated across a wide spectrum of factors, including differentially perceived needs, identities, ethics, values, and beliefs, and degrees of willingness of individuals and collectives to adapt and/or transform.

There are many limits to solidarity. Willingness to undertake solidaristic action is often constrained by perceptions of closeness, relatedness, and/or dependency. Bayertz (1999) elaborates, “(o)ne is not ‘solidary’ with just anybody, but only with the other members of the particular community to which one believes oneself to belong. A differentiation between those belonging to ‘us’ and everybody else is thus prerequisite” (p. 4). While exceptions to this rule can be found in forms of religious solidarity as well as feminist and postcolonial spaces influenced by postmodern valorizations of “difference,” it highlights the role that homophily, or perceptions of sameness can play as a limiter on solidaristic relations. It is a variable that bears on the prospects of more-than-human solidarities.

Pensky (2008) describes this tension in terms of an inclusion—exclusion continuum. On one end, solidarities can include many based on the value of inclusion, perceptions of a shared “essence,” and perceived symmetries of power, a perspective commonly linked to Enlightenment-inspired universalisms such as those that undergird the principles of liberal democratic states or humanitarian organizations such as the United Nations or Doctors Without Borders. On the other end of the spectrum,

exclusionary solidarities can arise with respect to experiences of shared oppression, an oppositional stance to a common enemy, or perceptions of asymmetrical relations with an outside and potentially hostile other. Examples of this type of solidarity include those conceived by socialist, nationalist, and identity-based movements of the late 19th and early 20th century (Pensky, 2008).

Taylor (2003) approaches the inclusion—exclusion dynamic differently, distributing examples of solidarity along a liberalism—communitarianism continuum, or between what he refers to as “atomist” and “holist” camps. The liberalism-inspired perspective incorporates neo-Katian conceptualizations of solidarity, which are premised on overarching moral universalisms, and the ideals of equity and reciprocity with generalizable others. Paradoxically, while this view gestures toward inclusivity, it can be mobilized to safeguard the rights, autonomy, and “liberties” of the individual and is, hence, considered “atomist.” Conversely, communitarian conceptualizations of solidarity are based in the particularities of mutual relations, perceptions of shared struggles, and/or intentional efforts to counter the atomizing and fragmenting effects of liberalism and are, hence, “holist.”

Bayertz (1999) identifies a similar universalist—particularist dynamic when contrasting “modernist” solidarities with various postmodernist or oppositional strands of solidarity. Placement along this inclusion/exclusion gradient is heavily influenced by the emphasis placed on identity. For example, while “modernist” solidarities stay tethered to moral universals and are “united in their belief that moral norms may not contain any

references to contingent characteristics such as the membership of groups,” other expressions of solidarity explicitly attempt to:

separate themselves from the dominant normative orientations of Modernity.

These include communitarianism, feminism, and post-modernism, to name but a few, all based on a common discomfort with regard to the emphasis upon the general in modern ethics, and all (each in its own way) aiming toward a rehabilitation toward the particular. (Bayertz, 1999, p. 4)

Although particularist solidarities draw strength from specific historical locations, identities, and shared experience, universalist solidarities tether to dehistoricized ideals and abstract moral principles, or what Hoelzl (2005) has referred to as a “transcendental referent.” The contrast between these perspectives aids efforts to analyze and differentiate them: In some instances, solidaristic groups are defined in terms of their opposition to another (Bayertz, 1999). When sifted through the question “who is ‘we’?”, dramatically different notions of belonging and obligation emerge.

In my pursuit of a musical praxis of more-than-human solidarity informed by a critical posthumanist framework, I am keen to locate and amplify the contours of positive and negative obligations working within the transversal relations of more-than human alliances. Through a diffractive (re)reading of Bayertz’s four “uses,” I believe “we” can begin to echolocate and attune to emergent more-than-human forces that are rising to confront the precarities of a posthuman convergence, and to meet the challenges of the times that “we” seek to go on living in. Critical posthuman cartographies generate multi-scalar accounts of ecological interdependency and disturbance that promote awareness

of—and invite care for—traceable and expansive circumferences of multispecies webs. The critical challenge ahead lies in the transposition of these ideas into practice, of generating rituals of belonging and care, and engaging in actions that affirm solidaristic relations. What forms might these solidaristic relations take, and through what communicative modes might they be constituted?

Importantly, as dynamic and uniquely situated assemblages, no one singular empirical example of solidarity is reducible to another, and each evolves in scope and nature over time as their constitutive elements, actors, and contexts change. Additionally, solidarities are messy and impure; they spill beyond and span across typological boundaries set upon them, and their expansive threads and networks are densely intersecting. The conceptual confusion surrounding the concept of solidarity is, in part, what prompted Bayertz (1999) to undertake his project, and his typography provides a basic organizational framework and location from which a deterritorialization of the subject can begin.

Chapter 3: “We” the People: (De)Composing Civic Solidarity (and the Welfare State)

According to Bayertz (1999), civic (or welfare) solidarity binds people through notions of common welfare, mutual obligation, shared identifications with a state or a particular national identity. It is in the context of the French Revolution where the contemporary meanings associated with “solidarity” as a “debt,” or “collective liability” came into fruition (Metz, 1999). The philosophical roots of civic solidarities are commonly traced back to Rousseau (1997) who theorized in *The Social Contract* the relationship between the individual and the larger body of civic institutions as reciprocal and mediated through a welfare state system. Civic solidarities represent an important historical shift in arrangements of power as the sovereign rule of monarchs and aristocracies was—in theory at least—distributed among “the people” through collective investments into a “rule of law.” Within civic solidarities, cohesion of the civic body is thus undergirded by various legal frameworks—such as constitutions, laws, statutes, and provisions—that formalize the rights and entitlements of a state’s citizenry and mutually obligate the individual and the state to one another. Principally, these entitlements and guarantees help to facilitate the buy-in of citizens, and through forms of allegiance, service, and the collection of taxes, states are supplied the legitimacy and economic resources needed to distribute benefits and maintain modes of administration and governance.

Solidarity, as it is used in the context of the welfare state, is premised on a heady brew of liberal and humanistic values such as democracy, equality, mutuality, and

reciprocity rooted in notions of a citizenship, national identity, and moral duty as outlined by Rousseau. Bayertz (1999) links these notions of reciprocity to the idea of “citizens of a state having certain obligations to help their fellow citizens, due to common history, language, culture, etc., which they do not have toward other human beings—i.e. inhabitants of other states” (Bayertz, 1999, p. 21). This perspective captures the role of discursive and cultural production in perceptions of sameness, and how those perceptions feed into an inclusion-exclusion dynamic that further consolidates the resources and affiliations of the civic body. The goal, as Rousseau (1997) characterized it, was “to find a form of association that will defend and protect the person and goods of each associate with the full common force, and by means of which each, uniting with all, nevertheless obey only himself and remain as free as before” (pp. 49–50). The liberal welfare state, thus, symbolizes a crucial paradox by encompassing universalist and “atomist” inducements to solidarity, where all are dependent on the whole of society, and none are dependent on each other. Liberal democracies founded on the principles of a social contract and through the mechanisms of civic solidarity endure as Modernity’s promise of a rational, secular, and free human society.

Civic solidarities also push anthropocentric designs for social cohesion to certain philosophical and practical limits, and in many ways, reveal the complicities of both liberalism and philosophical humanism in contemporary ecological crises. Civic solidarities and the forms of citizenship they imply offer varying degrees of protections, rights, and entitlements. Nira Yuval-Davis (2011) argues that citizenship—in addition to any social, cultural, political, or religious category of “belonging”—is most effectively

analyzed through an intersectional lens, as overlapping matrices of power, prejudice, privilege, and social position all bear on the rights, entitlements, and mobility one has available to them. Among the entitlements baked into the DNA of emerging nation-states, the rights accorded the “human” were perhaps the most presumed and conspicuous. This feature of civic solidarities stands out in Max Weber’s (1948) classical definition where he claims the establishment of a “nation-states” when “a human community (successfully) claims the monopoly of the legitimate use of physical force within a given territory” (p. 31). Yuval-Davis (2011) retraces the anthropocentric contours of this definition, noting:

this definition assumes a particular ‘human community’, the nation, with particular boundaries, that is living in a particular territory, the ‘homeland,’ with particular boundaries, what is governed by a state which assumes a monopoly of the legitimate use of physical force to police that state within and fight its enemies without. (p. 31)

The emergence of the nation state system is often held as coterminous with the development of capitalism, which has implicated the forms and degrees of “welfare” civic solidarities can be said to guarantee (Wood, 2017). As the industrial revolution gained steam, the need for labor also grew, which together with private property rights, incentivized the dispossession of people from land and contributed to a cascade of other effects. These included the loss of a “commons,” a surge in the numbers of the land-less whose survival depended on the market value of their labor, and the beginning stages of

ecological destruction on a global scale through large-scale agricultural development and resource extraction (Federici, 1995; Wood, 2017).

In the wake of these new arrangements, the social contract upon which emerging European and North American welfare states were founded revealed deep contradictions by distributing protections and benefits in ways that favored propertied and land-owning classes and the financial institutions that backed them. From these contradictions, new antagonisms and solidarities were formed, including the emergence of a “proletariat solidarity” born out of the shared experiences of dispossession and struggle. This form of alliance coalesced around issues of labor, class, and an unfurling array of demands that would become the ideological framework of socialism. (I devote more attention to this bond between the dispossessed in the next section on “social solidarity”). Importantly, the rise and institutionalization of civic solidarities represents a significant rupture of the belonging—obligation arrangements and reciprocities endemic to more-than-human systems, and the class antagonisms that emerged out of this historical juncture represent a key and ongoing contradiction between the philosophical idealism and economic, political, and practical reality of liberal democracies.

The forces of late-Twentieth and early Twenty-first Century globalization have continued to reveal numerous cracks and vulnerabilities in the “common welfare” idealism that is the glue of civic solidarities. For those newly arrived or living on the fringes of a dominant culture, one’s citizenship status, and phenotype—Hall (1991) reminds us—is often closely tied to one’s capacity to culturally assimilate. Normative models of citizenship have historically enforced a dominant vision of what a “good

citizen” looks like. Pressures to conform to cultural norms, and the dangers associated with failing to do so, continue to test ideals of civic solidarities and represent an ongoing existential threat to immigrants and cultural identity groups.

The economic forces of globalization have also impacted the ability of states to fulfill their end of the solidaristic bargain. Linking the historical legacy of colonial imperialism to current economic “development” projects, McMichael (2005) notes that many states have been forced to restructure to remain competitive in a global free market, contributing to a “crisis of sovereignty” that “is expressed formally in declining state capacity to protect (all) citizens” (p. 597). For Bauman (2008), the very notion of solidarity has become increasingly difficult to imagine under the neoliberal spell of bootstrap individualism, which “derides the principle of communal responsibility for the wellbeing of its members, decrying it as a recipe for a debilitating ‘nanny state,’ and warning against care-for-the-other on the grounds that it leads to abhorrent and detestable dependency” (pp. 20-21). While early forms of civic solidarity established by the French and American revolutions promoted the ideals of equality and—under the rubric of “citizenship”—expanded circumferences of affiliation, belonging, and political participation, their histories are deeply entangled with systems of economic exploitation of human and non-human worlds.

These overlaps can manifest in forms of environmental racism. Marginalized communities are disproportionately affected by the polluting industries and the environmental degradation (Hardy, Milligan, & Heynen, 2017; Hsiang, Kopp, Jina, Rising, Delgado, Mohan, & Larsen, 2017; Tessum, Apte, Goodkind, Muller, Mullins,

Paolella, & Hill, 2019; Xu, Kohler, Lenton, Svenning, & Scheffer, 2020). Between developer land-grabs, urban “renewal” programs that partition and choke off communities from themselves and the impacts of habitat loss, and regions where poverty hamstring the capacities to adapt, environmental justice campaigns must fight a host of intertwined issues, through a complex set of social, cultural, political, legal, and environmental vocabularies and frameworks. Articulating together environmental and social injustices translates assemblages of ecological and human health crises into matters of *civil* rights, a strategy that opens the conversation up to the unconstitutionality of industrial pollution and toxic environments while making the issue more intelligible within a legal system that favors precedence.

But this strategy frequently results in addressing issues of environmental degradation through the legal precedence of discrimination laws, a move that can require awkward definitional contortions and concessions of identity and dignity by members of aggrieved communities: Black and brown communities can be framed as “new endangered species,” while facing a “beggar’s choice” between either a clean environment or jobs that polluting industries provide (Popescu & Gandy, 2005). And these grievances must be proven, meaning that environmental justice campaigns making claims on behalf of aggrieved communities put the onus on plaintiffs to furnish convincing evidence of shared experiences of oppression, including convincing empirical correlations between race, class, and health status, a process that can be as exhausting as it is demeaning. This can be particularly difficult in instances where the harms being done to human and nonhuman peoples is protracted over time, or difficult to perceive, a

phenomenon Nixon (2011) refers to as “slow violence.” The enactment of environmental policies and actions within disadvantaged communities can ultimately hinge on perceptions of a “linked fate” (Dawson, 1994), highlighting ways in which the politics of identity must supply the requisite “recognition” for action, and thus eclipse the rights and dignity accorded to the nonhuman.

Civic Solidarity: Limiting Designs (or, Designed to Limit?)

Several theoretical perspectives bring the limitations of civic solidarity, and the social contract that undergirds it into sharper focus. Social contracts developed in the Western liberal and humanist traditions have historically elided their terms and conditions, which have often denied the rights and dignity of sexualized, racialized, and naturalized “others.” Pateman (1988) has pointed out how the social contract—which presupposes a form of reciprocity between the government and the governed—is at best a political fiction used to obscure alternative forms of domination. Operating in the subtext of the social contract, Pateman argues, was a *sexual contract*, which facilitated the extraction of both free and undervalued labor from women for hundreds of years. Mills (1997) transposes this idea into the arena of race by demystifying the notion of social contracts arising out of a consensus between equal peoples and by making visible the hidden logics of racialization embedded in contractarianism. Liberal thought that does not explicitly and reflexively foreground how racial prejudices are baked into the ideas of “classic contractarians” such as Rousseau—as well as Hobbes, Locke, and Kant—reproduce a white supremacist logic, Mills argues.

If a social contract only endures as a myth, it is not one that has only impacted human relations: Fervor around the development of contractarian societies has had serious historical consequences for natural “others” as well. Inspired in part by the US Bill of Rights, the Declaration of the Rights of Man was drafted and celebrated contemporaneously with the French Revolution and was designed to acknowledge the limitations of “civil rights” of the nation state citizen by recognizing the “natural rights” of universal man as “eternal and unalterable truths” (Maslan, 2004, p. 360). While this contract helped to set into motion emancipationist movements such as the Haitian revolution (Blackburn, 2001), and laid the foundation for the development of a cosmopolitan framework of human rights, it also worked to solidify the boundary—and the loopholes in the contractual relationship—between man and nature in the Western imagination.

Serres (1995) regards the drafting of this document as turning point in the relationship between Western society and the natural world (following closely behind Descartes’ mandate to “make ourselves master and possessors of nature”). With the Rights of Man, Serres argues, “the social contract, suddenly, came to a close, but closed in on itself, leaving out the world, the enormous collection of things reduced to a status of passive objects of appropriation” (p. 36). By formalizing into the paradigmatic language of “rights” the condition of a universal “man” the French National Constituent Assembly further legitimized the ontological and epistemological gross negligence of natural “others” by naturalizing the laws of “man” as the ultimate charter and crown jewel for a

liberal world order. To repair this situation, Serres (1995) argues, deep revisions to the social contract are needed, which must include:

a natural contract of symbiosis and reciprocity; a contract in which our relationships to things would no longer involve mastery and possession, but an admiring stewardship, reciprocity, contemplation, and respect, in which knowledge would no longer imply ownership, nor action mastery, and in which neither ownership nor mastery would imply stercoraceous conditions or results.

By foregrounding the notion of symbiosis between more-than-human webs of life, Serres integrates into a reimagined social contract a valuable concept developed in organic biology that describes processes of evolved intra-action and reciprocity between dissimilar organisms found throughout the natural world. But this intervention exceeds a mere metaphorical shift; it recognizes the processes of inter-species reciprocity as a both a model *and a mode* of reciprocal relations that decenter anthropocentric interests and ideologies.

These perspectives illuminate historical attitudes regarding the comparative value of *human*, *nonhuman*, and perceived *less-than-human* others, as well as the role that citizenship status can play in determining one's eligibility for the protections, rights, and "welfare" provided by nation states. Despite the principles of reciprocity upon which civil solidarities rest, doubts regarding the capacities of nations to provide for the welfare and protect the rights of all citizens—let alone guarantees for more-than-human others—have prompted questions regarding the role, benefits, and even the future of nation states. Yet, despite deep philosophical, practical, and ethical shortcomings, civic solidarities still

have a role to play in the future of transversal alliances and the “welfare” of more-than-human systems.

In recent decades, efforts to theorize and legislate the rights of more-than-human others and of the Earth itself within the legal frameworks of sovereign nation states have received increasing support from Indigenous, scientific, juridical and ethical streams of thought (Acosta, 2017; Acosta & Abarca, 2018; Shiva, 2006; Sólón, 2018). In 2008, Ecuador was the first country to recognize the “rights of Nature” in its national constitution. Similar constitutionally enshrined protections have been recently approved by the Chilean government, with Bolivia, Mexico, Pakistan, and India making similar strides towards the establishment of rights for more-than-human entities on the level of national laws and juridical decisions. And there is currently an ongoing effort in the US led by environmental groups to recognize and protect the rights of Ohio’s Lake Erie with increasing dialogue between nations regarding best strategies and lessons learned, suggesting the emergence of an international solidarity network for the rights of nature (CELDF, 2021).

Ecofeminist and food sovereignty advocate Vandana Shiva (2006) trumpets these transformations with urgency, arguing for the development of an “Earth Democracy” that extends notions of representation and care to planetary others through the global formation of equitable systems of political, economic, and ecological human/nonhuman relations. This model of justice proposes an alternative approach to globalization, one that resists the forces of privatization, enclosure, and the patenting of life forms, and

understands “life” as both a continuum between human and nonhuman entities and a base for the recognition of “ecological identity.” This reframe performs many cosmological shifts, including the translation of the language of democracy, citizenship, and “rights” to ecological registers, a vision that creatively reimagines how civic solidarities have historically functioned.

These intriguing struggles have not gone unchallenged by corporate and state interests, and the pattern of concessions made by governments to extractive industries in places such as Ecuador that have pioneered this shift, suggests deep vulnerabilities in the civic solidarity design (Gómez-Barris, 2017). But if the notion of a rights of nature can begin to gain footholds, it could set an important legal precedent for other states, nations, and international organizations to follow, and put civic solidarities on a more consistent path toward more-than-human forms of citizenship.

These events signal increasing awareness regarding the need to reassess definitions of welfare, citizenship, and the responsibilities of nation-states to the ecological systems in which they are embedded. But the challenges that the legislation of environmental protections face underscore the idea that what is perhaps even more important than clearly delineating the terms of our belonging, obligation, and responsibility to more-than-human worlds is cultivating what Massumi (2002) has referred to as a “caring for belonging” (p. 255). The State is adept at enforcing regulations, scanning for deviancy, and pursuing violations of laws. But it only chases behind the sailing ships of changing social norms and desires, it does not stand at the bough guiding their course and transformations. As Massumi (2002) has noted, “caring

cannot be legislated. Effective expressions of the positivity of belonging elude the State” (p. 82-83). Given the role of states as respondents to upswells from within, “we” face the critical task of addressing the climate crisis at levels of care for more-than-human systems of life. To understand how these initiatives of care might be put into motion, and the role that music might play in the momentum of such movements, it is useful to examine the integral role that communication technology played in the composition of civic solidarities in the first place.

Communication Technology, the Public Sphere, and the Rise of the Civic Imaginary

In the 17th and 18th century Europe, growing identifications with civic, state, and national bodies were facilitated through important developments in media and communication technology. The publication and spread of materials printed in vernacular languages provided increasingly literate masses access to the world of ideas and signaled a paradigmatic shift in the way power was instrumentalized and distributed across increasing expanses of space and time. The printed word—alongside a growing dissatisfaction with an exclusionary “we” that the aristocracies and ruling classes represented—played a key role in the stoking of revolutionary zeal as citizens began to rethink their own identities in relation to each other and to the territories they dwelled within (Anderson, 1994; Brunkhorst, 2005). Printing technology facilitated the practical and ideological formation of nations by fostering the processes of identity formation as notions of a collective “we” began to coalesce and circulate on a mass scale. A little more than a century after the Peace of Westphalia, the “Revolutionary Period” witnessed an explosion in the number of publications and communication networks in France and in

the American colonies, many of which served directly to forward the aims of American and French revolutionaries. For example, in 1789, the year the French Revolution caught fire, the number of Parisian daily newspapers multiplied from 1 to 23 between the period of January and December (Brunkhorst, 2005). In this relatively short span of time, books, brochures, and leaflets “had become a countervailing power to the ‘good society’ of the royal court” that “could hardly be controlled by the censors or national borders” and was “simultaneously a reflex of and a driving force of the revolutionary acceleration of social processes” (Brunkhorst, 2005, p. 57).

In his analysis of Revolutionary Period, media scholar Starr (2004) notes the indispensable role that emerging national and transnational public spheres played in galvanizing French revolutionary forces, as “extraterritorial” publishers in neighboring countries provided critical commentary and alternative political perspectives while local publications reported on daily events during the revolution “with breathless immediacy” (p. 69). The role of communicative technology in the American Revolution was particularly vital. The widespread publication of a freshly drafted US constitution—which formally spelled out the inducements to a civic solidarity—was critical to both its legitimization and adoption. In the post revolution era, the newly inaugurated form of *self-government* “generated greater demand for information, particularly news and newspapers” (Starr, 2004, p. 64), and battles over press control remained invaluable as a measure against the potential rise of future autocrats long after the Revolutionary Period.

The role of communication technology in the production of a public sphere, and its impact on the formation of modern civic solidarities can hardly be overstated. It is in

the Revolutionary Period, Berman (1988) notes, that “a great modern public abruptly and dramatically comes to life” (p. 17) through modernist “breakthroughs” of “solidarity and People Power” (p. 12). Notions of “We the People” took shape through what deCerteau (1984) has referred to as “mechanisms of incarnation,” which “give the text the status of being ‘applicable’ to public or private bodies, of defining them and thus finding its effectiveness” (p. 144). The discovery of a “*vox populi*” as an effective technology of transformation ensued. The French Revolution produced useful insights regarding the nature of social change: 1) change is cyclical, and hence, normal (not exceptional and unnatural), and could be understood in terms of “progress” as developed in Enlightenment thought, and 2) “autonomy” and the right to make decisions that affected citizens was the providence of the people *as citizens*, Wallerstein (2004) argues. Shifts in the boundaries of belonging accompanied shifts in the balances of power, all of which took place within the milieu of emerging modern technologies and forms of mediated communication.

After the French Revolution normalized the notion of social change as a cyclical phenomenon, one that placed the “citizen” into the driver’s seat of those forces, communication technology also helped to facilitate the emergence of competing ideological groups, including various mutating forms of conservatism, liberalism, and radicalism (Wallerstein, 2004). An agonistic playing field of diverse political players discussed, circulated, and experimented with alternative forms of solidarity while promoting novel and rule-bending configurations of civic belonging, obligation, and common “welfare.” Organizations such as the Jacobin Club, for example, emerged as

locations to exchange ideas about the nature, role, and limits of statist governance within the power vacuum caused by a “people’s revolution.” In what began as an open forum for debate soon germinated some of the earliest forms of socialist, communist, and anarchist movements (Gluckstein, 2011). From this perspective, social movements must be appreciated as dialectical spaces of change that link to and contest (but do not determine) the relationship between the citizens and the state. Touraine (1985) notes that social movements are “based on the eighteenth-century idea of the separation between civil society and the State. That is why the idea of social movement interprets very powerfully the attempts of ‘society’ to liberate itself from ‘power’” (p. 776). Movements aimed at the transform of state priorities and protections routinely (and in some instances, permanently) divorce themselves from the machinations of the state.

What is most important to reflect on here, and a point that bears significantly on the prospect of more-than-human solidarities, are the expansions in the capacity to *(re)imagine* circumferences of belonging occurring simultaneously with the advancements and spread of communication technologies. Benedict Anderson (1994) discusses the rise of the nation-state system in terms of “imagined communities,” pointing to the role that pamphlets, daily newspaper, books, and novels played a significant role in generating identifications and perceptions of simultaneity—or the shared experience of events in time—between various stakeholders across increasingly expansive geographical areas. Similarly, Eisenstadt (2000) attributes the explosion of experiments in collectivity during the Revolutionary Period to the “civic imaginaries” that print technology nourished.

The capacity for shaping civic imaginaries and other imagined communities has only accelerated with the advances in digital communication and the ubiquity of personal devices, providing tools for the expansion of global hegemonic forces, as well as grassroots resistances that exceed, and navigate stealthily within the boundaries of nation-states. Hardt and Negri (2000) underscore communication networks as the mode by which power, capital, and empire organize and expand, noting how “the imaginary is guided and channeled within the communicative machine” (p. 33). Globalization and the expansion of transnational flows of capital, culture, and advanced technologies has also played a role in the active constitution of “deterritorialized” nationalities expanding the imaginative capacity of diasporic and transnational communities to constitute alternative and asymmetrically dispersed networks of belonging—obligation (Appadurai, 1996; Guattari, 2000). Further, Dobrin (2020) has pointed out the power of hashtag activism in constituting “imagined communities” capable of collective witnessing, feeling, and flooding the streets with new visions of a common welfare, sometimes in direct opposition to state-sponsored systems. In short, communication technology has played a role in the proliferation of civic solidarities through the networking together of “prosthetically enhanced imaginations” (Wolfe, 2010, p. 35), while it has also expanded our capacities to collectively imagine “welfare” otherwise by challenging the status quo of states that purport to guarantee and protect it (Castells, 2015).

The expansions in imagined circumferences of belonging—obligation that communication technology and media have enabled have periodically benefitted a more-than-human world. For example, scientist and journalist George Bird Grinnell’s

successful efforts to bring back the last twelve remaining American Buffalo from the edge of extinction (Punke, 2007), and the publication of Rachel Carson's (1962) *Silent Spring*, which has been linked to ecological consciousness raising and the emergence of the environmental movement in the US through its cautionary tales of pesticide use and prophecies of ecological collapse (Lytle, 2007). These examples illustrate interventions at the level of "cultural rationality," which Fischer (2000) puts into play with technocratic rationalities that dwell in the esoteric linguistic intersections of science and economics, and subsequently exclude citizen engagement in environmental decision making at the policy level. Interventions at the "cultural" level, in addition to the practices of "resource mapping" that have emerged in modes of participatory "citizen science," are helping to produce knowledge and reclaim some authority regarding the health, status, and spatial/temporal flows of ecological systems from technocratic bodies, and even, in some instances, to contest the artificial borders of states themselves (Fischer, 2000).

The relationship between communication technology, imagination, and social action suggests potentials for posthuman cartographies as modes of imagining otherwise. And in the case of *Silent Spring*, the potential of sound—or the imagined and haunting *absences* of sound, to powerfully animate the "longing" dimension of *be-longing*. Within efforts to become allies to more-than-human communities, the imagination—Spinoza reminds us—is "a powerful ally to reason" (Llyoyd, 1996, p. 6). The power of music to evoke a sense of belonging and obligation gains amplitudes in a Spinozist framework of material immanence, which fuses affective forces with the workings of the imagination (a

point explored in more detail in chapter 7), a fusion that also helps to illuminate the material “work” of sound and music.

These links are described and celebrated throughout music scholarship as well. Rosenthal and Flacks (2015) discuss music’s capacity to galvanize bodies is due to in part to its impact on what C. Wright Mills refers to as the “sociological imagination,” by infusing social spaces with the affects, allegories, and archival experiences of personal and collective histories. Gourgouris (2016) notes that as a nomadic, transgressive, and worldly “language of translation,” music contributes to “music’s elaboration of civil society” (p. 247). The cartographic capacities of music to (re)draw circumferences of belonging that spill beyond the confines of civic solidarities is an important feature of communication technology that warrants deeper theorization where it enables response-abilities and coalitions of care for the more-than-human landscapes in which “we” are embedded.

(Re)Imagining the (Post)Human Civic

With the Great 6th Mass Extinction and rapid advancements in communication and biotechnologies, the posthuman convergence changes the scope and stakes of a common “welfare.” If there remains any stability in the meaning of solidarity as a “debt” that mutually bonds the citizen and the state, then it should also be asked, how does a “climate debt” –which suggests the obligation of the Global North to the Global South—transform the polarity of civic solidarities into forms of postnational, planetary, or even more-than-human citizenship? And what new postnational or posthuman allegiances might be pledged in the wake of this convergence? Clarifying the responsibilities of

citizens to a more-than-human world and holding them accountable to those responsibilities can open pathways to forms of posthuman civil society (Häkli, 2018).

The fragile interconnectedness of ecosystems, water sheds, and complex webs of life, as well as the migratory tendencies of climate change and environmental pollution reveals the arbitrariness of national borders and the limits of civil solidarities that do not recognize or protect the integrity of more-than-human systems. By drawing attention to these modern contrivances, climate change reveals the dangerous shortcomings of one of Modernity's crown jewels, the nation-state system. Efforts to compose enlarged or localized more-than-human circumferences of "we" inside of these pictures of solidarity hit several roadblocks that evince the contradictions of liberalism. And, to the extent that civic solidarities fail to protect all citizens equally, the formation of social and political solidarities that stand against corporate and state interests become necessary.

Yet, regardless of its shortcomings and imperfections, the nation-state system is not going anywhere anytime soon. Civic solidarities contribute to an expansive sense of belonging, which, for those who can achieve this sense, is a different type of benefit, and one that offers forms of refuge in a splintering world. National identity has offered a convenient, and ready-made *terra firma* in the face of postmodernist forces of fragmentation and identity politics (Edensor, 2002). And threats of climate change have prompted the New Climatic Regime to stoke anxieties and divisions evoking in citizenry a "panicky desire to return to the old protections of the nation-state" (Latour, 2017, p. 2). Opportunistic political leaders who benefit from these anxieties can stir the pot of xenophobia and nationalistic fervor, some rushing to reconstruct Cold War relations to

buy time, avoid critical thinking, and stall the difficult decisions on the horizon (Lieven, 2020). And, as Wood (2017) observes, Capital will simply not allow these modernist assemblages of people, place, and social contracts to falter, as a functioning capitalist system requires the infrastructure, laws, protections, and relative stability that nation states provide.

Not for nothing, civic solidarities and the nation states they undergird at least demonstrate the *possibilities* for expanding circumferences of belonging. Pensky (2007) has noted that, rather than serving as evidence of the improbabilities of expanding a sense of collective identity, the emergence of civic solidarities illustrates how these expansions are even possible to begin with. In other words, solidarities on the scale of a national bodies demonstrate how expansive notions of “we” were made possible in and through the development of a nation-state system. Civic solidarity, Pensky (2007) reminds us, is binding on the level of the nationality because the modern subject has been “released from traditional modes of affiliation and mutual obligation” (Pensky, 2007, p. 170). And to the extent they maintain functioning juridical systems and enforceable laws, civic solidarities (and the states they undergird) likely still have a role to play in the posthuman convergence as “the most powerful source of collective effort in modern history” (Lieven, 2020, p. xv).

The novel emergence of civic solidarities in the 18th and 19th centuries was a new and defamiliarizing proposal, one that precipitated enthusiasm, displacements, resistances, and ongoing anxieties. Modernity’s “release” of human societies from traditional modes of affiliation became a subject of deep concern among various social

and political scientists at the beginning of the 19th century. Efforts to identify, preserve, and recover “traditional” modes of solidarity led to the development of various frameworks of “social solidarity,” some of which endure as ready-made schema of belonging—obligation that pose additional opportunities and challenges for the development of transversal, more-than-human alliances

Chapter 4: The Social “We”: (De)Composing Social Solidarity (and the Socialist State)

In contrast to the expansive and impersonal framework of civic solidarities, social solidarities are built on shared relations, or more immediate contact with and knowledge of others, which contributes to “the cohesion of a narrower, more limited community, including the resulting (particular) obligations” held together by “a common descent and history, a common culture and way of life, and common ideals and goals” (Bayertz, 1999, p. 9). Due to their more close-knit nature, the unit of reference within studies of social solidarity is considerably smaller than forms of civic solidarities. Kinships, tribes, family systems, and broader community relations constitute some of the early forms of social solidarity that have been explored and theorized.

The social “we” encompasses assemblages of belonging—obligation composed of familiar, familial, and communal relationships. These are relationships composed through the *process* of relating; they are relatable, and even, in many instances, composed of relatives. While they can find traction and nourishment in the imagination, they are more often seen, heard, felt, and affirmed through modes of shared experiences, shared fates, and perceived similarities that run deeper and encircle more tightly than the bonds projected through state-sponsored incentives and spectacles of belonging.

Given the age and essential function of basic human bonds, theorization of social solidarity can be traced at least as far back in history as Aristotle. In his *Nicomachean Ethics*, Aristotle (1991) pointed to friendship as the central force for the development and maintenance of social solidarities at potentially all levels of society, including the upper

branches of government: friendship was the relational glue that “seems to hold the state together, too” (p. 526). Social solidarity has also been encapsulated in notions of “duty” stemming from Christian values and systems of religious morality (Brunkhorst, 2005). In more recent vestiges of Western philosophy, social cohesion has been attributed to several sources, including the “natural laws” of self-preservation (Hobbes, 1998), the practicality of everyday economic needs (Smith, 1759/1982), and hybrid forms of social and civic needs such as Taylor’s (1989) “republican solidarity,” which blends social affinities with civic patriotism. Contemporary moral theory associates social solidarity closely with practices of altruism, as they are juxtaposed in the writings of Pitirim Sorokin and Jane Addams (Jeffries, 2014). Although a number of theorists have made valuable contributions to the concept of social solidarity, I turn my focus toward to three key theorists whose work on the subject continues to exert significant force in contemporary scientific, sociological, and political thought.

The writings of Augustus Comte, Emile Durkheim, and Karl Marx represents some of the earliest and most influential sociological studies. Each was concerned with the macro-effects of Modernity on the human condition, including the dissolution of traditional social bonds due in large part to industrialization and the emergence of the welfare nation state, and each set out to develop prescriptions to improve it.

Augustus Comte and the Science of Social Solidarity

Comte believed that the mechanisms of social cohesion correlated most directly from the proper application of science, knowledge, and the power of ideas. In his first publication *Plan for the Scientific Work Necessary to Reorganize Society*, a 24-year-old

Comte (1822) held that positivism produced objective reflections of reality and assured a path toward society's final stage of evolution into a cohesive and unified whole. This stage represented a sort of promised land beyond the visions of society offered in theology, religion, and Enlightenment metaphysics—through the achievement of an objective and absolute understanding of the world. Comte's ideas marshalled the explanatory and predictive power of science to the work of designing and prescribing an increasingly perfected model of social solidarity, which he believed was necessary to recover a modicum of order from the social and political chaos attributed to the French Revolution (Crow, 2002).

The notion that a well-ordered, harmonious, and utopian society would be the natural result of a “unified” science has long since been widely rejected by the scientific world and disproven by history itself. Achieving a unified consensus among the scientific community alone is already a near-impossible task, let alone the achievement of stable and harmonious relations in general society. As Kuhn (2012) has observed, the splintering of science into specialized fields has virtually guaranteed that “the list of problems solved by science and the precision of individual problem-solutions will grow and grow” (p. 169). Commenting on the status Comte's project, Scharff (2017) observes, “Everyone knows there are no longer any positivists” (p. 227).

Positivism lives on and rhythms many of our everyday assumptions and orientations to the world. Scharff (2017) notes, positivism:

survives not in pre-scientific speculation or post-positive theories, but in life—for example, in the widespread privileging and overextension of the idea of

technoscience in popular images of the good life; in the notion that human practices are at their best when understood scientifically and guided by science-like advice; in our allegedly scientific but actually ideological concepts of the political economy and rational economic actor; and in the belief that the whole drift of world history is necessarily toward what “we” in the capitalist West call “development.” And perhaps still more problematically, Comte’s vision is alive and well in the common philosophical assumption that anyone who objects to any of the above must necessarily be wishing for a return to the bad old pre-scientific days of supernaturalism and speculative metaphysics. (p. 228)

The fruit of knowledge, and the promise of a world made knowable—and hence controllable, circumscribed, and profitable—is a temptation that continues to constitute a mass of grabbing hands. This hungry and tentacled “we”—call it neoliberalism if you choose—hides in plain sight, and represents, somewhat paradoxically, the prejudices and superstitions embedded in the notion of progress that has goaded the project of Modernity to this day.

From this perspective, Augustus Comte’s quest for a master theory of social solidarity provides an important entry point for discussion around the historical relationship between knowledge production and epistemic imperialism. Western science has brought benefits and breakthroughs to human and more-than-human worlds. This there is no denying this. But complicating Comte’s wager on the power of scientific methods and knowledge to guarantee harmony is the history of disharmonious campaigns of colonization and violence wrought on different societies and the natural world

throughout the world with the complicity of scientists and the scientific rationalism that validates it (Wynter, 2003). Scientific methods have also played a historical role in the “validation” and reification of social, cultural, and natural hierarchies and in the erasure of indigenous knowledge systems through the statistical production of binary understandings (Reiter, 2019, p. 6), by upholding constructs of Western, male superiority (Harding, 2008), promoting the myth of white supremacy (Painter, 2010), and numerous far reaching colonial projects of cultural “epistemicide” (Santos, 2014). Recalling and attuning to these histories is necessary within an ethical framework of critical posthuman knowledge production. For this purpose, Comte functions as an important reminder of the fraught relationship between knowledge production, social control, and cultural violence (although he is far from alone in this department).

Approaches to posthuman knowledge production are not immune to these critiques. For example, new materialism, and its efforts to frame vibration and ‘resonance’ as an idealized, universal model that naturalizes alignments with the hard sciences (i.e., Bennet, 2010, 2011; Grosz, 2005; Barad, 2003, 2007), has been critiqued as an epistemological move to abstraction that merely repackages and extends a logic of exclusion adopted by neoliberal institutions (James, 2019). The risks presented in these idealized models of vibration and materiality, James seems to suggest, is that “vibration” operates the universal new code for “colorblindness.” This has implications for how sound might function as an epistemological resource in the sciences.

Yet, while scientific knowledge does play a vital role in the composition of critical posthuman understandings and praxes, these cartographic practices do not hinge

on a Comtean positivism or uncritical embrace of post-positivistic research. Nor do they turn a blind eye or deaf ear to the exigencies of history. They are premised on the postmodernist insight that all claims to knowledge are partial, incomplete, and imbued with power. To the extent producing accounts of “reality” remains an important and worthy ideal, Braidotti (2013) argues that knowledge practices and “cartographic accuracy” must remain tethered to an ethics of accountability (p. 164). Decolonial and feminist epistemologies that link knowledge production to pluralistic worldviews or a politics of location—such as Mignolo’s (2018) *pluriversality* or Harding’s (2018) *critical standpoint science*, can make important contributions here. From a critical posthuman perspective—which aligns itself with the minoritarian science—knowledge production is itself a pluralistic enterprise: it constitutes not a totalizing picture of nature or “reality,” nor does it provide a set of stable ontological taxonomies that reflect unshifting categories of being. Rather it offers valuable diffractive glimpses of messy “intra-active” processes of becoming-with that evince the embedded, embodied, materiality of planetary interdependencies (Barad, 2007). And this knowledge can contribute powerfully to proliferating sets of damaged more-than-human assemblages.

Importantly, scientific knowledge is *one among many* important forms of knowledge that can be woven into the fabric of understanding regarding living (and dying) systems to support what Braidotti (2013)—echoing Haraway—describes as “a nomadic web of posthuman earth-wide connections” (p. 193). Scientific research can and does speak powerfully to the dynamic and fragile nature of planetary connection, but it is additive and incomplete, not summative and totalizing, and must be critically filtered of

deleterious anthropocentric overtones—that begin and end in the privileging of utopic human visions—before being mixed into the shifting land- and soundscapes of a posthuman “we.”

Durkheim and the Cult of Social Solidarity

Durkheim’s work represents some of the earliest efforts to form a comprehensive understanding of “solidarity” by that name. Durkheim (1926/1983) approached solidarity as a “social fact,” and was particularly interested in uncovering the mechanisms of social cohesion holding people together as “traditional” societies transitioned into modern industrial states. He attributed social cohesion in traditional societies to what he called “mechanical solidarity,” or affiliations based on kin relations, religious rituals, perceptions of a shared identity, or an internal sense of membership to a particular social group. In contrast, he termed the cohesion emerging in modern industrial societies “organic solidarity,” which he attributed to increasing divisions of labor, contractual relationships, and an expanding array of social, political, and economic roles that reinforced a dynamic of social interdependency. Although he would become critical of these transformations in his later writings, he wrote in the spirit of a scientific observer, even admiring to a certain extent the efficiencies and embryonic bureaucracies of modern economic production.

While fascinated by the role of religion in the cohering of social bodies, Durkheim attributed modernist solidarities, in part at least, to the emotional fervor that swirled in the wakes of social and political revolutions. For Durkheim (2001/1912) the French Revolution merely replaced one form of cultism with another:

In the general enthusiasm of that period, things that were purely secular in nature were transformed by public opinion into sacred things: homeland, liberty, and reason. A religion propelled by its own momentum was established with its dogmas, symbols, altars, and holidays. (p. 161)

Here Durkheim recognizes various nationalistic forms and rituals serving in place of religion, and as possessing divine-like qualities worthy of worship and devotion. These observations catalogue an array of everyday rhetorical, material, and affective modes through which fealty to a state might be induced, and in this way, Durkheim casts doubt on a social contract as being the singular source of civic solidarity. But the growing divisions of labor and the spells cast by the rituals of national identity were not sufficient explanations for the social solidarity Durkheim observed.

Noticing the decreased role that religion played in the modern secular nation state, Durkheim (1969) theorized that deep social bonds could be linked to a “cult of man,” or a sort of shared faith in human destiny that guided collective consciousness toward “an ideal which surpasses nature” (p. 24). Despite critiquing humanist idealism in his early writings, Durkheim’s later thinking valorizes the ‘cult of man’ as universal ideal of belonging, a shared essence, and “an unambiguous moral force” (Schiermer, 2014, p. 68). According to Durkheim (1969), then, there was a key metaphysical stitch holding modern societies together: man’s obligation to the *idea* of humanity:

Duty consists in averting our attention from what concerns us personally, from all that relates to our empirical individuality, so as uniquely to seek that which our

human condition demands, that which we hold in common with our fellow men.

(p. 21)

Here, Durkheim reinforces the obligations and “duty” of each human to look beyond the self and to toil on behalf of a generalizable and collective “human condition.” Personal duty to this “cult” is so important that it “surpasses nature” itself. The central role that the “human” plays as a morally binding agent between belonging and obligation illustrates the established roots of modernist secular humanism in Durkheim’s thinking, as well as the figure of an enclosed and complete anthropocentric cosmology. There is room for nonhumans in this vision of solidarity, but only to the extent that they help to define and distinguish as exceptional the human being.

This lacuna has settled into and impaired sociological thinking since the time of its inception. Although the early field of sociology did not invent the perceived division between social and ecological worlds, it helped significantly to cement the conceptual divide between practices of human signification and nonhuman insignificance, assuming that “the social relations of men provide the prototype for the logical relations between things” (Douglas, 1996, p. xxxiii). The perceived division between ecological and social worlds continues to structure notions of “we” that circumscribe the potential of political thought and action in the Western imagination (Nimmo, 2011; Ross, 2017).

The field of sociology has recognized the failure of the discipline to consider ecological others in recent decades, however, and has made various moves to expand the scope of its concerns beyond a field of human sociality. Speaking directly to Durkheim’s influence on the anthropocentric trajectory of sociological thought, Rice (2013), notes

“(t)he Durkheimian emphasis upon social facts as the legitimate subject matter of sociology not only obscured the interdependence of human societies upon the biophysical environment . . . but obscured critical recognition of the vibrancy and performativity of the nonhuman” (p. 238). Environmental sociology emerged as a subdiscipline in the 70s in response to the growing awareness that, “(t)he biophysical environment is not tangential to the social; it is only tangential to conventional sociological thought” (Rice, 2013, p. 236). Reflected in these adjustments is a growing realization that the study of human society through anthropocentric lenses is incomplete, at best, and a catastrophic oversight at worst.

Yet, while perhaps committing insufficient attention to the nonhuman world, Durkheim does explore dimensions of materiality that offers insights into the affective capacities of musical forms and practices. Although he does not engage the subject of music directly, many of his ideas have been used to explain music’s effects within the processes of socialization, and its capacity “to evoke and affirm the authority of society in the minds of individuals” (Martin, 1995, p. 131). His concept of “effervescence,” for example, describes a type of collective experience of emotional exhilaration passed like a contagion between bodies during religious rituals. Although fleeting, Durkheim (1995) argued that the collective experience of effervescence melds social roles, norms, and hierarchies through rituals that transform man’s relationship to one another and to the divine.

This concept has been deployed to explain the collectivizing effects of music in a diverse range of secular and religious settings (Clayton, 2009; Jennings, 2014; Riley,

2005). Within the experience of effervescence, “(p)eople live differently and more intensely than in normal times. The changes are not simply of nuance and degree; Man himself becomes something other than what he was” (Durkheim, 1995, p. 213). Effervescence, in other words, describes the experience of a collective belonging and transcendence, not unlike the phenomenon of *communitas* described by anthropologist Victor Turner (Olaveson, 2001). While critical posthumanism’s orientation toward radical immanence “rejects all forms of transcendentalism” (Braidotti, 2012, p. 56), the experience of a collective and emergent “we” that Durkheim theorizes gestures toward a relational/process ontology that is promoted through a vital materialist perspective. The phenomenon of effervescence also sketches out an important emotional dimension of belongingness as it contributes to and emanates from embodied and ecstatic experiences of social solidarity.

Durkheim’s later writings also makes space for the non-human as having a role—if only tangential—to processes of collective identification as his focus steadily turns towards to the object world. His explorations into the role of totems as a source of social cohesion, for example, hint at nonhuman displacements of agency signaling an interest in the dialectical relationship between the senses and the material world to engender forms of solidarity (Schiermer, 2014). Intrigued by the prevalence of totems in “uncivilized” regions of the world, and in “customs still observable in several European countries” (p. 124), Durkheim (2001/1912) points to social solidarities as mediated and reinforced through reminders found in the object world: “Solidarity remains embedded in everyday webs of relations at the same time as it attaches to objects and recedes into anonymity

and vagueness. It can only be described as diffuse and indefinite; an ambience in which we bathe” (p. 78). This perspective registers the ways in which the materiality of our surrounding environment can contribute to an atmospheric mood and play a role in our decision making through the activation of desire, awareness, and sense of absence/presence (Rickert, 2013).

Durkheim’s theorizing is suggestive of the agentic capacities of the object world. I would argue that this includes the rhetorical force of musical objects and practices we encounter as both indices of and inducements to solidaristic relations. When applied to the analysis of music, however, Durkheimian analyses (in addition to Marxists approaches) often overlook the phenomena of audience reception and wind-up reducing music’s capacity to a homogenous effect on the masses that leave little room for the pluralistic possibilities of reinterpretation and resistance (Born, 2012). Durkheim has been critiqued for his “penchant for totality,” (Schiermer, 2014, p. 69), which can overstate the structurally deterministic relationships between individual expression, cultural forms, and the merging and emergent nature of social bodies. This is one symptom of sociological thought that the concept of assemblage addresses, as they run contrary to the Durkheimian concerns with “the great collective representations, which are generally binary, resonant, and overcoded” (Deleuze & Guattari, 1987, p. 218). Yet his thinking around macro-level social phenomena opened the door for other important theoretical contributions to the notion of solidarity.

Through his analyses of coordinated social action, collective ritual, and the quotidian materiality of everyday society, Durkheim sheds light on early sociological

approaches to the phenomenon of social solidarity. Importantly, Durkheim's work articulates a growing mid-Nineteenth Century awareness and concern regarding the effects of Modernity—such as the growing divisions and specialization of labor—and how this transition was impacting “traditional” social bonds. These concerns would be picked up and amplified with acute urgency in the work of Karl Marx.

Karl Marx and the Work of Social Solidarity

“All that is solid melts into air, all that is holy is profaned, and men at last forced to face . . . the real conditions of their lives and their relations with their fellow men”

~ Marx & Engels, *The Communist Manifesto*

If Durkheim's writing represents growing concerns about the disintegration of “traditional” solidarities, the work of Karl Marx represents a four-alarm fire. Published in 1848 on the eve of what would become the widest wave of revolutionary unrest in Europe's history (Rapport, 2009), *The Communist Manifesto* outlined the case for a program of class struggle and proletariat revolution with the ultimate aim of establishing a stateless and classless society. In contrast to Comte's positivist sociological approach, Marx's practiced a form of radical post-positivism known as historical materialism, which developed conclusions about the evolving conditions of Man from material conditions and trajectories of history. Through this lens, Marx viewed the effects of modernity, industrialization, and the spread of the economic system of capitalism as profoundly disruptive phenomena, and the oppression of the working class as a direct correlate of historically situated actors, events, and power structures.

In the wake of these exploitative modernist systems, Man is alienated from his labor, from one another, and from his essential self. This alienation forms the grounds for a new form of solidarity, that of the working-class proletariat. The Man of the Future, according to Marx's model of social revolution, is the one who reclaims control to the means of production and actualizes his "natural" state as a fully liberated social animal within the utopian collective. Social solidarity plays a fundamental role in the mind of Marx, both as a given and a made. It is given in the social nature of Man and made through the development of unity through class struggle. Social revolution, thus, was the reaffirmation of Man's social bonds with Man, a bond that ultimately supersedes both political and national identifications and their respective inducements to solidarity. Political struggle is not the ends, but always a means by which Man will return to his natural, essential, and *social* milieu.

Human nature is the true community of men. The disastrous isolation from this essential nature is incomparably more universal, more intolerable, more dreadful, and more contradictory, than isolation from the political community. Hence, too, the abolition of this isolation — and even a partial reaction to it, an uprising against it — is just as much more infinite as man is more infinite than the citizen, and human life more infinite than political life. (Marx, 1978, p. 129)

Through appeals to "human nature," Marx enlarges the circumferences of belonging to the figure of universal man, a category which imagines solidarity beyond the boundaries of the nation-state and the solipsistic interests of liberalism's individualized "citizen." However, this inclusionary move comes with a new set of constraints.

Proletariat revolution hinged on the formation of solidarities between members of a working class. The essentialization of Man-as-worker, thus, became a preoccupation and predication of Marxist theory: “work” became not only a defining characteristic of all Men, but a validation of Man as a basic ontological category and member of a species group:

It is just in his work upon the objective world, therefore, that man really proves himself to be a species-being. This production is his active species-life. Through this production, nature appears as his work, and his reality. The object of labor is, therefore, the objectification of man’s species-life: for he duplicates himself not only, as in consciousness, intellectually, but also actively, in reality, and therefore he sees himself in a world that he has created. (Marx & Engels, 1975a, p. 277)

By linking the labor of man to the nature of (social) man, Marx links the liberation of man to the restoration of this relationship, and in so doing, links all working men to the cause of liberation: “Working men of all countries, unite!” Through his communication of a utopian vision, historical analysis of capitalism, and call for working class solidarity, Marx sought to develop a powerful approach that illuminated the antagonisms and exploitative nature of class relations across historical and geographical contexts. Accomplishing this would render a transferable framework for international solidarity in the fight against social and political inequity on a global scale.

Marx’s analyses, philosophy, and prescriptions for social solidarity are regarded as some of the most influential writings in the history of Western political discourse. His labor theory of value endures—although not without criticism—as a means of

understanding the socio-political arithmetic behind the exploitation of workers. His methodology of historical materialism endures as a tool for articulating historical events, players, conflicts, institutional structures, and the *conditions* that reproduce worker oppression. These analytical approaches have enabled the linking of shared economic and political struggles that exceeded boundaries of ethnic, cultural, and national identity providing useful frameworks for labor movements and waves of national liberation movements in mid-twentieth century throughout Asia and Africa. The universal spirit and transferable currency of a Marxist-inspired international workers solidarity is captured in this Wobblies version of the left-wing anthem “Internationale”:

*Arise, ye prisoners of starvation!
Arise, ye wretched of the earth!
For justice thunders condemnation,
A better world's in birth.*

*No more tradition's chains shall bind us;
Arise, ye slaves! No more in thrall!
The earth shall stand on new foundations;
We have been naught—We shall be All!*

*Tis the final conflict!
Let each stand in its place.
The industrial Union,
Shall be the Human Race. (Dubrofsky, 2000)*

The adaptability of a universal framework for worker's struggle and the affective allure of a worker's paradise helped to make “Internationale” the most widely translated

anthem in history (“Internationale”, 2009). The number of translations also casts a spotlight on song forms as effective ways to communicate and make mobile expressions of collectivistic desires.

Although Marx’s notions of social solidarity continue to exert influence in contemporary critical theory and in the thinking of various social and political labor movements, the influence of his doctrine of class struggle has waned, and his species of humanistic idealism limits the imagining and configuration of more-than-human frameworks of solidarity. Although I do not have the space in this project to detail the complete evolution of Marx’s ideas, or the ongoing debates regarding the relevancy of his theorizing, examining a few critiques will suffice to put Marxism in perspective with regards to contemporary forms of capitalism, the issue of climate change, the prospects of more-than-human solidarities, and the questions I pursue here: who is “we”?

Marx’s universal framework for social solidarity, like many widely cast nets, has many holes in it, and its construction smuggles in assumptions that have hindered its application as a universal tool for achievement of a state-less and class-less society. For starters, working class populations within contemporary liberal democratic nations are generally composed of heterogenous positionalities, political views, and histories, a feature of mass publics that has complicated the reductive calculus of a “working-class solidarity.” The humanist universals invoked to mobilize solidarities on an international scale often provides cover for totalizing Eurocentric and racist models of liberation, which rub against the kaleidoscopic particularities and situated histories of political subjects (Lindner, 2010; Pranav, 2002; Said, 1978). Chakrabarty (2000) has argued

compellingly that Marxist inspired liberationist movements tend to “evacuate the local by assimilating it to some abstract universal” (p. 18). Differences can disappear in the rhetorical haze of Marxist humanism as efforts to universalize experiences and mobilize vast numbers, and often entails the overlooking and tamping down of variation. From this perspective, inclusive visions of solidarity can exclude by the default of their distance from lived experience and reality: The loftier the “transcendent referent” (Hoelzl, 2005), the greater difficulty in bringing street-view details and lived experiences into focus.

This loss of nuance also shows up in Marx’s stratified view of class. The line separating a proletariat from a bourgeoisie class, or even a lower from a middle and upper class is reductive, binaristic, and elides the variances working within and across these categories. Intra-class differences can be the result numerous factors, including state policies encouraging uneven economic development that fracture social classes from within (Mathur & Kasmir, 2018; Stallybrass, 1990). The debunked myth of a clean line between, and a homogeneity within class divisions further problematizes the assumption that class stratification translates into convenient unities. Working class populist movements in the U.S. have—with astonishing regularity—organized and voted against their own interests and been subsequently pushed deeper into nativist enclaves by perceived intellectual elitism and self-assured accusations of “false consciousness.”

Overgeneralization and caricature of the everyday worker can occur when the needs and interests of the working class become mythologized and instrumentalized for political expediency. Within his critical analyses, Marx fixates largely on the dimension of labor as the source of solidaristic relations at the expense of other dimensions of

human life. While this framework continues to inform approaches to solidaristic relations in labor it has been called out as reductive and simple. Following the critiques of Marcuse and Arendt, Berman (1988) criticizes Marx for his fetishization of work as a singular source for solidarity, or as the sole locus of concern, adding:

(t)he basic premise is that Marx uncritically celebrates the values of labor and production and neglects other human activities and modes of being that are ultimately at least as important. Marx is reproached here, in other words, for a failure of moral imagination. (p. 126)

Preoccupation with solidarity between workers tethers the mobilization of shared interests to the workplace and ignores the full spectrum of (more-than) human experience that generate creative spaces for linking and building visions of collective wellbeing.

The changing nature of labor and proliferation in the location of struggles in post-industrial society have also impacted the relevance of Marxist frameworks and approaches. For example, Marx held mostly to rigid materialist “base-structure” models of power and equated social liberation with recovering access to the “means of production.” But today, “means of production” imply practices that extend far deeper to an array of technologies of cultural production that have proliferated and opened new possibilities for cultural representation, political participation, and the configuration of social movements (Touraine, 1985). Contemporary Marxist thinkers have adapted to this shift, training their analyses to increasingly diverse interfaces of domination and resistance in, for example, forms of everyday cultural hegemony (Gramsci, 1994), accumulations of cultural and social capital (Bourdieu, 1977, 1985), the movements of

amorphous, technologically mediated “multitudes” (Hardt & Negri, 2000), and so on.

These conceptual developments evince both the need to update Marx’s original thinking, and the need to theorize solidarities beyond the themes of class, labor, and essentialized notions of the human as *thee* “social animal.”

In addition to the theoretical shortcomings in Marx’s work, problems arise out of his methodological approach as well. Marx’s historical materialism assumes a structuralist link between history and phenomena, a cause-effect logic that can reduce complexity, overstate deterministic relationships, and cherry pick variables in its search for linear historical causalities. Marx did this within his own analyses when he glossed the proto-capitalist economic systems already in full-swing beyond the European continent (Abu-Lughod, 1989). Historical materialism can also quickly devolve into historicism, which can spiral into battles over correct historical interpretations and mire generative visions for the future in the muddy thickness of retrospective analyses (Braidotti, 2019). Historical materialist analyses can often sift phenomena (i.e., “Capitalism,” “Modernity,” “the Market,” etc.) through a linear model reducing complex and multidirectional assemblages into flat ontologies and political slogan-ism (DeLanda, 2016). Furthermore, the Eurocentric origins of Marxist thought, Chakrabarty (2000) has noted, makes it an insufficient tool for the analysis of social structures and political dynamics beyond the continent, meaning, it typically loses much of its resonance the further away from Europe it is utilized.

While critiques levelled against Marx’s work do not negate it as a useful heuristic, it presents major caveats, which has repeatedly shown up in the practical spaces of

collective social change. For example, an uncritical allegiance to dialectics and historical materialism as a method can backfire and hamstring the work of social movements. History, when wielded as a deterministic force by the heavy-handed structuralism of Marxist thinkers—Touraine (1985) has argued—can perpetuate monolithic understandings of “an all-powerful logic of domination” (p. 768) that contributes to “the decomposition of social movements” (p. 770). The political liabilities of this framework help to explain the abandonment of it as a tool to understand and address the upended cultural and political realities of the late-60s and 70s, which also—not coincidentally—played an influential role in the poststructuralist search for alternative explanations of power beyond the frame of economic systems and class antagonisms (Anderson, 1983). The socialist desire for “community” still circulates in various utopian forms, promoting romanticized images of the past and a conservative nostalgia to return to “old traditions” that likely never existed in the way it is thought (Luke, 2019).

Importantly, how oppression and social equity is defined and addressed has also shifted. Consequently, “history” no longer supports (if it ever did) limiting instances of injustice and struggle to categories such as a “proletariat.” Postmodernist thought has expanded frameworks of “oppression” and questioned the cultural locations of the “oppressed” beyond Marxist frameworks of class and labor. Sandoval (2000) observes:

All citizen-subjects are becoming strangely permeated, transformed—and marginalized. In this respect, the working class, the so-called proletariat can never again be viewed as the only revolutionary ‘subject of history’ any more than can the indomitable and transforming presence of the third world, of peoples of color,

of lesbians, gays, queers, women, or the subordinated. There has been an upheaval under neocolonizing postmodernism that has transferred a potential revolutionary apparatus into the body of every citizen-subject, regardless of social caste. (p. 36)

This perspective underscores how the postmodern condition has made it both possible and necessary to view resistance to dominant and oppressive systems beyond clearly differentiated class positions or discursive modes, rather, from a multiplicity of social, cultural, and species positions and communicative modalities (more on frameworks of postmodern solidarity below).

Marxism's emphases on superstructures and the historicity of class struggle are important, but insufficient for the crises "we" now face as a planetary assemblage of interconnected beings. Guattari (2000) argues that:

(i)t is up to protagonists of social liberation to remodel the theoretical references so as to illuminate a possible escape route out of contemporary history, which is more nightmarish than ever. It is not only species that are becoming extinct but also the words, phrases and gestures of human solidarity. (p. 28).

Greater attention must be paid to the intersectional layers of oppression operating beyond class through forms of racism, sexism, ablism, and speciesism, as well as across scales of social, ecological, and technologically mediated space. These expansions, which find traction in an ecosophical approach, lend insights into the development of both social *and* more-than-human solidarities.

(Post)Humanizing Marx

Posthumanism's relationship Marx is fraught for several reasons. It has been pointed out that there are consistent themes and sporadically bright flashes of speciesism in Marx's writing (Benton, 2013; Llorente, 2011; Perlo, 2002; Sanbonmatsu, 2004; Sztybel, 1997). Much of this arrives in this form of aporias and absences, which Sanbonmatsu (2004) characterizes as an "extermination in the realm of thought of the sensuous existence, and experiences, of billions of other suffering beings-in-the- world on earth" (p. 216). That a lens crafted specifically to expose the oppressive conditions of a generic humanity might omit understandings regarding the oppressive conditions for more-than-human others is not surprising. According to Foster and Clark (2018), the slighting of nonhumans is a direct result of Marx's methodological lens: historical materialism was equipped to explore the historical dimensions of human-animal relations primarily in relation to modes of production but was insufficient as a tool to unpack the dimensions of ecological degradation and animal suffering beyond humanistic moral frameworks. "Nature" and the non-human world, in other words, does not register in Marx's catalogue as a major moral or ethical consideration within the sweep of human history. In the age of a posthuman convergence, this limitation is cause for concern.

Historical materialism is limited as a methodology for the understanding and intervening in the number of more-than-human issues and injustices that are proliferating. Who "we" are, and who "we" are willing to stand up for (and with) are questions that have long ago hopped the borders of purely human circumferences, a spilling that reflects the ill-advised and failed attempts to hold the trajectories of human and natural history

apart (Chakrabarty, 2009). Braidotti (2019) contrasts the sprawling ethical dilemma of these more-than-human contaminations with the narrow view a historical materialist lens provides:

what kind of subjects are ‘we’—the human and inhuman inhabitants of this planet—positioned within a technologically driven ‘second life’, genetically modified food, robotics, synthetic biology, the acidification of the seas and the desertification of the earth? How can we develop a posthuman theoretical framework that aspires to justice, but is made outside the history of the society, encompassing instead what we used to call the natural? (p. 43)

Here, Braidotti draws attention to the sociological omission of the ecological, one of many dilemmas of dichotomization that limits the utility of Marxist approaches in the scope of posthuman theorization. Repairing the fissures of species-segregation is imperative to evince the false separation of the natural, historical, and political worlds, to recalibrate notions of belonging and obligation, and broaden the scope and impact of cooperative interventions.

For Guattari (2000) the “three ecologies” approach meets the need “to comprehend the interactions between ecosystems the mechano-sphere and the social and individual Universes of reference” (p. 29), and breaks the spell of reductive Marxist templates for liberation, offering:

a reframing and a recomposition of the goals of the emancipatory struggles. And let us hope that, in the context of the new ‘deal’ of the relation between capital and human activity, ecologists, feminists, antiracists, etc. will make it an

immediate major objective to target the modes of production of subjectivity, that is, of knowledge, culture, sensibility and sociability that come under an incorporeal value system at the root of the new productive assemblages. (p. 33)

The three ecologies are represented by the immanent relationships between the personal, interpersonal, and the environmental spheres and the praxial modes that affect the formation and (de)composition of mental, social and ecological assemblages.

Considering the expanded delocalization of industries and disintegration of center-periphery models of power and resistance, Guattari (2000) observes, “The traditional dualist oppositions that have guided social thought and geopolitical cartographies are over” (p. 20). Capitalism’s disappearing act is enabled in part by communication and media technologies, which extends its global reach and boosts its capacities to manipulate markets and consumers through the television, Internet, and so on. The hegemony of these semiotic spaces gives cover to the predatory forms of deterritorialization and leads to the fracturing of social solidarities: “A vague sense of social belonging has deprived the old class consciousness of its tensions” (Guattari, 2000, p. 19). Resistance to these conditions, which reflect the processes of individualization, necessitates shifts in perception and identification that exceed *both* the tired models of a “class consciousness” and the anthropocentric systems of thought which naturalize the exploitation of natural others. This eco-logical orientation decenters familiar symbolic systems by operating under a “logic of intensities,” which is set apart from “the logic of discursive sets” and is concerned only with “the movement and intensity of evolutive processes” (Guattari, 2000. p. 29). This perspectival shift, therefore, promotes an ethico-

ontoepistemic orientation to the overlapping concerns of mental, social, and the environmental ecologies.

New shapes of solidarity and conditions for solidaristic action emerge in the wake of this fusion. In the three ecologies paradigm, praxial moves are guided by aesthetic provocations and philosophical (re)orientations rooted in ecosophical notions of belonging, all of which can make deft use of advanced communication technologies. Theoretically, these envisioned political transformations unfurl within eco-social networks of thought and are made possible through the proliferation of affordable and adaptable modes of media, as well as the leaps in connectivity, creativity, skill sharing, and empowerment that undergirds the emergence of an underground and formidable maker-society. In these artistically and rhizomatically connected networks, “(a)ll sorts of deterritorialized ‘nationalities’ are conceivable, such as music and poetry” (Guattari, 2000, p. 45). Artistic practices and modes of experimentation figure prominently in the generation of a fluid, post-nationalist “group being” that support the formation of new markets, exchange values, and modes of identification.

(Re)prioritizing an analysis of eco-social assemblage expands creative bases for the development of connectivity and helps facilitate the generation of solidarities beyond those founded on shared experiences of class stratification or economic alienation. This move, importantly, can also expedite collaboration between social and ecological movements, and other alliances now difficult to imagine because they are practically disjointed or at ideological odds with one another (Latour et al., 2018; Morton, 2019). It also rejects the notion that liberation of social and natural worlds is mutually exclusive or

a zero-sum game. The fate of societies is directly linked to the fate of life-supporting planetary systems. Posthumanist praxes diffract and loudly amplify these linkages to highlight and create modes of existence in the overlapping polyrhythms of their inseparability.

While posthumanist theorists have demonstrated an ambivalent relationship to Marx, this does not mean they have found no value in his writings. Pickering (2005)—whose theorization has worked to posthumanize the “practice turn”—has located hints of a posthumanism ontology in Marx where he demonstrates sensitivity to false subject/object binaries, especially in the spheres of craftsmanship and manual labor: “production not only creates an object for the subject but also a subject for the object” (as cited in Pickering, 2005, p. 31). But by far the deepest posthumanist engagement and embrace of Marxist frameworks of sociality comes from Timothy Morton.

Morton (2017) represents a key voice in the object-oriented ontology (OOO) subspecies of posthumanist theory (Ferrando, 2020). His work directly taps Marxist ideology as a framework to amplify solidarities with the nonhuman world. Morton pins much of his hope for solidaristic relations between humans and nonhumans to the symbiotic relationships between and among planetary species, a phenomenon he refers to as “the symbiotic real.” Directing thought, imagination, and action toward the factuality of these interdependencies cultivates “ecological awareness,” or the *spectral* qualities of inter-being, and helps to repair the holes made by the Cartesian split (the “Severing”) and other Western philosophers who doubled down on and deepened this divide.

It is time to release the copyright control on this gap. The name of this release is ecological awareness. Ecological awareness is coexisting, in thought and in practice, with the ghostly host of nonhumans. Thinking, itself, is one modality of the convocation of the specters in the symbiotic real. To this extent, one's 'inner space' is a test tube for imagining a being-with that our metaphysical rigidity refuses to imagine, like a quaking peasant with a string of garlic, warding off vampires. (Morton, 2017, p. 63)

Cultivating ecological awareness is the key to countering the staying-power of certain cosmological schematas that uphold the Severing, and the fallacious decrees rendered in the space of philosophy's self-coronation. Here, the detachments of philosopher kings are brought to attention, and then re-grounded to the body in an imagined space of musical restoration: "Philosophers should never be allowed on the dance floor. Or maybe they should *only* be allowed on dancefloors, because that's where their intellect might become confused enough to say something enough of significance" (Morton, 2017, p. 183).

Importantly, while the role of philosophy is questioned by Morton, the practice of thinking itself is framed as a mode of connection. It is viewed as one vestige of a larger shapeshifting, shimmering, spectral world. This view also resonates with Spinozist notions of a material plane of immanence, which puts mind, body, and the affectations of environment on singular plane of affective becoming. For Spinoza, Deleuze (1988) notes, the mind is "the idea *of* the corresponding body . . . Each thing is at once body and mind, thing and idea; it is in this sense that all individuals are *animata*" (p. 86). *Animata*, it deserves noting, is derived from the Latin word "*animare*," which means to "give breath

to," or "to endow with a particular spirit, to give courage, to enliven" (Online Etymology Dictionary, n.d.). It is probably safe to assume Spinoza liked to dance, given the animating capacities and joyful imperatives of his philosophical frameworks.

Morton's "symbiotic real" opens pathways for thinking beyond modernist frameworks of belonging—obligation, which frequently pin notions of a human solidarity to universalizing moral imperatives over and above empirical recognition of the human condition in all its many grounded and embodied particularities, a critique that has ironically unified a host of unity-averse postmodernist positions (Rorty, 1989). But the "symbiotic real" enables a different route to solidarity, one that departs in significant ways from both modernist and postmodernist approaches. For Morton, the "symbiotic real" digs directly into, or "subscends" (as opposes to "transcends") the messy details of multispecies interdependencies. This move diverts from universalist and particularist approaches to solidarity, both of which, Morton argues, are too caught up in anthropocentric designs (i.e., human systems of capital and meaning making) to recognize the primacy of material nonhuman kin relations:

The Enlightenment idea of vanilla mankind and its postmodern flip side, the not-all set of incommensurable differences, are both reflexes of capital. Both are anthropocentric. Both distort humankind. Un-distortion of humankind requires amplifying the nonhuman symbiotic real implied in the concept of species-being. So, what happens when we turn up the volume of the nonhumans within Marxism? (Morton, 2017, p. 61)

Here the “symbiotic real” offers a recalibration, or alternative multi-species-oriented frequency to the distorting dins of capital. Inclusion on nonhumans also works against the grains of critical cultural thought that cling tightly to representational grounds and boundaries as they is demarcated linguistically and otherwise. With regard to nonhumans, Morton (2017) remarks:

Heaven forbid I call them “we,” because of the state of polite scholarship. What am I doing as if we all belong together without regard to cultural difference? What am I doing extending this belonging to nonhumans, like a hippie who never heard that doing so is appropriating the Other? . . . If grammar lines up against speaking ecological beings at such a basic level, what hope is there? (Morton, p. 4)

Through discomfoting and impolite amplifications of nonhuman others, social solidarity is brought into relationship with the polytonal registers of an expanding ecological awareness, aiding the development of a posthuman ear that is capable of hearing and moving to the music of interspecies dependencies otherwise buried in the monophonic mix of an anthropocentric drone.

Morton’s project ultimately seeks to update Marx and repair the ideological chasm between ecological and social movements that has inhibited the potential synergies between them. But his efforts are limited by competing allegiances to the nonhuman and Marx himself. Rather than explore the nature of these “symbiotic real” relationships or elaborating on the forms by which these solidarities might take (and the modalities of communication that could help actualize them), much of Morton’s energy is

channeled into the contradictory goals of embarrassing ineffectual vestiges of the Left-wing and resuscitating Marxist ideology: “Normal, old New Leftish scholars of the world, unite! You have nothing to lose but your anthropocentrism! Come on in, the water’s lovely, which is to say, it’s cold and dark and mysterious and spooky” (Morton, 2017, p. 75). It’s an odd strategy, and one more likely to—in Marx’s words—alienate, then bring humans and nonhumans together.

There are a few other incongruities that I feel deserve mentioning. Morton’s narrow focus on the anthropocentrism of Marx seems to suggest that it is the only important flaw to address in Marxism. It is viewed not as a reason to search beyond it, but rather an opportunity to debug, revise, and promote it as having seen the error of its ways. In Morton’s writing, one gets the feeling it is the Marxist worldview that is in crises, not the symbiotic interdependencies themselves.

Proposing solidarities with nonhumans raises flags within the political left. But Morton argues that these risks are both still worth taking, and a risk we can no longer afford to postpone. In this way, Morton’s writing offers a creative and irreverent wake up call to the Marxist Left, which Braidotti (2013) notes, has historically had “a deeply rooted suspicion towards the natural order and green politics” (Braidotti, 2013, p. 83). His theorization also makes important contributions to the dimension of the posthumanist project that seeks to interrogate what is meant by “social,” and how this circumscribes attention and care in dichotomizing, disconcerting, and ecologically harmful ways. The invitation on nonhuman into circles of social solidarity is an act of radical inclusion that

disrupts subject/object severings and species binaries while expanding notions of collective belonging. As Morton (2017) exclaims: “we” disrupts the “key of ‘it’!” (p. 5)

Mushrooms, Monsters, and Odd-Kin: Posthumanizing the “Social” of Social Solidarities

Posthumanist experiments enjoin sociological, ecological, and technological phenomena to bring their material/discursive intra-actions into a singular frame and generate new possibilities for how social relations are approached and attended to. As our scientific understanding of ecological systems grows, so does our awareness of the complex nature and number of connections that constitute them. This has necessitated deep revisions to received Western views of kinship, belonging, and the social milieu. The posthumanist social scene teems with nonhuman relatives and relations in the making that decenter binary and anthronormative conceptualizations of family, gender, sexuality, and species.

Haraway (2003) makes significant contributions on this front through a prolific outpouring of scientifically based and speculatively reimagined frameworks of more-than-human communities and relational ethics. Drawing from evolutionary biology, technoscientific studies, feminist standpoint theory, and Indigenous cosmology, Haraway choreographs a lively relational ontology through the trope of “companion species” that amplifies the co-becoming of species existence and is inclusive of non-human others along an animal—technology spectrum. In *Staying with the Trouble: Making Kin in the Chthulucene*, Haraway (2016) centralizes the exigency of multispecies recuperation, a task that requires the making of “odd-kin” across lines of familiar social and species

boundaries. Prominent in these planetary relatives are the “Cthonic Ones”: “Replete with tentacles, feelers, digits, cords, whiptails, spider legs, and very unruly hair . . . (m)onsters in the best sense; They demonstrate and perform the material meaningful meaningfulness of earth processes and critters” (p. 2). Here, the term “kin” evokes associations of both the familiar and the familial and is thus strategically deterritorialized to engender multi-species bonds and practices of accountability in the context of the climate crises.

Haraway justifies this move, explaining:

I think that the stretch and recomposition of kin are allowed by the fact that all earthlings are kin in the deepest sense, and it is past time to practice better care of kinds-of-assemblages (not species one at a time) . . . All critters share a common ‘flesh,’ laterally, semiotically, and genealogically. (Haraway, 2016, p. 103)

These affective interventions, which repopulate the social imaginary, play a vital role in the cultivation of a more-than-human imaginary, and serve as a reminder of how the (post)modern social sphere of the so-called “human” is haunted with the presence/absence of ghosts, monsters, and mutants beyond our recognition.

Practices of more-than-human storytelling are proliferating the number of spectral beings that now stalk our social settings. We encounter “trans-abling” starfish (Hayward, 2008), “cinesexuals” (MacCormack, 2008), “humanimals” (Hayward, 2012), cyborgs (Haraway, 1991), contamination-eating mushrooms (Tsing, 2015), “machinic phylums” (Deleuze & Guattari, 1987), and other ontological nomads, hybrids, and mutants. This influx of post-dualist figures problematize social solidarities because they shift the intelligibility of conventional social circumferences and enact “the relocation of identities

on new grounds that account for multiple belongings . . . and contradictory social relations” (Braidotti, 2014, p. 181). Stigmatization, chastisement, and other forms of social blowback can follow associations and alignments with these borderland beings. Morton (2017) expresses a degree of remorse over this situation as he confronts a dualling desire and compunction to declare solidarity with Jim Henson’s Muppets as the sing “We Are All Earthlings!” knowing full well what the repercussions will be for his reputation as a serious academic. He reflects:

Right now, in my part of the academy, I’m not allowed to like “We Are All Earthlings,” that song by the Muppets, let alone sing it as if it were some kind of biospheric anthem. I am supposed to condemn it as deeply white and Western, and so deeply appropriative of indigenous cultures and blithely ignorant of racial and gender difference. Right now, I am trying to make the academy a safe space in which to like “We Are All Earthlings.” This boils down hard to thinking about the “We.” (Morton, 2017, pp. 4-5)

The social “we” that posthuman perspectives challenge and generate push social imaginations to a limit that opens new possibilities for ridicule *and* recuperation. How are we take the non-human Muppet seriously? How can we not? Is it not a childish thing? Or is it not a thing, like most of Henson’s things, a thing of genius that should underwrite our basic sense of dignity and mutual respect? Doesn’t it cheapen the message of solidarity? Aren’t these bags of carpet making a mockery of the climate crisis? Or is it a cleverly designed proclamation of planetary belonging and responsibility? Can these musically appended more-than-human beings affect our social imaginations in a way that

actually makes a difference? Will the revolution be puppet-driven? Muppet-driven? Mushroom-driven? I also wonder in what other ways might musicking infect our imagination with ridiculous and urgent anthems of ecological awareness? How might these resonances overlap with sonic attunements to the “polyrhythms” of landscapes, the “polytonal assemblages” of microbes, and the sonorous symphonies of living and dying ecosystems to catalyze and guide the formation of more-than-human solidarities?

While theorization on the topic social solidarity can be traced at least as far back as Aristotle’s writings, it continues to inhabit an important space in contemporary cultural, historical, sociological, and political discourse. At their core, social solidarities reflect the fundamental role of reciprocity, homophily, and morality in the sustaining of mutual obligations within families, tribal systems, kin relations, communities, labor unions, and beyond. The role of homophily, ritual, affect, and “effervescence” draw attention to the embodied, material, and relational nature of social solidarity and gesture toward the capacities of music as a mode of engendering affinities and alliances between and among individual and collective bodies. These capacities have grown exponentially with the advancements and spread of communication technology offering a complex mix of risk and opportunity for the development, expansion, and activation of socio-technical assemblages. Within the writings of key sociological thinkers such as Comte, Durkheim, and Marx, the work of social solidarity was pushed to new levels of sophistication, highlighting the possibilities and theoretical limits of social bonds under the conceits of early Modernist sociological thought. With the emergence of posthumanist storytelling, the social scene has been contaminated with a multiplicity of cautionary tales that

challenge social norms and ontological dualities and prophesize the neglect of the ecological scene. These inducements to an ecosocial mode of relations suggest exits, possibilities, and perhaps even greater set of challenges within the forces of postmodernity and the vicissitudes of the posthuman convergence. One of those challenges includes the de/reconstruction of and experimentation with what it means to be “human”.

Chapter 5: The Human “We”: (De)Composing Human Solidarities (and the Cosmopolitan Imaginary)

Human solidarities are built of notions of a universal humanity. These beliefs are typically rooted in abstracted ideals that focus on “the tie which binds all of us human beings to one big moral community” (Bayertz, 1999, p. 5). This idea has manifested in a variety of forms, and survives today in different modes of religious doctrine, humanism, moral philosophy, and cosmopolitanism. Derpmann (2009) characterizes cosmopolitanism as a form of civic solidarity founded on notions of universal human rights, defined as “a single, all-embracing moral community” (p. 304), which can take basic forms on social level (i.e., based on embrace of multiculturalism, openness, tolerance, etc.), or institutional level (i.e., basing institutional forms and duties on a moral template). In theory, human solidarities engender expansive circumferences of belonging that straddle a tension between inclusion and cohesion. These assemblages are “tense” because they leverage the rhetorical force of moral universalism on the back of *particular* contexts, histories, and cultural truths.

Due to their moral and aspirational nature, human solidarities fall closer to the norm end of the fact—norm dialectic. Political conflicts, social inequities, cultural heterogeneity, historical trauma and distrust, and other factors can challenge and undermine the actualization of human solidarities, and in some instances, trigger and circulate “anti-solidary feelings and actions” (Bayertz, 1999, p. 7). The ongoing histories of human conflict, subjugation, and torture—which reached global proportions in the last two centuries—has problematized the notion of human solidarities as *fact*. Political

conflicts, social inequities, cultural heterogeneity, historical trauma and distrust, and other factors can challenge and undermine the actualization of human solidarities, and in some instances, trigger and circulate “anti-solidary feelings and actions” (Bayertz, 1999, p. 7). While universalistic cosmopolitanism often aspires to be the “antidote” (Braidotti, 2013, p. 39) to ethnocentric and nationalistic tendencies, the lens can also gloss historical specificities and matrices of power otherwise made explicit in a politics of location analysis. Further, “human” history has not born out solidaristic notions of one big human family.

The historical trajectories of human solidarity, while reflecting the immense heights and sense of moral obligation to which the human consciousness can ascend, also casts a long and cold shadow over perceived less-than-human and non-human others. This phenomenon was salient from the outset of cosmopolitan thinking. Bayertz (1999) notes the transition from early kin and blood-related based forms of solidarity to a moral cosmopolitanism during the height (and decline) of the Greek *polis*. Since its earliest conception, cosmopolitanism has had a fraught relationship with the conventions embedded in the norms of states and organized civic societies.

Dogs, Cynics, and the (More-or-Less-Than) Humanness of Cosmopolitanism

The roots of cosmopolitanism can be traced back to the Sophists, many of whom were known for their fluid movements between, and ambivalence to pledge allegiances to, any specific *polis* (Patapios, 2018). Cosmopolitanism crystalized with the Cynics, as an explicit way of living in—or rather *beyond* the boundaries of Greek social norms. This ancient school of thought valorized simplicity and harmonious relationships with nature

over the contrivances, elitist rituals, and material trappings of fame, wealth, and power that were perceived to be the aspirations of city dwellers.

Cynics held an attitude towards the citizens of the *polis*. This is illustrated through their original use of the term “cosmopolitan” as a crack or witticism that pointed simultaneously to the folly of the urban socialites and to the free-thinking of the Cynic school of thought. Piering (n.d.) cites one example: “Asked where he came from, [Diogenes of Sinope] said, ‘I am a citizen of the world [*kosmopolitēs*]’” (para. 22). This retort, Piering (n.d.) suggests, should be read not so much as a deflection from the specific question posed, rather a kind of razz that poked a stick in the eye of the *idea* of citizenship. From this perspective, Diogenes—an exiled citizen of Sinope—renounces “his duty to Sinopeans as well as his right to be aided by them” (Piering, n.d., para. 22). Through this use of the term cosmopolitanism, “the Cynic challenges the civic affiliation of the few by opening the privilege to all” (Piering, n.d., para. 23). Thus, in its earliest uses, cosmopolitanism represented an allegiance to an unbound notion of human belonging and a deliberate turn away from the conventions and contrivances of any one particular state or province.

Adopting this attitude came with certain consequences. To be an inhabitant of the *polis* was to be a participant in a prescribed system of human belonging. To renounce this system or to live outside of it jeopardized one’s membership to the narrowly defined club of humanity. As Aristotle (2013) remarked, the man who dwells outside of the city, either because they are a hoarder or they are simply independent, “is not part of the *polis*, and must either be a beast or a god” (p. 5). The passage illuminates attitudes that

prevailed in Greek society regarding the relationship between citizenship and status as a human being; it evinces the dichotomies segregating human, animal, and the divine, and the prejudices levied against those who eschewed the conventions of the *polis*, a choice that effectively demoted one to the level of an animal (Patapios, 2018).

This is a distinction Agamben (1998) later makes deft use of in his concept of “bare life,” which links refugees, and others either discarded or unrecognized by the state, to the level of the subhuman. (It deserves noting that the word “Cynic” stems from the Greek root “*kyōn*,” which translates into “dog” in English [Patapios, 2018]). But what is important here is that during the period of classical Greece, competing definitions of what was meant to be human emerged, with some definitions tightly coupling notions of humanity to the *polis*, and others demanding freedom from such associations. The branch that grew away from the citizen-of-the-state model and towards the citizen-of-the-world model was beckoned by the light of a moral universalism and would go on to seed multiple other forms of humanistic cosmopolitanism and proto-religions.

Despite its early negative connotations, to be a *kosmopolitē*, would eventually take on positive associations. The Greek Church Fathers, who were influenced by the philosophy and moral teachings of the Cynics, the Stoics, and others, converted cosmopolitan beliefs and practices into spiritual registers drafting what would become the foundations of the universal moral contract of Christianity. This shift supplemented a *cosmological* justification for a brotherhood of mankind with a *theological* one and accelerated the spread of transcendent notions of the human, based on a “metaphysical determination of the essence of the human race” (Bayertz, 1999, p. 7).

Moral prescriptions articulating the human's duty to fellow humans proliferated within later traditions of Western moral philosophy and Enlightenment humanism. Immanuel Kant's (1990) deontological perspective and concept of the categorical imperative stand out—alongside concepts developed by other utilitarian and contractarian thinkers—which bound action and behavior to sets of universal morals, norms, and rule-based frameworks. Through the spread of humanistic inquiry in 17th and 18th century, the category of the human was coded as universal and bestowed a transcendental status as binary understandings regarding the status of the nonhuman were instrumentalized to subdue and occupy distant regions of the globe (Federici, 1995). While critical posthumanism rejects binaries, the transcendentalist ontology of a Kantian perspective comes closer to being its diametric opposite than perhaps any other theoretical tradition (Braidotti, 2013). I will return to this idea with more thoughts below.

There are notable Enlightenment philosophers who seem to question, or at least soften the prevailing view of human's as "exceptional," or ontologically disconnected from the natural world. For example, Scottish philosopher David Hume (1739), who sought to bring scientific methods to bear on the study of "human nature," came to develop a different approach to human solidarity than the Kantian universalist school. According to Hume, the human's sense of obligation to others hinged the capacity to sympathize, perceptions of homophily, and anticipated favorable returns on investments. Rather than setting the human apart, Hume argued these capacities were shared across species lines:

(T)here is no such passion in human minds, as the love of mankind, merely as such, independent of personal qualities, of services, or of relation to yourself. 'Tis true, there is no human, and indeed no sensible creature, whose happiness or misery does not, in some measure, affect us, when brought near to us, and when represented in lively colors: But this precedes merely from sympathy, and is no proof of such an universal affection to mankind, since this concern extends itself beyond our own species. (p. 481)

Another deviant from Enlightenment human exceptionalism was Spinoza. Spinoza's practical philosophy and framework of ethics broke dramatically from the Cartesian school and from the prevailing religious orthodoxy, casting him a fugitive line of flight from his contemporaries. I dig deeper into the implications of this transversal path on the development of posthuman thought and understandings of musical affects and effects in chapter 7.

Cosmopolitanism and Enlightenment thought has undergirded notions of "duty" and "obligation" inherent to the development of many contemporary "human rights" frameworks. The notion of universal basic human rights has its roots in the writings of Western philosophers such as Cicero, Aquinas, Grotius, and Locke, and can be summarized by the "idea that all human beings have equal moral standing within a single world community" (Hayden, 2005, p. 3). Near the end of the 18th Century, discussion surrounding the issues of "human rights" was on the table and put into formal language in documents such as 1789 The Declaration of the Rights of Man. Documents such as the Rights of Man, as well as the 1789 US Bill of Rights, and the 1689 English Bill of Rights

served as blueprints for the creation of 1948 United Nations (UN) Declaration of Human Rights (Stevenson, 1987).

An intergovernmental organization with currently over 190 members, the U.N. represents the largest and most recognizable entity devoted to the support and defense of human rights and is the “closest existing political institution of world governance” (Yuval-Davis, 2011, p. 153). While its mission includes a broad array of purposes—including peace keeping and economic development, the UN institutionalizes facets of cosmopolitanism by composing a space for moral questions and issues facing an international community. Because it sits as the supranational level, it serves in solidaristic capacities where the juridical and justice systems of nation states fall short, such as playing mediating roles in cases of human rights violations. For example, African Americans communities have repeatedly sought justice from U.N. bodies: once in 1951, when the Civil Rights Congress submitted to the U.N. its petition entitled “We Charge Genocide: The Crime of Government Against the Negro People,” and again in 2012 when a group calling itself “We Charge Genocide” made appeals to the U.N. Committee Against Torture after the shooting death of Trayvon Martin (Mullen & Vials, 2020).

Ongoing calls to the UN for “human rights” by black communities in the U.S. underscore a number of important challenges, including the shortcomings of “civil solidarity” frameworks built by and invested in white supremacist ideology (Lipsitz, 2006), which results in both a lack of protections and direct antagonism for those whom these systems fail to recognize fully as citizens (or *bios*). But it also reveals some of the

limits of cosmopolitan projects in area of enforcement and intervention in legal systems of sovereign states where aggrieved groups go about their everyday lives.

But principles of cosmopolitanism offer pathways to alliance where they undergird forms of transnational solidarity, and in a way that blur the lines between human and civic solidarities (Bayertz, 1999) and permits localized values, meanings, and other particularities to come into play. Although moral universals may be operating within the context of some transnational solidarities, Gould (2007) suggests that the particularity of the conditions and suffering that some transnational justice movements seek to address lend them significant layers of concreteness that may deflect critiques of them as trading in the currency of abstract universals or moralistic colonization. Rather, Gould (2007) argues that “transnational solidarities” can gather feminist notions of “care” and social empathy into horizontal, project-based approaches that support solidarity between grassroots organizations and individuals, such as those found within the context of global justice movements, or the various interventions and initiatives associated with the World Social Forum for example. Transnational solidarities can form in response to the recognition of human needs, or across “normatively open” (Gould, 2007, p. 159) planes of recognition that are loosely tethered to questions of identity that might otherwise promote highly exclusionary set of political criteria. From this perspective, transnational solidarities blend of universalist notions of “human rights” and particularist elements demonstrate that solidarity and cosmopolitanism are in tension (Hayden, 2005).

The conversations enabled through transnational networks, and the increased recognition of the global scale and impacts of climate change, have created openings for

the more-than-human. Recent studies show that the push for Rights of Nature frameworks are driven primarily in the space of transnational activism and organization, suggesting the emergence of a broad networks and movements that are reshuffling the meanings and focus of cosmopolitanism (Espinosa, 2019; Kauffman, 2020).

Cosmopolitanism frameworks have been explicitly touted as a potential tool that can facilitate international cooperation around the issue of climate change. Appiah (2006), who as advocated for considerations of “elsewhere” and a “kindness to strangers” approach in his meditations on the potential of cosmopolitanism has commented “forgetting that we are all citizens of the world—a small, warming, intensely vulnerable world—would be a reckless relaxation of vigilance. Elsewhere has never been more important” (Appiah, 2019, para. 25). To the extent transnational networks can support transversal dialogue, they offer not only alternatives to civic, nationalistic, humanistic, and religiously based forms of identification and solidarity (Yuval-Davis, 2011), but also opportunities to redefine the entwined histories and trajectories of cosmopolitanism *and* humanism.

(Re)Considering Critiques of Humanism

Humanism is targeted by host of social and critical theory traditions, including postmodernism, poststructuralism, feminism, postcolonialism, critical cultural theory, and beyond. While many of these schools do necessary and good work, critiques of humanism can also chase after a reductive image of what is actually a composite of many diverse humanist philosophies. As Chambers (2001) points out, critiques of “classical” or “liberal” humanism came into shape in the 70s and 80s during a period in which

critical scholars fastened together and named a narrow strain of dangerous precepts and assumptions. Halliwell and Mousley (2003) have suggested that “humanism has been tidied up, packaged and streamlined by some anti-humanists in such a way as to negotiate its actual diversity” (p. 3). Thus, the case against humanism and the period of the Enlightenment that spawned many of its most foundational ideas, is not simple or unambiguous. While I avoid enumerating the full spectrum of the debates here, it is important to clarify the critiques against liberal humanism that continue to animate and justify the project of critical posthumanism, while highlighting notable instances where Enlightenment thinking continues to offer something of value to the deterritorializing trajectories of posthumanist thought.

The term “posthumanism” implies a move beyond the human and/or humanist philosophy. But what exactly does the prefix “post” signify is being undone, cancelled out, or moved beyond? Among the many critiques levelled against liberal humanism in the last half century, Chambers (2001) outlines three main themes: a) the presumed sovereignty and autonomy of the subject, b) the presumed transparency and stability of meanings conveyed through language, c) and the primacy of rational thought and the perfectibility of understanding via the march of Reason (ala Kant). At the time of their formulation during the Enlightenment, these ideas represented a radical break from the status quo, and heralded the triumph of scientific reasoning over religious authority. With the powers of language and philosophy as a “mirror of nature” (Rorty, 1980), notions of discovery, knowledge, and progress shined a light forward toward the horizon of the free and universal man. Yet these “Enlightened” precepts have not always been used in an

enlightened way, and, in fact, have been the inspiration for many of the darkest episodes in more-than-human history.

Plainly stated, the Enlightenment period helped to legitimize and accelerate processes of domination of non-human and perceived less-than-human others. Self-coronated to the highest throne in an expanding territory of species knowledge, the (Euro)Human coupled epistemological annexations with new virulent strains of exploitation and control of the world around him. René Descartes (1637/1996)—who is routinely summoned to represent this set of destructive practices—proclaimed in his *Discourse on Method* that:

knowing the nature and behavior of fire, water, air, stars, the heavens, and all the other bodies which surround us, as well as we now understand the different skills of our workers, we can employ these entities for all purposes for which they are suited, and so make ourselves the lords and possessors of nature. (p. 38)

Taking inspiration from advancements in clock making technology (Des Chene, 2018), Descartes developed a mathematically based mechanical science “whose first effect was to devalue nature by taking away from it any virtue or potentiality, any immanent power, any inherent being” (Deleuze, 1990, p. 227). Stripped of subjectivity, and seemingly deprived of any feeling, language, or communicative capacities, animals were reduced to machines and mere obstacles along (Euro)humanity’s path to becoming Masters of Nature.

In the space of this thinking the authority of the church was—if not extinguished—then significantly diminished, and in its place arose the philosopher king,

a self-coronated, adjudicator of a new reality. Given the capacity for (Euro)humans to reason and act according to abstract thinking and moral universals, it was held, the (Euro)human was simultaneously relinquished from both animal and religious worlds, a liberation that also paved the way for a center-periphery cosmopolitan expansionism (Brown, 2019). In the wake of this paradigm shift came a zeitgeist of consequences, from the mundane to the catastrophic, set into motion by a new form of “globalizing geopolitics” (Haraway, 2016, p. 11).

The Enlightenment’s naturalization of human dominance over the (natural) world took shape as the concepts of capital, private property, and the nation-state were coming to life. This synchronicity shows up in stark terms in social contractarian John Locke’s doctrine of “improvement,” which legitimized the capture and enclosure of land by colonial settlers that was deemed non-productive, a move that green lighted and accelerated the mass displacement of Indigenous populations. In Locke’s own words:

We can, then, easily deduce that the Indian has failed to establish his right to the land, which becomes fair game to more ‘industrious’ and ‘rational’ colonialists. Unimproved land is waste, and a man who appropriates it to himself in order to improve it has, by increasing its value, given something to humanity, not taken it away. (*as cited in* Wood, 2017, p. 157)

Here on full display in this passage is the power of “rationality” in the age of “Reason,” where nature is “improved” as a gift to a generic “humanity” while Indigenous societies are displaced, robbed of their land, and in many instances, their lives. We must also

appreciate here the stage that is being set for large-scale ecological violence in the wake of these colonial campaigns of forced removal.

From this perspective, the march of human “Reason” can be understood in part as the rhetorical mechanism by which Western imperialism spread. As assumptions regarding a universal “human” condition were elevated into what Braidotti (2013) has referred to as a “civilizational model,” a tool of for mass evictions was made from “a certain idea of Europe as coinciding with the universalizing powers of self-reflexive reason” (p. 13). These self-affirming and mutually enforcing aspects of Enlightenment thought and liberal humanism cleared the pathway for the colonization of distant lands while undergirding the development of “citizen’s” rights, chief among them being the right to private property (Federici, 1995; Wolf, 2017). As Mignolo (2011) notes, “the concepts of ‘man’ and ‘human’ went hand in hand with the emergence of the concept of ‘rights’” (p. 158). And with one’s capacity to “Reason” serving as the yardstick of one’s human-ness—as Wynter (2003) has insightfully argued—genocidal campaigns did the noble work of erasing signs of the sub-human savage, and conquering nation states could serve beneficently in their roles as regulators of human progress and “improvers “of natural world.

The contradictions of liberal humanism and the Euro-centric figure of the moral, progressive, and modern “Enlightened” human have been well illuminated by an assortment of critical theorists and anti-humanist movements. Horkheimer and Adorno (1997/1944)—critiquing the union of science and technology to develop ever more powerful weapons of mass destruction—observed “(t)he Enlightenment has extinguished

any trace of its own self-consciousness” (p. 4) while “the wholly enlightened earth radiates under the sign of a disaster triumphant” (p. 11). Observing modern man’s overuse of himself as the measure of all things, Nietzsche (1967a) famously declared the “death of God.” Foucault (1970), picking up where Nietzsche left off, snipped loose the thin strings of humanist assumptions that tied the natural order of the world into discrete packets of institutionalized knowledge and power and declared the “death of Man!” In the 60s and 70s, numerous anti-racist, anti-imperial, and feminist movements emerged from the postmodernist turn to directly confront humanism and the assumed universality of European perspectives in the humanities. The effects of this backlash, Hall (1991) notes, was the relativization of Western categories and rationalities, revealing them “not as absolute, disinterested, objective, neutral, scientific, non-powerful truth, but dirty truth—truth implicated in the hard game of power” (p. 12). Resistance to notions of a universal humanity has continued into the 21st century in the rise of “alterities” grounded in planetary relations outside of humanistic frameworks (Spivak, 1996).

Despite over a century’s worth of pointed criticism, Enlightenment humanism—in various forms and permutations—has continued to influence social, political, and critical theory, suggesting the baby has survived the tossing of the bath water. In fact, some of the most foundational thinkers in postcolonial and feminist thought have made good use of liberal humanism by effectively parsing out its basic principles from the contradictory and abusive applications of them. Braidotti (2015) notes that early feminist theorists such as Simone de Beauvoir (1973) regularly offered interventions aimed at the improvement of the human condition on a level of generality that “made them humanist at an almost

visceral level” (p. 673). Notable postcolonial adopters of humanist principles include Aimé Césaire (1955), Frantz Fanon (1952/2008), and Edward Said (2004), who arrived at his critical concept of Orientalism through a Foucauldian engagement with his first love, literature in the humanist tradition. Race theorist Paul Gilroy (2000) has argued that until the lingering structures and effects of race and race-based thinking are squarely confronted that a form of “planetary cosmopolitanism” is vital, adding, it is possible to retain the ideals developed during the Enlightenment while rebuking the ways in which it was implemented to install systems of oppression.

In the late 20th and early 21st centuries, many political movements of differing scales and locations have had to walk a paradoxical path that puts liberal humanism “in its place” while borrowing key strategies from its rhetorical playbook. As frameworks that move and mobilize powerful and recognizable principles such as “freedom,” “liberty,” and “equal rights,” universals derived from humanist philosophy continue to give locally situated struggles a form of allegorical “friction” (Tsing, 2005) and a moral position to tactically weld in moments of oppositional resistance (Sandoval, 2000). As Chakrabarty (2000) has put it, despite the tremendous need to delink local histories and worldviews from Euro-centric modernist frameworks, “there is no easy way of dispensing with these universals in the condition of political modernity. Without them there would be no social science that addresses issues of modern social justice” (p. 5). While useful in some political contexts, the moral authority that humanist frameworks provide in one arena can become a liability in the next, where appeals to universal truths

and sameness trammel history, difference, and subjectivities operative in the context of *particular* struggles.

This tension between universals and particulars can strain the work of building diverse coalitions in the context of solidaristic movements. As Bayertz (1999) notes, human—or moral—solidarities are built of notions of a universal humanity and are typically rooted in an abstracted ideal, or what Hoelzl (2005) has termed a “transcendent referent,” that focuses on “the tie which binds all of us human beings to one big moral community” (Bayertz, 1999, p. 5). This idea has historically underwritten different visions of solidarity in religious doctrine, moral philosophy, and cosmopolitanism, but has also been invoked in various solidaristic struggles for “human” and civil rights.

The moral force of humanism is periodically put to worthy and “good” uses. But some critics point out that it has also been imported into “human rights” frameworks that advance the project of globalization, such as when it provides cover for military interventions and forms of modern imperialist expansion (Chomsky, 1999; Zignon, 2013, Žižek, 2005). Davies (2008) has referred to this type of cooptation of Enlightenment ideals as “the prostitution of eloquence that precedes and justifies acts of official violence” (p. 134). This point highlights how the elasticity of universalist language enables opposing sides of struggles to lay claims to the sword of moral authority. As Zignon (2013) has observed, the narrative of “human rights has become the moral language that grounds both the political status quo and the politics that claims to oppose this status quo” (Zignon, p. 717).

In theory, human solidarities engender expansive circumferences of belonging that straddle a difficult tension between inclusion and cohesion. One solution, proposed by Rorty (1989), is to shrink down and localize these circumferences of “we-ness” to sidestep the problems that attend abstract or hyperbolic appeals to human “essence.” The French Revolution, and the spasms of political experimentation it spawned, Rorty argues, normalized this type of utopian rhetoric among theorists and intellectual elites. But Rorty points to the need to strike a balance between the grand narratives offered by humanism *and* the hyper individualism that permeates the work of some postmodern thinkers (and those thinkers precursory to the postmodern), a group who he dubs the “Ironists,” which includes Nietzsche, Heidegger, and Derrida, and for whom, “theory has become a means to private perfection rather to human solidarity” (Rorty, 1989, p. 96). These localized solidarities can be effectively accomplished through the cultivation of a “we consciousness,” or the internalized orientation toward a public good, a task perhaps best accomplished through forms of literature and narrative. Human solidarity, Rorty (1989) argues:

is to be achieved not by inquiry but imagination, the imaginative ability to see strange people as fellow sufferers. Solidarity is not discovered by reflection but created. It is created by increasing our sensitivity to the particular details of the pain and humiliation of other, unfamiliar sorts of people. . . . This process of coming to see other human beings as ‘one of us’ rather than as ‘them’ is a matter of detailed description of what unfamiliar people are like and of redescription of what we ourselves are like. This is a task not for theory but for genres such as

ethnography, the journalist's report, the comic book, the docudrama, and, especially, the novel. (p. xvi)

From this perspective, hopes for human solidarity are to be found not through endless inward excavations and navel gazing, but rather through engagement with the gritty detail of lived experience and suffering found in forms of everyday literature and vernacular communication.

While I agree with Rorty's sentiments regarding the capacity of narrative to open channels of empathy and understanding, other problems can arise from overinvestments in the power of storytelling to avail the binding threads of humanity. These include—but are not excluded to—the possibilities for misrepresentation, wherein stories go beyond the context of experiences they claim to represent, appropriation by “empathizers” to do “cultural work” through the instrumentalization of their “realness,” a sense of voyeurism, rather than witnessing, which can reinforce rather than dismantle a sense of the Other, and the reinscription of marginalized identities in a way that inadvertently (or advertently) upholds dominant ideologies (Shuman, 2010). Rorty also seems to set up a false choice between philosophical reflection and the work of storytelling, as if philosophical and practical worlds are somehow mutually exclusive and could not actually work in tandem to deepen practical, localized pathways to empathy. (My next-door neighbor loves to share their colorful philosophies on life with me).

Many of the same critiques could be levelled (and have been) against the work of storytelling written from within the project of posthumanism. *The audacity of anyone who claims to speak on behalf of dinoflagellates swimming in the Tethys Sea during the*

Eocene period 50 million years ago, whose bodies were compressed by time into yellow limestone—along with other symbiotic foraminifera organisms—and used to construct the Great Sphinx of Giza, that chimerical monster with a lion’s head, human body, and endless secrets! (Sagan, 2017). But these critiques perhaps miss the point, that a primary aim of posthuman storytelling and fabulation is not (just) to bring into crisper focus the ground of human experience (no matter how localized or situated a particular human being may be), but to also dig deeper into the ground, and in all directions to throw off the habits of human perception and anthropocentric thought. Posthuman cartographies and speculative narrative shows how the suffering and wonder of the “human” world is linked to the suffering and wonder of a multiplicity of more-than-human worlds. And this is one area where Rorty’s work, and other advocates of a revised “humanism,” is limited. Time is, unfortunately, running out to take these forms of solidarity as our singular priority. Efforts to make postmodernist and anti-humanist frameworks of solidarity “practical” through narrative, literature, and emic research methodologies reach their “practical” limits in the context of the posthuman convergence.

Critical Posthumanism, and its Humanistic Desires

While Enlightenment humanism stands as a force to be confronted, many residues of the Enlightenment remain in strains of posthumanist thought. Several contradictions impede a clean break. For example, the very idea that one could make a clean break from humanism reasserts key humanist principles of agency and “free will,” and overlooks how a leap to the “outside” of humanism would in effect reconstitute a key dualism it is founded on (Peterson, 2011). Rather than ignore this contradiction, critical

posthumanism acknowledges and embraces it. Rorty's ambivalent postmodernist dance with humanism thus echoes similar footwork the posthumanist theorist must put down when attempting to deal with humanism's problematic legacies.

Braidotti (2013) acknowledge there are aspects of humanism, in fact, worth saving and defending. For starters humanism has supported notions of goodwill, charity, and a problem-solving that undergird various schools of thought, such as philosophical pragmatism. These values are foundational to the ideas of community-building, solidarity, and emancipation, without which notions of equality and justice would be difficult if not impossible to imagine. Additionally, significant value is found in the writings of Enlightenment era philosopher Baruch Spinoza, whose work constitutes a vital substrate that nourishes the expanding mycelial network that is critical posthumanist thought. As a philosopher who advanced a prescription for collective living based on an ethical regime of affective relations, Spinoza—Hardt & Negri (2000) argue—should be read as a potent progenitor of the “revolutionary program of humanism” (p. 78) that rustled in the shadows during the seventeenth century. Because critical posthumanism valorizes complexity, multiplicities, and paradox over definitional closure, Braidotti (2013) does not reduce humanism to a monolith or define critical posthumanism in terms of pure opposition to humanist philosophies.

But posthuman cartographies are still rendered with the aim of constructing alliances beyond these frameworks and their essentializing logics. Assemblage theory and the strategies of defamiliarization and nomadism promote thinking beyond notions of

“human essence” as a self-evident baseline for constructing commonalities and cohesion.

This kind of rationalization, Bayertz (1999) notes, is a self-serving tautology:

Any attempt to bring about or legitimize solidary behavior by referring to human nature or to the human essence thus becomes circular, since this ‘human nature’ or ‘human essence’ has already been defined as solidary. The moral output of theories such as these is always guaranteed by a corresponding anthropological input. (p. 8)

The “nested” nature of assemblages *within* assemblages affirms the *immanence* of bodies affecting bodies across a nexus of differences, which shatters both the picture of solidarities as the result of essential similarities *and* the myths of individualism promoted within linear models of social change, reflecting the intuition that “a lasting political framework does not need a transcendent standing above or behind social life” (Hardt & Negri, 2017, p. 14).

Posthuman knowledge practices recast solidarities not by negating but by renesting received humanist notions. The posthuman subject is always-already embedded in webs of more-than-human material relations that destabilize received notions of autonomy, agency, and the primacy of language. And the production of knowing subjects is always already a more-than-human affair. As Barad (2007) observes:

practices of knowing cannot fully be claimed as human practices, not simply because we use nonhuman elements in our practices but because knowing is a matter of part of the world making itself intelligible to another part. Practices of knowing and being are not isolable; they are mutually implicated. We don’t

obtain knowledge by standing outside the world; we know because we are of the world. We are part of the world in its differential becoming. (p. 185)

Posthuman knowledge promotes post-humanist solidarities by emphasizing multi-directional, multi-scalar, more-than-human assemblages over individual consciousness, and vital nexuses of becoming-with and the affective exchange of intensities over the power of essentialist identitarian placeholding (Braidotti, 2019). In this way, Braidotti (2013) positions the posthuman subject both between (and beyond) humanist universals and anti-humanist relativism. Said differently, critical posthumanism orients transversally to the dichotomy between dehistoricized universals and static historically situated pinpoints by generating, affirming, and keeping open spaces of radical collective becoming beyond anthropocentric frameworks of meaning and life. Knowledge and alliances conceptualized under this rubric of becoming-with are emergent, deriving adaptive strength from their instabilities and fluid nature, in the same way that art, music, and performance activated in the space of social movements plays with the norms of the status quo and prefigures the political transformations unfolding on the horizon (Shotwell, 2016).

The posthuman convergence has shifted the stakes for life on the planet, and therefore the terms of the debate regarding planetary politics. One task “we” now face is the defamiliarization of the humanistic lens as a privileged default of solidaristic relations and analysis. It’s an uncomfortable proposition for many, but it should not prevent us from attempting to see (and hear) what stirs in the humus of its critical (de)composition. Reflecting on the emergence of theoretical posthumanism, Chambers (2001) explains:

Such a prospect does not inaugurate an anti-human universe, or announce the end of the subject, but rather, in seeking to displace the hegemonic ratio, proposes a differing subject, and a diverse ethics of understanding. Paradoxically, to critique the abstract universalism of Western humanism is to release the human into a cultural and historical immediacy of a differentiated and always incomplete humanity. (p. 3)

Moving away from the picture of a complete, ideal, and normative “humanity” opens the door to more-than-humanisms and different more-than-human compositional possibilities, ones that can potentially ignite new vital investments in immanent ethical obligation rather than overestimate and overtax our moral imaginations.

Through these (de)compositions, we could sensitize our ears to the dog whistlers of globalization and militarization that cloak their efforts in the rhetoric of humanism by exploring ambivalent dance parties in the nodes and flows of planetary multi-species assemblages and generate new modes of communicative eloquence that measures dignity and accords rights in terms beyond those dictated by state, nation, or international humanitarian organization. It might even behoove us to lay down with dogs to get on eye-level with cynics, transnational activists, and other transversal forces given over to the proliferation of more-than-human openings in the arena of politics.

Chapter 6: The Political “We”: (De)Composing Political Solidarities and the Oppositionist Stance

The fourth “use” of solidarity, according to Bayertz (1999), is political solidarity. Political solidarities typically coalesce around a specific cause, and with a particular outcome in mind, such as the attainment of rights, reforms, or the holding accountable of a particular individual, party, or system. Political solidarities can emerge “wherever individuals form a group in order to stand up for their common interest” (Bayertz, 1999, p. 16), and can serve as both a means and an ends: coalitions seeking social change can coalesce and prefigure or constitute the community, vision, or reality that is desired. Political solidarities can be differentiated from social, civic, and human solidarities most notably by their links to specific interests or goals, typically aimed at correcting some type of oppression or injustice or achieving some specific form of societal or structural change. These changes are often target the transformation living conditions or legal frameworks and can in some instances draw from multiple other forms of solidarity. For example, The U.S. Civil Rights movement depended as much upon political solidarities between diverse groups with a common goal as it did universal notions of human rights, and the (broken) promise of rights and protections offered by modes of civic solidarity.

The origins of political solidarities are often linked to the U.S. Revolutionary Period. It was during this time, Wallerstein (2004) notes, that “the genie of the people as sovereign escaped from the bottle” and “would never be put back inside” (p. 51). As power and authority were relinquished from the hands of the aristocracies and the Church, a field of ongoing political scimmages opened between differently situated

people's parties. Within this playing field, struggles for access, inclusion, and power became commonplace, and many affiliated themselves with parties, including conservative, liberal, and radical ideological groups that recognized and represented their interests. Splintering increased in twentieth century with the rise of "anti-systemic" movements producing three primary trajectories, including worker/social, ethnic/nationalist, and women's movements, with each "in their separate corners, each fighting the battle for its own proposals and ignoring or even fighting the others" (Wallerstein, 2004, p. 73). This development highlights another common characteristic of political solidarities: they are often adversarial in nature, and the "we" is constituted in opposition to a "them."

Within the context of social movements, the goals, communicative dynamics, ontological contours, and actors involved in a solidaristic action can vary dramatically in relation to power differentials, social positions, and proximity of the solidarity group to the issue demanding attention. In certain situations, there may be horizontal sharing of resources, strategies, and cultural information between groups who share in a struggle against a particular form of oppression, such as movements against white supremacy, capitalism, patriarchy, or colonialism (Márquez, 2014; Tuck et al., 2014). In some instances, political solidarities may be organized differentially between a "most impacted group" and a separate "frontline" group that is designated to partake in the solidaristic action on behalf of the former (Gould, 2007; Passy, 2001; Sundberg, 2007). This form of "frontline" solidarity is intended to benefit those most impacted by the issues being confronted while displacing the risks of the direct action to those directly involved.

In some cases, political solidarities can be founded on notions of radical or absolute difference or by prioritizing interdependencies over similarities. In these instances, the political solidarity group can be “ontologically distinct” from the oppressed group (Sholz, 2008, p. 202). Where the lines are drawn between and around differently situated actors in a solidaristic situation underscores the important role recognition, identity, history, and values can play in the expansion and contraction of political circumstances of belong—obligation.

The posthuman convergence brings with it challenges of composing intelligible more-than-human identifications capable of galvanizing collective action beyond the familiar markers of identity and historical frameworks of collective struggle. Chakrabarty (2009) observes:

The current crisis has brought into view certain other conditions for the existence of life in the human form that have no intrinsic connection to the logics of capitalist, nationalist, or socialist identities. They are connected rather to the history of life on this planet, the way different life-forms connect to one another, and the way the mass extinction of one species could spell danger for another. (p.

217)

The exigencies of the climate crisis test and tax frameworks of political solidarity in novel ways suggesting a need to develop new habits and transversal pathways toward political (dis)identification and collective action. Where notions of difference and ontological distance are constitutive of solidarity, I hear openings for forms of more-than-human alliance. But these reconfigurations compete for acceptance within a field of more

familiar, self-serving, and socially acceptable frameworks of solidarity. The question now is whether or not people can be compelled to hear out, feel into, choose this emergent modality of “caring for belonging” (Massumi, 2002, p. 255).

Strategic Essentialism↑↓ Strategic Universalism ↑↓ Ambivalent Differences

The issue of climate change triggers anxieties and has activated calls for unity and action. But these calls negotiate a complex field of ethnic, cultural, social, and political histories. In many cases, political solidarities are formed around a perceived or idealized sense of similarity or shared trait. Spivak (1996) has referred to the exaggeration and instrumentalization of group markers as a form of “strategic essentialism,” which emphasizes and reinforces boundaries of inclusion/exclusion. For Gilroy (2000), strategic essentialism can make use of traits such as phenotypical signifiers of race, which offer “a welcome short-cut into the favored forms of solidarity and connection” (Gilroy, 2000, p. 25). These moves represent pragmatic reappropriations of “essences” as they have been historically inscribed and culturally programmed through the tools of social construction and can be (re)deployed in a number of forms and contexts, including in the mimicry of performative dimensions of identity to assimilate into or subvert colonial structures (Bhabha, 1984; Taussig, 1993), as well as gender norms (Butler, 1990).

While conferring several short-term advantages, including forms of recognition and autonomy, reinforcement of “essences” in the pursuit of solidaristic formations can reify particularist positions that quickly crystallize into forms of protectionism and puritanism. What is achieved can amount to little more than what Said (1993) calls a form of:

mock autonomy achieved by a pure politics of identity. . . . you want to be named and considered for the sake of being named and considered. In effect this really means that just to be an independent postcolonial Arab, or black, or Indonesian is not a program, nor a process, nor a vision. It is no more than a convenient starting point from which the real work, the hard work, might begin. (p. 456-457)

Where valorizations of recognition take precedence, they may stand in for the achievement of material redistribution, a situation that has actually been a boon for the spread of neoliberalism (Fraser & Honneth, 2003). And where moves to essentialization reinforces the parameters historically placed on it, the impulse to purify restarts the unfinished project of Modernity, which advanced through processes of racialization, sexualization, naturalization, and other epistemological practices instrumental in the naming and regulating of bodies of both human and non-human others.

Gilroy (2000) notes the potential slippery slope of this approach pointing to instances where racial solidarities founded on shared experience of inferiority can fuel a separatist reaction, which when coupled with essentialism can run the risk of promoting fascistic thinking. Shotwell (2016) argues similarly that purity:

is a bad approach because it shuts down precisely the field of possibility that might allow us to take better collective action against the destruction of the world in all its strange, delightful, impure frolic. Purism is a de-collectivizing, de-mobilizing, paradoxical politics of despair. (p. 9)

Purity practices weaken possibilities for solidarity with more-than-human world as well.

The imperative of recognition that essentialist strategies rely on, Grosz (2005) has noted,

can also tightly couple with projects that ignore or omit the pervasiveness, vitality, and ontological copresences of inhuman forces (Grosz, 2005). In these tightly drawn circumferences of belonging and obligation, the criteria for solidarity can be squeezed into designs and policed in ways that limit their capacity to function and grow, which could help to explain why Spivak later distanced herself from the strategic essentialist approach (Darius, Jonsson & Spivak, 1993).

Political solidarities can also coalesce around forms of “strategic universalism” (Tsing, 2005), which exaggerate and instrumentalize generalized notions of commonality, aspirational values, and metaphysical essences as a base for group cohesion. Universals may be summoned to gain visibility, consensus, or give powerful traction and rhetorical force to a situated struggle. Tsing (2005) refers to the strategic applications of universalisms (i.e., “equality,” “liberty,” “freedom,” “emancipation,” etc.) in particular contexts in terms of “frictions,” characterizing them as “the awkward, unequal, unstable, and creative qualities of interconnection across difference” (p. 4). A great many of these principles, which have lent a rhetorical stickiness to innumerable political projects, can be traced back to philosophical humanism and other projects of Modernity. As one of modernism’s “boasts” (Wallerstein, 2004, p. 38), notions of “universality” played an unequivocal role in the solidarities that led to the formation of the nation state system.

Many of these familiar modernist universals have been given after-lives in contemporary political projects. For example, Mexico’s Zapatistas group, regarded by many as the gold standard of contemporary militant Indigenous decolonization, deploy the concept and universal value of “democracy” in their communications, even though as

Mignolo (2000) has acknowledged, that term does not accurately describe their system of governance, which is based rather in particular Mayan principles of social organization, wisdom, and communal values. Yet the term does significant rhetorical and affective work by invoking the shibboleths of Western liberalism recognized by contemporary power, and by legitimizing and making legible their struggle to a global audience that might be empathetic and willing to stand *in solidarity* with such values.

While strategic universalism can provide rhetorical friction to the wheels of situated struggles, it can also tamp down important differences within collective bodies and serve as a foil for meritocratic systems. As Wallerstein (2004) notes, “The norm of universalism is an enormous comfort to those who are benefitting from the system. It makes them feel they deserve what they have” (p. 40). To the extent they gloss the particularities of power as they operate across social, political, and ecological milieus, universals perform a de-historicizing function that can leave certain inequitable systems in place. This highlights the complex relationship and potential complicities between presumptuous universalisms and the maintenance of a status quo. For Braidotti (2019) this tension highlights the need to promote an ethics of transversal subject assemblages, or a notion that ‘we-are-(all)-in-this-together-but-we-are-not-all-one-in-the-same’ kind of subject” (p. 54). I explore this move to a transversal composition as an alternative to strategic essentialism and strategic universalism in greater detail below.

In contrast to essentialized notions of sameness and universal notions of oneness, political solidarities can also hold space for and amplify diverse ontologies, a phenomenon that can be understood in postmodernist terms of difference. Starting from

this premise, Dean (1996) has advanced the notion of “reflective solidarity,” which is not based on a given shared ontological identity but rather a process of communicative relations representative of a “discursive achievement of individuated ‘I’s.” (p. 3). This approach upholds “the possibility of a universal, communicative ‘we’” (Byrd, 1996, p. 8) by recognizing forms of disagreement and dissent as modes by which solidarities of difference are constituted, negotiated, and maintained.

Mohanty (2003) builds on the imperatives of difference and Dean’s process-oriented *reflective solidarity* to advance a decolonial feminist theoretical framework of solidarity based on notions of mutuality, accountability, and the shared experiences of oppression. For Mohanty, the concept of “solidarity” replaces “sisterhood” as the central organizing concept, a substitution that rhetorically reinvests feminist solidarity in notions of intersectional struggle instead of more a liberal and universalistic baseline of shared gender or sex. The assumption here is that not all are “sisters” are fighting the same fight or have the same amount of skin in the game of liberation as it pertains to histories of colonization and processes of decolonization. This intersectional move highlights the role history, identity, and the situatedness of particular struggles can play in the inclusion—exclusion binary contributing to more granular judgments regarding differences within differences.

Postmodernism has on occasion bent affective light in the direction of more-than-human solidarities by attuning to ethical questions at the intersection of language, meaning, and power at the human/animal nexus. For example, Derrida’s deconstruction was driven in part by what seems to be a desire to recover kinships with, and

responsibilities for entities in the animal world, a task that language seemed woefully inadequate to articulate let alone actualize. In his book *The Animal That Therefore I Am*, Derrida (2008) asks, “If I have a duty [devoir]—something owed before any debt, before any right—toward the other, wouldn’t it then be also toward the animal, which is still more other than the other human, my brother or my neighbor?” (Derrida, 2008 p. 107). By linking the notion of debt to animal Others, Derrida reanimates meanings linked to early modernist uses of “solidarity” in a way that highlights the contradictions of modern human/animal relationships and puts postmodernism on ambivalent footing with regard to radical more-than-human Otherness, and the limitations of the modern ethical imagination.

The modernist project of colonization has compelled a similarly ambivalent dance with the question of the “human” in decolonial approaches. Decolonial solidarities navigate an especially complex set of tensions with regard to the more-than-human in the arena of climate change politics. As Mignolo and Walsh (2018), Vandana Shiva (1997), Gómez-Barris (2017) and others have pointed out, most if not all of today’s ecological issues are inextricable from the historical and ongoing processes of colonization, including the asymmetrical processes of resource extraction from the Global South by the Global North. Viewed through what Gómez-Barris (2017) terms the “extractivist lens,” not much space separates the experience of many colonial subjects and nonhumans as exploited, fungible, and perceived less-than-human Others. Noting these inequities, decolonial theorists can advocate for an array of non-cooperative moves intended to deflect instrumentalized universalisms, avoid incorporation, and expedite the exodus

from colonial epistemological frameworks and systems, including conceptualizations of solidarity constructed in the language of colonizers. Given these histories, Hoelzl (2005) emphasizes that critical theorists have a responsibility to acknowledge the historical associations that “solidarity” holds for many as part of the language and legacy of colonization.

Still, decolonial forms of solidarity need not always be set on stark oppositionist terms, or even perceived “essential” similarities. Thinking through a matrix of feminist, postcolonial, and Indigenous scholars, Gaztambide-Fernández (2012) promotes a model of decolonial solidarity tethered simultaneously to the principles of interdependency and a fundamental respect of difference. These principles can (re)draw attention to practices of reciprocity and care between diversely situated (more-than)human populations in the context of colonial and settler colonial relations:

Solidarity in relationship to decolonization is about challenging the very idea of what it means to be human, and by extension, the logics of inclusion and exclusion that enforce social boundaries, including notions of social, political, and civic solidarity. It is about imagining human relations that are premised *on the relationship between difference and interdependency*, rather than similarity and a rational calculation of self-interests. (p. 49)

From this perspective, difference is a constitutive element rather than disruptive one that prohibits access to solidaristic relations, and a ground from which to interrogate normative models of the “human” that have underwritten the spread of exploitative social contracts and imperialist projects. Decolonial models of solidarity that engage

challenging epistemological questions and pursue relations of interdependence rather than opt to delink and recoil into enclaves of protectionism offer latitude for diverse ontologies in the space of alliance building.

The postmodern emphasis on difference is not fatal to notions of collective identity and action. However, the deconstructive turn does present numerous challenges to the aim of establishing a sense of community and forging solidaristic relations. This is because the tearing down of discursive structures that underwrite power and political subjectivity can manufacture crises of meaning, identity, and processes of identification that can serve a sense of commonality and cohesion. In postmodernism's assertion that the stable, autonomous self has been fragmented to the point of near total disintegration, Jenkins (2004) argues that postmodernist theorists undermine the very idea of "community" and take "the presumptions of modernity too much at their own, self-serving face value" (p. 13). The deconstructive turn's penchant for negating and tearing down structures can become habituated and prohibit the cultivation of affirming self-concepts and collective relations.

In the face of social inequities, this can be a counterproductive force. Many disempowered subjects are in fact more interested in reclaiming and reasserting empowering constructions of subjectivity. As Braidotti (2014) argues: "The irony of this situation is not lost on any of the interlocutors: think, for instance, of the feminist philosophers saying: 'how can we undo a subjectivity we have not even historically been entitled to yet?'" (p. 180). Additionally, the deconstruction of self and Other is often a privilege afforded political subjects located primarily within the power centers of colonial

empires: “if the white, masculine, ethnocentric subject wants to ‘deconstruct’ himself and enter a terminal crisis, then—so be it!” (Braidotti, 2014, p. 180). Morton (2017) critiques the postmodernist tendency to overreact or overcompensate in the face of perceived similarity or affinity: “Contemporary solidarity theories want it to be as un-solid and as un-together as possible. They want the community of those who have nothing in common, or a community of unworking or inoperation. Heaven forbid that we feel something in common” (p. 19) Overemphasis on difference and critical deconstructive moves can also lead to factionalism within social movements (Frey et al., 1992), retreats into a “cult of the particular” (Bayertz, 1999, p. 9), or in extreme cases, what Bauman (1995) calls “philosophies of surrender” that resign groups to “the impossibility, or unlikelihood, of improving the world, aware of the powerlessness of critique in influencing other communities” (p. 361).

Critical posthumanism resists the picture of despair rendered in the ink of postmodern deconstruction. This is because posthuman thought does not proceed by negation nor seek to negate understanding. As Ferrando (2019) has noted:

there is no need for a symbolic sacrifice. Posthumanism does not reject the previous episteme, but it actually follows on the track set upon by postmodernism and post-structuralist practices, in a development which is in constant dialogue with the past, present, and future acknowledgements and possibilities. (p. 59)

Deconstruction, to the extent it closes down dialogue, is an insufficient end game for solidarities. But where it opens space for reparation, critical posthuman cartographers build within the compost of postmodernist deconstructions and poststructuralist critiques,

turning over their waste piles and noting the relationship of decay to recuperation, fragmentation to mosaic, symbolic death to material vitality.

Critical posthumanism also departs from the universalist—particularist binary, setting a course into the thickness of relations towards modes of justice only made possible on the space of dialogue and affective exchange between radically diverse human, nonhuman, and more-than-human entities. In these spaces, assumptions that link solidarity to modernist notions of sameness and collective identity, or to postmodernist notions of radical subjectivity are being supplemented with modes of what I call “strategic transversalism” that link solidarity to assemblages of radical *intersubjectivity*, and to the dirty work of digging out of dead cultural schemata and digging into the ethical, practical, and political challenges of materially immanent and interdependent planetary relations.

Braidotti (2018) places transversalism in the heart of a posthuman political praxis, which commences with “de-acceleration, through the composition of transversal subject assemblages that actualize the unrealized or virtual potential of what Deleuze calls ‘a missing people’” and “contribute to the collective construction of social horizons of hope” (p. 11). I amplify and elaborate strategic transversalism in this project as both a pathway toward more-than-human solidarity and as a framework for understanding the role of music as an epistemological tool within a broader array of posthuman techniques, technologies, and praxial avenues.

Strategic Transversalism as More-Than-Human Methodology

Critical posthumanism engenders transversal frameworks of belonging that exceed a modernist—postmodernist binary and help us to think beyond, and perhaps inhabit differently from within, the universalist—particularist binary. Transversal approaches take a line of flight from this duality, not toward deeper and more unhinged states of relativism, but rather toward practices of deep relationality, communicative engagement, creativity, and defamiliarization. Transversal approaches hold in tension practices of accountability, perspective-taking, and empathy while committing to processes of dialogue with, and radical openness to human and more-than-human “others” (Guattari, 1996; Hosseini, 2015; Massey, 1999; Yuval-Davis, 1997, 1999).

The concept of transversalism has been taken up and developed in various locations and historical phases. While the term has appeared sporadically in the works of Althusser and Sartre (Bosteels, 1998), transversality—as it now circulates in various streams of social and political theory—can be traced back to the conceptual couch of psychologist Felix Guattari who originally deployed the term to problematize the reductive picture of patient-psychiatrist interaction held in classical psychiatry. Psychoanalysis, Guattari (1964) argued in *Psychanalyse et Transversalité*, is a collaborative process shaped by entanglements of non-linear, affective, extra-linguistic, and (in)corporeal elements that all leave a mark on the process of subject formation, a conceptual shift that transformed the image of a unitary subject into an assemblage of forces and relations. As Genosko (2000) notes, “the idea was to use it imaginatively in order to change, perhaps not the entire world, but institutions as we know them beginning

with analytic method” (p. 51). For Guattari transversalism always held transformative potential and was deployed as a praxial tool across his own thinking, writing, and psychological practices.

The concept has since been untethered from the realm of psychoanalysis and has gone on to inform numerous social experiments and political projects. The concept was taken up as a mode of artistic praxis by an Italian feminist group in the 70s known as “The Transversalists,” which broke hard and fast from scripts of the Old and New Left, deploying experiments with drama, poetry, pirate-radio, language, and blending sense with non-sense (Cunningham, 2007). Guattari would later revise the term and use it—along with Deleuze—to theorize modes of creative collaboration that navigate and intervene in the enmeshments of social and ecological systems with the economic system of capitalism (Deleuze & Guattari, 1987). Transversality was further developed by Nira Yuval-Davis (1997) in *Gender and Nation* as an approach to feminist coalitional politics and continues to gain traction in feminist approaches to anti-globalization and transnational activism (Conway, 2013).

Transversality offers an adaptable framework for a host of contexts and applications. For Genosko (2000) the concept remains “radically open to some hitherto unimagined mutations and complexifications across all sorts of domains. In other words, transversality still signifies militant, social, undisciplined creativity” (p. 81). For organizations seeking transformation, Genosko (2002) suggests, transversality offers a method of creative reconfiguration as they “adapt, cross, communicate and travel” (p. 55) and “come together in ‘the flash of common praxis,’ in mutual reciprocity rather than

mutual Otherness” (p. 86). For Kanngiesser (2012), the principles of transversalism function as a type of “and..and” technology that “complements more sustained praxes of organization, one whose value lies in its potential to construct shared geographies that challenge hegemonic flows and concentrations of power, at the same time as making visible and intervening in processes of subjectivation” (Kanngiesser, p. 285). Identity is not abandoned here, but rather remixed in the place of encounter, and braided into trajectories of coevolution.

For Hosseini (2015), transversalist approaches provide a viable method for emulsifying disparate groups within the global justice movement in a cosmopolitan community. He articulates the “principles of transversality” as, a) the recognition of diversity, difference, and alterity as desirable norm, b) dialogue and deliberation across differences and on the level of “intensities,” c) systemic self-reflection and accountability to subject location as constituted through and beyond anthropocentric and humanist assumptions, d) intentional openness and effort to explore the reality of the Other, e) critical awareness of the intersectionality of power relations and its impact on all relations and transversal alliances, and f) commitment to create alterity through hybridization and creolization of ideas and deeds. These principles provide an adaptable platform for respectful engagement between diverse ontologies in a way that values difference and acknowledges situated histories while keeping open pathways for multidirectional influences, affects, and co-becomings. In other words, transversalism approaches political solidarity in terms an emergent, and always unfinished collaborative process. Thinking, feeling, and acting transversally aims to generate new constellations of reference,

meaning, and materiality while accounting for the references, meanings, and materiality circulating within an encounter.

Transversalism refracts political solidarity through a framework that is constituted in permeable, open, communicatively negotiated configurations of belonging and obligation established and maintained through ongoing dialogue and valorizations of difference and multiplicity. Yuval-Davis (1997) characterizes this dialogic approach in terms of “rooting and shifting,” or a communicative oscillation between particular standpoints and the perspectives of the Other, a practice of perspective taking never losing touch with either. This approach offers several advantages: It ameliorates the issue of composing and performing uncritical solidarities that are advocated in “multiculturalist” approaches, and it foregrounds the emergent quality of the “unfinished knowledge” (p. 131) in the middle space between perspectives. It also actualizes the principles of “difference” articulated in deconstructive paradigm in a way that circumvents the universalist/relativist dichotomy in its composition through relational channels.

As a political framework, transversality is—as Guattari (2011) notes—“chaosmic,” in that it prevents stagnation, stultifying repetitions, and self-closure through engagements with emergent meanings “outside of constituted structures” (p. 26). This orientation inaugurates an onto-aesthetic and post-identarian approach to politics. Massey (1999) characterizes transversal politics as “an attempt to find a way of doing things which is neither the imposition of a single universal which refuses to recognize that there really are 'differences', nor the retreat into those differences as tightly bound, exclusivist

and essentialist identities” (p. 7). As performative framework, transversalism blurs the norms, roles, and boundaries between performer and audience, the artist and non-artist, the political actor and the non-political actor (Kanngieser, 2002). These blurrings reflect the paradoxical nature of posthuman embodiment, which occupies an irreducible place of singularity in a field of unending openings, intra-actions, and multiplicities. This relational ontology perspective “recognizes diversity as one of the main technologies of evolution, and sees pluralism as the necessary complement to monism,” meaning the posthuman subject is thus “situated in a mediated plurality of embodied perspectives” (Ferrando, 2019, p. 157).

The transversal framework is transposable into a number of social, political, and ecological projects, including a posthumanist praxis, which demands first and foremost a reckoning with the category of the “human.” The posthuman convergence provides an expanding array of techniques, technologies, and planes of encounter to do so. Mbembe (2021), speaking to his project of nonracialism, a project that seeks to recover, or piece together a figure of the human from the fragments produced by race science, imagines the possibilities of transversal futures, stating:

The invention of an alternative imaginary of life, power, and the planet requires transversal solidarities—those that go beyond clan, race, and ethnic affiliations . . . consolidating and transnationalizing the institutions of civil society, renewing juridical activism, developing a capacity for swarming—notably in the direction of diasporas, and an idea of life and the arts that would be the foundation of radical democratic thought. (p. 230)

Considering its power to imagine and facilitate alliances beyond boundaries of ontological difference, transversal approaches should be adapted to accommodate more-than-human frameworks of solidarity that include entities beyond circumferences of imagined human sociality.

I argue that it is both possible and necessary to not only extend this approach beyond anthropocentric frameworks, but to the nonhuman entities, systems, and affective landscapes that constitute a more-than-human ontology. This is achievable by orienting towards more-than-humans as what eco-feminist Val Plumwood (2002) refers to as “communicative others,” and by adopting practices of attunement, deep listening, and engagement that root and shift between more-than-human perspectives and “make us aware of the agentic and dialogical potentialities of earth others” (p. 177). Widening the scope of political actors to whole ecologies of planetary others presents both great opportunities and traitorous risks that challenge a number of structures, from species hierarchies as they link to questions of agency, intentionality, and consciousness, to social movement traditions as they link to the positivist logics of recognition and intelligibility as they are informed by negative dialectics, identity-based politics, and metaphysical notions of human essence. Transversal relations are inherently processual and teeter on the edge of intelligibility. However, cultivating solidarities within transversal notions of belonging and interdependence with communicative planetary others opens possibilities for practices of care and the emergence of more-than-human collectivities.

The Communicative Otherness of a More-Than-Human Politic

What the posthuman convergence, and its accelerations of naturalcultural disasters and natureculture shocks is making abundantly clear, is that the delineations between “man-made” and natural systems have collapsed. (Is the planet trying to *tell us something?*) The issue of climate change both reveals and perturbs ways of being linked to the liberal humanist model of freedom and individuality that might compartmentalize and individuate modes of political intervention or otherwise exempt the atomized citizen from notions of collective responsibility for the air “we” all must breathe, the water “we” all must drink, and the ripple of ecological disruptions adversely affecting all beings within the web of Life. The climate crisis—as a thoroughly more-than-human event (Verlie, 2022)—has made threadbare a relational ontology worldview that foregrounds notions of becoming-with alongside its inverse, the coming-undone-with. These entanglements raise the stakes regarding the consideration or rejection of more-than-human entities as political actors and communicative subjects.

Amidst the many epistemological traditions that have denied subjectivity to the nonhuman, a question continues to be debated: whether there is room for nonhumans in frameworks of political solidarity? Ongoing dialogues between different schools of thought, including eco-feminists, deep ecologists, and social, political, and posthuman theorists regarding the appropriateness of nonhumans in frameworks of political solidarity evidence struggles to both defend and rupture the anthropocentric protectionism that constrains approaches to political solidarity in this regard. These conversations unfold alongside existing Indigenous and First People’s cosmologies that

have long held the human and natural world as coterminous (Descola, 2009, 2013). But nevertheless, whether political solidarity entails standing *with* or *on behalf of* the more-than-human world continues to be debated.

Plumwood's (2002) theorizing opens space for imaging solidarity with more-than-human's as political others by synthesizing ecofeminism, feminist standpoint theory, and postcolonial thought to disrupt the binaries that uphold reductive human-centric models of ecology. One of her central theses is that terms such as "solidarity" and "oppression" that have traditionally organized human modes of political struggle *can* be extended into more-than-human contexts. Plumwood argues that solidarity with a more-than-human others should not be conflated or confused with notions of shared identity or consciousness, or the forms of "unity" with nature proposed in Naess' deep ecology approach, observing, "an appropriate ethic of environmental activism is not that of identity or unity (or its reversal in difference) but that of solidarity—standing with the other in a supportive relationship in the political sense" (Plumwood, 2002, p. 202). Solidarity *with* more-than-humans is based on a recognition of *intentionality*, which "aims for the greatest range of sensitivity to earth others, and in that sense to 'maximize' them, as a measure designed to counter the standpoint distortions of human-centered culture" (p. 177). Through this counterhegemonic practice, nonhuman animals are presented as agentic, intentional, and communicative others capable of expressing preferences, needs, pain, and suffering, and as such we are ethically obligated to interpret and attend to the messages of those communicative others.

An ethics of feminist care offers alternatives to the animal rights approach (e.g., Regan, 1983; Singer, 1976), which dispossesses animals of subjectivity, or individuality as expressive, communicative, and emotionally capable others. Feminist care, in recognizing the communicative otherness of animals, departs from the reduction of animal communication to a mechanical “stimulus-response” in the Cartesian-Newtonian traditions that continue to hold sway in the animal sciences. By challenging these frameworks, feminist care also engenders empathetic connection through sustained engagement and efforts to defamiliarize the human-more-than-human relationship.

These transversal encounters close the gap by exploring the intelligible edges of interspecies encounters and drawing attention to analogic phenomena that challenge reductive stances regarding more-than-human consciousness and communicative capacity. These outings are challenging as, Massumi (2014) notes, a more-than-human politic is less recognizable to us because it does not reflect, nor is it guided by normative frameworks or moral imperatives, but rather it “lives in the imperatives of the given situation” (p. 39). Moves to more-than-human solidarity pursue affective and communicative analogues in the space of immanent relations that lend themselves to the development of more-than-human literacies and critical cartographies of care.

Importantly, analogues are different than identifications and offer insights without falling back on essences. For example, interspecies communication is not unlike interpersonal communication, in that (mis)interpretations, frames, projections, and subject positions are always undermining the notion that total understanding is ever achieved. But this notion does not prohibit us from the *attempts* to communicate. And the

idea that language barriers should not be conflated with ontological barriers also serves this perspective. Donovan (2017) supports this point, stating:

Infants do not communicate in language; yet we do not for that reason assume that they are mindless, lack subjectivity or consciousness, or do not communicate their wishes in ways we can readily understand. Facial expression, gestures, voice tone, body movements, touch; all of these transmit essential information between humans, and similar practices are available to and used by non-humans to convey their meanings. (p. 212)

This embodied and affective nature of more-than-human communication can be translated into political languages as well. Feminist legal scholar Catherine A. MacKinnon's argument that animals communicate "dissent from human hegemony" in intelligible ways: "They vote with their feet by running away, they bite back, scream in alarm, withhold affection, approach warily, fly and swim off" (*as cited in* Donovan, 2017, p. 208). This recognition, both of expressive capacities and in the experience of suffering forms an ethical basis for political solidarities with the more-than-human-other from a "rich intentionality" (Plumwood, 2002) perspective.

The rich intentionality the reductive stance would deny to the world is the ground of the enchantment it retains in many indigenous cultures and in some of the past of our own, the butterfly wing-dust of wonder that modernity stole from us and replaced with the drive for power. Being able to conceive others in intentional terms is important to being open to them as possible communicative, narrative, and ethical subjects. (Plumwood, 2002, p. 177)

The “possibility” that more-than-humans are actually quite adept at communication is becoming clearer every day. Wolfe (2010) notes that recent studies challenge the assumptions that communication in the nonhuman world does not meet the standards we use to define language in the broadest and even most narrowest senses, a development that “has profound implications for the ontological—and eventually, ethical—status of nonhuman beings, for it would lead us to disarticulate these questions from language ability in the limited sense, rather than assimilate and collapse them” (p. 41).

Advancements in technology have pushed us closer to this tipping point as AI and machine learning are providing insights into the rich lexicons of nonhuman species, which can include regional dialects, rich emotional expression, and personalized codes (Anthes, 2022).

While certainly helpful, perceptions of similarity are not prerequisite to the transversal formation of “critical solidarities” (Plumwood, 2002) with nonhumans. Transversal approaches, which value and amplify alterities, enact ethical relationships around the presence of dissimilarities. This opens “human” modes of signification out to the dissimilar communicative modes found across more-than-human contexts. Tsing (2015) argues that whether or not nonhumans can communicate either with us or each other should not bear on their rights to exist, arguing “(o)rganisms do not have to show their human equivalence (as conscious agents, intentional communicators, or ethical subjects) to count. If we are interested in livability, impermanence, and emergence, we should be watching the action of landscape assemblages” (p. 158). These attentive attunements, rather than supplying a reflection of our selves, can affirm the radical

alterities and communicative “intensities” of the transversal Other. More-than-human political solidarities could then be forged through the development of *non-anthropocentric* identifications, and ethical commitments to nonhuman others that lack “the requisite cognitive and deliberative capacities to engage in political choice and action” (Mallory, 2009, p. 6).

Posthumanizing Political Solidarity

The affirmation of more-than-human alterity has the potential to transform circumferences of belonging—obligation and the definition of political participation. For decades, Bruno Latour seriously has approached the challenge of defamiliarizing more-than-human modes of political participation and governmentality. For Latour (2004) this is pointedly materialist matter, one focused on not just pontifical practices, but also “offering participants arenas in which to gather” (p. 246) in order to establish a “parliament of things” (Latour, 1993) based on post-human principles and concerns (Latour, 2013). As climate science has become more heated in its prognoses, Latour (2018) has also become more urgent in his calls for the materialization of an “earth solidarity” that reframes circumferences of belonging—obligation in “radically terrestrial” (p. 56) terms. Expanding of notions of “we” to include the planet itself offers a transversal third path beyond the binary of universalist/particularist alliances by recognizing and rallying behind “the Terrestrial as a new political actor” (Latour, 2018, p. 40), that must be accounted for in the posthuman entanglements we are a part of and in the everyday political arena. Latour (2018) elaborates:

Today, the décor, the wings, the background, the whole building have come on stage and are competing with actors for the principal role. This changes all the scripts, suggests other endings. Humans are no longer the only actors, even though they still see themselves entrusted with a role that is much too important for them. (p. 43)

As the more-than-human world continues to crash the political stage, strategies must be developed to recognize and respond to their grievances and fold their communicative intentionality into the political process.

Another way of achieving this has been suggested by Papadopoulos (2010), who advocates for modes of “posthuman insurgency.” This approach involves proactively engaging in the production of “lively ecologies” as a “form of material transformation that instigates justice as an immediate, lived, worldly experience” (Papadopoulos, 2010, p. 145). In this framing, posthumanism enters into political processes through modes of “thick justice,” a project that goes beyond merely enumerating the material links between human and nonhumans, but also by exerting energy to proliferate the numbers and expand the thickness of socio-techno assemblages engaged in more-than-human practices of care. “Thick justice” transposes Geertz’s (1993) semantic practices of “thick description” into material registers, suggesting modes of direct intervention that for Papadopoulos (2010) represent the “beating heart” (p. 147) of a radical posthumanist agenda. Justice conceived in material more-than-human terms is negotiated in the thick immediateness of lived material relations as they extend beyond the imagined boundaries of the “human” social and political spheres of concern; “it is about making alliances and

engaging in practices that restore justice in the immediate ecologies which *certain* humans and *certain* nonhumans are inhabiting in deeply asymmetrical ways” (Papadopoulos, 2010, p. 148).

Building on this idea of more-than-human interventions as radically singular-yet-plural phenomena, Papadopoulos (2018) disrupts familiar models of social movements as purely human events. Translated through an ontology of socio-techno assemblage, Papadopoulos (2018) argues that social movements are definitionally more-than-human phenomena that entail “interactions, ways of knowing, forms of practice that involve the material world, plants and the soil, chemical compounds and energies, other groups of humans and their surroundings, and other species and machines” (p. 3). “More-than-social movements” (Papadopoulos, 2018) embody forms of coalescence, organization, and collectivity not directed at dismantling the structures of power so much as engaged in the reclamation and generation of worlds from the ground up through experimental practice (Papadopoulos, 2018). It is a form of insurrection that inverts the process of planetary degradation through broad commitments to experimentation, the processes of creation, and the “stacking and forking of worlds” into “alterontologies” (or alternative ontologies) as “a possible way to survive a world that is disintegrating through human action” (Papadopoulos, 2018, p. 10). For Papadopoulos (2019) posthuman insurgency is not just an act “worlding,” but an act of “worlding justice” that enables collectives to “enact openings, to build associations, to craft common, alternative forms of life” (p. 148). In the assemblage view, more-than-social movements bring diverse materialities into transversal conversation with posthuman imaginaries, and weird dances with

emergent worlds ensue. These interventions enact a post-dualist ethos, restart cycles of ecological recuperation, and push back on anthropocentric designs that have encroached for far too long on the terrain of living systems. But these “insurgencies” and strategically transversal defamiliarizations can come with a stigma.

The prism of anthropocentrism has reinforced and held in place a privilege so old and ingrained, that it functions like a tacit form of solidarity (Braidotti, 2006). Challenges to this largely unspoken pact can come with consequences. Rocking the anthropocentric boat demands deliberate acts of defamiliarization and thus “estrangement” (Braidotti, 2013, p. 88): to advocate for solidarities with the more-than-human world is to ultimately become a traitor to anthropocentric habits, ideologies, and systems. Subtle and overt forms of social alienation emerge as one of the potential costs of questioning the Anthropos as the assumed apex of all living beings, or the privileged seat of authority, agency, and ontological and epistemological validity. *Traitorous!!!* But this move to the margin also enables capacities to think and feel in solidaristic terms beyond the tautologies of “human essence” used to justify and maintain the innocence, legitimacy, and hegemony of humanistic solidarities.

This transversal break from the pack also brings subjectivity into relation with crucial modes of more-than-human praxis, such as the development of “a revised conception of the self and its relation to the non-human other, opposition to oppressive practices, and the abandonment of critique of cultural allegiances to the dominance of the human species and its bonding against non-humans” (Plumwood, 2002, p. 205). There is a historical tradition that links perceived traitors to notions of justice that suggests a move

to more-than-human solidarity is not a delusional, but rather a dignified (albeit difficult) move:

These ‘traitorous identities’ that enable some men to be male feminists in active opposition to andocentric culture, some whites to be actively in opposition to white supremacy and ethnocentric culture, also enable some humans to be critical of ‘human supremacy’ and in active opposition to anthropocentric culture. (Plumwood, 2002, p. 205)

But the potential discomfort of joining more-than-human alliances must be weighed against the increasingly certain discomforts of ecological collapse. Because of the unprecedented climate catastrophes now unfolding, the time has come to step into traitorous identities that reorganize the organizations of eco-social relations, and to nomadically integrate scientific, political, social, and ecological understandings into a mode of a “geo-logic” (Latour, 2017) that counters the darker and more destructive forces of globalization, neoliberalism, and infinite accumulation. The transversal “we” is thus an invitation into practices of care, ethico-aesthetic experimentation, and more-than-human insurgencies that include a diverse array of things, bodies, political actors, and more-than-human accomplices. Meditating on the political contours of an emergent posthuman collectivity, Braidotti (2019) states, “‘We’ are situated, feminist-minded, anti-racists, post- and de-colonial thinkers and practitioners, who are trying to come to terms with the challenges of the posthuman convergence” (p. 87) through an array of nomadic knowledge practices that are “the breeding ground for possible futures” (p. 114)

More-than-human solidarity blurs an array of dualities in a way that advances a redefinition of solidarity. These spillings retranslation the collective identity model into ecosocial terms that overlap with, yet exceed assemblages of civic, social, human, and political solidarities, and their respective inducements to cohesion. Solidarities are also neither pure nor mutually exclusive. It is both possible, and increasingly necessary to imagine, embody, and enact a plurality of simultaneous belongings that include, but exceed civil, social, human, and political bodies. However, the emerging picture of planetary interdependencies calls for radical more-than-human imaginings and actions to improve the conditions for mutual flourishing on an imperiled planet. They also call for the development of more-than-human sensibilities and literacies that facilitate communication, empathetic relations, and affective stewardships in zones of multilateral more-than-human exchange. This is an imperative I explore in greater detail next.

In part II of this project, I ask: What might the soundtrack to this posthuman convergence be? What kind of polyrhythmic experiments might knit together the realism of particular histories with the possibilities of emergent yet linked futures? What musical themes will contribute to and emanate from these tumbled dislocations of identity and belonging and obligation? As an ontological force and epistemological resource, music offers modes of becoming and ways of knowing the world as more-than-human, and this knowledge can in turn inform an array of transversal strategies that engender more-than-human solidarity.

Addressing the issue of climate change necessitates proliferating new forms of political subjectivity, radical relationality, and political practice that amplify (dis)identifications with planetary others. The (de)compositional practices of critical posthuman cartography jumpstart processes of regeneration by committing attention to the rhythms of more-than-human landscapes and turning the ground of knowledge that supports their flourishing. Attending to the exigencies of natureculture shock entails listening across the music of nature as it swims across and treads the rising waters of medianatureculture continuums. I believe it also necessitates cultivating new ways of inhabiting everyday spaces, including modes of musicking the promote deep listening to the world that is dying, and listening for the new worlds dying to be born.

Part II: Becoming, Knowing, and Musicking and/as the More-Than-Human

In part one of this project, I deterritorialized the subject of “solidarity” to open the terrain for ecosocial interventions and the emergence of more-than-human modes of belonging-obligation. In part two of this project, I explore ways in which music can accelerate and help to actualize the potential of these solidaristic (de)formations by entangling music theory with a critical posthumanist ontology and epistemology respectively. This conceptual braiding is guided by two novel figurations I have dubbed (in)solid sounds and ec((h))o locations.

To talk of ontology is to explore questions of existence, what could be said to exist, what *is*, what *is not*, or what might lie somewhere in the *in-between* phases. (In)solid sounds reference the ontological paradox of musical movements as material, affective, and powerfully influencing trajectories of solidaristic relations, yet ambiguous, precarious, and unguaranteed in its effects. A more-than-human framework of solidarity challenges us to think alliances transversally, to ask how “we” might fit, fight, and flourish together, while simultaneously moving away from hypotheses of homogeneity and notions of collective identity, or absolutist and totalizing amplifications of difference. In this sense, (in)solid sounds also register music’s capacity to negotiate the cacophonous cycling of critique that turn on the axis of sameness/difference while seeking paths away from this dialectic: (in)solidity privileges neither a modernist penchant for unity and coherence, nor a postmodernist impulse to fragment, disperse, and conserve collaborative energies along lines of difference and radical subjectivity. Such “lines of flight” are not escapist, but rather exploratory and deeply relational maneuvers that seek to establish

new oscillations and generate new material possibilities for the coalescence of collaborative energies around the task of becoming more-than-human. The posthuman convergence both calls for and invites these experiments.

To talk of epistemology is to consider the “nature” of knowledge, what *counts* as knowledge, and the modes through which the world comes to be known. Ec((h))o locations index sonic methods of knowing our ecological milieu in various stages of fitness and decline in terms of diffractive yet diagnosable intra-active relationships. Cast through the prism of music, critical posthumanism engenders deeper appreciation for musicking as a technologically mediated mode of composing more-than-human cartographies, and musical encounters as locations of collective experimentation and embodied reconfiguration between beings, environments, and the cosmos writ large.

While I approach ontology and epistemology in separate chapters, these dimensions of a more-than-human musical praxis are two sides of the same ethical coin. Knowing, being, and ethics are incontrovertibly enmeshed in materio-discursive phenomenality in what Barad (2007) frames as “ethico-onto-epistemology,” which acknowledges that all beings are embedded in processes of “becoming with the world” and that “the becoming of the world is a deeply ethical matter” (p. 185). Barad’s ethico-onto-epistemological framework shares threads with Haraway’s notion of multispecies response-ability, and Shotwell’s (2016) embrace of impurity as an ethical orientation enabling of more-than-human interventions, as Geerts and Garstens (2019) note, “(f)ictions of purity, innocence, and separability prevent us . . . from forming ethical responses that are adequate to the complex bodily entanglements and material

assemblages we are co-constituted with in relation to multiple others, both human and not” (p. 920). Theorizing music as a technology with ecosocial capacities and mode of posthumanist praxis, thus, entails listening across musical assemblages as they implicate and intra-act with assemblages of more-than-human becoming. Due to their dynamic, shifting, and expansive nature, all assemblages continuously stretch beyond a horizon of space/time and absolute intelligibility. Analyses of assemblages are therefore never final or exhaustive but can reveal important insights into the nature of (de)compositional processes.

Approaching music and more-than-human phenomena through the lens of assemblage serves this project in several ways. Originally conceived by Deleuze and Guattari (1987), assemblage theory can be used to explain the formal, dynamic, and relational characteristics of any phenomena, including ecologies, social movements, nation-states, and musical encounters. The concept of assemblage draws attention to the entanglements of material human and nonhuman actors, language systems, institutional structures, historical conditions, cultural norms, and technologically mediated networks and infrastructures that compose and constitute any given phenomena (DeLanda, 2016), or as Barad might put it, assemblage analysis resist reductionism by re-entangling the singularity of any event in the semiotic and material “intra-actions” (Barad, 2007) of its own becoming. The prism of assemblage presents complex phenomena in terms of nested composites, and every assemblage is irreducible, meaning it is a singularity composed of unique-but-not-static elements, relationships, and conditions.

Assemblages have political dimensions too. This makes phenomena available to a “politics of assemblage” (Nail, 2017) analysis that can illuminate the entanglements of actors, trajectories, and material mechanisms at play in the preservation of power and in the thrust of transformative change. In Deleuzoguattarian language, changes provoked within assemblages are defined in terms of *detrterritorializations*, which can precipitate further transformations in assemblages and their constituent elements, relationships, conditions. But not all change is the same. As Nail (2017) notes, some detrterritorializations (relative negative) are easily (re)incorporated into the assemblage and thereby do nothing to promote broader lasting systemic changes. Some detrterritorializations (absolute negative) decompose (i.e., threaten) the assemblage completely and produce extreme negative responses. In contrast, absolute positive detrterritorializations take “lines of flight” that establish new assemblages and actualize the promise of broad, lasting systemic change, or at least the emergence of alternative systems and alterontologies (Papadopolous, 2018).

The lens of assemblage offers insight into the communicative processes and inducements to cohesion and care at play within a multiplicity of phenomena, from the sciences to social movements and beyond. Assemblages involve forms of maintenance and expressive labor: “The expressive components of the assemblage include a variety of expressions of solidarity and trust emerging from, and then shaping, interactions” (DeLanda, 2016, p. 30). Through the lens of assemblage, musical solidarities are complicated communicational phenomena; ontological, epistemologically, and ethically.

But so too are the times we are living in, and so too must be the analytical tools that we must bring to bear on them.

For Braidotti (2019), illuminating phenomena as always already more-than-human assemblage is a central task of posthuman knowledge, and an essential step toward understanding and navigating the posthuman era, which she defines as the period “after the decline of the primacy of universalist Man and of supremacist *Anthropos*” (Braidotti, 2016, p. 382). This period—which simultaneously straddles accelerations of technological advancement and the crisis of the 6th mass extinction—calls for a knowing subject that is:

not Man, or *Anthropos* alone, but a more complex assemblage that undoes the boundaries between inside and out the self, by emphasizing processes and flows. Neither unitary, nor autonomous, subjects are embodied, embedded, relational and affective collaborative entities, activated by relational ethics. (Braidotti, 2019, pp. 45-46).

Through the lens of assemblage, critical posthumanism dissolves the dualities of mind-body, nature-culture, human-animal, human-machine, and other dichotomies to dissolve the corrosive residues of Western exceptionalism and species supremacy, a dislocation, “which requires major readjustments on our ways of thinking” (Braidotti, 2013, p. 159).

A key dimension of Braidotti’s project of critical posthumanism involves the reconceptualization of the posthuman subject as assemblage within a field of human and nonhuman forces and relations, a shift that valorizes the non-unitarian subject and thus, stands outside of most Anglo-philosophical conceptualizations of subjectivity (Braidotti,

2006). An ongoing challenge of the critical posthumanist project is the reconciliation of vital materialist and historical materialist perspectives, a move that conceptualizes posthuman subjectivity as simultaneously entangled within webs of interdependency, and as possessing degrees of agency and political self-determination. This ontological paradox accounts for historical conditions and complexities of these more-than-human times, while opening creative, transversal, and affirmative pathways through the dark uncertainties that lie ahead in order to—as Donna Haraway (2017) puts it—“stay with the trouble.” Locating, theorizing, and generating posthuman assemblages might be key to more-than-human multispecies futures, a prospect that takes on urgency given the looming risks of a heating planet and spreading ecological disorder.

Musical solidarities reverberate with similar tentativeness as assemblages buzzing and mutating at the intersections of space and time, within the nexus of history, politics, sound, and possibility (Born, 2010). When a musical performance strikes the right idea at the right time in a way that is compelling, its reverberations can compose a kairotic line of becoming, and condensate into something that is anthemic and politically galvanizing (Eyerman & Jamison, 1998). Musical devices such as anthems can reinforce the identity, purpose, and resolve of groups, nations, and other affiliative assemblages. But these forms can also be appropriated, remixed, and played with to subvert intended identities, meanings, and agendas (Redmond, 2013), demonstrating the power of music to, as Spinoza would suggest “affect and be affected” (*as cited in*, Massumi, 2015, p. ix).

(In)solid sounds and ec((h))o locations push these capacities to new limits, calling for modes of strategic transversalism, which include the development of a posthuman ear

and more-than-human literacies that couple competencies in media, information, and communication technology with the ability to “read” the more-than-human landscape as compositions of communicative others. By entangling music with the ethico-onto-epistemological commitments of a critical posthumanist framework, I explore contributions music might make in the diffraction, mediation, and constitution of more-than-human alliances, to shape and thicken the trajectories of ecosocial change toward a more just climate future.

Chapter 7: (In)Solid Sounds: Posthumanizing Ontologies of Music

In this chapter, I entangle a posthuman relational ontology with music theory and extra-musical musings to hear out the buzz of their sympathetic resonances and collaborative possibilities and to explore the question: what could be said to *exist* within the relationship between music and the more-than-human? I approach the question of solidarity not as one of fact, but as a question of becoming, as a possibility, and as attunement to the capacities of music to stir them into motion. These minglings assemble awareness around symbiotic relations as units of ethical time, of affects as sources of reverberating material power, and the imagination as hotbeds of becoming, belonging, and more-than-human world making.

Relations as Process, Process as Relational

Critical posthumanism is premised on a relational/process ontology, meaning that being is always a process of becoming, and in relation to other beings. Haraway's (2003) assertion, "beings do not preexist their relatings" (p. 6) articulates this idea succinctly. A relational process ontology illuminates the subject as an unfinished, non-unitary, and unfolding material being in a web of transversal connections, which includes connections of inter-being acutely within and vaguely beyond the horizons of our own awareness. Importantly, the phenomena of relationality and process are inseparable: to mention one is to imply the other, in the same way that time cannot be divorced from space, or vice versa. Developed by Western philosophical figures such as Whitehead, Bergson, and carried forward by Deleuze, Massumi, and others, a process ontology perspective vehemently eschews fixated-ness in favor of continual unfoldment of the possible. This

attitude parallels the ethos of creativity that permeates the improvisational arts, not the least of which are the musical arts. Time and materially immanent relations are compositional resources that present options to the more-than-human subject, musician, and activist.

A process perspective privileges emergence as the given ontological condition of all things. Emergence suggests a creative tension between present and future states. In his book *Matter and Memory*, Bergson (1991) asks us to consider what choices, routes, and movements are available, but perhaps *not yet* brought to fruition, a difference he marks as one between the actual and the virtual. Deleuze and Guattari (1994) meditate extensively on the creative tension between the actual and the virtual, or that which has come to pass and that which has yet to emerge. This duration, which outlines the spatial and temporal locations of possibility, is central to understanding critical posthumanism's potential as a transformative praxial force, or what Lefebvre (2013) might call a *rhythmic intervention*: "The interplay between the present as actual and the present as virtual spells the rhythm of subject formation" (Braidotti, 2018, p. 7). The posthuman convergence demands the development of critical cartographies that recuperate and affirm pathways towards multi-species survival and flourishing. Within a process ontology, (in)solid sounds are a doorway and opening to a space of imminent and immanent rhythmic becoming-with: "(t)he future is literally right here and now and consequently there is no time to waste" (Braidotti, 2019, p. 64).

Posthumanism, particularly the new materialist school of thought, extends a process ontological perspective to the relationship between the material and the

discursive. These dimensions of lived experience are taken to be co-constitutive and on equal ontological footing. In other words, the idea that only matter matters or that signification is significant is rejected as a false dichotomy. They are not one in the same, but they are inextricable and implicated in the same instance of their co-becoming and within the same plane of encounter. Therefore, materiality and meaning unfold, and are experienced in simultaneity. Barad (2007) articulates this facet of becoming-with in terms of “intra-actions,” arguing, “neither discursive practices nor material phenomena are ontologically or epistemologically prior. Neither can be explained in terms of the other. Neither has privileged status in determining the other” (p. 822). This notion inaugurates a “posthuman performativity,” which displaces agency across a spectrum of human and nonhuman actors within the intra-active radius of any entanglement. Barad’s (2003) notion of “intra-action” thus focuses attention on the processes and consequences of enmeshment noting that “(t)he primary ontological units are not ‘things’ but phenomena—dynamic topological reconfigurings/entanglements/relationalities/(re)articulations” (p. 818).

The move to material-discursive entanglement enacts a corrective to poststructuralist approaches that overemphasize the discursive elements as the privileged location of power and thus critical analysis. Rejecting notions of a purely material or purely symbolic reality intervenes in the materialist versus constructionist tug of war, which has divided adherents according to their stock in the realist or semiotic interpretations of the world. It also circumvents critiques of relativism as each entanglement is relationally bound in a singular way to its constituent elements. All

phenomena are thus irreducible (i.e., composed of singular combinations of elements in singular intersections of time and space), a perspective that problematizes notions of purity and the subject/object divide. I circle back to this perspective to appreciate the entangling properties of musicking and its potential in the co-constitution of (in)solidarities in the “intra-actions” occurring between vibrations, sounds, affects, instruments, technologies, institutions, political discourses, and bodies.

Variations on this “intra-active” theme can be found across the posthuman landscape. Latour’s (1990) actor-network theory (ANT) and Haraway’s (2016) “material-semiotic” worldings, for instance, both foreground non-dualist explanations for how things hang together by highlighting the interplay of material-discursive elements and promoting phenomena, ontological entanglement, and assemblage as primary ontological units. For Haraway, the relational ontology perspective can be represented through the concept of *sympoiesis* or the “becoming-with” that all entities undergo. Importantly, this notion is also regarded as a mode of multispecies recuperation, in the sense that posthuman stewardships can and must tap the potentials of boundedness to more-than-human others. The intra-actions of *sympoietic* co-becomings also implicate the overlaps between biological and technological worlds in the sense that these dimensions are entangled in ways that expand current definitions of what a “system” even is.

For Braidotti (2013) a relational ontology bears directly on subjectivity. The posthuman subject is positioned as in a perpetual state of exchange and emergence within a dynamic field of discursive, material, as well as social, historical, and ecological forces. The embedded negotiations of these fields and entities enplaces the subject in a matrix of

affective flows and relational becomings with vital organic and inorganic matter, a conglomerative yet dynamic body that Braidotti refers to as a *zoe/geo/techno* assemblage. The posthuman subject is thus “shot through with relational linkages of the contaminating/viral kind which interconnect it to a variety of others, starting from the environmental or eco-others and include the technological apparatus” (Braidotti, 2013, p. 193). A more-than-human relational ontology, thus, reverberates outward in a myriad of directions, away from notions of a human “essence” and the mythology of the autonomous and unitary subject, towards the noise of collectives doing the creative work of composing a “missing people,” and other vital (de)formations of posthuman alliance.

Music, as one of human’s earliest forms of technology has played a significant and ongoing role in the subject’s becoming more-than itself. This role has expanded sharply in the last century through innovations in music and media technology and the expansion of global communication networks. These intra-actions have brought new and contested notions of subjectivity into being and have focused attention on musical encounters as a location for intense and transformative negotiations of sameness and difference. These conversations offer significant considerations toward the development of a posthuman subjectivity understood as the project of redefining the human in an age of accelerating technological advancements and anthropogenic climate change (Braidotti, 2019). Understanding what “we” are, or more importantly, what “we” are becoming, bears directly on our sense of ethical obligation to one another and the solidarities that we aspire to create, dwell within, and fight for.

Music can amplify the urgency, cadence, and intensity of these more-than-human becomings as they traverse overlapping animal and technological worlds and activate the layers of dancing multiplicity that constitute socio-eco assemblage. Music is a diffractive technology: its sounds and meanings orient and organize but never determine social and ecological relations. With respect to ontology and the processes of becoming, I argue that music does significant “edge work” along the boundaries of more-than-human subjectivities and collective solidarities. The power of this edge work lays in its affective intensities, experimental ambiguities, and imaginative possibilities. These aspects of music present poetic and sympoetic provocations that invite as they intervene and (de)territorialize boundaries while maintaining openings for the multi-directional passage of affective flows.

Becoming-Animal↓ Becoming-Machine↑ Becoming-Assemblage↓ Becoming-Change

A process/relational ontology urges the disruption of habituated thinking, especially that which is done from the presumptuously elevated pedestal of the individualist Anthropos. Critical posthumanism addresses the related issues of anthropocentrism and speciesism by (re)enfolding the human into ecological frameworks of interdependency and circumventing anthropocentric systems of signification that uphold hierarchies of species being. To level the playing field of Life, Braidotti (2013)—following Derrida, Deleuze, and others—replaces the posthuman on a becoming-animal plane of material immanent relations in a move that entails “the displacement of anthropocentrism and the recognition of trans species solidarity on the basis of our being

environmentally based, that is to say embodied, embedded and in symbiosis with other species” (p. 67). This leveling enacts a traitorous intervention in the tacit solidarities of anthropocentric ontologies, moving the needle in the direction of a multi-species relational ontology.

Critical posthuman thought reinforces these philosophical insurgencies through attunements to worlds beyond individualistic models of human existence. In her research into the dimensions of more-than-human sociality, Tsing (2015) speaks of living landscapes—composed of mycorizhal fungi, plants, trees, pollinators, microorganisms—in musical terms of polyphony, or the coterminous intersections of harmonious and dissonant melodies and rhythms in the shared space of a song: “The polyphonic assemblage is the gathering of these rhythms as they result from the world-making projects, human and not human” (p. 24). The resonance of these assemblages, and the animality of human life, has been muffled historically by the anthropocentric prism of hegemonic and imperialist epistemologies (Braidotti, 2013; Foucault, 2005; Harding, 2018), projects both linked to and benefitting from “humanism’s trope of visibility-as-mastery” (Wolfe, 2010, p. 131). The radical move toward material-semiotic assemblage re-plugs the subject into the integrated and transcorporeal systems of Life, from those nourished and sustained through umbilical connection, (Braidotti, 2021) to those bound up in fields of mutual contamination (Alaimo, 2016). More-than-human worlds are composed of diverse players and resonances. The posthuman ear devotes critical attention to the harmonies, dissonances, and polyrhythmic (Lefebvre, 2013) textures of their interplay.

The becoming-animal dimension of the critical posthumanist project finds support along the flowering edges of scholarship on music. As one of human's earliest forms of technology (Tomlinson, 2015), music has played a significant part in the contouring of social life, in the volumes of political struggles, and in the modification of environmental conditions for living. Music has been discussed as link between humans and nonhumans where it is contextualized within evolutionary processes of sexual selection (Darwin, 1871; Miller, 2000), the development of proto-languages (Mithen, 2007), in the mediation of, and communication within human-nonhuman relationships (Feld, 1994, Krause, 2012; Loui et al., 2017, Wallin, Merker & Brown, 2001; Sakakibara, 2009). Some of the earliest known musical instruments reflect complex more-than-human entanglements in their carved depictions of zoomorphic shapes suggesting their use in rituals honoring and summoning the power of more-than-human connection (Gioia, 2019). Reflecting on a trove of this musical artifacts newly discovered in the region of ancient Mesopotamia, Gioia (2019) writes, "It is almost as if a kind of collective zoological mania prevailed among these people" (p. 65).

While promoting attunements to processes of becoming-animal, critical posthumanism also offers deep listenings to the vibration of machinic becomings. The posthuman subject entangles with a vast array of technological fields, including digitally managed energy infrastructures, globally-wired economic systems, virtual and tele-health care systems, information networks, news feeds, credit scores, search engines, algorithmic targeting, data and personal digitized information, encrypted personal computers, biometric reading personal devices, email inboxes, online communities, and

other “lively materialities” (Lupton, 2020) that constitute the polyrhythmic pulses and circuitries of human-data assemblages. The mass migration to online spaces has proliferated the number of “latent ties” (Haythornwaite, 2005) we have available to us, as well as the potential for (dis)connection, (dis)organization, and (mis)communication across space and time. This has stirred into being a mix of contradictory effects with regard to power, as the tweets of authoritarian presidents can instantly ping your phone (Herrman, 2019) and swarms of virtual activist communities can mobilize with lightning speed (Sauter, 2014).

The becoming-machine dimension of the posthuman subject is animated most iconically through the figure of the cyborg. Braidotti points to Haraway’s (1991) cyborg as a key affirmative reconfiguration of the techno-scientific world and its techno-gender blurring capacities: “As a hybrid, or body-machine, the cyborg, or the companion species, is a connection-making entity; a figure of interrelationality, receptivity and global communication that deliberately blurs categorical distinctions” (Braidotti, 2006a, p. 200). These machinic crossings amalgamate in a multiplicity of musical forms as well.

Musical practices luxuriate in an ethic of experimentation with the technological, and thus offer a quotidian and almost taken-for-granted location to hear the blurrings of human and machine. A chorale of cyborgian angst oozes from French-American historian Barzun’s (1984) memoirs where he reflects:

the moment man ceased to make music with his voice alone the art became machine-ridden. Orpheus’s lyre was a machine, a symphony orchestra is a regular

factory for making artificial sounds, and a piano is the most appalling contrivance of levers and wires this side of the steam engine. (p. 65-66).

Musical instruments and ensembles typify the taken-for-granted minglings of human/nonhuman in everyday machinic mashups. The emergence of recording and playback technology has only accelerated the becoming-machine trajectory of posthuman unfoldment. With the invention of the phonograph record, for example, came dislocations of human voice, a phenomenon Schafer (1994) refers to as *schizophonia*, where sounds are “torn from their natural sockets” and “free to issue from anywhere in the landscape” (p. 90). These dislocations have been described in ghostly terms. Musical technologies produce after-lives by (re)animating voices of the dead (Kittler, 1999) that haunt homes, cars, and public spaces by “phantasms of the living” (Peter, 2012). Sterne (2006) refers to these para-human presences, observing, “sound recording in a kind of embalming—the voice is transformed so that it may continue to perform a function *as* the voice” (Sterne, 2006, p. 306). Massumi (2011) elaborates on the torn-ness of music, which “does not have to use the body as local sign. Its local signs are *incorporeal*: sound waves. Pure energy forms, directly perceptually-felt as rhythm in an amodal in-between of hearing and proprioception on a border zone with thought” (p. 145). In this way, posthuman musical-becomings revolve between the worlds of the living and the non-living, and more-than-human dimensions manifest through dislocations of time and space that play beyond the capacities of human perception.

As contemporary music production deepens its affair with practices of sampling, musical streaming, and cloud storage a difficult to imagine number of schizophonic

moments of dislocation, recombination, and posthumanist assemblages of techno-aesthetic monstrosity emerge. Burton (2017) amplifies the emergence of posthuman musical monsters in the interface of lyrics, aesthetics, and production techniques in contemporary hip-hop music, with its liberal use of autotuning, “inhumanly fast hi-hats” (p. 131), and other technological enhancements of “human” form. Cyborgian posthumanism has animated additional themes throughout an array of contemporary musical phenomena, including the Internet virality of lip-synching videos (Bird, 2020), use of voice modulators and synthetic vocoder to blur lines of race, sex, and species in popular music (Auner, 2003; Weheliye, 2002), the fleshy materialities and messy technosexual confusions of Afrofuturistic pop (Rodine, 2022), the ubiquity of organic/technological “(con)fusions” in the world of electronic dance music (Loza, 2017), and classical music’s ambivalent but increasingly unavoidable flirtations with the digital world (Kramer, 2013).

Playback technologies reanimate the rhythms, tonalities, and affective registers of prior sonic phenomena, making available for personal enjoyment, critical analyses, and future political practices certain topics, themes, and emotions. These dislocations have become a part of our everyday affective and symbolic ecologies, signaling possibilities for future hauntings by the musics of past struggles or the songs of endangered, extinct, and unseen more-than-human entities. The liberation of sounds from their original sources, the dismembering of voices from their bodies, and the familiarity with which we now experience these phenomena indexes the extent to which mediated forms of communication and affective technologies have transformed the way we now tune in/tune

out to the presences/absences of the human body. (In)solid sounds oscillate in the in-between states of (in)corporeality, dancing along the edges of the known and the unknown, felt and the forgotten, the human and the more-than.

Broadly speaking, a natureculture continuum illuminates the technological “mangle” (Pickering, 1995) between species, tools, and the environment and how technology and technological prostheses are used to render more livable and lively the social and natural environment (Grosz, 2005; Stiegler, 1998). From this perspective, the posthuman subject negotiates life along an animal-human-machine continuum (Braidotti, 2013), and is embedded in, sustained by, and “biomediated” (Clough, 2010) through a host of transversal human and nonhuman processes and flows. Trying to make sense of this dizzying web of relations is a critical dimension of the posthuman experience, and a task that has become increasingly urgent within the posthuman convergence and the intensifications of climate change.

A relational ontology perspective draws our attention to the ways in which living, nonliving, organic, and technologic entities entangle with and extend our capacities to affect and be affected. Where social networks link with nervous systems a cascade of effects, opportunities, and ethical concerns flow. Critical posthumanism approaches this terrain with deep ambivalence, careful to not paint advancements of technology with one brush stroke, rather “as a trait of the human outfit” (Ferrando, 2019. p. 39)—but a trait that nonetheless underscores the multi-directionality of relational ontology and the potential for technology to equip us for the road ahead. This is not techno-transcendence, nor is it an uncritical embrace of the transhumanist belief that we are moving towards

ever greater states of human and inhuman perfection. This is a pragmatic call to leverage the affective capacities of all linkages that we now find at our fingertips.

Changing Shapes → Shaping Change

Braidotti argues that the complexities of our more-than-human existence demands cataclysmic shifts in our thoughts, feelings, and actions. Adequate relational/process ontology models must account for entanglements across a natureculture continuum, and we must generate new problem-solving playbooks and eco-social actions capable of navigating and conjoining the transversal connections available to us. Braidotti (2019) tells us:

relationality extends through the multiple ecologies that constitute us. Such webs of connection and negotiation engender a sense of familiarity with the world and foreground the simple fact that we are eco-sophical entities, that is to say ecologically interlinked through the multiple interconnections we share with the nature-culture continuum. (p. 47)

From this perspective, more-than-human solidarities are more than a stopgap for climate change; they are a fundamental revisioning of our understandings of subjectivity and collective belonging: “the proper subject of the posthuman convergence is not ‘Man’, but a new collective subject, a ‘we-are-(all)-in-this-together-but-we-are-not-all-one-in-the-same’ kind of subject” (Braidotti, 2019, p. 54).

Braidotti’s theorizations regarding the shifting onto-epistemological contours and agentic capacities of the posthuman subject reflect the complexities of the times. They also serve as prescriptive for mindfulness and responsible actions. We are citizens on a

living planet and within lively digital networks. The posthuman convergence therefore underscores the importance of developing more-than-human literacies, which attune to planetary systems of life while synthesizing the mobilities and mobilizing capacities of media and information technologies, an idea that I attend to with greater attention and care in the next chapter. By reclaiming a fluid ontological position and forms of agency for the posthuman subject in a natureculture continuum, critical posthumanism offers conceptual force towards a framework for eco-social intervention, adumbrating cartographies of the posthuman ethical landscape and pathways toward care for the evolving more-than-human world that we are a part of. But actualizing these futures will take work: “Actualizing the virtual is a praxis, not a miracle” (Braidotti, 2019, p. 176).

The relational/process ontology animates more-than-human praxes by drawing linkages between technologies, ecologies, musical activism, and eco-social change. Activism, by virtue of its desire to bring new worlds into being with a swiftness, taps into this tension between the virtual and the actual. The very idea of social change would be impossible without it. Through a relational ontology perspective, critical posthumanism presumes change as a given, translating it into evolutionary terms of “mutation” that problematize the notions of purity, origin, stasis of being, or any overdetermined essences, trajectories, or processes. For Wolfe (2010) mutation “names that randomness which is always already immanent in the process by which both material bodies and cultural patterns replicate themselves” (p. xvii). Massumi (2002) echoes this perspective through inverted logic: “The problem is no longer to explain how there can be change given positioning. The problem is to explain the wonder that there can be stasis given the

primacy of process” (pp. 7-8). Change is presented in both factual and normative terms, as a driver of evolutionary process and an indication that things, when they mutate, are as they should be.

For social activist Adrienne Maree Brown (2017), author of *Emergent Strategy: Shaping Change, Changing Worlds*, the object is not to create change, but to shape it, push it along in the directions it is needed, and at speeds and intensities at which it will have an impact. This emergent approach is deeply relational, deriving inspiration from models of collectivity found in nature, and directing needed attention and care back to those more-than-human spaces: “Emergent strategy is a way that all of us can begin to see the world in life-code—awakening us to the sacred systems of life all around us” (p. 2). Brown, along with Gumbs (*cited in first chapter*) and others, represent a growing movement within political philosophy that acknowledges the need to engage with and celebrate the liberating potential of ecological and interspecies thinking.

Massumi (2011) recognizes the potential of linking the political and ecological as mutation, adaptation, and the element of surprise *is* the way of nature. He argues that activist philosophy, as with any line of thought—no matter how straight, crooked, or disjointed—is ultimately subsumed within the category of ecology by being a singular unfolding in a field of vital intensities and materiality, in other words, “nature.”

Ultimately, the thinking of speculative pragmatism that is activist philosophy belongs to nature. Its aesthetico-politics compose a nature philosophy. The occurrent arts in which it exhibits itself are politics of nature. The one-word summary of its relational-qualitative goings on: *ecology*. Activist philosophy

concerns the ecology of powers of existence. Becomings in the midst. Creative change taking place, self-enjoying, humanly or no, humanly and more” (Massumi, 2011, p. 28)

The *zoe/geo/techno* assemblage that is the nexus of emergence for the posthuman productively problematizes discussions and decision-making processes regarding the strategies and implications of eco-social change. The currents of co-evolution that are central to relational-process ontology dimension suggests both challenges and opportunities for experimentation, coalition building, and becoming-with across a more-than-human spectrum, all of which are afforded significant volume and force through the affective capacities of musical techniques, technologies, and socio-techno assemblages.

Techné, Technique, Technology, and the Rise of the (Eco)Socio-Techno Assemblage

I approach music—and the eco-social transformations they make available—as technologically mediated phenomena reflecting music’s capacity to “shape change” (brown, 2017) across various scales of the more-than-human milieu. The empirical examples I explore throughout this project draw attention to the expanding capacities of musical assemblage as they have evolved from acoustic, to electrical, to digital forms of (re)production (Sterne, 2003). Analyses of musical encounters as technologically mediated negotiations of solidaristic boundaries bear significantly on our understandings of social movements as dynamic spaces of socio-techno experimentation and help us to think beyond a human/technology binary that has infused and limited the usefulness modernist and critical thought (Braidotti, 2013).

Humanity's relationship with technology is both ancient and every day and, because of this, it can disappear into the background as a banality of quotidian space. In thinking music as technology, it is helpful to consider how our everyday life is replete with tacit knowledge of tools and machines as well as the skills required to use them correctly. This dimension of embodied technological "know-how" has been referenced since at least the time of Aristotle as *techné*, which he differentiated from *episteme*, or knowledge *of*. It is through the application of *techné* that matter, and our environment is transformed. Gorgias spoke positively of *techné* as "productive skill in-forming matter" (as cited in Steigler, 1998, p. 93), and Heidegger (1977) suggested *techné* supported "revealing practices" that unveiled the potential of the material world around us. For Sterne (2006) *techné* serves as a central guiding metaphor for communication itself, one that represents the negotiation and transformation of material worlds through the creative application of skill sets.

The difference between *techné* and technique is subtle but important. Sterne (2006) explains technique as the cultivation and *application* of a highly specialized forms of embodied knowing. He illustrates this point through the example of a musician's technique, which "describes the practical sense that she brings to her instrument and the actual process through which she plays it. A musician's technique encompasses both her actual movements and the practical, embodied knowledge she brings to her instrument" (Sterne, 2006, p. 92). In this example, musical technique illustrates the simultaneous intra-actions occurring in the context of practice and performance as musician and

instrument co-perform within a recursive “mangle” of amplified sound, embodied knowledge, and affective feedback loops.

In contrast, music *technology* represents the structures that have been developed to support and expand the affective potentials of musicking, which have enabled the formation of fields of communicative musical action and broader configurations of socio-techno assemblage. As Tomlinson (2015) observes, “(t)he technological and the social were always bound together, and this *technosociality* formed the matrix in which musicking took shape” (pp. 48-49).

Bernard Stiegler (1998) furthers thinking around music beyond the nature/technology binary in *Technics and Time*, wherein he posits the development of techniques and technologies as emerging out of the interface between proto-humans and their material environment. This evolutionary perspective situates the emerging techno-human amidst the development of hunting tools, shelter constructions, agricultural practices, and other modes of survival, as well as the fashioning of clothing, jewelry, linguistic expression, and other modes of symbolic communication. These material-semiotic intra-actions contributed to the phenomenon of “double-plasticity,” or the mutual transformation of cerebral capacities and the environment through the “exteriorization” of knowledges, memories, and environmentally embedded ways being among ethnic groups. From this perspective, “culture” is a by-product of rendering a more livable world within the constraints of “nature.” Technology is natureculture.

This view illuminates how technology not only offers benefits to human societies but is constitutive and integral to the human condition. Technology does not distinguish

the human from the environment, or even nonhumans, it mediates the relationship between all. Steigler (1998) speaks to the binary-busting force of this conceptual (re)framing, observing:

(t)he prevailing understandings of contemporary *technics*, caught up in the workings of oppositions inherited from metaphysics, are by the same token hampered by the false alternative of anthropocentrism and technocentrism—and are reduced to opposing the human and the technical. (p. 95)

The evolutionary perspective Steigler advances naturalizes the place of technology in more-than-human milieus as a mode of what Hayles (2011) has referred to as, “technogenesis,” or “a spiraling dynamic of coevolution with human development” (p. 216). This reframing links the development of *techné*, techniques, and technologies to ongoing processes of world-making in the mangle of more-than-human interfaces. From this perspective, technology is viewed as both a tool and a living, co-evolving medium.

This perspective also softens the default associations made between technology and “technocratic” orders of domination, social control, and the one-dimensional, overdetermined processes of “massification” that have become emblematic of various strains of critical theory. These linkages—while not without their merits—turn on notions of humans falling from a pristine location in nature, a precept that can be traced to Enlightenment metaphysics of human “essence” developed by thinkers such as Rousseau (1761). For Steigler (1988), this train of thought performs a type of “transcendental anthropology” (p. 105) that seeks a transferrable figure and universal place of origin for the human that brackets out all technical dimensions of the human milieu:

there is never anything, at the origin, but the fall outside it. This aporetic moment is one in which the aporia always ends up hardening into a mythology opposing two moments: those of purity and corruption, of before and after—the point separating them always already diluted. This is an excellent archetype of the discourse of philosophy on technics, relating through a fiction, if not by a myth, how the man of pure nature is replaced by the man of the fall of technics and of society. (p. 101)

A metaphysics of human “essence” devoid of technology is untenable: The evolution of technology and evolution of the human species are each embedded within each other in ways that blur the space between them entirely. In a natureculture view, the ontological dualities of origin/outside and purity/corruption are released, as are the epistemological modalities that link more-than-humans to their technological lineages. Mackenzie (2002) underscores the import of this shift for models of collaboration: “If we insist. . . . on viewing technologies as *instruments* of societies, cultures, and civilizations, we lose any possibility of seeing how the capacities and fabric of our collectives are constituted” (*italics mine*, Mackenzie, 2002, p. 208).

The good news: Our technological futures are not necessarily overdetermined by impenetrable imbalances of power, nor are they doomed to perpetual streams of ineffectual, coopted, and crappy art and music. Technologies can support the cultivation of what Massumi (2011) calls “techniques of existence,” or “a technique that takes as its ‘object’ process itself, as the speculative-pragmatic production of oriented events of change” (p. 14). Or in process ontology terms, there is always tomorrow’s event.

Massumi (2011) points out flashes of hope in the artistic reappropriations of technology that resist critical over generalizations regarding the devaluation, cooptation, and flattening of music and art by technology, arguing that:

Technologies in the narrow sense—architectural acoustics, recording, computerization, miniaturization—do not denature techniques of existence. They propagate, disseminate, and vary their events. They impel techniques of existence into evolutions, and speciations (p. 146)

The assertion made here is that art forms, including music, can take on new meanings and produce new affects in different contexts through, let's say, modes of digital reproduction for example. The archiving and dissemination of musical forms enables the recurrence of musical encounters, hauntings, and the development of ongoing, intimate relationships to and with musical artifacts.

This is not to discount the negative, or the ways in which technology is used nefariously. The replication in technologies of discriminatory tendencies found in human society, for example, is alarming (Benjamin, 2018; Noble, 2018). Nor is this a suggestion that access to the means to media production—as reflected in the rise of the home studios and music sharing platforms (Sterne, 2003)—automatically translates into a “people power.” Manuel’s (1993) fascinating research into the political uses of the audio cassette in India demonstrate that the “democratic” form cut both ways in the sense that it could as easily help to reaffirm community values and consolidate solidarities as it could disrupt them, as such the effects of miniaturization and increased “access” to modes of production may be centrifugal or centripetal.

But the point is that technology is not necessarily anathema to the effects of art and music. It can be a powerful archive, accomplice in, and amplifier of its effects and in the proliferation of its contact points with bodies, hearts, and minds. The (re)appropriation of media and technological modalities can enable intimate experiences with art and music empowering the processes of shape shifting and subject formation, or what DeNora (2000) and Frith (2003)—following Foucault (1988)—term “technologies of self.” They can also be deployed by groups to de/reterritorialize local, trans-local, and transnational spaces as “technologies of the collective” (Johnson, 2013). These applications recover possibilities for the creative (re)appropriation of technological resources within the milieu of social and political movements. As Castells (1996-1998) notes, communication technologies have played a central role in the ongoing mutation of identities and the genesis of emerging political communities and projects through the “electronic grassrootsing of democracy” (p. 352). From this perspective, technology also affords a “de-massification” effect, which enables the forming of solidaristic action networks around particular issues and political projects (Castells, 2015). Thus, a cautiously optimistic approach to technology is taken here in line with Nye’s (2006) view that technology is “best understood neither as a hegemonic force for homogenization nor as an automatic agent of liberation, but as a complex system of tools, materials, structures, machines, and techniques” (p. 614).

Steigler’s ideas regarding the “natural” origins of technology helps me to not only theorize the place of music within a nature—culture continuum, but to also think social movements in evolutionary terms that blur the human/technology binary. What is often

called “culture” includes, and is organized around, the knowledge to live within, make sense of, and usefully transform the surrounding environment. From this perspective, collectives that utilize musical techniques and technologies as a response to existential threats posed by forms of systematic oppression, injustice, and/or existential harm (such as police brutality and climate change) directly intervene in and transform the conditions of existence. Musically encoded calls for liberation, equality, civil and human rights, in other words, amplify the role of music in campaigns that pre-figure and recondition the living conditions of differently situated populations. Activist/author and politician Tom Hayden has gone so far as to compare the role of social movements to a form of “biological regeneration,” or a sort of wounded appendage of the planet emerging to heal itself (Bioneers, n.d.). To be sure, musical assemblages can channel energies powerfully towards these transformative ends, as Hesmondhalgh (2013) observes, “music’s most valuable contribution to collective human life might be to advance political struggles for a better distribution of flourishing” (p. 10). Or, as Tsing (2021) puts it, “The assemblage is the starting unit for collaborative survival—and thus world making” (p. 024).

The capacities for these types of musical intervention have accelerated sharply in the last century through innovations in music and media technology and the expansion of global communication networks (Braun, 2002; Castells, 2015; Denning, 2015; Sterne, 2003). As a result, music, as well as other technologically mediated forms of communication now “travel” with greater speed and reach (Clifford, 1992), challenge modernist logics of recognition and intelligibility (Lipsitz, 1994), and bring contested notions of subjectivity into being (DeNora, 2000). Accelerating transformations in digital

communication and social media are also impacting the nature of politics and political participation. Gillespie (2010) has referred to the co-constitutive relationship between media and political practices as “platform politics,” noting how political movements co-evolve in relation to the interfaces, algorithms, and user experiences of communication platforms. As with the rise of the Black Lives Matter movement, and other iterations of hashtag activism, communication technology is both instrumental to and constitutive of social movements (Kavada, 2016). As technology hybridizes networks and (re)shapes identities (Chadwick, 2017), and as affect is wielded tactically and with greater speeds and impact in digital space (Boler & Davis, 2021), all these changes are destabilizing long-held assumptions about the shape, nature, and future of “collective action” (Kavada, 2016).

Musicking, through the techniques, technicities, and technologies of musical practice, virtual audiences, and the material affectations of the socio-techno environment, enact a process of becoming-more-than-human. This perspective amplifies the view of the posthuman as “a prosthetic creature that has coevolved with various forms of technicity and materiality, forms that are radically ‘not-human’ and yet have nevertheless made the human what it is” (Wolfe, 2010, pp. xxv). Within the reverberations of these intra-structures, the effects of musical intra-actions ripple, spill, and cascade within, across, and throughout the imbrications of social, technological, and ecological networks. An abundance of challenges and possibilities lay dormant within the dynamic tessellations of the socio-techno assemblage milieu.

What is of particular interest to me is how these “extra-musical” assemblages and intra-actions shape and *move* the processes of becoming-with between diverse actors in (eco)social movements, and how these movements might expand solidaristic circumferences to include human and more-than-human others. These musical techniques and technologies spark imaginations and can provoke radical forms of intra-subjective formation that sponsor the reconfiguration of more-than-human sensibilities, response-abilities, and kinships. Understanding who “we” are, or more importantly, what “we” are capable of becoming in the posthuman convergence, bears directly on our sense of ethical obligation to one another and the (in)solidarities that we aspire to create, dwell within, and fight for.

For Braidotti (2013) one of the primary challenges of the posthuman convergence involves sketching out a location for the more-than-human subject somewhere between the transcendental, unitary subject of humanism and anti-humanism’s wholesale annihilation of the subject. Instead, the posthuman subject position is (re)constituted in Spinozist field of embedded, embodied, and affective relations deemed vitally material, and encompassing the body, mind, imagination, and natural world.

Spinoza, Material Immanence, and the Affects of the Imagination

At the core of a critical posthumanist ontology lays the work of Dutch philosopher Baruch Spinoza. As a key figure within a radical Dutch strain of Enlightenment thought, Spinoza developed views heretical to religious, humanist, and burgeoning scientific communities and represented “the supreme philosophical bogeyman of Early Enlightenment Europe” (Israel, 2001, p. 159). A harsh critic of René

Descartes' dualist metaphysics, Spinoza rejected many dimensions of the Cartesian project, including the notion of an autonomous subject, the goal of mastering nature by segmenting the world into clear, discrete, and knowable objects, and the idea that the human mind's role was to regulate the passions of the body and the natural world in which it is enveloped. Spinoza is perhaps most famous for his contributions to theories of affect, as Hardt has noted, he is the "source, either directly or indirectly, of most of the contemporary work in this field" (Hardt, 2007, p. ix). Spinozist theorization on nature, affect, materiality, and ethics directly inform a critical posthuman ontology, and offer valuable insights to a musical praxis of more-than-human solidarity.

Drawing from Spinoza (by way of Deleuze and Guattari), Braidotti (2019) promotes monistic vital materialism as a field of "material immanence" that constitutes subjects as "radically immanent, embedded and embodied assemblages of forces or flows, intensities and relations" (p. 170). The notion of immanence suggests that subjects are constituted in and inseparable from the sticky web of their relations. This shift calls attention to the everyday material plane of existence through which bodies enact and undergo a perpetual sequence of affective exchanges, which includes the (de)composition of symbiotic human/nonhuman partnerships, and all other material encounters within the overarching category of Nature.

Importantly, the notion of material immanence intervenes in binaries foundational to early modernist thought (i.e., the mind/body split, Man vs. Nature, Nature vs. God, etc.) by advocating for a monistic cosmological order, or what Deleuze (1988) has interpreted as "a single substance having an infinity of attributes" (p. 17), constituting a

“plane of immanence” that possesses “no supplementary dimension” (p. 128). In this way, material immanence helps to account for the fractal singularity of subjects as differentiated aspects of one common substance, in other words, an *assemblage*: “The whole exists alongside the parts in the same ontological place [and] is immanent, not transcendent. Communities or organizations are individuated entities, as much so as the persons that compose them” (DeLanda, 2016, p. 14). Braidotti (2013), orients toward this paradox as a “unity of all living matter” (p. 57) and as fertile ground for posthuman alliances conjoining human and nonhuman others.

As a devout rationalist, Spinoza invested his faith deeply into the power of reason, but not as opposed to the emotions or passions. Rather, reason is held as a capacity of the mind imbued with its own generative emotional and affective forces, including standing reserves of creativity due to its alliance with the imagination. Attaining knowledge of nature is key to harmonizing life within its flows and cultivating joyful affects with all beings and entities in one’s environs. Conversely, sad passions are cultivated when the affective exchange between bodies is decompositional in nature. But in either case, knowledge is always incomplete and aided through the illusory and imperfect workings of the imagination, which is thus held as conterminous with the body as an entity of Nature.

The role of imagination is critical here. With the alignments of body and mind Spinoza theorizes imaginative processes as “a form of bodily awareness,” or one manifestation within an infinity of attributions that can be made of “Substance” (Gatens & Lloyd, 1999, p. 12). Imagination is conceived of as a material affective force that can

impinge in the flows of daily socio-political practices and activities and contribute to the constitution of collectives. Spinoza writes:

things imagined as ‘with us in the present’ will be more intense than what is imagined as either contingent or possible; and affects towards things imagined as necessary will be more intense, other things being equal, than those imagined as not necessary. (*as cited in* Lloyd, 1996, p. 86)

Through imagination, awareness can be extended to the bodies and affections of others, engendering a sense of connectivity that draws the imagined into a constellation of rhythms and relations. Affect is thus “an orienting device that shapes the political contours of our social imaginaries” (Ahmed, 2013, p. 206), and affective bodies “communicate motion to one another, and their synchronization—the union of bodies—is what constitutes individuality” (Gatens & Lloyd, 1999, p. 13). Solidarities, imagined or not, take root in a plane of affective immanence.

For Lloyd (1996), an important aspect of Spinoza’s philosophical orientation that sets him apart from other Enlightenment thinkers is “the complex unities of reason, imagination and affect” (p. 143). The linking of imagination, reason, and affect on a singular plane “involves the coming together of mind and body in the most immediate way: mind is the idea of body” (Gatens & Lloyd, 1999, p. 12). This unification—which has been corroborated by research in the neurosciences (Damasio, 2003)—works against the privileged status historically accorded to cognition and reason in Western philosophy. Imagination, in other words, is not a denigrated place below reason but seen as a “powerful ally of reason” (Lloyd, 1996, p. 60). Imagination, as I explore in greater

below, is also in strong allyship with musical modes of standing-with critical to the formation of solidaristic relations.

We can see here in Spinoza's notion of material immanence the will to reunify—in more contemporary terms—the psyche, the social, and the ecological, a fusion that presages similar attempts in the 20th century, including (but not limited to) Gregory Bateson's (1973) *Steps to an Ecology of Mind* and Guattari's (1989) *Three Ecologies* approach. Spinoza's thinking embodiment through the prism of Nature and vice versa affirmed the integral link between the mind/body and the passions, which were to be trusted as a source of information and a ground for the enactment ethical relations. The importance of Spinoza's intervention was not lost on Hardt and Negri (2000) either, who argue “Never before had philosophical thought so radically undermined the traditional dualisms of European metaphysics, and never before, consequently, had it so powerfully challenged the political practices of transcendence and domination” (p. 186). Bringing natural entities into immanent relationality rocked the emerging status quo of Enlightenment thought, while also extending the shape of humanity's existence and the scope of its ethical responsibilities.

Material monism draws consideration to the body's capacities to affect other bodies, as well as its ethical obligations to those bodies. Deleuze (1988) assigns these ethical accountings not to abstract principles of behavior, but to “a typology of immanent modes of existence” (p. 23). In other words, ethics are implicative of patterns of relating, not laws, religious authorities, or a “system of Judgement” (Deleuze, 1988, p. 23). Spinoza's ethics are therefore divorced from a metaphysics of human nature and the

divine: there is nothing “meta” about Spinoza’s world. The ethics of radical relationality unfold instead from within the combustive nucleus of inter-relations themselves and are negotiated in the interfaces and rhythms that affecting entities co-create. What is considered “good” contributes directly to the composition of joyful relations (Deleuze, 1988). Spinoza’s ethics of relationality offers a base for the thinking of care, indebtedness, and obligation—independent from notions of God’s vengeance or divine consequences—as it incentivizes behavior through punishment and reward in the afterlife.

Compositions of more-than-human relations are likewise capacitated through ethological engagement, or the situated, affective, and principled negotiation of human/nonhuman linkages. For Deleuze (1988), the ethical life is approached in musical terms, as:

a complex relation between differential velocities, between deceleration and acceleration of particles. A composition of speeds and slowness on a plane of immanence. In the same way, a musical form will depend on a complex relation between speeds and slowness of sound particles. It is not just a matter of music but of how to live: it is by speed and slowness that one slips in among things, that one connects with something else. One never commences; one never has a *tabula rasa*; one slips in enters in the middle; one takes up or lays down rhythms. (p. 123)

The complex polyrhythms of more-than-human landscapes present a complex tapestry of speeds and textures that are suggestive of the links between the processes of musical composition and the ethics of a life well lived *through* ongoing relational compositions.

More-than-human literates cultivate capacities to read and relay these rhythms in order to contribute to their vital pulses and mend points of their disjunction, quite similar to the skills required of musicians to jump into and impact streams of affective unfoldment at a jam session.

These contributions, if they are to augment the “joy” and capacities of others are not random or chaotic. They involve practice, attunement, and the cultivation of techniques and skills (discussed in the next chapter) that facilitate a dialogic expansion of the affective capacities of the group as a whole. An ethics of polyrhythmic attunement underscores collaborative enactments as a *practice* of “composing-with” (Massumi, 2011), which involves “combining techniques of existence and their respective content-readinesses” (p. 158). Through musicking practices, we are affective beings extending our affectations in multi-directional and multi-scalar ways. This mode of extension increases our compositional capacities in that “we experience joy when a body encounters ours and enters into composition with it” (Deleuze, 1988, p. 19).

Spinoza’s ideas provide a base for thinking more-than-human solidarities in several ways. First, a material imminence perspective promotes understanding of and respect for the plane of materiality within which all living forms and lively matter interact and intra-act. Sharp (2011) supports this idea arguing that Spinoza’s naturalism, which holds the Nature/God figure as a singular material fabric, inaugurates a process of “renaturalization” that undergirds practices of love and recognition of human and nonhuman beings as different facets of one Nature:

Avowing humanity as part of nature entails understanding individuals as beings with complex histories, exposed to many diverse bodies and minds, and ever open to forming new compositions with ambient forces. (p. 8)

The suffuse materiality of NatureGod thus rejects notions of humans as disbanded from, or in hierarchal relation to a mechanistic natural world. Rather, the human is “renaturalized” within “a *common plane of immanence* on which all bodies, all minds, and all individuals are situated” (Deleuze, 1988, p. 122). Alliances with more-than-human systems of life enact ethical alignments that engender mutually beneficial compositions.

Spinoza stresses the ongoing importance of composing ethical relations, which transversally propels more-than-human solidarities beyond transcendental notions of essence and dichotomizing moral principles (i.e., good/bad, good/evil, right/wrong, etc.) disjointed from context or the messy and embodied complexities of material relations. Values, ethics, and the measure of what is deemed “good” or “bad” is instead an immanent experience of (de)composition: what is “bad” is simply bad for us and can over time manifest into an assortment of relational, corporeal, psychic decompositions, two cases in point: the sharp rise of climate catastrophes and the 6th Great Mass Extinction now underway. Conversely, what is “good” for us extends our compositions in beneficial ways. Standing with and alongside the more-than-human is, by virtue of its life-supporting potential, beneficial for all.

Second, by providing an escape from metaphysical dualisms Spinoza intervenes in notions of difference that continue to flex their partitioning powers through the

ongoing process of racialization, sexualization, and naturalization. While the practical negotiation of more-than-human solidarities inevitably implicates beings from diverse historical and cultural backgrounds, Spinoza's emphasis on affective registers of interaction enacts what Sharp (2011) has called an "impersonal politics," that "privileges enabling relationships, wherever they may be found, rather than particular identities or institutions" (p. 14). This shift drops the barriers to entry into a more-than-human circumference of belonging and obligation and helps to underwrite Spinozism—and the posthumanist theoretical frameworks that deploy it—as "a collective project by which we can come to love ourselves and one another as parts of nature" (Sharp, 2011, pp. 4-5).

Thirdly, affect functions as an alternative language and pre-personal communicative force that mingles the agency of human and nonhumans and constitutes a plane of interspecies exchange. Attunements to the affective dimensions of ecological others and Life itself facilitates bridges where efforts to "understand" break down. Lipari (2009) explains the benefits of this type of "interlistening":

The problem with basing compassion on knowledge and understanding is that we habituate to the already existing linguistic categories, structures, and schemas with which we constitute the world and then take up residence in . . . The cognitive structures of language are particularly dangerous when we become habituated to them such that they are automatic and invisible to us. They distort our perceptions and point us to see what we expect to see and ignore everything else. (p. 52)

Literacy, with the rise of humanism, has acted as a type of shibboleth into a club of species privilege and limited our solidaristic imaginations (Boyle, 2018). The development of a posthumanist politics is contingent on our capacity to develop more-than-human literacies, developing alternative languages, vocabularies, and conceptual orientations that accommodate the ascension of natureculture and its destabilizing effects on the hierarchies of meaning as they implicate the non-human. Mallory (2009) explains:

The way in which we know the non-human other conditions both our moral response to the more-than-human world as well as forecloses possibilities for the very being for the Earth other. One of the ways we encounter the Earth other is through political languages and concepts—languages that can either open or close opportunities to engage in political interlocution and action with Earth others. (p. 4)

As a pre-personal and pre-linguistic form of communication (Massumi, 1995), affect lends force to the task of composing alliances through an embodied and highly transposable mode of communication. Although vital materialism does not dispense with semiotics, it questions overinvestments in language as the measure of a species worth (Braidotti, 2013; Wolfe, 2010). Semiotic frameworks are thus dispersed into broader constellations of affective intensities that decenter privileged and anthropocentric regimes of meaning: “The linguistic signifier is merely one of the points in a chain of effects” (Braidotti, 2013, p. 166). Thus, in its embrace of symbiotic human/nonhuman interrelationships and its search for post-dualistic modes of comprehending and communing with the world, a vital materialist perspective engenders “acknowledgement

of solidarity with other humans but also an embrace of the non-humans” (Braidotti, 2019, p. 38).

Spinoza’s framework of material immanence, which links ethical obligations to the force of affect, is strongly suggestive of music’s capacities to (re)mediate relationships within a more-than-human model of belonging and obligation. A musical praxis of more-than-human solidarity resonates with the relational ontology perspective, which is rooted in the assumption that change and mutation is the “natural” state of things, and that technological ways of being represent a co-evolutionary dimension of evolution itself. Music activates valuable capacities for the posthuman subject to negotiate the parallel processes of becoming-animal, becoming-machine, and becoming-more-than-human. These processes oscillate, dance, and mutate within the expansion of communication technologies, which proliferate the rhythmic possibilities of subjective and collective actualization in a field of material immanence with more-than-human others. In the next section, I explore more deeply the links between affect, music, and power to explain how musical modalities enable processes of assemblage, and how musical techniques and technologies might catalyze bodies in the direction of political action and bring into existence modes of solidarity with planetary others.

Musicking, Musical Affects, and Aggregates of the Affective

A relational/process ontology implicates musicking in processes of becoming-with. As critical posthumanist theory is called to the task of shaping the process of subjectivation multiplying in the rhythmic oscillations between the virtual and the actual, posthuman architects of sound are called to the task of musical interventions that make

skillful use of affect to influence the velocities and trajectories of more-than-human becomings. Homing in on the crux of this task, I ask: Just what is the sound of becoming? How might notions of becoming more-than-human modulate or mutate this sound? How might musical practices produce and gather bodies into a space to feel into and take responsibility for our more-than-humanness? I approach these questions with a few precautions.

Music touches us, both figuratively and literally. This is due in part to its ontological status of sound as material vibration (Goodman, 2012b). While usually invisible to the eye, sonic vibration contributes much to the affective experience, or “vibe,” of a musical encounter and the lively tremors of event space. The sonic aspect of music is immersive, elusive, and permeated with paradoxes. In his phenomenological exploration of the “auditory imagination,” Idhe (2007) notes how sound surrounds us, has “no definite boundaries such as those of vision” and “displays an indefinite space in all directions” as it travels away from and towards us (p. 207). While musical resonances escape as quickly as they envelop, they often do not pass by without leaving us transformed in some way. Scientists, philosophers, scholars, artists, and laymen have sought to understand and describe this aspect of musical resonance and the rich medium of sound for over a millennium.

But music also touches us as an artifact of our relations with the social world. Due to the inherently cultural, symbolic, and ritualistic contexts in which musicking is partaken in, the effects of music can never be reduced to the material structure of sound, or the formal elements of songs. Every musical encounter is accessed through a field of

schemata and belief systems. Ethnomusicologist Steven Feld (1984) stresses that, “the listener is implicated as a socially and historically situated being, not just as organs that receive and respond to stimuli” (p. 6). Music, in other words, does not arrive to the listener as a pure form: it is refracted through the halls of interpersonal and social relationships, in the same way it glides alongside associations with language and culture (Feld & Fox, 1994). Because of its embeddedness in cultural fields, music is heard and felt differently by bodies in embedded arrangements of space and power dynamics. Thompson (2019) refers to this phenomenon as “auraldiversity,” observing “different bodies are differently affected: the nature of their affection and the degree to which they are affected emerges in situ,” but always “within a nexus of relations” (p. 817).

Analysis of music is therefore challenged by its ambiguities and complexities as a material, relational, and historically situated communicative mode. As an object of analysis, music presents layers of “multitextuality” and “irreducible complexity” that resonates unpredictably at the intersection of sound, affect, technology, socio-cultural relations, and socio-economic institutions (Born & Hesmondhalgh, 2000). Isolating music’s affects to vibration is therefore reductive and neglect’s how our experiences of vibration, sound, and music are modulated by social, cultural, and historical forces, all of which constrain and enable the meanings available in the space of musical encounters (Back, 2009; Goodale, 2011). Ignoring this aspect of music would both flatten the cultural dimensions of musical phenomena and betray a politics of location that is central to feminist and critical posthumanist ontologies. The ascendancy of naturecultures does not obliterate considerations of culture inasmuch as recognizes culture’s inextricability

from nature. In a more-than-human world, the Janus headed problem becomes the ecological-ization of historical fields and the historicization of ecological worlds (Chakrabarty, 2009).

Although I theorize the capacities of music and sound, I also refrain from setting the sonic against the visual as a more ideal, rich, or “real” ontological modality. This idea belongs to a set of assumptions that Sterne (2003) refers to as the “audiovisual litany,” which is commonly forwarded by new materialists and argues that sound resolves the inequities created by dominant, ocular-centric orientations to the world that trade on practices of linguistic correlationism and representation. In other words, I do not invest undue faith in music to correct all the symbolic violence done through language (or in the name of the perceived communicative superiorities of the human animal). Nor do I believe music will subvert the dominance of visuality or correct the crooked path of a society drunk on visual spectacle and simulacra. Sound is an equally corruptible medium: Power has made deft use of music and sonic dimensions to control and dominate human and more-than-human (Goodale, 2011; Goodman, 2012a).

But the audiovisual litany is not an either/or proposition to me. It is possible to appreciate the strengths and shortcomings of both visual and aural modalities as well as the ways in which they synesthetically combine and collaborate with all other sensorial modalities of embodiment (Hawhee, 2015) in the phenomenological moment. Music can certainly do things that language alone cannot, and in many instances, augments the affective work that language, meaning, and forms of visual communication do. Modes of posthumanist praxis and more-than-human musical intervention avail themselves of an

array of sensorial and signification processes and are therefore intersectional: they respond and rupture at the level of meaning while gaining extra-linguistic material intensities through the force of embodied affects.

Rather than myopically focus on and romanticize the power of vibration, I approach music as a multi-dimensional and integrated assemblage of vibrations, sounds, affects, rituals, norms, cultural associations, social and ecological relationships, as well as interconnected media systems and proliferating spaces of aural imagination, which opens out the notion of music to a constellation of (de)compositional flows and forces beyond the simplistic binary of signification versus sound. This is the benefit of an “ecological” approach, which Massumi (2015) notes, takes “Talking complexity for a starting point (p. 70). While irreducible to affect, music is deeply affective, and engagement with theories of affect can powerfully inform the development and enactment of forms of musical praxis.

The “affective turn” represents a turn away from several theoretical orientations including those that privilege mind-body dualisms, linguistic-centric analyses, as well as the rigid binaries of structuralism and thinking that posits clean, deterministic chains of linear causality (Seigworth & Gregg, 2010). Affect theory attempts accounts of the ineffable by describing the ways atmospheric moods and force fields intra-act with bodies and by unsettling the familiar sedimentations of linguistic description. A common theme across conceptualizations of affect is that it is pre-linguistic, slippery, always shifting, and therefore, any attempts to capture it (in words) is challenging (Massumi, 1995), not unlike music. Affect theorist’s emphasis on feeling, mood, and the pre-linguistic is

offered as a “missing term in an adequate understanding of ideology” (Grossberg, 1992, p. 82), as it helps shore up the limitations of ideological analyses, which often overinvests a belief in humans as rational actors within stable language systems and dependable chains of agreed upon meanings (Ahmed, 2004).

The fit between affect theory and a posthumanist relational process ontology perspective is snug, where it is described in terms of arising “as an impingement or extrusion of a momentary or sometimes more sustained state of relation, *as well as* the passage (and the duration of passage) or forces or intensities” (Gregg & Seigworth, 2010, p. 1). These “extrusions” and “impingements” complicate notions of ontological purity as bodies move and are moved by forces in their more-than-human environs. Brennan (2004) reinforces this idea where he conceives of affect as both a biological and cultural phenomenon with a capacity to spill, circulate as a contagion, and both blur the line between and transform the chemistry of social and ecological bodies:

we are not self-contained in terms of our energies. There is no secure distinction between the ‘individual’ and the ‘environment’ . . . the idea of transmitted affects undermines the dichotomy between the individual and the environment and the related opposition between the biological and the social. (pp. 86-87)

This post-dualist perspective implicates affect in the processes of co-becoming in an always more-than-human plane of material immanence.

As a field that draws attention to the flutters and fluctuations of feeling that lie beyond direct awareness and description, affect theory has also made particularly rich contributions to the understanding of music through its theorization of resonance (Clough

& Halley, 2007; Gregg & Seigworth, 2010; Massumi, 1995, 2002; Sedgwick, 2003; Stewart, 2011). Stewart (2011) advises that as a resonating element in the world's ongoing, living compositions, "The body has to learn to play itself like a musical instrument" (p. 6). Writing from a Spinozist perspective, Thompson (2019) suggests music is neither inherently "good" or "bad" but remains a resonant technology of "affective modulation" (p. 804) that works beyond "dominant musicological fictions and their underlying aesthetic moralisms" (p. 819). The impact of musical resonances and affects on relations, therefore, is direct and has immediate ethical implications: What makes music "good" or "bad" is the ways in which it is used, and what it "does" in a particular context.

A Spinozist theory of affect enhances thinking regarding the power of music. Deleuze (1988) observes that power is defined in terms of affect, noting "all power is inseparable from a capacity for being affected, and this capacity for being affected is constantly and necessarily filled by affections that realize it" (p. 97). In other words, affect is not supplementary to the powers one may possess; it is synonymous with that power. Affect can also be (dis)empowering in the sense that it compels bodies to gravitate or orient toward or away from a phenomenon in a particular way. Massumi (1995) equates affect with forms of "incipient action" (p. 91), and the catalytic spark that leaps from the virtual to the actual. Thus, affect marks a mysterious and unknowable yet generative force of emergence, a force that music can powerfully animate, focus, and scatter.

The power of affect can also be understood in terms of intensities. Guattari (2000) discusses a “logic of intensities,” which coexists with, but exceeds and gives chase to the orders of meaning laid down by linguistic frameworks. The “intensities” exchanged on material affective plane affords the subject an adaptable location and transposable form of power in the polyrhythms of becoming in the more-than-human landscapes, (de)coded as Life. Massumi (2015) explains how the life lived intensely at the nexus of political and artistic practice affords forms of flourishing and creative genesis in these landscapes:

intensity does not ‘have’ value. Intensity *is* value, in itself. In fact, it is a surplus-value: a *surplus-value of life*. It is a more to life, in life, one with its improvisational thinking-feeling. This way of thinking about politics in terms of contrasts and lived intensities of feeling is unmistakably aesthetic in tenor. (pp. 99-100)

Intensities approach and exceed energetic thresholds, and thus represent both a vital ontological source and powerful creative resource to the more-than-human composer. Braidotti (2013, 2019) promotes experiments with intensity to counter the damaging blows of natureculture shock, rupture the illusions of isolation, enable forms of responsibility, and catalyze engagement and composition with others within networks of expansive and ethical relations.

We encounter and generate these intensities in everyday spaces. In these instances, affective forces can contribute to the formation and ongoing evolution of what Grossberg (1992) calls “mattering maps.” These maps alert us to what feels compelling and compel us to feel at higher states of alertness, an oscillation that feeds into

cartographies of concern that shape practices of care. Popular culture plays a critical role in the establishment of mattering maps, which “are like investment portfolios” (Grossberg, 1992, p. 82) guiding the amount, type, and degrees of attention that is paid to any one issue, event, or phenomenon. These mappings can be channeled powerfully into processes of identification and identity formation, and in this way, represent a fundamental step in the activation of ethical duties and solidaristic relations: “Affect defines a structure and economy of belonging” (Grossberg, 1992. p. 84). These structures can include frameworks of belonging that engender a sense of collectivity and obligation.

In this way, our engagement with popular culture can produce affinities, habits, and para-social relationships that reflect cohesive socio-techno assemblages. Grossberg refers to such configurations of bodies as “affective alliances” (Grossberg, 1992), or the conglomeration of personal and collective investments of attention and care for particular issues, matters, and phenomena. Storytelling, music, and other cultural forms contribute to the formation of these alliances as condensations of affected and attentive bodies are routinely rhythmized together in the flows of everyday life, feeding from and into dynamic assemblages of bodies as “multiplicities or aggregates of intensities” (Deleuze and Guattari, 1987, p. 15). The expressive arts touch us in a way that cannot always be articulated or understood. But these circulating elements of our socio-techno landscapes are nevertheless powerful vehicles for the contagion effects of affective transmission (Brennan, 2004) that establish and support “micro-political flourishings” (Massumi, 2009) between thinking-feeling bodies.

The so-called “public sphere,” and its myriad of counter- and transnational alterities (Fraser, 1992, 2014), constitute a bristling network of marketplaces for affective exchange and inducements to political experimentation, dialogue, thought, and action. Mouffe (2013) highlights the role of affect as an ontological and epistemological resource for the subject in the ongoing, agonistic struggles between hegemonic orders: “If artistic practices can play a decisive role in the construction of new forms of subjectivity, it is because, in using resources which induce emotional responses, they are able to reach human beings at the affective level” (Mouffe, 2013, p. 96). Musical affects impinge on bodies and collectives in similar ways.

In musical encounters, affect emanates in waves of sonic compression that can strike us in material, embodied, and deeply relational ways. Goodman (2012a) refers to these sonic forces as “affectiles” (affect + projectile), which can impact bodies and objects at extra-linguistic levels through a “politics of frequency” (p. 71). Materialist approaches to musical solidarity draw from these complex frequencies, calling attention to what LaBelle (2018) terms the “vibratory modes of alliance,” that “interrupt the representational codings active on that ‘visual surface’ of particular words, supporting instead constructs of togetherness that may carry great social and political potential” (p. 3). Belonging, togetherness, and solidarity are modes of relational ontology that are thickly embodied phenomena, and which draw substantial force and adaptability from musical and affective resonance.

Dancing, rhythm, corporeal intimacy, and embodied intensities—all elements of musical practices and encounters—are commonly regarded as activities that augment the

experience of affective resonance and the transcorporeal circulation of affective connections (Brennan, 2004; Thrift, 2008). Born (2011) characterizes these musically mediated collectivities as “aggregates of the affected,” which can materialize through negotiations of identity in overlapping planes and across a multiplicity of scales: from the micro-politics of personal imagination to the intimately collaborative spaces of practice and rehearsal, to the public, networked, and technologically mediated spaces of performance and musical encounters. Musicking and the collective movement in rhythm that it enables can reinforce the cohesion of these aggregates by offering what Brennan (2004) calls a “unifying force” that is capable of “establishing and enhancing a sense of collective purpose and a common understanding” (p. 70). But a sense of unity can be drawn from sources far beyond the bodies locked in the rhythmic emulsion of musical encounters. For DeNora (2000), the creation of shared and powerfully resonating “musical moments” is attributable to “the alchemy of respondents’ perceived or sensed ‘rightness’ or resonance between the situation, the social relationship, the setting, the music, and themselves as emerging aesthetic agents” (p. 67). Whereas rhythm may function as a mechanism that emulsifies differently situated bodies in an aurally diverse plane of encounter, the inducements to cohesion are spindled across an ecological web of human and nonhuman actors, elements, and ethical alignments. These effects are not linear, predictable, or universal, but they remain in the realm of the possible, as a virtual potential in the space of musical encounters.

Affective Transduction, Enthymeme, and the (More-Than-Human) Boundary-Work of Music

The affective capacities of musicking can call attention and care to things that matter, and in the process, promote the formation of affective aggregations. The aggregating capacities of music can be understood in terms of process of transduction, which describes the occurrence of a multidirectional transfers, activations, or linkages: Transduction links. But transduction also implies openings. This paradox is key to understanding the boundary-work that music performs, and the nature of musical solidarities as a mobile, fluid, open, and mutable framework for the emergence and enactment of more-than-human circumferences of belonging and obligation.

The phenomenon of transduction runs like an electrical pulse throughout all affective migrations and medianatureculture becomings. In transduction, an open circuit is momentarily bridged and a particular capacity—be it electrical, magnetic, energetic, or affective—is unleashed and allowed to do “work,” not towards functionalist ends, rather toward an accelerated onto-aesthetic unfolding. This is the electricity one detects, as Kathleen Stewart (2011) might put it, in the “atmosphere” at a stirring musical event, within the “force field in which people find themselves” (p. 8), hence the sense of unity and renewal we can experience (and struggle to recreate) through participation in musical experiences.

Atmospheres, Anderson (2009) is keen to point out, are the mediums through which the intensities of events pass and spill over us, which include the directly felt compression waves of musical forms, and the transversal waves of musicking’s symbolic

meanings, implications, and constellations of embodied relations. The atmospheric belongs neither solely to the subject nor the elements resonating within proximity to the subject. Rather, it is an ecological phenomenon that spills between and beyond the collection of dynamic relations. The resonance of music sensitizes, enlivens, and opens the pores of collective emotional experience as it skirts attempts to determine or force the emergence of these dynamic relations, to over prescribe meanings to their experience, or to become captured within humanist notions of intent, consciousness, and will (Rickert, 2013). As modalities of multi-directional passage, these occurrences are transductive.

Transduction alters the speeds, directions, and qualities of energetic flows. In process ontology terms, transduction signals the coming of becoming-with. Presence and absence dance in phases and strobes. Affect implies gaps and valleys (of temporality and signification) but gaps and valleys imply the capacities of rivers. For Massumi (2002) affective transduction describes “the analogue impulse from one medium to another” (p. 135), or a type of multidirectional exchange of signals that enables the “thinking-feeling” body to operate as a transducer of connections between the charged contingencies of space and embodied sensory experiences. These multidirectional transformations act:

as a continuous variable impulse or momentum that can cross from one qualitatively different medium into another. Like electricity into sound waves. Or heat into pain. Or light waves into vision. Or vision into imagination. Or noise in the ear into music in the heart. (Massumi, 2002, p. 135)

For this perspective, a compelling encounter signals a chain reaction of transductive and intermodal events: transduction *is* the mechanism of material-semiotic translation. Sterne

(2003) links the cascades of transduction to the mechanics of electronic media noting, “All sound-reproduction technologies work through the use of transducers” (p. 22).

Transduction takes flight where sound technology encounters technologies of self.

It is also through the lens of transduction that technicities emerge as an ontological foundation, one that helps us to understand more deeply the impure divisions between the human as an ontological category and the nonhuman world of tools and technologies by which the human perpetually (re/co)creates its environment and itself. Stiegler (1998) frames the coupled development of cortex and tool as an essentially transductive event:

It is a question of a singular process of structural coupling in ‘exteriorization,’ an instrumental maieutics, a ‘mirror proto-stage’ in which the differentiation of the cortex is determined by the tool as much as that of the tool by the cortex, a mirror effect in which one, informing itself of the other, is both seen and deformed in the process, and is thus transformed. It is straightaway this couple that forms the original dynamic in a transductive relation. (Stiegler, 1998, p. 176)

Indeed, it is through an array of transductive technologies that these understandings have even come to be known. The co-constitutive nature of the transductive event is, thus, an inherently relational process, or what Boyle (2018) refers to as “a transindividual structure” (p. 62), that destabilizes notions of linear causality, autonomy, and the subject/object divide: it is an inherently “more-than” affair.

Following Spinoza, the transductive event ripples across a plane of immanence that binds matter to meaning and the “real” to the imagined. These multi-directional

cascades suggest rhetorical possibilities for the cultivation of ecological imaginations in the gaps, cracks, and crevices of socio-techno assemblages. For Boyle (2018), the processes of transduction “curiously echo” (p. 82) and effects of rhetoric’s *enthymeme*, which by virtue of its unstated premise “requires the audience’s implicit participation in the composition of persuasion” and “provides traction for other bodies to gain hold and join its movements” (p. 82). This process brings bodies into relation along the edges of evocative openings and within earshot of invitations to affectively aggregate and actualize the conditions of improved livability within the space of collective experimentation. Where it incorporates affective refrains, rhythms, echoes, and other devices of entrainment, enthymeme “activates the already present connective tissues of a community in ways that the purely rational premises of the syllogism does not/cannot” (Boyle, 2018, p. 84). Transduction, and its tendency to play with and within the affective oscillations and semiotic gaps of enthymemes, stands in contrast to induction and deduction, their weddedness to logical reasoning, and the crises of legitimation that gaps pose to them as methods of knowing the world.

In theorizing more-than-human solidarities, it is worth considering musicking as a form of transductive enthymeme and as a vehicle for the aggregation of diversely situated bodies. A relational process ontology makes ample room for these deterritorializations as the openings left in the musical enthymeme are invitational and adaptive: “the audience who ‘fills in’ for ‘missing’ premises does so according to their own capacities” (Boyle, 2018, p. 85). Musical encounters confer allowances of differences, conflicting interpretations, mutating identities, and bundled arrays of human and more-than-human

actors, all of which can enter into the transversally migrating flows of the assemblage. Within the reverberations of musical encounters, relational processes of becoming-with are activated beyond the anthropocentric domains demarcated by linguistic boundaries. As Eindshiem (2015) notes, when analyzing musical phenomena through the concept of transduction, “musical discourse then shifts from the realm of the symbolic to that of the relational” (p. 181). This turn deemphasizes the socially constructed dimensions of collective identity and amplifies the frequencies of immediate material affective relations.

Where musicking shifts attention to the phenomena of immanent relations, affects, and emergence, sympathetic resonances are produced with posthuman relational ontologies. With respect to musical solidarities, these resonances highlight an important divergence by posthuman ontologies from the areas of cultural and social theory that privilege identity as the base for the formation of collectivities. Posthuman ontologies, Braidotti (2019) argues “is post-identitarian and relational: it turns the self away from a focus on its own identity into a threshold of active becoming” (p. 79). This notion that identity might play a secondary, or even negligible role in the formation of human and more-than-human alliances scandalizes critical posthumanism as a mode of thinking solidarity and problematizes much of the theorization on the mechanisms of solidarity in musical contexts.

For example, Hall (1991) critiques the notion that we are living in a post-identity world as a fallacy of postmodernist thought, pointing to the argument that:

the Self is simply a kind of *perpetual signifier* ever wandering the earth in search of a *transcendental signified* that it can never find—a sort of endless nomadic

existence with utterly atomized individuals wandering in an endless pluralistic void. (p. 14)

Hall is correct to point out that we do not, as a result of a postmodern era, move through spaces as empty vessels evacuated of meaning, direction, or community. But he repeats the mistake made by social theorists who interpolate subjectivity solely through process of signification and neglect the stickiness of material relations, and the unrelenting forces of becoming-with that impinge on those relations and foreclose any option of becoming fully atomized. It is a strawman argument that cultural theory has used to criticize nomadic thought, and to defend its own territorializations of identity as an impenetrable outpost, and the primary location of analysis and source of cohesion.

Hall acknowledges the limitations of identity, linking it to the powerful but narrow enclosures of identity-based social movements of the 60s and 70s:

While you were in it, you had one identity. Of course, even then, all of us moved between these so-called stable identities. We were sampling these different identities, but we maintained the notion, the myth, the narrative that we were really all the same. That notion of essential forms of identity is no longer tenable.

(Hall, 1991, p. 17)

Taken together, Hall's remarks acknowledge both the anxieties of inhabiting unstable or migratory identities and the need for movement beyond fixed and essentialist identities, a tension that Gilroy (1993, 2000) suggests is negotiated more fluidly through musical modalities of expression than critical theory. For Rodriguez (2013), the effects of identity politics persist and can be counterproductive, through its:

seeming desire to cling to explicative postures, unified subjecthood, or facile social identifications has often resulted in repression, self-censorship, and exclusionary practices that continue to trouble organizing efforts and work against the interests of full human rights, creative individual expression, and meaningful social transformation. (p. 41)

Hall (1991) points to “emergent ethnicities” or groups that “are neither locked into the past or able to forget the past” (p. 20) as a perceptual shift and remedy for this situation, one that places cultural theorists in a “difficult conceptual area of trying to think identity *and* difference” (p. 15). This acknowledgement moves identity groups out of the narrow box of sameness once worked for political gains. But this move now transposes subjectivity into an infinite number of boxes of difference that hamstring the potential of social construction to forge modes of collective liberation.

The sameness—difference tension does good work in that it makes room for movement (however begrudgingly, or circular). Critical cultural theorists who would seek to freeze cultural identity in states of pure sameness or difference deny the view of identity as process that is a foundational tenet of the cultural turn. Chaney (1994) highlights the contradictions of this polarity:

The point of the turn to culture is precisely to teach us the irony of cultural shibboleths; that we can use our fictive imagination to combine elements from different discourses. Those who would use social theory to deny the creativity of new forms of intimacy are guilty of bad faith. (p. 129)

This point could presumably apply equally to notions of identities as fixed or on the move. Efforts to move away from the containing, or “ghettoization effect” of identity politics have surfaced (Abu-Lughod, 1998; Gupta, 2007; Heyes, 2000), but they do not illustrate the devaluing of identity so much as a loosening of its grip as an organizing principle in the context of social and political collectivization.

Social movement theory has followed a similar trajectory in the last three decades. The 80s and 90s were a high-water mark for what has been referred to as the “collective identity” model, which frequently reached for shelf stable definitions of identity and suggested that shared sense of “we-ness” was necessary for collective action (Cohen & Arato, 1994; McAdam, 1999; Melucci, 1995; Snow and McAdam, 2000). These social constructivist conceptualizations were not shared without uneasy and self-aware qualifications. Melucci (1995) states:

I am aware of the fact that I am using the word *identity*, which is semantically inseparable from the idea of permanence and is perhaps, for this very reason, ill-suited to the processual analysis for which I am arguing. Nevertheless, I am still using the word *identity* as a constitutive part of the concept of ‘collective identity’ because so far I have not found a better linguistic solution. (p. 46)

Galvanizing action around climate change has been similarly linked to the interpellation of pre-existing collective identity groups (McAdam, 2017).

But alternatives to the model of collective identity are increasingly circulating, including those modelled on decentralized, post-identarian, and emergent dynamics of network cultures, rhizomes, and assemblages (Dixon & Davis, 2014; Escobar, 2017;

McDonald, 2002, 2004; McFarlane, 2009). Social movements are frequently heterogeneous, impure, and not always linked to any particular salient identity or shared grievance, cultural history, or experience of oppression. As Sandoval (2000) has noted in the face of the “democratization of oppression” (p. 34), new tactics of survival and coalescence of diverse political subjectivities must be developed. The *rhizomatization* of social movements, while not replacing the notion of solidarity, has made space for these diversities through what McDonald (2002) calls “fluidarities,” which reflect the creative, organic, and adaptive dynamics of many contemporary movements. A critical posthumanist relational/process ontology leans with full force into the adaptable capacities of these movements, migrations, and pre-figurative forces, which prioritize the phenomenon of emergence over essence, while embedding into flows of embedded forces and relations that neither define, determine, nor fully release the subject from the material, affective, or cultural and ecological ramifications of their dynamic unfoldment. I hold the post-identarian and adaptable nature of these formations as suited to a more-than-human turn. And the sound of these solidarities; (in)solid.

This move holds cultural and ecological exigencies as conterminous, and cultural identity as an important but insufficient lens through which to view, understand, and address more-than-human exigencies. Critical posthumanism links the priority of multi-species justice to processes of unlearning and disidentification, which entails “active processes of becoming that enact in-depth breaks with established patterns of thought and identity formation” (Braidotti, 2019, p. 140), including breaks from dominant anthropocentric and humanist knowledge structures and systems. To be sure, the call for

post-identarian modes of relating and organizing does not escape identity or culture any more than postcolonial thought escapes the residues or infrastructures of coloniality, or poststructuralist thought escapes the normativity of language and typologizing processes of social construction. But it calls attention to the enabling and constraining conditions that identity places on and around us while asking how the replication and repetition of these dynamics helps us to meet the moment in the face of increasing natureculture shocks?

Perhaps unsurprisingly, critical posthumanist strategies of disidentification chafe against much scholarship on musical solidarities that hold identity in high regard: the cohesion of musically-mediated solidaristic movements is often theorized in terms of identity as it is expressed or formed through music, dance, and other expressive modes. As Turino (2008) suggests, “music and dance are key to identity formation because they are often public presentations of the deepest feelings and qualities that make a group unique” (p. 2). Rosenthal & Flacks (2015) similarly observe that, “musicking is central to developing and displaying collective identity. Musicking reinforces the feeling of being linked to a group in important ways” (p. 116). Notions of a collective musical identity can also often be smoothed over by theorists who deploy the universal referent of “humanity,” or notions of a “humane universal consciousness” (Laurence & Urbain, 1999, p. 2), and the ultimate telos of “human flourishing” (Elliot & Silverman, 2017). In all of these applications, musicking territorializes space in ways that reinforce pre-existing notions of social, cultural, or nationalist identity, the principles of a universal

“human” essence, and the perennial comforts of anthropocentric frameworks. What solid or fluid sounds come to the aid of the more-than-human world then?

Along with the becoming-animal, becoming-machine, becoming-more-than-human task that critical posthumanism proposes come modes of musicking the world beyond stable identities. With the Internet, identities have the capacity to be multi-faceted and inhabiting multiple locations simultaneously as they are developed in conversation with a multitude of globally circulating forms of artistic and cultural expression. Frameworks of musical identity increasingly mutate through the rapid expansion of transnational flows (Appadurai, 1996), and communication and technology media continue to enable new and unpredictable (re)configurations and appropriations of musical sounds, rhythms, and instrumentations that transcend and transgress the boundaries of cultural groups and nation states (Lipsitz, 1994; Stokes, 2007). Post-national musics, which draw from the streams of ongoing musical mashups and global influences, stress test investments in national identities and question the nature of identity itself (Folkestad, 2017; Knudsen, 2011). They also suggest some potential epistemological strategies for music makers invested in modes of more-than-human “flourishing,” an idea I explore with greater attention in the next chapter.

A process ontology perspective implicates all of these formulas by framing musical encounters as spaces that give wide latitude for a diversity of identities and the emergence of new ones in the space of musical becomings. Born (2011) observes “musical and social identity formations are conceived as being in process of becoming; both are reliant on the collective production of memory as well as the anticipation of

futures” (p. 384). These processes can also be understood through the concept of transduction, which references the multidirectional transfer of affects and associations, but also the (de/re)materializations of identity between bodies. Transduction rests on the assumption that “any given structure that exists only exists as a metastable identity momentarily taking place across multiple registers through a process of becoming” (Boyle, 2018, p. 80). The inherently relational nature of musical encounters implicates them as spaces of flux and ongoing negotiation with differences of the human and more-than-human kind, and with processes of co-becoming that mingle a diverse array of forces beyond the so-called “self” in the immanent ecological milieu. Gilroy (1993) speaks to this phenomenon noting, “Music and its rituals can be used to create a model whereby identity can be understood neither as a fixed essence nor as a vaguely and utterly contingent construction to be reinvented by the will and whim of aesthetics, symbolists, and language gamers” (p. 103).

If affect and transduction performs “edge-work,” music significantly sweetens the edge of that boundary work in the context of music encounters. Musical boundary work opens territories, ambiguous zones, and creative pre-figurations of self and emergent collective belonging in and across bodies and imaginations. Kun (2005) has referred to these emerging musical lands as “almost places” that make a form of citizenship out of strangeness, between “strangers who listen and listeners who are strange” (p. 14). This kind of strategic ambiguity serves the goal of solidaristic movements by supplying interpretive latitudes and wiggle room for affiliative variances. Byerly (2013) observes:

Music's complexity allows for innumerable blatant or subtle messages or tracks to be laid, like polyphonic themes of commentary within a single composition, and its audiences (whether in solidarity, or in opposition) are in the position to interpret innumerable meanings from the works, whether the musicians want to explicitly commit their intention or not. (p. 235)

As they are articulated, circulated, and transduced, the winds of musical movements have the capacity to shape shift the sands of political bodies and forms. Born and Hesmondalgh (2000) observe that "it is precisely music's extraordinary powers of imaginary evocation of identity and of cross-cultural and intersubjective empathy that render it a primary means of both marking and transforming individual and collective identities" (p. 32). The uncertainties of the posthuman convergence demand a deeper exploration of the edges, limits, and potency of this transformative capacity.

* * *

Musical forms offer a sonic buffer or shared experimental field of affective exchange wherein differences are held in suspension and emulsified into temporary but potent political (in)solidarities. This can offer advantages in the context of social movements and in the theatre of protest where the convergence of diverse coalitions and individuals can produce ideological frictions and coalitional fragilities within the space of performative resistance. Music builds boundaries. Music breaks boundaries. Music fuzzes boundaries out into unintelligible hash. But, most importantly music *plays* with boundaries, *and* provides openings through them.

The boundary transiting and translating capacities of music can be attributed to several ontological factors, including the material force of its affect-tiles, its extra-linguistic intensities bursting with ambiguity and polysemous possibilities, its thirsts for response, its transductive seduction of listeners and audiences, its fundamentally relational nature. Music *is* an opening, one that links bodies by providing enthymematic invitations for affective transductions. This (coincidentally?) echoes the definition of an “assemblage,” which Tsing (2021) describes as “open ended gatherings,” which “allow us to ask about communal effects without assuming them. They show us potential histories in the making” (p. 022)

Through poetic and sympoetic provocations, the enthymematic qualities of music offer both escapes from and inducements to identity. Space allows for play. Play increases affective capacities. Increased capacities to affect and be affected allow for aggregations of the affected. Openness is the prerequisite here. Without gaps, there are no leaps. Without space, there is no resonance. Without leaps or resonances, there is no possibility for connection, and no epiphanies. The unstated, understated, and unfinished quality of musical forms enables enthymemes, which enables transduction, which enables becoming-with. The musical event provides the plane of encounter where openness is rendered into linkages, linkages into assemblages, and so on.

Solidarity is a territorializing concept. But transversal approaches operate through a logic of emergence, and through processes of deterritorialization that open conceptual frameworks, channels of listening and attuning. Becoming-with is contingent on this openness. Openness is thus a normative value, or an expression of “the effective

condition of collective change (open-ended belonging)” (Massumi, 2002, p. 77), and a dimension of music that resonates powerfully within a relational and process ontology. The point of more-than-human musical intervention, then, is not to construct some sense of closed and unitary identity or an abstract imaginary sense of oneness, but to “to see the *inter-relation* human/animal as constitutive of the identity of *each*” (p. 78). That means that in the context of the human/non-human continuum, relationality “needs to be explored as an open experiment, not as a foregone moral conclusion about allegedly universal values or qualities. . . Intensive spaces of becoming have to be opened and, more importantly, to be kept open” (Braidotti, 2013, pp. 78-80).

Ch. 8: Ec((h))o Locations: Posthuman Knowledge and Music as More-Than-Human

Cartography

“Knowing is the key to caring, and with caring there is hope that people will be motivated to take positive actions. They might not care even if they know, but they can’t care if they are unaware.” – Sylvia A. Earle (2009) *The World Is Blue*

Renowned oceanographer Sylvia Earle, who at the age of 86 continues to pull off approximately 300 speaking engagements a year, argues that the fate of humanity is inextricably linked to the health of Earth’s oceans. This linked fate underscores a responsibility to study, amplify, make known, and collectively protect the linkages that sustain Life. The composition of more-than-human alliances is contingent on our capacity to make these imperiled linkages known, a task that posthuman knowledge practices—which bridge scientific, technological, and artistic methods—bring an abundance of resources too. Livable posthuman futures ultimately turn on our capacity and willingness to cultivate and deploy more-than-human knowledge and literacies. I believe this shift entails—among other habits—practices of attunement, deep listening, storytelling, musicking, and other sonic technologies that account for and attend to the dying and emergent more-than-human world we inhabit and depend on.

In this chapter, I entangle a critical posthumanist epistemology with music theory (and extra-musical musings) through the figure of ec((h))o locations, to amplify the sympathetic resonances between them and theorize musicking as both a mode of posthuman knowledge production and ecosocial intervention. As a diffractive technology, ec((h))o locations perform complex cartographies of more-than-human

relations, and thus make valuable contributions to the contours of posthuman soundscapes. I argue that these mappings represent a form of “strategic transversalism,” which affords modes of articulating coalitions beyond the strategic essentialist—strategic universalist binary. Transversal practices cut pathways to connection that bypass appeals to “essence” or abstract universals through attunement, communicative engagement, and commitment to understanding, respecting, and empathetically attending to difference. This approach offers a valuable ethical framework for cultivation and care of immanent relations within and across the differences that constitute more-than-human assemblages.

Ec((h)o locations index diffractive knowledge practices that situate decaying and emergent definitions of the human within the rhythms, reverberations, harmonies, dissonances, and strange feedback loops of more-than-human ecologies. These cross fertilizations are strongly suggestive of music’s capacity to de/reterritorialize habits of knowing, thinking, feeling, being, and listening in the world, making it a valuable epistemological resource for the development of a more-than-human musical praxis. Music, like writing, can serve epistemologically as a tool that enlivens, affirms, and circulates the critical intensities of more-than-human interdependencies and relations. Music resonates and enlivens critical posthumanism’s focus on materiality, experimentation, interdisciplinary cross fertilization, and a-signifying modes of affecting and being affected in the world. I argue, therefore, that musical practices and sound technologies offer modes of musical praxes that support, amplify, and extend our capacities to sense, feel, and orient affective energies and collectivistic actions toward the more-than-human world in fundamentally relational terms. From this perspective, this

project responds to the critical posthumanist call to cultivate cartographic techniques and technologies that account for transversal more-than-human connections and alliances.

I begin this chapter by briefly outlining Braidotti's approach to posthuman knowledge production, indicating opportunities to more deeply theorize the role of music to guide and enrich the work of more-than-human oriented music practitioners. I then track the transversal movements of posthuman cartographies as they "root and shift" within the creative tension between critical feminist standpoints and transdisciplinary nomadic migrations. This is followed up by an exploration of music's epistemological capacities to "root and shift" bodies and imaginations across the subjective, social, and ecological scales of co-becoming presented in Guattari's (2000) three ecologies approach. I conclude by examining a number of musical experiments that exemplify this mode of musical more-than-human cartography. But first, a clarification about "echoes" and "locations" is needed.

Ec(h)o "Location" as Transversal Cartographical Practice

My use of "echoes" indexes the diffractive nature of sound and music as an epistemological resource and mode of (de)composing transversal, ecosocial understandings and response-abilities in the context of natureculture shocks and climate catastrophes. Echoes are informative of absences, presences, trajectories, and resonances of bodies, assemblages of bodies, and the affects they afford in a given space. Echoes show up in Massumi's (2002) work as a metaphor to understand the productive role of paradox in epistemological practices. Paradox functions similarly to an echo, which is neither here nor there, but rather travels and hangs in the reverberations of in-between

spaces. Paradox, thus, functions as a means of emulsifying, or holding binaries in productive suspensions by (re/dis)orienting relationships and associations through repetitions, leaps, and evocative durations. When used methodologically, paradox can “put vagueness in play,” and generate “a well-formed logical operator. Thought and language bend to it like light in the vicinity of a superdense heavenly body” (Massumi, 2002, p. 13). The allowances of contradiction and complexity that paradox offers opens post-dualist possibilities of meaning and affective intra-action, amplifying the value of conceptual interplay that is a hallmark of interdisciplinary nomadism and posthumanist semio-material experimentation. I theorize the effects of ec((h))o locations to include the embodied exploration of becoming animal and machine simultaneously in the space of musical encounters. I situate ec((h))o locations amongst a cadre of productive epistemological paradoxes, as a figure that puts notions of stillness (locations) and movement (sound) “in play” to amplify the “rooting and shifting” dance of more-than-human elements as they bounce, ricochet, and intra-act within and across the soundscapes of any given material-semiotic assemblage.

My use of “locations” oscillates between spatial, temporal, geographical, socio-cultural, political, and emergent uses of the term. Within these variances, I root to and shift away from material feminist uses of “location” where it is leveraged to analyze history, power, social position, and dominant epistemological systems (Barad, 2007; Haraway, 1988; Harding, 2008, 2018; Collins, 1990). Invoking a politics of location in a critical posthuman paradigm holds in productive tension the embodied reverberations of

history with processes of becoming-animal, becoming-machine, and becoming more-than-human. Braidotti (2006) references these tensions in her definition of “location”:

A location is an embedded and embodied memory: it is a set of counter-memories, which are activated by the resisting thinker against the grain of the dominant representations of subjectivity. A location is a materialist temporal and spatial site of co-production of the subject, and thus anything but an instance of relativism. The politics of location, or situated knowledges, rests on process ontology to posit the primacy of relations over substances. (p. 199)

Critical posthumanism diffracts epistemology through a process ontology framework, which situates knowledge production at embodied and evolving intersections of history, materiality, and the performative redefinitions of political subjectivities. Bodies of knowledge are in flux, emergent, and at play, but unfold in relation to matrices of power and historical conditions, which include the history of nature as it is “written,” rhythmical, and sung out loud in the material and affective languages of more-than-human landscapes.

Ec((h))ho locations listen out, and bring-into-composition with the intention of locating (de)composing figures of the human as they sediment, slide, and slip through layers of socio-ecological assemblages. Accounts of these more-than-human geographies are a vital component of posthuman knowledge practices. For Haraway (2017), cartographies enact a form of memory work that transforms a sense of loss in a ritual “giving-with.” Grief *is* a location, and a path to understanding processes of entanglement that include the shared experience of life and death; human beings must grieve with,

because we are deeply embedded and implicated in this fabric of becoming and coming-undone, and without sustained remembrance, we cannot learn to live-with. For Tsing (2014), locations are produced through careful posthuman cartographies and “critical descriptions,” which leverage the “art of noticing” to attune to and unpack the transversal sociality of more-than-human landscapes. This kind of deep ecological engagement thickens our understanding of human-more-than-human social entanglements and expands circumferences of care beyond conventional spheres of humanist and anthropocentric frameworks.

Posthuman Knowledge and/as Strategic Transversalism

More-than-human cartographies underscore medianaturecultures (Braidotti, 2016a) as locations of becoming and the coming-undone of more-than-human landscapes (and soundscapes). The Internet, for example, has radically changed our relationship to knowledge (i.e., how it is stored, shared, accessed, commodified, etc.), and thus, our relationship to one another and to the world. These technologically mediated understandings contribute to an emergent and growing body of epistemological terrain Braidotti (2019) refers to as posthuman knowledge. Posthuman knowledge marshals and synthesizes—while remaining critical of—a wide spectrum of epistemological approaches found in the sciences, the arts, philosophy, critical theory, narrative methodology, and other fields to construct a more egalitarian world in radically relational and more-than-human terms. The point, Braidotti (2014) argues is “the quest for creativity, in the form of experimenting with the immersion of one’s sensibility in the field of forces – formatted as by music, colour, sound, light, speed, temperature,

intensity” (Braidotti. 2014, p. 172). Critical posthumanist projects channel collaborative knowledge production and other modes of creative more-than-human resistance to counter forms of individualistic ideologies, micro-fascisms, and lacunae of empathy held in place by anthropocentric thoughts and habits.

As both a response to and product of the posthuman convergence, posthuman knowledge marks a qualitative shift in knowing (Braidotti, 2019). Scholars working in this field avail themselves of contemporary technologies and pedagogical techniques to maximize scientific, intellectual, and artistic creativity while channeling energy into the production of generative crossings, transpositional ventures, and collaborative spaces within and in excess of established disciplinary terrain. Boundaries and borders are played with, across, and beyond as conceptual gymnastics provoke and respond to social, cultural, political, and institutional tectonic slippages. For Braidotti, (2013), the posthuman convergence “is the coming into focus of new conditions for knowledge production and consequently new relational encounters” (p. 68) based on an enlarged sense of intellectual responsibility and “culture of mutual respect” (p. 157). These responsible and respectful experiments slip in, out, and between sensorial encounters and epistemological flows of becoming toward the always incomplete goal of becoming more-than. Bignall and Braidotti (2019) describe this confluence of communication systems and forces as “an epistemological framework for supporting the elaboration of alternative values and new codes of inter-relation that extend beyond human influence and cognizance, but do not discount it” (p. 2). The posthuman convergence offers alternative modes of knowing outside of those proliferating within the accelerations of

cognitive capitalism and its monetization of knowledge work and is “producing a qualitative leap in new directions” (Braidotti, 2019, p. 4). Posthuman knowledge, and the interdisciplinary and intermodal experimentation it entails, produces more-than-human accounts of histories, presents, and futures to generate apprenticeships of care and practices of stewardship of the more-than-human assemblages we are a part of.

Shedding the mythological skin of individualism, the posthuman subject is reconjoined in multiple overlapping assemblages through transversal knowledge practices, which augment the subject’s relational and collaborative capacities. Posthuman knowledge, like transversal political strategies, valorizes emergence, and a process ontology orients its attention to the growing edges and rhythms of becoming-with. Knowing the world is thus wed to an ethical obligation to create a multiplicity of worlds-to-be: “critical thought cannot stop at the critique of the actual—that is to say of what we are and are ceasing to be—but needs to move on to the creative actualization of the virtual—that is to say of what we are in the process of becoming. Critique and creativity work in tandem towards the same goals” (Braidotti, 2013, p. 65). In other words, more-than-human alliances are formed not (solely) through process of negation deconstruction, and movement away from oppressive systems, but through generative practices that affirm what is moved towards. Braidotti (2019) argues that “a” people is never a given but must be made: “A people is always missing and virtual, in that it needs to be actualized and assembled. It is the result of praxis, a collective engagement to produce different assemblages” (Braidotti, 2019, p. 52). I believe music can enrich these generative posthumanist cartographic practices by registering, recording, reanimating,

and reimagining the refrains, decays, tonalities, resonances, strange feedback loops, and diffractive contours of more-than-human landscapes. As I demonstrate below, it is within the wobble and woof of these deep *listenings* where the music of a “missing people” emerges, as well as some of the musical strategies that may engender and accelerate the oscillations of (in)solidarity between them.

Posthuman epistemologies are marked by an ambivalent relationship to the sciences. On the one hand, critical posthumanism is highly critical of the sciences where they have historically underwritten the othering-processes of racialization, sexualization, and naturalization (Braidotti, 2013; Wolfe, 2010). These processes are linked to the notion of binary oppositions, which got a foothold in Western thought through the ancient Greeks and their system of logic founded on the law on non-contradiction (Mignolo & Walsh, 2018). This method of knowing advanced by drawing hard lines between this and not this, that and not that. Non-contradiction offered a systematic methodology to sort the world into knowable bits and sub-parts, one division at a time. This came in handy when efforts to delineate human/nonhuman spheres, ways of being, and rights went into overdrive during the Enlightenment, at which time binary thought became weaponized as a tool of epistemic imperialism. The sciences subsequently accelerated the burgeoning project of Modernity by propagating an assortment of myths that legitimized the division and subjugation of ontological “others” and propelled the spread of European colonization and Western imperialism (Federici, 1995; Wynter, 2003).

A rationality of dialectical otherness, according to Shiva (1997) continues to inform practices of imperialism today, through forms of bio-piracy, where “the bodies of

the empirical subjects who signify difference (woman/native/earth or natural others) have become the disposable bodies of the global economy” (p. 111). Posthuman knowledge practices take a firm stand against these (mis)applications of scientific methods and seek to actively demobilize the harmful trajectories of these myths by denaturalizing normative conceptualizations of the “human” and other dualistic hierarchies of “otherness,” and by thinking subjectivity in terms of radical intersubjectivity, interdependency, and processes of becoming-with in a natureculture continuum. The critique of binary thought is thus tied directly to, among other things, the goal of disrupting epistemic imperialism.

On the other hand, science continues to play an important role in the understanding of planetary systems and relations and is invited into processes of posthuman experimentation with knowing. But not all forms of scientific inquiry are held equally. Braidotti (2019) suggests that posthuman knowledge belongs under the rubric of what DeLanda (2016) terms minoritarian sciences, which are assemblages of knowledge practices that are “more autonomous, radically and potentially subversive, and develop through an expansion of less official and often non-institutionalized practices and discourses” (Braidotti, 2019, p. 115). Knowledge constructed within these minoritarian assemblages are perspectivist (or “situated”), non-profit, and aimed at sustainable solutions informed by postcolonial, ecofeminist, and other ethical epistemological perspectives. Minoritarian sciences are contrasted with the “Royal Sciences,” or what Deleuze and Guattari (1994) have termed “Major science,” which is—echoing a Comtean mindset—prepossessed with completing the puzzle of “reality”

through the discovery and establishment of immutable Laws. In the situated and post-dualist minoritarian approach, “The virtual and intensive becoming supplants the ruling principle of resemblance, identity, analogy and opposition” (Braidotti, 2019, p. 126). To be sure, there is no hard and fast line dividing minoritarian and Major science, and there is indeed quite a bit of crossover. But they represent identifiable tendencies found in the scientific community that posthuman knowledge practitioners remain aware of.

The efforts to build knowledge that breaks loose from imperialistic traditions are aided through additional affirmative moves. This includes engagement with an increasing assortment of “studies” and specialized scholarly fields that emerged in the wake of the 70s liberation movements (i.e., “Women’s Studies,” “African Studies,” “Animal Studies,” “Jazz Studies,” “Chicano Studies,” etc.), which offer interdisciplinary accounts of differentially situated groups and phenomena that continue to offer important and epistemologically layered alternatives to (and critiques of) humanism: While they have been historically underrepresented in Western humanities, many of these areas continue to deterritorialize knowledge systems through their self-liberation *within* the humanities, and continue to open up discursive space that reclaims and expands definitions of what qualifies as “human” for marginalized groups. While often precariously situated in university systems, their marginal status offers advantages in the form of greater autonomy, canonical fluidity, and decreased likelihood of chase or capture by the coopting forces of cognitive capitalism (Braidotti, 2019).

Importantly, posthuman knowledge dislodges itself from the hegemony of Western science and liberal humanism while remaining open to the possibilities of

insurrectionist activities within these territories. Take for example the recent “scientist rebellion,” where scientists chain their bodies to the entry ways of banks and other backers of fossil fuel projects to call mainstream attention to the issue of climate change (Freedman, 2022). Scientific knowledge is not only not-innocent (Haraway, 1988), it has a powerful capacity to be non-neutral (Latour, 2017), a trend that is both invited and supported through posthuman interventions that perform additional epistemological moves. These include strategic oscillations between vital materialist frameworks, feminist standpoint epistemologies, and nomadic interdisciplinary migrations, a feature of critical posthuman knowledge production I explore in greater detail next.

Composing Views From Somewhere: Feminist Standpoints ↔ Nomadic

Movements

Feminist standpoint epistemology is a valuable resource and orientation in the development of posthuman knowledge and more-than-human-literacies. Feminist standpoint epistemology challenges the positivist ideas of Truth and objectivity in knowledge by legitimizing and reasserting knowledge from embodied and situated positionalities, especially those sidelined to the edges of dominant ideologies and systems (Collins, 1990; Harding, 1991, 1993; Haraway, 1991, 1988; Hartstock, 1983; Smith, 1990). A monist framework of Spinozist material immanence supports and deepens the turn to embodiment by rupturing constructivist binaries and grounding messily into corporeal politics and a nature-culture continuum so as to resist oppressive “fantasies of disembodiment” (Wolfe, 2010, p. xv).

Feminist standpoint theory can be traced back to the writings of Hegel (1941), and ambivalent rearticulations of his master—slave relationship by feminist theorists to explain the marginality, and perceived less-than-human status of women (Hartstock, 1983; Harding, 1993). Advocates of this approach question the putative neutrality of knowledge claims in Western science as “a rhetorical move which has historically benefitted those who claimed it” (Ferrando, 2019, p. 152), and push for critical interrogations of methodologies that perform the “god trick” (Haraway, 1988) of producing miraculously objective and bias-free pictures of Reality. As a philosophical space that celebrates the materiality of embodiment alongside the shedding of false binaries and dead cultural skins, many feminist thinkers have found libratory refuge in posthumanism, molding materiality into new visions of membership and belonging that span a diverse array of creative, empathetic, and strange alliances across the human-more-than-human nexus (Halberstam & Livingston, 1995; Balsamo, 1996; Gifney & Hird, 2008; Livingston & Puar, 2008).

While standpoint feminist theory demystifies notions of science as objective or value-free, it also legitimizes and amplifies empirical perspectives in the margins. Those who have had to learn to navigate and survive on the fringes are considered to carry with them an expanded understanding of the social structures that perpetuate the conditions of dominance and oppression. Attunements to embodied, emplaced, and diversely situated perspectives sidesteps the issue of relativism and opens possibilities for the merging of insights, tangible alliances, and “partial, locatable, critical knowledges sustaining the possibility of webs of connections called solidarity in politics and shared conversations in

epistemology” (Haraway, 1988, p. 584). Standpoint feminists activate these solidaristic potentials by linking the personal to the political, raising consciousness through dialogue, and making explicit the links between history and unethical systems, such as the link between the father of statistics, Ronald Fisher, to the rise of race science (Harding, 2008).

Standpoints offer not only insights into the historical experiences of the oppressed, but visions of the future. Stoetzler and Yuval-Davis (2002) channel the lessons of standpoint feminism into the notion a standpoint imagination, arguing that it is not only empirical claims to “reality” that are affected by positionality, but the imagination itself: “Our imaginary horizons are affected by the positioning of our gaze” (p. 327). This insight is described in a manner that echoes Spinozist thought where Stoetzler and Yuval-Davis (2002) explain, “Although it is important analytically to distinguish between knowledge and imagining, intellect and imagination, these terms do not refer to clearly separate faculties or ‘spheres’, but merely to dialogical moments in a multidimensional mental process” (p. 326). They argue that imagination, too, is situated and must be reclaimed as a legitimate base for being, knowing, and transforming the world. Importantly, situated imaginations are presented as an important counterforce to the hegemony of a “social imagination,” which can constrain the ways humans imagine and transform their relationship to the natural world:

Differing notions of what can and cannot be done are so rooted in the ‘deeper’ realms of the ‘social imaginary’ that rational debate (almost any current example will do: how to organize the relations between humans and nature, between

humans and humans, men and women, old and young, and so on) regularly hits on rock solid limit lines. (Stoetzler and Yuval-Davis, 2002, p. 326)

Standpoint imaginations, by virtue of their locations of the fringes, envision otherwise, and can offer an unsticking force that pushes the capacities of others to envision differently, ecologically, transversally. But the notion of standpoint imagination, I would argue, also implicates the limitations of human embodiment and the situatedness of *Anthropos*. How the residues of anthropocentrism and species supremacy constrain capacities to imagine in more-than-human terms is an important question, but one that posthuman knowledge practices take on through nomadic departures, dialoguing with difference, and other defamiliarizing strategies that represent the “shifting” dimension of transversalism’s rooting and shifting.

Braidotti (2019) considers strands of feminist philosophical tradition as significant and primary tributaries to her approach. These interventions have helped to “replaced discriminatory unitary categories, based on Eurocentric, masculinist, anthropocentric and heteronormative assumptions, with robust alternatives” (Braidotti, 2019, p. 48). The concepts and methods used to enact a standpoint epistemology and intersectional approaches inform critical posthuman analyses and praxis of these defective schemata and can similarly sensitize practices of perspective taking to the realm of more-than-human systems.

Cultivating more-than-human literacies entails, among other tasks, the decentering of anthropocentric perspectives. This goal, which could be considered in terms of a more-than-human standpoint, is approached differently by posthuman theorists

and is not without its challenges and risks. Given its status as liminal, moving, and emergent assemblage (within assemblage), what “standpoint” or “location” could the more-than-human be said to inhabit? Would we recognize it if we saw it, heard it, or attempted to music it? Ferrando (2019) describes approaches to more-than-human perspective taking as:

taking into consideration the existence of other species, their needs, their habits, and their co-evolution, in relation to our species and all the other species. It means hearing their messages, which may not be verbal or intellective, but they are still very clear. For instance, the massive sound of nonhuman animals displaced by deforestation and industrialization should be heard and fully acknowledged.

(Ferrando, 2019, p. 153)

Here, the affect-tiles of sound offer an epistemological resource or point of entry into the experiences of nonhumans. Standpoint imaginations draw information from sensorial fields into transductive processes that enable judgments regarding pain, suffering, and injustice with regard to the more-than-human landscape. The posthuman ear opens analysis to audible oppressions as they implicate more-than-human bodies, which enhances our “response-abilities” (Haraway, 2016) to intervene in practices of domination as they implicate a “multispecies justice” (Haraway, 2016), or the “carrying meanings and material across kinds in order to infect processes and practices that might yet ignite epidemics of multispecies recuperation” (p. 14). It is in the modalities of sound where some of most compelling empirical evidence of more-than-human suffering

enhances the work of vibrational alliances and the affective attunements of posthumanist musical activists.

This feature of sonic modalities highlights music's capacity to galvanize change is strongly linked to its affective dimensions (Moisala et al., 2017; Pratt, 1990; Rosenthal & Flacks, 2015; Street, 2012). But this strength is also related to its capacity to spread information, knowledge, and experience from a location. Music is epistemological because it is perspectival (Sterne, 2003). We perform and listen to music from cultural, biological, and geographical locations within intersecting planes of aural diversities (Thompson, 2019). These layers uniquely situate our experiences of the vibrational, harmonic, and lyrical dimensions, as well as the socio-cultural associations that music offers. Drawing from Bourdieu's *habitus*, Sterne (2003) explains that how we listen has been historically conditioned within aural matrices of power and racialized value systems.

Stoever (2016) draws explicit attention to these systems through what he terms a "racial line" in sonic spaces, arguing that racialized listening practices helped to reinforce notions of a black/white racial duality through "processes enabling some listeners to hear themselves as 'normal' citizens—or, to use legal discourse, 'reasonable'—while compelling Others to understand their sonic production and consumption—and therefore themselves—as aberrant" (p. 14). Cultivating critical reflexivity around the ways our listening practices are socially, culturally, and historically conditioned enables a transformation of our relationships and is fundamental for "the development of new ways of being in the world and for foraging cross-racial solidarities capable of dismantling the

sonic color line and the racialized listening practices enabling and enabled by it” (Stoever, 2016, p. 20). In the context of socialization processes, it is worth considering how a “species line” is given form and reinforced through sonic modalities. Then, how a posthuman ear might afford greater attunements to the resonances of pejorative othering that bundles racial, sex, gender, and species lines together, and thus prohibits the emergence of more-than-human solidarities or the cultivation of ways of being more-than-human. These strange, uncomfortable, and traitorous propositions are unpacked with greater care below.

Feminist standpoint frameworks work through critical posthumanism to hold the process of knowledge production accountable to a complex array of heterogenous positionalities and forces of the imagination. Practices of composing views (and soundscapes) from somewhere enacts an ethics of standpoint feminism through “embodied and embedded accounts of the multilayered and complex relations of power that structure our ‘being human’” as well as “the webs of power relations we are all entangled in” (Braidotti, 2016b, p. 15). The ethical recalibrations of the sciences that a feminist approach enacts can also devote attunements to more-than-human worlds and consider the effects of knowledge practices from the vantage point of those most negatively impacted by them. A primary goal of posthuman thought is to trace the different trajectories and velocities of becoming-with that disrupt familiar and sedimented notions of the “human,” a task that promotes pluralistic frameworks of posthuman positionalities and subjectivities “as transversal, trans-species, trans-sexes. In short, it is a subject in movement” (Braidotti, 2019, p. 72). Thus, the “rootings” generated through

standpoint analysis must at some point also take flight. These productive migrations can be understood through the “shiftings” provided through nomadic thought.

Deterritorialization and the Nomad: Rethinking Disciplinarian Knowledge, Reconfiguring Transversal Worlds

While critical posthumanism attends to locations, it is not bound by them: rooting is iteratively bound to practices of shifting. Critical posthuman knowledge intervenes in dominant epistemological methodologies through an array of on-the-move cartographic practices that provoke and promote sudden departures, mutations, cross-pollinations, and generative (up)rootings. The ground of knowledge is turned through strategies of defamiliarization that can provoke the “pain of disengagement” (Braidotti, 2016b, p. 16), as well as cognitive and affective growth as familiar and stable anthropocentric frameworks are pulled out from underneath the unwitting *Anthropos*.

Through its divestments from the creature comforts that the figure of *Anthropos* affords, nomadism displaces notions of species supremacy and takes nomadic “line of flight” from hierarchal, linear, and anthropocentric forms of knowledge construction. The zigzag of these lines can be understood through the Deleuze-Guattarian (1988) figure of the rhizome, which are decentering, eschew pre-established pathways, and can make or breaks connections at any point. This approach is contrasted with the arborescent figure of the tree, which presents hierarchal, linear, logical, and stationary pictures of reality. The line separating rhizomes and trees is porous, as “there are knots of aborescence in rhizomes and rhizomatic offshoots in roots” (Deleuze & Guattari, 1988, p. 20). But rhizomes—emphasizing processes over structures—offer a valuable heuristic in

thinking through the relationship between ways of knowing and ways of being in a political context, and thus double as a model for decentered, emergent, and collectivist actions.

An important point of nomadism, as Wolfe (2010) has noted, is not to ignore or even undermine disciplinary thought but to provoke and tap the many productive tensions between them. Thus, the task of the nomad becomes learning to fruitfully navigate the overlapping fields and inter-territorial frictions that mark disciplinary boundaries. By developing new pathways and agility of thought we can expedite our capacity to construct knowledge that actually *leverages the fact that knowledge is itself constructed*. Nomadic thought banks on this idea.

This idea is an idea readily transposable to the realm of music: rhizomatic and arborescent modes of knowledge have musical corollaries. Deleuze and Guattari (1988) equate arborescent musics with Western tonal systems, and their prescribed and logical melodic relationships and harmonic progressions. This stands in contrast to the “generalized chromaticism” of rhizomes, which unfurl through non-linear forms of improvisation, indeterminant keys and chord structures, and “continuous variation” (Deleuze & Guattari, 1988, p. 59). Proliferating multiplicity, as the posthuman ear might hear it, is a practice of (de)composition, a breaking down, scattering, and redistributing of the diatonic—or, tonally agreeable elements of extant epistemological systems.

I hear sympathetic resonances of the rhizome’s (de)compositional effects across other lineages of epistemic recalcitrance, including Bachelard’s (1938/1986) “epistemic rupture,” Foucault’s (2005) “epistemic break,” and Mignolo’s (2011) “epistemic

disobedience.” All of these approaches entail a process of departure and unlearning. But critical posthuman modes of epistemic decolonization supplement emphases on linguistic signification with materialist “experiments with intensity” (Braidotti, 2013), an important difference that links more-than-human modes of storytelling, speculative fabulation, and neologistic word play with other material means of locomotion—across modalities of communication, temporal and geographic scales, ontological typologies, categories of being (and becoming), and the fields of affective intra-actions that constitute their common plane of material immanence. Interdisciplinary “zigzagging” (Braidotti, 2013) that traverses the convolutions, coevolutions, and contaminations of more-than-human landscapes through ruptures from social scientific methodological norms and edicts is held as an ethical imperative that reorients us to the world as an always already posthuman one.

The methodologies of defamiliarization, nomadism, and performative cartographies put into epistemological practice the concept of transversalism (der Tuin & Dolphijn, 2010). These strategies support the (upward, downward, and sideways) mobility of thought to think in-between, across, and beyond well-ordered (and often heavily enforced) intellectual borders by transgressing walls of disciplinary, conceptual, and linguistic enclosure. Through these migrations, posthuman cartographies support transversal alliances through creative modes of knowledge production that evoke, provoke, and promote cognitive, affective, and material linkages between (more-than-human) bodies, assemblages, and flows. Braidotti (2019) notes that creativity “is the transversal force by definition” as it “reconnects to the virtual totality of a block of past

experiences and affects, allowing them to get recomposed as action in the present, thereby realizing their unfulfilled potential” (Braidotti, 2019, p. 66).

Transversalism represents a generative practice of dialogue that moves between efforts to comprehend particular standpoints, practices of perspective taking and imagining what is possible for the future, while never losing touch of either. Paradoxically, it is a *movement* that is also grounded. This approach addresses some of the issues Clifford (1992) raises in his discussion of travelling cultures as encountering the “(u)nresolved historical dialogues between continuity and disruption, essence and positionality, homogeneity and difference (cross cutting ‘us’ and ‘them’)” that are often “inseparable from specific, often violent, histories of economic, political, and cultural interaction” (p. 108). These encounters produce what Clifford terms “discrepant cosmopolitanism,” which must negotiate “the excessive localism of particularist cultural relativism, as well as the overly global vision of a capitalist or technocratic monoculture” (Clifford, 1992, p. 108). In transversal politics, these discrepancies—while not resolved—are leveraged into points of engagement. Yuval-Davis (1997) argues, “perceived unity and homogeneity are replaced by dialogues which give recognition to the specific positionings of those who participate in them as well as to the ‘unfinished knowledge’ that each situated positioning can offer” (p. 131).

This understanding resonates loudly with Braidotti’s concept of nomadic transpositions, which centers difference as the axis around which exploration, experience, and empathy is composed and expressed. To transpose in a musical sense is to slide between keys. In a space of nomadic migrations, it entails the introduction of difference,

disagreement, or divergence into a plane of harmonic agreeance, to provoke “generative cross-pollination and hybrid interconnections” (Braidotti, 2019, p. 124). This shift works textually in Braidotti’s work where the juxtaposition of ideas, concepts, or theories introduces an interplay of similarities and differences, producing an altogether new set of overtones that sounds out still new directions for nomadic thought to travel. The lesson taught through these practices is that non-identical modes of thinking and being can still walk together as traveling companions leading us not towards practices of negation, or to the location of a singular truth, but across a multiplicity of tonal centers and affective encounters with the capacity to transform all those willing to travel together. Ultimately (and importantly for the cultivation of more-than-human solidarities), transpositions of thought are key to the defamiliarization of stable categories of “Life” into the open-ended and process-dependent registers of “*zoe*,” that level an egalitarian playing field that Braidotti suggests is inclusive and considerate of all living matter.

A key transpositional strategy in the posthuman and new materialist playbook is the use of art. Art offers more-than-human intervention through the deconstruction of humanistic frameworks founded on the primacy of language and systems of signification (Chambers, 2001). Braidotti (2013) argues that art is “necessarily inhuman” in the way it can transpose us “beyond the confines of bound identities” and connect us to “the animal the vegetable, earthy and planetary forces that surround us,” and is thus “cosmic in its resonance and hence posthuman in its structure, as it carries us to the limits of what our embodied selves can do or endure” (p. 107). In transgressing the line of non/sense, art plays with affordances of interpretation and affect to evince the thin and fragile

demarcations between crude materiality and (dis)orders of human-centric signification within an encounter. “For in exceeding ordained meaning,” Chambers (2001) points out, “the work of art reveals not so much a distinctive ‘message’ as the sense that it is ultimately a non-sense, a refusal to cohere that opens on to that void which resists rationalization; onto that void where immediate meaning is in abeyance, suspended, silent” (p. 4). For the emerging more-than-human literate, these experiments can beckon the senses beyond humanist frameworks, or rather, short-circuit the logics that undergird them, and in the process provide glimpses, gleanings, and diffractive encounters with more-than-human ways of knowing.

Haraway (2016), a strong advocate of “art-science worldings,” demonstrates these diffractive methods of revealing otherwise by weaving together science fact and science fiction into not-hopeless visions of the future. These nomadic fabulations foreground sympoesis, or the becoming-with other tentacled, earth-bound, “chthonic” ones, and reconfirm both the nihilism of individualist mythologies and the possibilities for planetary recovery through communities built between “odd-kin” on radical and non-harmonious interdependencies. She takes particular inspiration from the earthy cycles of decomposition found in the microbial universes of the soil, declaring allegiance and defecting to their ways: “I am compostist, not a post-humanist” (Haraway, 2016, p. 97). These organic processes of recycling, reclamation, and orchestration of the microscopic ancients, serve as an artistic transposition that shifts thoughts of despair toward rehabilitation of a planet still showing some signs of functioning and health.

Similarly, Parikka (2019) makes artistic posthuman interventions through the showcasing of projects at particular geographic locations that link more-than-human questions to the viability of planetary systems. Staged at the messy and situated intersections of human and nonhuman activity, his “localities” promote ecological consciousness raising by showcasing posthumanist dilemmas embedded in dysfunctional transversal entanglements. When artists use geographic localities as “entry points” to conversations that implicate multi-species livability on a planetary level, “the local becomes more than its particular situation as self-enclosed entity” (Parikka, 2019, p. 53). When embedded and synchronized with the rhythms of natural landscapes, art mutates our relationship to the temporal, and one “feels through time” (Parikka, 2019, p. 57) the pull and possibility of Earth-bound solidarities.

While art has made a place for itself in the peculiar pantheon of nomadic posthuman strategies, music is both less theorized and less utilized. As an open, affective, and invitational mode of communication, music likewise supports modes of epistemological “rooting and shifting” that promotes affirmative engagement with and learning from difference in ways that provisionally emulsifies diverse ontological ways of being. Musical emulsifications therefore constitute a medium through which transversal relations can take shape, find common ground, and forge collaborative entanglements with and for more-than-human landscapes. As I illustrate in the next section, music bridges the sonic and the epistemological in ways that supplement and support the broader array of more-than-human literacies needed to confront the effects of climate change and ecological degradation.

Musicking, Posthuman Knowledge, and the Transversal Nomad

Much like the figure, the nomad is itself fluid, migratory, and recombinatorial. It is an art form that often exceeds categorization, and both promotes and thrives in spaces of temporal, geographic, and stylistic (dis)locations. Music is a traveler, and a blending space of sounds, sensations, spontaneous aural combustions, and ontological collisions. I hear many sympathetic resonances between critical posthumanist epistemological frameworks and modes of musical and extra-musical creativity that call for closer listening, practice, and amplification. In this section, I explore sound, music, and extra-musical phenomena as epistemological resources that can contribute to the development of more-than-human literacies and solidaristic linkages between knowing, feeling, and acting posthuman subjects. I argue that music supports and enlivens the “rooting and shifting” processes integral to nomadic and transversal strategies critical to the production of posthuman knowledge and the formation of more-than-human (in)solidarities. Exploring music as a posthumanist epistemological resource necessitates a closer examination of where sound productively entwines with knowing.

The framework of medianaturecultures (Braidotti, 2016a) points to the complexly integrated relationships between language, knowledge, media, and nature, a phenomenon that many scholars have argued, needs more explaining. For example, Goodale (2011) suggests that attending to music and sound answers the call put forth by Marshall McLuhan and others to repair the “neglect of ear culture” (p. 4). Appreciating knowledge as mediated through material and auditory modes reclaims audile techniques, technologies, media systems as constitutive elements of knowing, being, and becoming.

Schafer (1993) points to “soundscapes” as resources that guide attention toward “sounds that matter” and purposefully resist “those which don’t” (p. 12). Feld’s (2015) notion of “acoustemology” approaches sound as “simultaneously social and material, an experiential nexus of sonic sensation” that valorizes “the relationality of knowledge production” (p. 12). In several easily discernable ways, the mediating relationship between the natural world and knowledge is already ensconced in language: the word “paper” originating from the Egyptian use of papyrus (Weideman & Bayer, 1983), the word “book” deriving from “*bok*,” the Anglo-Saxon word for “beech,” which indexes the history of writing tablets once written on sheets of beech wood (Thomas, 2014), the expression “tree of knowledge,” made famous by Descartes (1984) to account for the deep rooting and branching of knowledge in different specialized directions, and “rhizomes,” those contemporary modes of knowledge production theorized to move between the legs and subvert the immutable knowledge of trees (Deleuze & Guattari, 1987; Shaw, 2015). These intra-connections also underscore some of the material and ecological impacts of knowledge production. Devine (2021) points to the innumerable ways nonhumans have been exploited and served as “supporting casts” of human media systems, noting:

Every system of inscription is tied to a system of extraction. Every discourse network is a resource network. . . Culture and nature, music and environment, do not preexist or happen to one another. They are one another. The challenge is to understand their emulsion. (p. 24)

Through our ongoing efforts to stabilize this view and understand the relationship we have with ourselves, each other, and our environment, Maturana and Varela (1987) suggest “we confront the problem of understanding how our experience—the praxis of our living—is coupled to a surrounding world which appears filled with regularities that are at every instance the result of our biological and social histories” (p. 241). More-than-human literacies carefully consider and recalibrate the relationships between beings, environments, and the cosmos writ large by attuning to the mediated and material bases of sonic knowledge and by tapping the epistemological capacity of medianaturecultures through musical and extra-musical encounters.

My efforts to link music to epistemology and migratory modes of knowing the world in more-than-human terms has a genealogy: I walk in the footsteps and follow the echoes of many other notable theorists. A host of notable zigzagers have made valuable (and foundational) contributors to this heterogenous territory, including Jakob Johann von Uexküll, whose pioneering work in biosemiotics linked the adaptive and interactional dynamics of living organisms to principles of music. The natural world, according to von Uexküll (1926), is replete with meaning, which is not isolated in anthropocentric linguistic or symbolic forms, but rather co-composed in the rhythms, harmonies, and melodies, of organismic *behaviors* and *intra-actions*. Following this position, the role of the biologist overlaps with that of the musical interpretivist and should include attunements to the “landscape’s polyrhythms” (Tsing, 2014), or the musicality of ongoing more-than-human (de)compositions. Planetary life is known and diffracted equally through the terms of symbiotic and symphonic forces.

A similar idea drove pragmatist John Dewey's efforts to reunite art and the everyday, and (re)calibrate practices of knowing through the rhythms of nature. Predating new materialist notions of a *natureculture* by about a half century, Dewey (1934/2005) denotes a seamlessness between art, nature, and the human experience in musical terms, where natural rhythms are "bound up with the conditions of even elementary human subsistence" (p. 153). As a fluid, phenomenological, and disciplinary-transcending phenomenon, Dewey highlights the epistemological potential of rhythm itself, which "is still the tie which holds science and art in kinship" (p. 156). Rhythm and music can put art in science into productive dialogue. Put another way: Art and science rally at the edges of rhythm. But music does not merely record or represent nature in some feeling-centric way. Music—as Stiegler's (1998) notion of *technogenesis* suggests—intervenes in and reinvents ongoing relationships to and with it:

The participation of man in nature's rhythms, a partnership much more intimate than is any observation of them for purposes of knowledge, induced him to impose rhythms on changes where they did not appear. The apportioned reed, the stretched string and taut skin rendered the measures of action conscious through song and dance. (Dewey, 1934/2005, p. 154)

Musicking and musical sensibilities wed the capacity to understand one's milieu through embodied modalities with ways to musically transform and live more vibrantly in it. How might transformative more-than-human solidarities move to, and be moved by these rhythmmed ways of knowing and becoming-with multi-species others?

The work of Gilles Deleuze offers another access point into the epistemological potentials of music. Deleuze (1990) holds music as immanent to life (and vice versa) and regards concepts-in-becoming in terms of an “unvoiced song” (p.163) adding, “on the plane of immanence: multiplicities fill it, singularities connect with one another, processes or becomings unfold, intensities rise and fall” (p. 147). Deleuze’s sporadic exuberance for music as both a subject of analyses and analytical tool (divvied primarily between *A Thousand Plateaus* and *What is Philosophy?*) has inspired multiple volumes of works brimming with authors eager to sensitize and recalibrate musicological approaches to the implications of a Deleuzian framework (Buchanan & Swiboda, 2004; Hulse & Nesbitt, 2010). I do not have space to rehearse the contours of these volumes, but I do regard the refrains of rhizomes, assemblages, emergence, and a Spinozist ontology of immanence contained within them as testimony to their “catalytic validity” (Lather, 1986), their capacity to collapse conventional musicological precepts into a more flexible minoritarian science (Hulse, 2010), and to the heuristic value of a Deleuzian approach toward the development of more-than-human and ec((h))ological musical technologies. Music, to the extent we might understand it to be a theoretically and relationally catalyzing force, can contribute sweet offerings to the more-than-human cause of climate justice. How might musicking offer such generative resources to the work of emergent ecosocial movements?

Music—perhaps above most other expressive forms—is highly mobile and migratory, granting it a potent deterritorializing status. Listened to through the framework of nomadism and methodological zigzagging, musical encounters compose opportunities

to know, feel, and experiment with the as-yet-to-be. These experiments include playing with the materially conjoined plasticity of the imagination-territory-identity nexus, which can engender affective linkages that sneak across the borders of nations, cultures, ethnicities, and other territorialities. Music is, as Corona and Madrid (2007) note, “the perennial undocumented immigrant; it has always moved beyond borders without the required paperwork” (p. 5). Holland (2013) supports this view, likening progressive forms of jazz to “the perfect illustration of nomadism” (p. 75), pointing to their emphasis on playing with musical forms and pushing audiences and musicians outside of comfort zones through reinterpretation, spontaneity, and surprise. These discomforts are generative, and resonate with Deleuzoguattarian practices of de-territorialization, which play across aesthetic, psychological, social, political, and ecological registers, “without imposing unity, identity, or organization” in order to, “improvise with the world” (Holland, 2013, p. 9). Music, like nomadic thought, supports cartographic transpositions that jump “across scales and compositions to find a pitch or shared level of intensity” (Braidotti, 2006, p. 177). This is collective experience, *sans* the prerequisite of collective identity.

The processes of hybridity and creolization that musical encounters can foster sheds important light on the processes of identity (de/re)formation in the aural context of globalization. While unfolding within and affirming certain cultural constraints and norms, music is also capable of transgressing and provoking mutations of those constraints and norms. Stokes (1994) notes that music constitutes an expressive medium wherein social identity and broader social categories may be reinforced or reconfigured,

which means the performance of cultural identity “can never be understood outside the wider power relations in which [it is] embedded” (p. 7). Yet, music—and even popular music, can transgress and challenge the status quo of dominant systems (despite the skepticism and harsh criticism piled on it by Adorno, Marcuse, and other adherents to theories of “massification”). To cite a few examples, Gioia (2019) points out “(p)opular music was the first important sphere in American society to desegregate, and superstar jazz musicians led the way. And they continued to play a key role in the desegregation battles at every step during the years ahead” (p. 351). Over a half century earlier, Fredrick Douglass (2011), who, seeking to galvanize affective solidarities for the Abolitionist movement, implored that greater attention be directed to the “sorrow songs” of slaves, writing, “I have sometimes thought that the mere hearing of those songs would do more to impress some minds with the horrible character of slavery, than the reading of whole volumes of philosophy on the subject could do” (p. 29). The aurally based mattering maps that Douglass, and later W. E. B. Du Bois built around the affective force of “sorrow songs” activated what Cruz (1999) has referred to as ethnosympathy, which not only triggered the attention of whites at a critical historical juncture but put into motion a new tradition of scholarly discourse interested in understanding standpoints of the marginalized through the analysis of cultural artifacts.

Songs themselves function epistemologically by acting as vehicles for the communication and transposition of a people’s historical experiences into different registers of knowledge. In this way, solidarities may be engendered through musical invitations to listen and attempt to understand these histories and experiences. Music is

also one of the key modes through which historical, cultural, racial, and political divisions and traumas are (re)negotiated. Here, the musical episteme folds into ontological fields of becoming in the mobius strips of social transformation. From this perspective, we might appreciate the capacity of music's material affects to alter the conditions for flourishing by drawing out the toxin of certain social constructionist effects from the circulatory systems of social bodies, or perhaps more accurately, to open pathways of knowing other bodies beyond the values and myths inscribed onto them.

Nietzsche (1967b) held music in high epistemological regard for similar reasons, viewing it as a force that “gives the innermost kernel which precedes all forms, or the heart of things,” and placing it above language categories, which he described as “the separated shell of things; thus they are strictly speaking *abstracta*” (p. 102). Many musicologists, once preoccupied with the task of authoritatively categorizing the effects, meanings, and *laws* of music, have had to adapt to this uncomfortable truth in their attempts to circumscribe music through language. Kramer (2003) cautions on the dangers of deploying semantic systems to describe musical utterances, noting, “(t)he typologies and taxonomies, the semiotic grids and diagrams, may have their fascinations, but they have about as much to do with music as the Sunday crossword puzzle with the world news” (p. 8).

The extra-linguistic dimension of musical encounters opens pathways to ontological experimentation within and beyond constructivist categories and essentialisms. Although the social identity labels we ascribe to have performative dimensions—in that they inform the stylistic choices made in the space of musical

performance and the audiences we seek identifications with (Elliot & Silverman, 2017)—and the performative dimensions of identity always involve certain socially constructed norms and constraints (Butler, 1990, 1993)—musicking also provides certain affordances of play and opportunities to resist and (re/de)construct identity in relation to others in a space of intense affective exchange. This perspective is supported by Born and Hesmondhalgh’s (2000) process model, which posits that music transforms, challenges, and helps bring into being emergent sociocultural identities. Moreover, the pleasurable nature of making, sharing, and enjoying music can inject the experience of acute joy into a broader platform of affirmative politics. From this perspective, deviancy is a politically productive move, one that resonates with Glissant’s (1997) “poetics of relation,” which deposits identity (de)formation within the trajectories of ontological “errantry,” where “identity is no longer completely within the root but also in Relation” (p. 18).

Music, dance, and the experiments with intensity they afford creative communities are more than just pleasurable activities; they can be foundational to material shifts in the social fabric and perform the epistemological function of crafting unfinished knowledges. When fashioned into musical practices, the itinerancy of sound “allows for modalities and formations of agency that explicitly unsettles borders; that trespass and that deliver particular knowledges, as well as fantasies and imaginaries, founded on leaving home or nation behind” (Labelle, 2018, p. 19). Such strategies of experimentation must be taken seriously and taken advantage of to escape the rip tide of cultural critiques locked into social constructivist frameworks. Our capacity to “undrown” (Gumbs, 2021) ourselves from the rising waters of climate change may very

well be linked to our capacity to formulate errant identifications beyond civic, social, human, and political frameworks of belonging, and instead with a more-than-human world, a task that musicking—as a practice of nomadic, affective, and pleasurable remodulation of relationships—can help us with. Music’s desegregating work is far from over.

Significant dimensions of popular culture rapidly mutate and produce new breeds of cosmopolitanism through ongoing mashups of musical traditions and other nomadically migrating influences. Middleton (2000) frames the ascension of this “re-mix” culture in terms of an “intertextuality,” which tentatively (de/re)links musical forms and styles from specific geographical and cultural locations. The Internet has enabled nomadic musical practices and increased the capacity for individual identities to be “postnational” (Knudsen, 2011), or multi-faceted and negotiating multiple identifications simultaneously as they are developed in conversation with a multitude of globally circulating forms of artistic and cultural expression. Such a perspective “not only challenges the significance of national identity, but also questions the emphasis placed on identity in general” (Knudsen, 2011, p. 79). Such dislocations of identity from place are suggestive of music’s (de)territorializing capacities, and of the geographical fluidities of musically mediated sociotechno-assemblages.

With regard to the task of “rooting and shifting,” music offers a platform for the amplification of positionalities, access to the affective contours of those positionalities, and mobility to engage ethically and communicatively across different vantage points as they intra-act in the space diffractive musical and extra-musical counterpoints. For

Grossberg (1992), the musical nomadic traverses the productive tensions between “an articulated site and a site of ongoing articulation within its own history,” and in so doing constructs “new maps, opens up new roads and identifies new places” (p. 126). Braidotti (2006) characterizes these transversal migrations of dialogue across ontological registers in terms of musical transpositions, or exchanges that hold subjects accountable to each other through the rearticulation of experiences and histories from one key to the next. Generative conversations across lines of difference are made possible by “playing the positivity of difference as a specific theme of its own” and amplifying the “variations and shifts of scale in a discontinuous but harmonious pattern” (Braidotti, 2006, p. 5). These claims, while enthusiastic and enlivening, traverse cautiously over thin political ice and must be qualified.

Cosmopolitan musical hybridities perpetually escape simple, linear explanations as music always circulates and mutates within historical, social, political, and economic forces, and hence must be approached differently according to their power asymmetries (Stokes, 2004). Moreover, such dislocations and reappropriations, a phenomenon that cultural postmodernists can often take at face value as evidence of pluralism—and hence progress—raises questions around cultural appropriation that potentially “involve the attempt aesthetically and discursively to subsume and control the other” (Born & Hesmondhalgh, 2000, p. 16). Power is a perennially present force on the ontological playground of music that practitioners of transversalism must negotiate mindfully. Nevertheless, there always remains the (postdualist) possibility that individuals inhabit a space of non-unity, or a multiplicity of spaces in terms of a musical identity, or that

different facets of identity are more salient and dominant than others at different times and in different (echo)locations. Whether the motive is control or liberation, music's "hyperconnotative" (Born & Hesmondhalgh, 2000) capacities provide powerful inducements to the imagination to cross over, zigzag, and play in and beyond the dialectic of self-other idealization.

Arguably, nomadic approaches proliferate epistemological contact points and cross-pollinations that can sponsor the (re)mixing of ontological orientations. This implicates efforts to develop a musical praxis linked to more-than-human circumferences of belonging—obligation, a task that exceeds the goal of just music itself. Praxis implies there is an ongoing ethical dimension to musical practices. In order for music to be a praxis, Elliot and Silverman (2017) argue, it should entail moving beyond the goal of developing musical techniques; It must consider and incorporate an ethics of living relationally. The posthuman convergence calls for significant reconfigurations of what it means to live relationally, beyond the circumferences of civic, human, social, and political bodies, towards solidaristic relations with more-than-human systems of life.

This moment also offers an opportunity to reframe how standpoints and histories are both accounted for and rendered accountable as human and natural histories collide and come into an alarming singular frame (Chakrabarty, 2009). Musical practices grounded in an a posthumanist ethos can open a "plane of encounter for multiple differential positions" (Braidotti, 2019, p. 38) that move beyond the inadequacies of abstract universals and the thickheadedness of particularist enclaves into the thickness of immanent, material more-than-human relations. I am keen to amplify and band with the

vital entanglements, systems, and actors that constitute the connective tissue of these life-supporting ecologies. Transpositions such as these can expedite the unraveling of anthropocentric and humanistic designs and make space for the polyrhythms and strange sounds of emergent multispecies alliances and insurgencies. Such practices of musical ec((h))o location (which amplify the decentered yet critical role of human agents within more-than-human ecologies) are explored in the next section as praxial strategies that can make known, and reinforce commitment to the goal of living ethically in more-than-human terms.

Musical Cartographies and the 3 Ecologies

Music has the capacity to intervene in health of (eco)social relations by empowering processes of learning, empathy, and action. Musicking can support this aim through the composition of mattering maps that can serve the formation of transversal aggregates of the affected. As Grossberg (1992) notes, mattering maps represent the cognitive and affective understandings about relationships that “matter.” These maps can catalyze and direct the processes of “thinking-feeling” (Massumi, 2015), and put deterritorializing refrains into motion that shape change and alter the course of (de)vitalizing material forces and trajectories.

In this section, I diffract a number of perspectives and projects through Guattari’s (2000) three ecologies approach to illustrate how musical practices can chart transversal lines of flight across overlapping systems and entities to compose more-than-human maps that matter. These webs of interdependency help to unsettle anthropocentric models of sociality and politics by revealing the vast numbers of non- and more-than-human

actors and forces entangled in shared ecosocial space and by amplifying the convolutions of ecological trauma and transformation occurring at the nexus human/nonhuman intra-action.

Guattari's (2000) ecosophical approach integrates subjective, social, and environmental concerns into an aesthetico-political base for revolutionary praxis. This program calls for a multi-scalar cascade of transformations across psychological, social, and environmental domains. A "revolution" of this proposed scale "must not be exclusively concerned with visible relations of force on a grand scale" (Guattari, 2000, p. 18), but also consider the necessity to activate imperceptible psychological shifts to cultivate what Massumi (2009) refers to "micro-political flourishings," which sustain the interest and desire to engage in political engagement on the level of the subject. The three ecologies framework amounts to a dramatic overhaul of human thought and relations as they have been structured by humanist, anthropocentric, and capitalist economic systems.

To accomplish this, the three ecologies approach promotes artistic methods as a potent epistemological tool that intervenes through a "logic of intensities" (Guattari, 2000, p. 29) facilitated through the reappropriations of media and communication technology. Following this call, I amplify instances where musical techniques, technologies, and socio-techno assemblages have (and can) offer an "intense" mode of strategic transversalism that generates defamiliarizing yet sympathetic resonances across the subjective-social-ecological plane. In so doing, music can perform essential boundary work requisite to more-than-human solidarities by cultivating awareness of the

“polyrhythms” (Tsing, 2013, p. 34) of landscapes and conjoining bodies in practices of care for “the divergent, layered, and conjoined projects that make up worlds” (Tsing, 2015, p. 22).

Guattari’s (2000) three ecologies model highlights the need to intervene first and foremost at the level of subjective mental ecologies. The relationships we build with our environments are directly impacted by the knowledge that we carry of the world and our positionality in it. A praxis of mental ecology entails radical revisions to certain inherited master narratives that warp everyday thinking and behaviors around the logics of individualism and profit/loss, paving the way for divisive, violent, and exploitative relationships between the self and planetary others. The three ecologies approach echoes Gregory Bateson’s (1973) cybernetic approach, which holds three “systems” (i.e., the individualistic, societal, and ecological) as bound in an ongoing negotiation of equilibrium and “uneasy balance of dependency and competition” (p. 431). Bateson argues that the Modern man who labors under the spell of individualism suffers from a “pathology of epistemology,” a condition wherein the mind has tricked itself into believing it to be detached from ecological worlds and responsibilities. Ecological crises are thus directly impacted by the illnesses permeating the human psyche, and similar to Guattari’s psychiatric approach to planetary wellness, require intervention at the root—the individualist mindset.

I want to argue that music can be a vital resource for the cultivation of knowledge in collectivizing and more-than-human terms. Musicking promotes cognitive and affective understanding of subject formation as an embedded, relational process through

the exploration of bodies, minds, and hearts as integrated, yet resonating open assemblages permeated by, and playing in concert with a host of human and more-than-human others. By careful listening to, recording, and playing back these imbrications, we can turn up the volume of their resonance with an ecosocial model of transformative change.

It might seem counterintuitive, even naïve to nominate music as a resource for the cultivation of an ecosocial imaginary and the actualization of more-than-human solidarities. For starters, such proposals make discomfiting demands on the ego, which can put up a fight when presented with decentering threats. Also, advancements in media and music technology have revolutionized the ways in which we insulate ourselves from the world (Hagood, 2019) and maintain personal space across a multiplicity of quotidian contexts, including the competing territorializations of sound and musical tastes that can unfold within a household and just about anywhere else in public, as Frith (2003) notes, “people nowadays routinely use music to manipulate their moods and organize their activities for themselves” (p. 98). DeNora (2000)—drawing from Foucault—support this view where he theorizes music as a “technology of self,” or “a means for creating, enhancing, sustaining and changing subjective, cognitive, bodily, and self-conceptual states” (p. 49). From this perspective, music offers refuge and support to an inner universe through emotional self-regulation and the protection and maintenance of personal boundaries.

But even the most private-held dimensions of musicking can deepen knowledge of and foster a sense of connection to others. Born (2010) argues that music serves as an

emotionally laden “connective tissue” (p. 86) that links embodied memories of the past with present and the self with a vast constellation of other imagined bodies. The mediated nature of music, Born (2010) argues, is key to its capacity to generate broad assemblages where it is “folded into the psyche as a direct extension of self in a project of compulsive self-identity creation” (p. 87). This connective quality gains even more potency in the shared space of music encounters. Neurologist Oliver Sacks (2007) describes the occurrence of “neurogamy,” or a tentative binding of nervous systems across bodies, in the shared space of music and rhythmic experience: “(r)hythm turns listeners into participants, makes listening active and motoric, and synchronizes the brains and minds (and, since emotion is always entwined with music, the ‘hearts’) of all who participate” (p. 245). Sacks extends this binding effect even further, arguing that rhythm is a mimetic phenomenon that cuts transversally across more-than-human domains, crossing between human subjects to the rhythms of the seasons and the dance of planets.

This connective phenomenon gets a head start in the earliest stages of life. Studies on the role of music in child development show that early experiments with sound, rhythm, repetition, and melody constitute an array of protomusical behaviors, including the sharing of emotional states between infants and caregivers. Trevarthen (1999) has referred to these behaviors as a mode of “primary intersubjectivity,” which underscores the role of sound, rhythm, tone, music, as vehicles of affective transfer that communicate information about relationships and environmental conditions. Emergent modes of musical communication, Cross (2003) adds, can contribute powerfully to the emulsification of infants with their social settings by generating “a medium for the

gestation of a capacity for social interaction, a risk-free space for the exploration of social behavior that can sustain otherwise potentially risky action and transaction” (p. 27).

Early developmental experiments with identity, language, and communication have been linked to more-than-human modes of becoming where they play across the boundaries of language, sound, music, and intelligibility (Hackett, Maclure, & McMahon, 2021), suggesting a role for music in the mediation of human and non-human forces, and the composition of more-than-human imaginations.

From an early age, as young mind-bodies come to know their world, musicking and extra-musical practices can help to support the development of ecological, and “more-than” sensibilities that in/con/subvert individualistic humanist precepts. Musical personhood, as Elliot and Silverman (2015) explain, is a “joint project” where “(e)ach person emerges from, lives in, and develops because of his or her dynamic, reciprocal, co-constructive relationships with others and her ecological interactions” (p. 33). I believe this idea resides at the heart of Small’s (1998) project to reclaim music as a practice of co-worlding, everyday livability, and dialogue with all vital elements of the circumstantial milieu, not as a thing that holds up the *idea* of the human or sits on a shelf as a *thing* that evidences in canonical form the grandiloquence of humanistic triumphs (Sharpe, 2000). This musical mode of intra-subjective meaning making resonates with a relational/process ontology and practices of posthuman knowledge production, which foreground disidentifications from dominant models of subject formation, support empathetic orientations, and open pathways to democratic and egalitarian ways of seeing, hearing, and becoming-with the world (Braidotti, 2019). By drawing creative attention to

and diffusing the processes of subject formation across a plane of relational intra-actions, musicking offers a way of knowing and feeling into the social ecologies that we are linked into.

A praxis of *social* ecology represents the second area of concern in Guattari's three ecologies model. Transformations on this level are propelled through the reappropriation of media and communication technologies, which enable process of *demassification* and the organization of creative resistances. These technologies serve an epistemological function toward the processes of self-diagnosis, (de)regulation, and (de)formation of social assemblages, and, I argue, music and sound function as adaptable and co-constitutive mediums within this process.

To begin, contemporary musical practices offer a prehearing of tomorrow's intractable political conflicts, and in this way serve as indices of social, cultural, and ecological health. As Attali (1985) observes, "Music is prophecy. Its styles and economic organization are ahead of the rest of society because it explores much faster than material reality can, the entire range of possibilities in a given code" (p. 11). From this perspective, musical modalities can provide important information regarding the pressure within the material-discursive veins of socio-techno assemblages. The multi-directional tempos of its polyrhythmic elements (Lefebvre, 2004) offers "a sensitive gauge of both traditional and emergent forms of sociability and identity, and a key resource in both the construction and the critical inversion of social order" (Feld & Feld, 1994, p. 43). In this way, musical practices can also function in an auscultatory capacity registering the health, function, decline of social assemblages (Gunn, Goodale, Hall &

Eberly, 2013). Critical auditory information of this sort includes the proliferation of commercial jingles and other sonic detritus spiraling within the aural trash gyres produced by the “eco-disaster entertainment complex” (Ottum, 2014, p. 59). Or the tremendous sonic din emanating from the casinos of capitalist commercialization, the drums of war profiteers, the bells of Nasdaq goon squads, and the haphazard and privatizing orchestrations of free market choirs, all of which compose what Dyson (2014) dubs “the tone of our times,” a *racket* in every sense of the word.

These aural indices register and implicate the sounds of naturalcultural shocks and hold hostage a planet that now bleeds from the ears. These aural arrhythmias increasingly drown out the music of the more-than-human world as extinction rates accelerate in the growing penumbra of the posthuman convergence. These noises necessitate a response in the form reverberating resistances and sonic and musical reterritorializations of shared, public, and wild space, or as Guattari (2000) puts it, the instantiation of “new ‘stock exchanges’ of value and new collective debate” (p. 45), a species of transversal dialogue frequently activated in the context of musical movements.

Music can intervene in the patterning of social fabrics through the affective transfer of transversal information, knowledges, and histories, including traditions of struggle and resistance. As Eyerman and Jamison (1998) observe, music and other artistic forms function as historical archives that do memory work by carrying forward cultural interpretations, historical critiques, and the echoes of past resistances. The portals into the past struggles opened by musical movements can elucidate the perspective of marginalized standpoints and carry forward the momentum of relevant political traditions

and affective energies. This translational role of music is vital to the framing function of social movements. As Rosenthal and Flacks (2015) discuss, music can draw needed attention to matters that matter in a way that links them to ongoing and interlinked issues that are relevant, urgent, and demanding action.

Many organizations on the front line of social and political transformation devote resources to the preservation of memory and the musical traditions that carry it forward. The Highlander Folk School and Research and Education Center in the Smoky Mountains of East Tennessee, for example, has served activist communities for over half a century by teaching musical methods of community building and political intervention. As one of a few organizations to “recognize the value of music to social movements” (Eyerman & Jamison, 1998, p. 3), the Highlander Center has played a role in training of many notable musical change makers, including the composer, scholar, and activist Bernice Johnson Reagon, who in the early 1960s was a founding member of the Student Non-violent Coordinating Committee’s Freedom Singers, whose songs and music played an important role in the Civil Rights Movement. The Highlander Center continues to foreground musical strategies in their activist training today and included the teaching of songs such as “The Medicine Song” (Peacock, 2017), which was the musical selection sung at the COP25 conference by the climate activists in the vignette I presented in the beginning of this project. Music can powerfully transpose traditions of struggle and resistance through the movements and musics of transversally resonating bodies and practices.

The capacity of music to “root” bodies to a lived history are complemented by a capacity to “shift” beyond them. Pratt (1999) has referred the musical encounters as “free spaces,” suggesting that music engenders a sense of freedom by delimitating sonic territory, enabling the creation of one’s own autonomous space, and the delinking from certain social norms or hegemonic fields of time. With the “boom box” and “ghetto blaster,” and now streaming services, portable music has increased possibilities for self-(re)definition within broader fields of spatial claims and collective identities. The “real world” is suspended, temporarily escaped, and the presence of new worlds, or “almost places” (Kun, 2005) is intensely felt. Free spaces of political experimentation have proliferated and become mobile with the advent of music technologies and portable devices enabling solidarities across translocal and transnational spaces. Johnson (2013) observes that recording technology, radio transmission, and other travelling musical forms “all travel across spaces even when people cannot” (p. 87) and have enabled access into cultural spaces that were otherwise forbidden or socially taboo.

Another key facet of musicking’s political potency lies in its participatory nature. Music provides a material point of access into political participation and a sense of membership through shared ritual (Turino, 2008). These rituals render history into a multiplicity of participatory forms that translate the experience of grief, pain, suffering, and joy across embodied ontological differences. This is an important lesson that the Highlander school, and the Indigenous activists who conjoined hands at the COP25 carry forward. The musical strategies developed and continued at Highlander revolve around audience participation, a feature of musical interventions that can dissolve the performer-

audience divide. This intra-active feature of the Highlander musical tradition helps to affectively chain and constitute the bodies of resistances and sets its strategies apart from other musical approaches that can privilege performer spotlights and notoriety over grounding, connecting, and invitational forms of musical participation.

Musical encounters can also provide a space for the dissemination of discursive materials and the cultivation of knowledge regarding emergent and experimental social relationships and political projects. At events where “tabling” occurs, and pamphlets and literature is distributed, for example, music “leads people to sources of information they might never have encountered otherwise” (Turino, 2008, p. 152). At such gatherings, opportunities to expand one’s knowledge are wrapped in material and affective inducements to expand one’s sense of social connection and purpose, composing significant loci for the (re)definition of solidaristic circumferences. As Hesmondhalgh (2013) argues, musicians can often educate in a “feelingful way” (p. 164) about the existence and experience of oppression and inequity, practices that can contribute to a “sustenance of a sociability, which keeps alive feelings of solidarity and community” (p. 10).

When environmental issues enter such extra-musical encounters, portals into conscious communities and significant cognitive understandings can open, including sonorous and invitational pathways towards assemblages of care that prioritize the wellbeing of the more-than-human world. Along with engagement and the spread of empathy, Gray (2013) counts education as one of the three primary purposes of music in the context of eco-protest, which can help to remind individuals of “why a cleaner,

healthier, and sustainable society matters” (p. 170). Musical cartographies that amplify more-than-human understandings channel affective force in the direction of Guattari’s third area of concern, a praxis of ecology.

For Guattari (2000), ecological praxis represents an all-encompassing approach to addressing the wellbeing of environmental ecologies. Intervention on this scale is achieved through the coupling of the first two praxial modes, through the process of subject (de/re)formation and social experimentation, a fusion that cascades into the heart of Guattari’s (2000) concerns, the reinvention of the “modalities of ‘group being’” (p. 22). This re-incorporation of the technologically embedded subject with natureculture productively retools reductive environmentalist approaches to ecological wellness advocated by what Guattari (2000) refers to as “a small nature-loving minority” and “qualified specialists” (p. 35) whose deference to their professional fields can inadvertently hold in place essentializing views of “Nature,” and exploitative economic systems. The shift to a three ecologies approach, in contrast, catalyzes an “a-signifying rupture” (p. 30) and “processes of heterogenesis” (p. 34) that proliferate difference, and integrate “new micropolitical and microsocial practices, new solidarities, a new gentleness, together with new aesthetic and new analytic practices regarding the formation of the unconscious” (p. 34).

In ecological praxis, transversal cartographical approaches are deployed to understand the (dis)function of both healthy and diseased ecosystems, which cut a jagged line across all three ecologies that constitute the naturecultural world of more-than-human intra-actions. Guattari (2000) asserts:

In the field of social ecology, men like Donald Trump are permitted to proliferate freely, like another species of algae, taking over entire districts of New York and Atlantic City; he ‘redevelops’ by raising rents thereby driving out tens of thousands of poor families, most of whom are condemned to homelessness, becoming the equivalent of the dead fish of environmental ecology. Further proliferation is evident in the savage deterritorialization of the Third World, which simultaneously affects the cultural texture of its populations, its habitat, its immune systems, climate, etc. (p. 28)

A number of communicative and ethico-aesthetic approaches are prescribed for such natural-cultural shocks, including art, expressive actions, and creative repetitions that rupture existing pre-texts and stake out new pathways toward knowing what else is possible.

Reflecting on the potential of these cartographic methodologies, Braidotti (2018) redraws the transversal movements that rhythm the path between the knowing subject and emergent more-than-human subjectivities on the horizon, noting:

If a cartography is the record of both what we are ceasing to be and what we are in the process of becoming, then critical thinking is about the creation of new concepts, or navigational tools to help us through the complexities of the present, with special focus on the project of actualizing the virtual. (p. 7)

Here, musical modes of communication can offer an array of potent “a-signifying ruptures,” expressive actions, and creative repetitions that strike out towards and constitute new micro-solidarities of care for the ecological worlds we inhabit.

Music can enhance the boundary work of transversal approaches to solidarity by tracing and drawing affective energies to the co-constitutive relationships that animate and sustain the more-than-human world. Musical refrains can be particularly responsible for this effect. As Labelle (2018) suggests, “(i)t is through sound, through the various refrains we invent, repeat, and catch from nonhumans, [that] we receive news of the cosmic energies to which we humans are always in close molecular proximity” (p. 168). Within the Deleuzoguattarian conceptual universe, refrains are recognized for their world-making capacity and utilized as methodological tools to (de)territorialize sedimentations of thought and to pre-figure and inaugurate new configurations of meaning and materiality. As it has been noted various across posthuman scholarship, refrains can “regroup and intensify forces” (Holland, 2013, p. 73), “break the cycles of inert repetitions” (Braidotti, 2006b, p. 249), summon “news of the cosmic energies to which we humans are always in close molecular proximity” (Bennett, 2011, p. 168), and improvise containers charged with “the ‘holding together’ of heterogenous elements” (Deleuze & Guattari, 1987, p. 323). Refrains, thus, are techniques of (re)making conceptual territories and (re)organizing affective, material, and symbolic intensities into forms within nodes of space and time.

As vehicles for storytelling, music can also provoke shifts in perspective as they circulate throughout the veins of translocal and transnationally linked socio-techno assemblages. Tsing (2005) might attribute this phenomenon to the *frictions* of an “allegorical package.” As they travel, allegories navigate between *universal* and *particular* meanings, and mutate by accreting and shedding additional details and

associations along the way. In some instances, these transfers can induce profound shifts in perspective, transform consciousness into concern, and reach tipping points that spill into consequential action. As allegories travel, they can also lose momentum, get distorted, or encounter resistance as they come into cultural contact with other narratives, ideologies, and stereotypes, which has consequences for frameworks of solidarity.

Allegories depicting care for the environment and more-than-human others can often meet sexist, racist, masculinist, homophobic, and speciesist narratives (Daggett, 2018; Nelson, 2020; Reuther, 1995). “Tree-huggers,” “hippies,” “flower children,” and other pejoratives can pigeonhole naturalists as naïve and present solidaristic relationships with Nature as disingenuous, primitivist, or an effeminate trope that represents a superficial desire to be “one” with nature (Rome, 2006; Smith, 1987). The social stigma surrounding care for the planet means that music makers who seek to express their solidarity with the Earth (or protest its destruction) can be easily dismissed as sentimental, weak, or antiquated. Latour (2017) observes how environmentalists wind up lumped with the “(neo) natives, the antiquated, the vanquished, the colonized, the subaltern, the excluded,” or even worse, as “anti-moderns” (p. 27). In the US, discussion of the climate has been politicized to the point that one’s position toward climate change is increasingly an indication of one’s political affiliation marking an almost bizarrely metonymic relationship between heating political polarizations and melting polar icecaps (Dunlap & McCright, 2008).

Needless to say, “ecomusic”—as Pedelty (2016) has observed—faces challenges on the road to impacting the social imagination. He points out that the environmental

movement is younger than the civil rights movement, which means there has been less time for its repertoire to develop and gain traction, and the subject matter can be more difficult for social bodies to imagine, in that environmentalists often take aim at taken-for-granted issues abstracted from the sphere of our everyday activity, or phenomena nearly invisible to us, such as in case with carbon emissions. But as carriers of tradition and memory, music can work against the tide of naturalcultural amnesia: records of atrocities, struggles, events, and personal stories of those associated with (eco)social movements are preserved and passed forward in time through music.

Songs bringing awareness to the spread of ecological crises have periodically poked through the clouds of popular music. Enduring tunes such Marvin Gay's "Mercy, Mercy, Mercy," Joni Mitchell's "Big Yellow Taxi," and Neil Young's "After the Gold Rush," for example, which chronicle the sharp increase in awareness of environmental issues that occurred in the 70s. Musical archives can also serve as a record of absences and the decline of awareness regarding the status of more-than-human communities. Guy's (2009) longitudinal analysis of Taiwanese popular music is revealing here. Nature, once a prominent figure in the musical lyrics in popular imagination of Taiwan has begun to disappear in correlation with the decreased contact with, and the contamination of nature due to the rapid rise of consumerist culture. Similar correlations have been recorded in the musical traditions of the Iñupiaq, the native peoples of Alaska, who have struggled to adapt to the impacts of climate change (Sakakibara, 2009). For these communities, whale skins are traditionally used for drumheads and musical rituals that reinforce the physical and spiritual ties between them. But these lifeways are threatened

as the numbers of whales decreases due to climate related factors. More-than-human literacies benefit from attunements to these affective musical artifacts, which document and circulate the absences/presences of environmental concerns and ecological ghosts

When channeled through musical modalities, memory is not static, but alive, vital, mutating, and an invitation into the trajectories of time and currents carrying and carried by vestiges of the (eco)social imagination. Braidotti (2013) positions the role of memory as central to nomadic transpositions “as creative and highly generative inter-connections which mix and match, mingle and multiply the possibilities of expansion and relations among different unities or entities” (p. 167). This feature of music implicates solidarity movements, where boundary work is intimately tied to memory work (Rosenthal & Flacks, 2015). As the nature of nature evolves, responds, recovers, and collapses due to anthropogenic forces, we must ask what imperiled, new, and odd-kin relationships are worthy of musical amplifications and alliances. To illustrate the transpositional possibilities of a more-than-human musical solidarity, I bring two specific examples to the table.

In 2020, the Colombian group Bomba Estéreo released a single titled “*Déjame Respirar*” (“Let Me Breathe”). The song draws inspiration from and remixes a “polyphony of organic sounds” (Villegas, 2020, p. 2) gathered through field recordings made in Pacific Northwest region of Colombian. As the song begins, a thick tapestry of sonic textures enter into the soundscape: insects buzz, chirp, and click as the sound of a wooden marimba plunks in loosely laid polyrhythmic phrases in the background. Singer Li Saumet, in a careful balance of warmth, strength, and vulnerability, sings:

Yo soy la tierra	I am the soil
Yo soy el mar	I am the sea
El sol y el alba	The sun and the dawn
Yo soy la sal	I am the salt
Soy <u>selva</u> y monte	I am the jungle and mountain
Trueno y amor	Thunder and love
Soy puja y Piedra	I am the strength and the rocks
Rio y candor	River and candor
Déjame respirar	Let me breathe
Yo a ti te llamo	I am calling you
Oye mi canto	Hear my chant
Soy Pacífico	I am the Pacific
Soy bosque, <u>lluvia</u> y flores	I am forest, rain and flowers
Soy <u>tetera</u> y jazmín	Teapot and jasmine
Arrecife de colores	A colorful reef, a beach
Playa, <u>estela</u> y colibri	A trail and hummingbird

The song stands strong on its own as a show of solidarity with the more-than-human world through its “consubstantiality” (Burke, 1952) with the natural world. And while the song is a musically moving statement on its own, it is actually the theme song for a larger and more compelling project and documentary film called *Sonic Forest*, (Stand for Trees, 2022). The documentary explores the complex intersections of greed, violence, and hope that surround the overlapping issues of climate change, resource extraction, loss of biodiversity, and the struggle for Indigenous sovereignty by communities in the Pacific Northwest region of Colombia through storytelling, lush cinematography, and music.

The 35-minute film also documents the making of the video for *Déjame Respirar* as Simon Mejia, the lead musician and producer from Bomba Estereo, travels from his hometown—the urban metropolis of Bogotá—to the remote village of Bahía Malaga, an Afro-Colombian fishing town only reachable by boat, and Mutatá, the mountain region

where the Indigenous Emberá people live. Throughout the film, Meji is shown discussing with residents the paradoxical reality of living at the intersections of pristine natural beauty and the brutal and violent insurgency of extractive industries, while also immersing himself in their musical traditions and rituals. Recordings made across the making of the documentary, including the sounds, rhythms, and sonic textures of the forest, later became the foundation for the song *Déjame Resipar*. The project, which was funded in part by United States Agency for International Development (USAID) and produced by actor Joaquin Phoenix, links to an organization called Stand For Trees, which supports the preservation of the jungles of the Colombian Pacific by directly supporting their stewards, the Indigenous and Afro Colombian communities who reside within them.

I regard Bomba Estéreo's musical experiments, and the partnerships between NGOs, local communities, and the natural world, as a prime example of what a more-than-human musical solidarity can accomplish. It composes and communicates a transversal message born out of direct and sustained engagement between the voices, viewpoints, and vibrational energies of the entities and stakeholders within these contexts. It also ruptures the notion of nature as pristine and devoid of human bodies by ec((h))o locating human actors as key, albeit decentered actors in the larger ecological picture.

Moreover, the music Bomba Estéreo produce reflects a number of posthuman orientations: its creative use of samples does not essentialize the sources of its sounds or romanticize a place back in time or a paradise lost, but rather speaks to a complex more-

than-human future by listening “across scales and compositions to find a pitch or shared level of intensity” (Braidotti, 2006, p. 177). Their experiment unlocks new musical and aesthetic possibilities through its stirring reinterpretation of organic and electronic textures, which creatively juxtapose a diversity of ontological rhythms, resonances, and intensities. The music bridges many worlds, transposing the exigencies of more-than-worlds into the musical vernacular of contemporary Colombian electronic dance culture, doubling down on its capacity to move bodies into action. A New York Times article and interview with Bomba Estéreo’s members captures this tension well:

At its best, Bomba Estéreo’s music hints at what Mejía calls “an Indigenous futuristic kind of civilization,” he said, and added: “Obviously we’re not going back to living as an Indigenous tribe lives in the Amazon. We already live in cities, and we have computers and phones and whatever. But we can find a level of mixing our technology and respecting and being with nature. It’s like having one bare foot in the roots, while the head is looking to the future. (Pareles, 2021, para. 22)

This type of “futurism with roots” (Pareles, 2021) resonates with a transversal ethos and methodology of “rooting and shifting,” refusing the duality of tradition versus progress, but rather putting ambiguities into play and amplifying the generative tensions and complex ethics in the conversations between them. A quick glance across *Déjame Resipar*’s YouTube comments reveals the affective impact and epistemological value of this experiment:

This song just changed my soul. My father was born in Colombia and I'm on a spiritual journey to connect with my indigenous roots. The moment I played this video, the hair on my arms stood up and I felt something change in my body. I felt connected with every single image in the video. It was a knowing. I'm so grateful. (Pinup_Panda, 2021)

As Tsing's (2013) work demonstrates, musical practices and sensibilities can serve the task of knowing ourselves as participants in a "more-than-human sociality" (p. 39) and provide an "opening for action" that "realigns possibilities for transformative encounter" (Tsing, 2013, p. 152). Amplifying the polyrhythms of more-than-human relations, Feld (2015) has noted, offers a mode of knowing that is "constituted relationally, by the acknowledgement of conjunctions, disjunctions, and entanglements among all copresent and historically accumulated forms" (Feld, 2015, p. 12). Listening diffractively across ecological spaces attends to the acoustic contours of posthuman relational ontologies, aids in the decentering of anthropocentric language practices, and generates more egalitarian, *zoe*-centered ways of becoming-with, where "knowledge" is no longer the divine providence of the human, and the light of climate justice can dance a bit more free, vivid, and bright.

In a medianaturecultural paradigm, embracing more-than-human entities as communicative others is just the beginning. We must go further, and leverage media and communication technology to attune to, circulate, and embrace the musicality of the more-than-human world. The natural world is an epistemological soup swarming with territorializing sounds and musical affects. Krause (2012) has referred to these sonic

signatures as the “tapestries of biophonies” (p. 127), arguing that the vernacular musics of the biosphere offer key information regarding the health and status of the more-than-human world that can be leveraged toward projects of expanding circumferences of belonging-obligation. In these transversal epistemological approaches, sound is framed as an untapped dimension of knowing. Comparative studies using aural accounts of healthy and compromised ecological systems can deepen both our understanding of the changes happening in the natural world and revitalize connection with the musical vitalities of the natural world. As Kraue (2012) observes, “(i)n the healthiest of habitats, all of these sounds coalesce in an elegant web of organized signals that are full of information about each organism’s relationship to the whole. From this ensemble comes the music of nature” (p. 126).

An increasing number of projects are bringing sound technologies and musical sensibilities to the frontlines of climate justice. Barclay’s (2015) Biosphere Soundscapes project banks on the notion of sound as a “powerful means to stimulate [a] shift in consciousness” (para. 1) by using bioacoustic field recordings as an epistemological tool for “synthesizing experiences and sharing knowledge in response to the ramifications of climate change” (para. 3). The strategy to broaden a sense of “imagined communities” through the deployment of sound technologies is not as farfetched as it might sound.

In 1970, bioacoustics expert Roger Payne led a team that recorded and released a five-track, 34-minute album called *Songs of the Humpback Whale*. The album sold more than 125,000 copies, making it the most popular nature recording of all time. Much as he had hoped, Payne’s album inspired a movement which manifested in a number of ways,

including the foundation of Greenpeace in 1972 and their launch of Project Ahab in the mid-70s, where activists parked their boats in front of the whalers' harpoons. Shortly after, naturalists David Attenborough and Jacques Cousteau made popular documentaries focused on the creatures. And in 1979, a clip from the album was distributed to all National Geographic's 10.5 million subscribers making it the largest single pressing in recording history – a record it holds to this day (Lewis, 2020). In 1986, the International Whaling Commission banned commercial whaling for all species (allowing exceptions for Iceland, Norway and Japan), and humpback whale populations have rebounded to an estimated 100,000, close to pre-whaling populations. Reflecting on the series of events, Payne has remarked, “My whole thought was if we can build whales into human culture, then we can save them,” (para. 13).

How might we continue to cultivate deeper relational capacities through multi-modal and multi-directional modes of communicating and collaborating with planetary others? How might we direct greater attention to the development of more-than-human literacies that boost our capacity to recognize the “trained incapacities” (Veblen, 1914) and “systemic ignorance” (Harding, 1991) of our anthropocentric educations, and push back against the binaries and dichotomizing hierarchies of Modernity? What sounds, voices, resonances, and musics might become audible, composed, or deployed in this moment to ignite the more-than-human imagination and fire up a wave of posthuman insurgencies? What sonorous murmurations, swarms, cyclones, rhizomes, mycelial networks, assemblages, and other musically mediated more-than-human alliances might be brought into being and guided toward strategically transversal conduits of ecological

intervention? How might we then find ourselves within aggregates of affected doing the necessary ethical work at the intersection of social, transnational, and multi-species justice, the entangled nexus that the complexities of climate justice call us to, where we might discover who “we” is, and “actualize the unrealized or virtual potential of what we are capable of becoming” (Braidotti, 2013, p. 54).

Chapter 9: Finale ~ A More-Than-Human Affirmation

My dissertation has been motivated by a question I will carry me with beyond this project: What is the role of music in engendering solidarity with the more-than-human world in the context of climate justice? As someone who is *as* passionate about playing music as I am deeply concerned about the health of this planet, I have also been reflecting on the question of what *my* role as a music maker and educator could be. This project has enabled me to echolocate my way through a number of ethical questions that co-mingle in the deep end of my own anxieties, hopes, and intellectual curiosities. Up to this point, I have devoted little attention to explaining my own personal musical practices. And somewhat ironically, the time I have needed to commit to this project has taken me away from my musical practice and limited the ways in which I can engage in climate justice through musical modes of intervention. But time away has also given me perspective and a deeper appreciation for the meanings and purpose I assign to my musical life and opened my ears to a vast expanse of opportunities and urgent more-than-human obligations now ahead. This chapter serves as a mediation on and affirmation of my own musical praxis as it resonates across a more-than-human framework of solidarity as developed in this dissertation.

I have titled this chapter “Finale: A More-Than-Human Affirmation” because I hold praxis as an iterative process of affirmation across multiple levels; theory informs and affirms practice, and practice informs and affirms theorization. And engagement in praxis affirms commitment to learning about and transforming the world in ethical and significant ways. Additionally, I am drawn to critical posthuman as a theoretical

approach that embraces a “yes-and” affirmative approach to problem solving and crises such as the climate crises. I value such orientations as invitational, creative, and a fundamental mechanism within transversal methods of alliance formation. I also believe that music—at least the kind I seek to create and engage with—works in similar ways through its capacity to emulsify diverse bodies in resonating blends of the political, the pleasurable, and the possible. In this way, the theoretical exploration that I have set into words in this project serves as an affirmation of my own musical practices and of my commitment to care for the overlapping musical and more-than-human communities I am a part of. Through musicking, I compose cartographies of care and step (drum and dance) deeper into collaborative stewardships of the immanent more-than-human communities I am a part of, and in this way, imperfectly embody a critical posthumanist affirmative ethics. In my mind, I suppose it is my way of “staying with the trouble,” (Haraway, 2016) and potentially helping others to do the same.

Affirming More-Than-Human Exigencies

In April of 2018, prominent civil rights attorney and environmental activist David Buckel committed what has been referred to as “climate suicide” after he doused himself with gasoline and lit himself on fire in the community park near his home Brooklyn, New York. In an email sent to various friends, associates, and media outlets on the cusp of his suicide, Buckel explained his actions writing “My early death by fossil fuel reflects what we are doing to ourselves” (Correal, 2018, para. 5). The incident surprised those in David’s circle, as he was a part of large and successful community of legal activists committed to social justice issues and an active steward of the local ecology through a

community composting operation that he founded and helped run. While his motives will never be fully known, David Buckel's suicide is symbolic of the self-made crisis we face, as well as the invisible trauma that can accompany activist commitments and work.

In the book *A Field Guide to Climate Anxiety: How to Keep Your Cool on a Warming Planet*, Sarah Jaquette Ray (2020) describes self-immolation as an extreme symptom of "climate anxiety," a novel health condition associated with increasing awareness and exposure to messages surrounding the planet's worsening condition. Other more common symptoms include depression, PTSD, the decision to forgo procreation by couples, generalized exhaustion, apathy—or "apocalypse fatigue"—and more (Ray, 2020). Ray's "guide" presents a broad range of strategies to combat climate anxiety while also framing self-care and the ongoing maintenance of emotional health as critical to the sustainability of social and climate change movements. From this perspective, the work of social change, ecological healing, and personal wellness is intimately linked, highlighting the synergistic benefits offered through rituals of joy, practices of healing, and the importance of making space for pleasure in the context of activist work (Brown, 2019). The joy that I find, create, and spread through music—I would like to believe—can contribute to this need for healing and pleasure in the space of climate justice work.

Alliances, like any organism, require attention and maintenance. They benefit from restorative practices and attunements to regenerative forces that are elemental to thriving more-than-human communities. In her book *Staying with the Trouble*, Donna Haraway (2017) conveys a similar understanding cultivated from intimate moments spent

with nonhuman others in her own backyard, staring into buckets of worm-filled and micro-organism rich compost. Within the dark and fragrant hummus, a symbiotic dance of microscopic life and death cycles seems to affirm for her that the microbial world—while doing its “work” oblivious to her—had her back: she would now have to fight for it. But perhaps more importantly, *the world was not yet broken!* While the microscopic miracles and life lessons that leeches from compost piles were not enough to bring David Buckel back from tragedy, the possibilities flourishing in Haraway’s compost bin inspire a “staying with the trouble” of the times we are living in, not by denying them, but by leaning into the difficulties that lay ahead with generous helpings of creativity, imagination, and actions that actualize ethical obligations to expansive and diverse more-than-human alliances.

Somewhat surprisingly, there is no mention of music as a strategy in Ray’s guidebook, even though it can serve powerfully in this type of joyful and healing capacity and help to keep the message, momentum, and spirit of (eco)social movements moving. In his book *Why Music Matters*, David Hesmondhalgh (2013) writes that “music’s most valuable contribution to collective human life might be to advance political struggles for a better distribution of flourishing” through its “sustenance of a sociability, which keeps alive feelings of solidarity and community” (p. 10). Perhaps this type of musically mediated flourishing could have redistributed David Buckel’s impulses. One can only speculate.

It was about one and a half years after Buckel’s death when the group of Indigenous activists came together at the COP 25 conference, chained hands, stomped the

hard ground in unison, and sang in a call-and-response fashion to a room full of international reporters: “*Do you feel? Yes, I feel! Do you heal? Yes, I heal! We need all of your attention, right here right now!*” A similar sense of urgency underscores their song. But in stark contrast to Buckel’s self-immolation, this musical encounter invited attendees into a community of healing, recuperation, and affective presence, not into the fire of self-defeat and self-destruction. And like Haraway’s project of “staying-with,” it shaped change in the direction of resilience, rehabilitation, and community—however slightly.

Self-immolation and practices of composting alongside episodes of technologically mediated musical interventions can serve as a sort of triple parable about how we come to know and enact our relationship to more-than-human others, the messiness of performing more-than-human solidarities, and the ethics of affirmation and renewal that music can tap into. Trying to make sense of the times we are in is at times overwhelming. But posthuman cartographies help me to create—not a solution—but at least an opening through the bewildering fog of the posthuman convergence. And critical posthumanism helps me to understand how that can be of service to climate justice movement.

Affirming Affirmative Ethics

Braidotti advances critical posthumanism as an affirmative political practice. This reframe offers a valuable “update” to critical theory, which includes, among other things, the unsticking of praxis from the “viscous cycle” (Hardt & Negri, *as cited in* Stoop, 2014, p. 99) of oppositional antagonisms, from conceptualizations of power as totalizing and

deterministic, from knee-jerk responses to science and technology as always already coopted and devoid of opportunities to creatively reappropriate it and solidaristic designs premised on a shared experience of alienation and despair. Coalitions defined purely in oppositional terms struggle to envision a future without the presence of an oppositional figure and are ultimately “of no help in bringing about intensive, qualitative shifts in what a society or community is capable of becoming” (Braidotti, 2019, p. 66). Solnit (2016) speaks to devitalizing effects of Leftist pessimism and the invocation of “alienation” as a platform for “solidarities of despair,” explaining:

Sometimes radicals settle for excoriating the wall for being so large, so solid, so blank, so without hinges, knobs, keyholes, rather than seeking a door, or they trudge through a door looking for a new wall. . . . Eventually, they come to look for the downside in any emerging story, even in apparent victories—and in each other: something about this task seems to give them the souls of meter maids and dog catchers. (Solnit, 2016, p. 22)

As I discuss in chapters 4 and 6, a tout court commitment to strategies of radical negation not only quashes potential for growing the ranks of effective, creative, and adaptable movements, it can overestimate the emulsifying effects of such approaches and inadvertently confine bodies to the margins in attempts to liberate them:

There are those who see despair as solidarity with the oppressed, though the oppressed may not particularly desire that version of themselves, since they may have had a life before being victims and might hope to have one after. And gloom is not much of a gift. (Solnit, 2016, p. 21)

Making alienation and despair into a rallying point for “unity” is like popping a room full of balloons to make them fit into a suitcase. But that is the effect of critical theory where it seeks to circumscribe identities for the sake of unifying semblances. But this situation also presents opportunities to revise, reboot, and upgrade critical theory as a tool for social, political, and ecological intervention, and there are many urgent reasons to do so.

The material nature of the climate crises makes threadbare the inadequacies of critical theory traditions. Where it continues to rely on and reinforce a nature-culture binary, critical theory, poststructuralism, and other modes of critique emphasizing textual analysis, deconstruction, and the hermeneutics of suspicion do not meet the more-than-human exigencies of the moment, which require complex analyses of semio-material intra-actions and hefty doses of “can-do” thinking. Moreover, advances in digital and communication technology increasingly out-pace our ability to ethically evaluate them, and the complex changes occurring across economic, social, political, and ecological systems has revealed the limitations of staple explanatory models within critical theory that paint technology in a limited number of shades. Braidotti (2013, 2019) expresses deep concern regarding the discrepancy between the scale of the problems and the adaptive thinking required to address them. Part of the challenge now is learning how to think and act creatively through these technologies that are rapidly shifting the topography, dynamics, and flows of life itself.

Critical posthumanist orientations offer (re)generative approaches to praxis by mobilizing new modes of thinking, sensing, and entangling with more-than-human assemblages. An affirmative politics recognizes *creation* as an ethical ideal calling

posthuman subjects into practices of care and process of becoming-with between human, nonhuman, and technological others. A nomadic Spinozan approach summons the “real material force” of the “always excessive imagination” (p. 99) to the task of identity (de)formation, enabling “the praxis of composing a people that aims at actualizing affirmative alternatives” (Braidotti, 2019, p. 180). An affirmative ethics reclaims the definition of resistance from the “prophets of doom” (Braidotti, 2013, p. 145)—who confusedly and confusingly elevate buzz-killing and hope extinguishing to an end rather than a means—by holding steadfast to the possibilities for joy and generative entanglement within the space of critical resistance. Through what Braidotti (2013) refers to as “collectively enacted experimentations with intensity” (p. 92), we can participate in the “recomposition of a missing people” (p. 101) and trumpet what “we” are for, not just what “we” are against.

As I argue throughout this dissertation, an affirmative orientation can help to unstick the wheels of thought and creativity from the mud of critique, which can suffocate the buzz of imaginations with the fogger of realism. This kind of buzz killing can be found across critical analyses of music, including the sobering examinations of the music industry’s material impacts on the environment. A materialist understanding of music is inseparable from considerations of its growth within a consumer-oriented industry that has survived according to its ability to “move units,” a situation that has had, and continues to have, serious environmental consequences. Devine’s (2019) historical account of music formats and the industries that have profited from their production calls for a critical parsing out of the ethereal metaphysics of musical meanings

from the messy, material, less-than-happy dimensions of music that include the needless sufferings of countless human and nonhuman others. His analysis focuses on the three primary forms by which music has circulated in the last 100 years shellac, plastic, and data, and reveals a long laundry list of negative environmental impacts, including complicities between chemical manufactures and oil producers, toxic work conditions, exploitation of workers, and the production and accumulation of carcinogens and nonbiodegradable substances.

Even digital data, which is often mischaracterized as a trend of dematerialization in media technologies, has massive environmental impacts as even the “cloud” requires massive amounts of infrastructure, energy, material, and labor to support. And manufacturing for companies such as Google, Apple, and Intel depend on an estimated 1.4 million laborers in China’s notoriously inhumane Foxconn factories as well as material inputs such as aluminum, copper, cobalt, arsenic, gold, neodymium, nickel, silicon, silver, tin, and other materials and metals requiring intensive and ecologically disruptive mining practices.

In the rush to amplify music’s capacities, it is important to not close our ears to these realities. But Devine (2019) also asserts that:

if we develop ears to hear these conditions, then we may also be motivated to change them. And if developing those ears means thinking about music in terms of decomposition as much as composition, this is the price of admission for those of us who want to recompose a better world. (p. 189).

The “ears” we can and should be developing are posthuman ones, which link more-than-human literacies with an array of affirmative compositional practices, which can help us to navigate through the messy and impure entanglements of materiality and temper well-intentioned idealism with the idea that a perfect world, free of suffering, is never arrived at or rendered complete (Shotwell, 2016). The sound of hope can go unheard in the absence of these affirmative listening practices. As Solnit (2016) has commented, “Perfection is a stick with which the beat the possible” (p. 77).

A number of recent efforts have been undertaken to boost the sustainability of the music industry, suggesting that a number of hopeful tunes are coming together. The England-based non-profit organization Julie’s Bicycle, for example, serves as a hub and sustainability think tank by bringing together creative communities, including musicians, record labels, festivals organizers, who are interested in shifting the relationship of music and the arts to the issue of climate change (julie’s bicycle, 2022). Their work includes educational seminars, consultations, and certifications of “green” concert promoters as well as the publishing of tip guides for tour booking agents and performers seeking to implement sustainable merchandising practices, reduce or eliminate carbon emission on tours, and even “green” backstage riders. Another rapidly growing coalition of musicians and artists are coming together to develop solutions under the moniker “Music Declares Emergency,” which has set out to revamp the music industry from the bottom by my leveraging the idea that ecological constraints can be a source of creativity. The record label Ninja Tune’s production of the first non-petroleum-based LP stands out as a particularly bright note.

Affirmative ethics link to a genealogy of feminist resistances as put forth by Kelly (1979) Harraway (1997, 2003), Rich (2001) and others. Braidotti (2010) embraces affirmative orientations as vital to the work of transformation, observing, “(t)hose who go through life under the sign of the desire for change need accelerations . . . need to be visionary, prophetic, and upbeat.” (p. 216). By wedding affirmative ethics to feminist horizontal practices, a critical posthumanist praxis, moves “beyond the paralyzing effects of suspicion and pain” (Braidotti, 2013, p. 134) to the work of “transforming the negative charge of these experiences, even in intimate relationships where the dialectics of domination are at work” (Braidotti, 2013, p. 129). This shift accelerates the task of transformation through practices of care, healing, and upliftment. The ethical charge here is “to get going. Affirmative ethics puts the motion back into e-motion and the active back into activism” (Braidotti, 2019, p. 181).

I hear an important role for music within a critical posthumanist platform of affirmative ethics. Music, and the pleasure it produces, can help us to “get going” by converting pain into empowerment, and by inviting bodies into spaces of intense experimentation with emergent modalities of existence and creative resistance. As Born (2011) notes, music mediates social change through experimentation on the level of shared, intimate socialities and imagined collectivities, and experimentation links art and music to the political for it is at the very core of notions of change (Massumi, 2002). Moreover, musical modalities encode these transformative processes in a joyful process. Rosenthal and Flacks (2015) note:

Musicking, with its emphasis on pleasure and the here and now, can contradict the work ethic and delayed gratification that elites usually see as necessary for the masses to embrace. Thus, even in its most ‘apolitical’ forms, musicking may undermine an existing order by claiming participant’s passions, drawing their allegiance from other pillars of society that those in control would like to see as the focus: work, state, family, and so forth. (p. 115)

Placing music into the foreground of critical posthumanist praxis supports the formation of empowered, upbeat, and affective relations, that, according to Grossberg (1992) are “at least potentially, the condition of possibility for the optimism, invigoration and passion which are necessary for any struggle to change the world” (p. 86). As far back as I can remember, music has changed me, and in turn, called me to shape change.

Musical Beginnings: Affirming My Musical Self

I started playing music at a relatively young age and took to the different instruments that I picked up with mixed results. It helped somewhat that I came from a musical family. My father played trombone in college and sang semi-professionally in musicals with different local theatre companies, and I remember my mother—while she seemed to carry no aspirations to sing professionally—could carry a tune beautifully. Some of my favorite memories as a child are of her holding me in a big white wicker rocking chair and singing me to sleep. By the time I outgrew this ritual, I had discovered the joy of portable radios, and used to keep one inside my pillow so I could pretend to sleep while I turned to dial and scanned the radio airwaves for songs that I liked, or songs that I would soon come to like, with my fingertip resting on and carefully riding the

notches of the volume dial for hours at a time until I fell asleep, and for some time after then, too.

The first instrument I attempted to formally play was the trumpet. That lasted about a month, mainly due to the fact that my teacher—who was my elementary school’s band instructor—had to divide his attention between about 30 students for the one and a half hours that we met a week to rehearse. (The dearth of resources we invest into music and the arts in schools is a whole other dissertation topic). I did not see the horrible sound I made on the rented brass instrument, or the din that we made as a group, improving fast enough to be worth the time, so I gave it up after my fourth “lesson.” Some assemblages are stronger than others.

My second attempt at a musical instrument went a bit better, when in the 6th grade my classmate Jeremy brought his dad to “show and tell.” His father, who was a drummer, brought in and set up his drum set, gave a short demo, and then give any student who wanted it an opportunity to play. I do not recall anything from the moment when I sat down to play his drums, other than the feeling that my life had somehow changed, and in a big way. After that day I knew in my heart that playing the drums was what I wanted to do.

Despite these early premonitions, it was not until I was a freshman in high school when I got my first summer job working at a record store that I actually obtained my own drum set. This job was at a record store owned by my best friend Dustin’s dad, which was previously owned by his dad, and was located in what was then a relatively dodgy area of downtown San Diego. I found the drum set—a 1971 maple Ludwig kit—

disassembled on top of a dusty shelf in the back of the shop and asked if I could bring it home for the weekend. I never brought it back, and eventually paid off the \$200 that my best friend's dad charged me through my hours working for him. While I have owned a few other kits since then, I have sold them all and play that one exclusively to this day.

Besides the gift of musical instruments, that job gifted me much in the way of a musical education. My job, as well as my best friend's—whom I used to sit next to while working in the rear of the store—entailed pulling out box after box of vinyl records that had not seen the light of day for a couple of decades, dusting their covers, and cleaning any visible fingerprints off the black discs inside with lighter fluid and a small, soft, scratch-resistant cloth. Since the shop had been around since the 50s, there was an incredible amount of history, and dust, in those boxes. The process of digging through those boxes first entailed digging *for* them, as each one was buried deep in the cool dark recesses of the store's large attic and many storage closets. The amount of dust we inhaled and dug carefully through gave the ritual the feeling of an archeological dig, as did the fact that we were in many instances unknowingly handling treasures.

What I got out of that experience (besides a drum set and a little extra pocket change for summer shenanigans) was a crash course in music history—not the kind one might get out of a textbook, but a tactile, hands-on, material intimacy with previously-owned musical objects of every type and genre imaginable. We listened to those records as we cleaned too, or rather, my best friend's dad played them, and when we responded positively to a sound, he would turn us on to something similar. As we sat in the back of the shop cleaning off the fingerprints of strangers, we learned the strange names of artists,

such as Thelonius Monk, Jelly Roll Morton, Curtis Mayfield, Nina Simone, the Meters, and Mothers of Invention, each one opening up a wormhole into history, an era, and a kaleidoscope of aural affects. 25 years or more before I had ever heard the term posthumanism, I was put under the spell of resonating, dusty, finger-printed nonhuman objects, objects which set my imagination ablaze and opened my heart to a myriad of ontological resonances imbued with the sound of joys, celebrations, and struggles past.

The affective resonances of music, and the epistemological portals that record sleeve biographies, backstories, photos, and artwork provided, opened conduits of intellectual curiosity and corridors of ethnosympathies (Cruz, 1999), and helped me to understand that music is never *just* about the music. It is about relationships, and communities, and histories. Music is just the audible dimension of complex and sprawling extra-musical networks, assemblages that link bodies, positionalities, identities, and forces of human and nonhuman mutation, that I could choose to be a part of, and even contribute to meaningfully, if I took the time to understand and cultivate my own caring relationship to those assemblages.

It is through music that I came to know myself as a part of something bigger than myself. This is one of the understandings that certain religions offer, I think. But religion never played a big role in my family, not as much as music did anyway. My communities, my social rituals, my belief systems, my sense of home, safety, and the supernatural, almost always manifested through the musical encounters and relationships that I experienced. Music has, in many ways, been my religion, and mode through which

I have sought, actualized, and maintained many significant ongoing connections to both real and imagined communities.

It is through music that I also developed a political consciousness, which, as a child of the 80s, helped me to make sense of the conversations and political crises that were accelerating due to the rise of religious conservatism and neoliberalism. Ronald Reagan, Margaret Thatcher, the Iran-Contra affair, the Christian Right, Jerry Falwell, and other figures showed up on my young, developing political radar, as well as the links between racism, sexism, misogyny, capitalism, fascism, white supremacy, and animal cruelty, as phenomena to be aware of and to object to vociferously through musical outlets. During this period, I was drawn towards the DIY (do it yourself) ethos of punk music, which sought to establish alternative ways of existing, of supporting others, and calling for change outside of a corporate, racist, and sexist America. I learned that music could be much more than just entertainment or a short cut to happy feelings; it could be vehicle for awareness, a form of protest and emotional catharsis, a way of life, and a means to a life lived more ethically.

These understandings seeped into embodied practices of solidarity as I attended shows and participated in exchanges of ideas, sounds, affects that the local musical underground offered. My sense of right and wrong, and my responsibilities to be a force for positive social transformation took shape and was affirmed by the bodies I was surrounded by as we undertook creative experiments with political expression, subjectivity, and collectivity. At one show, I recall the rush of purchasing a grey t-shirt with the words “END RACISM” printed in all caps on it. I witnessed the effects of its

blunt message on those around me when I wore it to school the very next day and leaned into the discomfort it brought to social interactions by bringing such an ugly phenomenon to the surface. This message not only let others know where I stood, it connected me to a vital musical community that was doing the work *of* community.

I continue to appreciate many of the values associated with punk culture, and its function as a voice of dissensus, which helps significantly to keep the pot of political discourse stirred. As Bourdieu (2001) has argued, “there is no genuine democracy without genuine opposing critical powers” (p. 8). But I have since found other ways to live ethically and express critical viewpoints beyond the narrow aesthetics, utopianism, and reductive oppositionist stances that can constrain and overdetermine punk culture. At a certain point, I grew both aware and weary of the policing that such a tightly screwed idealism produced. Too much energy was expended on who and what was, or was not “punk,” and the policing of boundaries driven by questions of authenticity and other purity tests.

Such pressures to conform seemed contradictory to me for a movement that sought to liberate people from certain ideologies and be a vehicle for originality. Many people, including some I know personally and still admire today, seem stunted in their own perspectives, creativity, and growth as a result of their investments into a “punk” ethos of oppositionist politics long ago, which can in some cases come to define a person in terms of what they are not. This situation has made me question the relationship between identity and social change and underscored the need to have both the courage of your convictions and the courage to welcome dialogue, fresh perspectives, growth that

might challenge one's own political dogma or sedimented sense of self. I have returned to this thought, and my experiences dealing with narrow minded ideologues repeatedly in my engagement with critical posthumanism and new materialist theorists, which has helped me to understand more completely how transversal dialogues might offer something even more revolutionary than the calls coming from many self-described "revolutionaries." The access, participation, and connection to communities that music has afforded me engenders this type of growth, affirming music as an opening into emergent and vital worlds. In some instances, these openings have invited me into the deep end of emergent, transversal, more-than-human imaginaries and relationships.

Fruiting Bodies, Mycelial Musics: Affirming my Musical Networks

I have been playing music now for over thirty years and have been lucky to experience many moments making meaningful music with interesting people in interesting places. I know music is transformative because I have been deeply affected by (and [re]constituted through) the many friends I have made and by the musical encounters I have shared with others. I think one of the keys to music's capacity to shape change is exactly this: the *relational capacities* that musical encounters offer us. This project has given me a space to think through the nature of these capacities and the impactful relationships they have enabled, how they are established and maintained, how they make me and others feel and act, and how I might now more strategically direct the aggregative capacities of musical (and extra-musical) experiences toward care for the more-than-human world. I have looked to many examples outside of my personal lived experiences in this study for clues. Now I turn inward.

I have a friend named Barry who is a drummer in various bands in Southern California. I have known him since I started engaging with and moving through dimensions of the San Diego music “scene” thirty years ago. Even though I have not actually seen him in person for at least 20 years, we stay connected on social media, and “like” and occasionally exchange supportive comments on each other’s Instagram posts. In addition to being a talented musician, Barry is also vegan and a vocal participant in animal rights groups that regularly circulate graphic videos depicting the hidden horrors of the fur, dairy, poultry, beef, and other animal-based product industries. By virtue of our virtual connections, I am exposed to and frequently watch these videos, at least until the point that I can’t any longer anyway.

Occasionally, a video depicting a radical action of civil disobedience, animal liberation, or sabotage pops up. I watch most of those too. Many of the videos have a pedagogical component. Some expose how rights and dignity are arbitrarily afforded and denied different nonhumans on this planet. Others explore the links between consumer habits, industrial farming, and phenomena such as biodiversity loss, oceanic dead zones, and climate change. These videos—traitorous to the often tacit and foundational solidarities of anthropocentrism—have had a tremendous impact on my own beliefs and habits. Equally inspiring is Barry himself, who is a pacifist, a compassionate devotee of Buddhism, and kind-hearted soul. And coincidentally (or perhaps not), the “END RACISM” t-shirt that I purchased and wore proudly around my high school campus I bought from his band when we were both kids. While it is social media that enables our present-day communication, it is music and the socio-techno assemblages that we

participated in that made our relationship possible. Music is the through line and vitalizing filament that runs through most of the networks I am a part of.

I am getting better at recognizing the value and nourishing the synergistic potentials between these emerging networks. About 5 months ago, I performed with my “world” band at the North Park Music festival, a smaller community-run music festival in the San Diego neighborhood of North Park. After our set I wandered around the festival site to catch some of the other acts and met two women from a local Native American tribe. Through our conversation, I learned they were in the planning stages of a new music festival, and they had come to the event to do some “research and development” before their launch in 2023. The “Run with the Sun” festival—they explained to me—would be held on the Sycuan Indian reservation and mark the finish line for an Indigenous transcontinental run/water prayer in solidarity with water protectors and activists. The multi-tribal three-day festival will honor and celebrate the work of those on the front lines of various Indigenous sovereignty movements with 3 days of music, camping, games, prayer rituals, and other activities.

Hearing an opportunity to generate connections, I introduced them to my friend who helped to organize and book the North Park Music Fest, and everyone exchanged contact information. I have since put them in contact with a few other key players in the San Diego music production community, the Native Resource Center at the university where I work, and several bands I thought would make for an interesting bill, including one rather large international touring group. I do not know what, if anything, will come of our ongoing conversations and networking, which are playing out in interesting

exchanges across text, email, and cell phone conversations. But I am excited to see how this emergent murmuration unfurls, and what it could translate into in terms of attention, support, and solidaristic actions for water protectors and Native communities on the front line of climate change in the region. Considering the fact that an estimated 80% of the world's biodiversity is currently protected by Indigenous people's (WWF, 2022), solidarity with a more-than-human world is inextricable from a climate justice platform that prioritizes the support and rematriation of Indigenous territories (Carrió & Cooper, 2022; Kenfack, 2022). It is communication technology that supports our networking activities now, and relational capacities generated by musical encounters that made our connection possible.

Networks play a fundamental role in the organization and growth of any political movement, and communication technologies play a fundamental role in the establishment of political networks. Castells (2015) frames digital communications as “networks of networks” that promote transversal connections and relations across decentralized nodes, which “maximizes chances of participation in the movement” (p. 221). For Dixon and Davis (2014) networks play a fundamental role in the pre-figuring of tomorrow's strategic enactments, as they are exploratory in nature, and constitute communities through the sharing of resources and development of capacities. For Kavada (2016), these capacities are manifold, and include—inter alia—the capacity to *articulate* different sites, actors, conversations into emergent alliances, the capacity to *represent*, or speak on behalf of (at least a part of) society, and the capacity to *create* new codes that shape how society interacts, new sites of conversation that operate differently, to provide models of

living and being that change the world in a way that resonates with a movement's ideals and value.

I make sense of relational networks that musical communities make possible in terms of mycelial organisms. Mycelia, which are the vegetative body of fungi, work together to facilitate the exchange of carbon, water, nitrogen, phosphorous, and other nutrients between trees, fungi, and seedlings, and thus point to the advantages of shared networks for survival of all. These understandings have been illuminated by Suzanne Simard, a professor of forest ecology at the University of British Columbia, whose research into species interdependencies went against the grain of individualist organism models prominent since Darwin and established her as a pioneer in the effort to understand plant communication and behavior. This complexity of interspecies signaling and collaboration that mycelia enable contributes to rich subterranean chatroom that has been described as a sort of "wood wide web" (Jabr, 2020). When the conditions are right, mycelia send up mushrooms, or a "fruiting body," to express countless numbers of spores into the air to spread genetic codes and increase the odds of a network's survival and spread to other locales. The collaborative, organizational, and expressive functions of mycelial networks have caught the imagination of social theorists, activists, and organizers for social change.

Adrienne Maree Brown's (2017) work in social movement theory, which often turns to the natural world for models of emergent strategies of organization, casts a bright light on mycelial networks. As the largest organisms on the planet, mycelia embody processes of interconnectedness, remediation, and detoxification, and connect the roots of

vast numbers to create healthier, more vibrant, and more mutually accountable relations. These organisms teach an important lesson about the power of collaboration across difference, offering a way of knowing and becoming-with that work against the individualist and “penetrative” masculinist frameworks of social change (Brown, 2017). Solnit (2016) builds on the mycelial metaphor, suggesting the sudden emergence of uprisings and revolutions is rarely a spontaneous or flippant occurrence, but the “fruiting body of the larger, less visible fungus,” which represents the “less visible, long-term organizing and groundwork” (p. xv).

I believe the work of musicians and artists in the context of political movements can also be understood in terms of fruiting bodies. As spaces for the expression of a movement’s values, emotions, affects, and codes, musical encounters mark the location of fruiting bodies, which help to fulfill what Cohen and Arato (1994) identify as the “expressive action” role of emerging social movements. These experiments with intensity imprint into the public imagination the shapes, colors, sounds, and messages of emerging collectives within the haze of emerging social movements. But the expressive actions of musicking do not just give visible and audible presence to movements, it also helps to attract, constitute, and affirm the formation of alliances from within.

Fruiting bodies serve as both markers and attractors of allyship and indicators of deeper networks and supportive relationships below the surface. Within the space of social movements, Rosenthal and Flacks (2015) note, music can provide a link to “unknown others” (p. 126) and “reinforce participant’s feeling that the movement is real” (p. 126), and because musicking provides “emotional substrata to conscious thought” (p.

154), the “public declaration of a movement or ideology can help to crystallize currents of feeling and belief already present in society at large and in the mind of the individual” (p. 154). In this way, musicking, along with listening, and hearing combine to form a “basis for an insurrectionary activity, a coming community” (Labelle, 2018, p. 4). When this music resonates in the registers, scales, and modalities of a posthuman politics, the musical sporulation of fruiting bodies can proliferate the possibilities for more-than-human insurgencies and contribute to the development of materially embedded networks of accountability for human and nonhuman actors (Papadopoulos, 2010).

A component of my more-than-human musical praxis entails listening carefully for these fruiting bodies, contributing force to the winds that carry their messages and affects, and developing methods of strategically and transversally connecting my own mycelial threads to the tendrils of their vital networks. I fold the spirit of this idea into my own practices of writing and recording music, and my involvement with multiple overlapping musical communities. Additionally, I have recently created my own publishing company and plan to release music and writings—both my own and others—that will hopefully advance the formation of more-than-human sensibilities, skill sets, and solidaristic relations.

Transversal Conclusions, Open Ends, and Other Paradoxical Fruits

Climate change is complex, and its effects widely distributed. Parsing out the factors that contribute to climate change and predicting what the future holds is a difficult task due to the sheer scale and enmeshed nature of earth’s many entangled and looped systems. Considering the complexity, scope, ambiguity of our current climate crisis,

Timothy Morton (2013) has characterized global warming as a “hyperobject,” a phenomenon distributed so widely across time and space that it nearly escapes perception. At the same time, pieces of it are littered throughout our everyday worlds. A good friend of mine recently brought to my attention one fragment of the hyperobject that is climate change sitting silently on the shelf of the grocery store.

As I read the ingredients of a jar peanut butter to her, she stopped me. “Palm oil? You mean orangutan blood?” she said. This comment shook my senses. Having taken in interest in the effects of food production systems years ago, I was aware of the palm oil industry’s slash-and-burn practices and the devastation it left behind in key orangutan habitats in Indonesia (and elsewhere). But it still took me a second to put the two things together. Researching it later, I learned that palm oil production is the third biggest driver of tropical deforestation in the world—behind soy and beef production—and that orangutans who survive the human set fires are typically either shot on sight or are captured for sale in the lucrative wildlife trade (“What’s Driving Deforestation,” 2016). Standing in the middle of the grocery store, I imagined myself back at home making a peanut butter and orangutan blood sandwich as the sound of a motherless baby orangutan wailed in the background.

It is perhaps easiest to imagine more-than-human solidarity with our nearest, and most human-like relatives. As one of human’s closest and most charming relatives, the orangutan has achieved a “charismatic megafauna” status, joining a chorus of easily recognizable animal delegates used in wildlife conversation efforts. Such affective strategies have been used to legislate protections, such as the 1973 Endangered Species

Act (Peterson, 1999), to promote ecotourism (Hausman et al., 2016), and to drum up donations from would-be sympathizers in the Global North for conservation efforts in the Global South (Skibins et al., 2013).

There are, of course, dangers and “traitorous” risks involved when entities in the nonhuman world are portrayed as one of “us” (Grasso et al., 2020), and the anthropomorphizing of nonhumans can significantly impact conservation efforts as well as relationships between humans and nonhumans in destructive ways (Root-Bernstein et al., 2013). Conversely, failing to recognize the similarities between humans and other species, a condition primatologist Franz De Waal (1997) has referred to as “anthropodenial,” can also be problematic where it contributes to the construction and maintenance of “a brick wall to separate the humans from the rest of the animal kingdom” (p. 2). Activation of solidaristic relations with more-than-humans, thus, necessitates negotiating notions of sameness and difference both within and across perceived species boundaries and must consider the various ways these dynamics modulate a sense of belonging, obligation, and duty differently across natural/cultural contexts and philosophical frameworks. Transversal approaches hold space for these strange negotiations, while generating possibilities for new collectivities. In time, perhaps these practices can also help us to thicken our definitions of justice, and to recognize and compose careful collaborations with the rhythms of immanent everyday more-than-human worlds.

As I sit typing these words, I look out my window to the front yard. I have a very large, healthy, and prolific fig tree in the front yard of the house where I have lived as a

renter for 15 months now. Since I have lived here, the tree has blessed the neighborhood with big juicy figs twice during the summer months. I say, blessed “the neighborhood,” because I have made a point to spread the bounty around. While I do strive to be generous in my life generally, I am also trying to keep up with the rate at which these figs ripen and fall because I hate to see them go to waste.

Luckily, I get some help with this task. The tree attracts all sorts of life to it, to the degree of a mini ecosystem. Most notable are the beetles, large, green, clumsy, metallic buddies, with big noisy wings that seem to send them crashing into every object indiscriminately. They adore the figs, and at peak season, it is not uncommon to find 5 or 6 or 7 of them quietly huddled together on a single fruit, noshing away. Growing up, I had always heard these insects referred to as “Chinese beetles.” When I looked them up, I learned their scientific name: *cotinis mutabilis*, known colloquially as the figeater beetle! Turns out, my list of bounty-sharing neighbors includes a species of insect that has a scientifically recognized, evolutionary relationship to this tree. Despite my fondness for figs, I have designated the crown of the tree—about the top 4 feet—theirs.

But once those fruits arrive in force, the entire tree comes alive with claimants. I have seen rows upon rows of marching ants, wasps, bees, crows, finches, yellow tanagers, and about a half dozen other birds that I am not familiar with, stopping by to grab a quick bite. I have even caught a couple of neighbors stocking up without permission (one has earned the nickname “the fig thief” between a few of us on my block). What unsampled figs I am able to harvest for myself, I derive great pleasure in consuming in any and every way that I can. Although, my favorite method is still straight

off the tree and into my mouth. I simply could not keep up with the harvest his year, even with my personal deliveries around the neighborhood and multi-species crew of helpers. So, I started freezing them. I have about 5 large zip-lock bags full of them in my freezer now. And I have a great recipe for a rosemary-thyme, mezcal fig jam given to me by a friend that I am looking forward to testing.

I have developed a lot of gratitude for this tree. Not just for the fruits it offers me and all of my “neighbors.” But for what it is teaching me in a very material way about the meaning of more-than-human communities, about the webs of interdependency that surround and sustain us—even those that somehow show up year after year in the middle of a sprawling, dirty city overrun with busy, inattentive, and unsympathetic human beings. In some ways, life finds a way because it *has to*, that is its mandate. Alagona (2022) refers to the pockets of diverse life that somehow manage to survive—and in some instances thrive—in “weird wildlife refuges” along the edges and nestled in the midst of urban regions as “accidental ecosystems” (p. 2). While the posthuman convergence demands transformations of food, energy, transportation, and other systems on a macro scale, it also invites us to attend to the polyrhythms of multi-species co-existences, and to explore how medianaturecultures might contribute to their ongoingness. Should we choose to compose more livable, and more musically collaborative spaces, more-than-human flourishing will surely not be an accident.

And after giving it a little thought, I think that I will name the recording studio I am building in my backyard “Fig Jam Studios,” and just see what visitors it might attract.

References

- Abram, D. (1996). *The spell of the sensuous. Perception and language in a more-than-human world*. New York, NY: Vintage Books.
- Abu-Lughod, J. L. (1989). *Before European hegemony: The world system A.D. 1250-1350*. New York, NY: Oxford University Press.
- Abu-Lughod, L. (1998). Contentious theoretical issues: Third world feminisms and identity politics. *Women's Studies Quarterly*, 26(3/4), 25-29.
- Acosta, A. (2017). Living well: Ideas for reinventing the future. *Third World Quarterly*, 38(12), 2600-2616.
- Acosta, A., & Abarca, M. M. (2018). *Buen vivir: An alternative perspective from the peoples of the global south to the crisis of capitalist modernity*. In V. Satgar (Ed.), *The climate crisis: South African and global democratic eco-socialist alternatives* (pp. 131-147). Johannesburg. South Africa: Wits University Press.
- Adorno, T. W., & Horkheimer, M. (1997/1944). *Dialectic of enlightenment*. New York, NY: Verso.
- Adorno, T. (1982). *Prisms*. (Trans. S. Weber & S. Weber). Cambridge, MA: MIT Press.
- “African activists: The Earth is in peril if wealthy nations don’t slash emissions and pay climate debt”. (2021, April 23). *Democracy Now*. Retrieved from https://www.democracynow.org/2021/4/23/climate_summit_emission_cuts_global_south
- Agamben, G. (1998). *Homo sacer: Sovereign power and bare life*. Stanford, CA: Stanford University Press.

- Agrawal, A., & Redford, K. (2009). Conservation and displacement: An overview. *Conservation and Society*, 7 (1), 1–10.
- Ahmed, S. (2004). Affective economies. *Social text*, 22(2), 117-139.
- Ahmed, S. (2013). *The cultural politics of emotion*. New York, NY: Routledge
- Alagona, P. S. (2022). *The accidental ecosystem: People and wildlife in American cities*. Oakland, CA: University of California Press.
- Alaimo, S. (2016). *Exposed: Environmental politics and pleasures in posthuman times*. University of Minnesota Press.
- Alt, R. A., & Eberly, R. A. (2019). Between campus and planet: toward a posthumanist paideia. *Review of Communication*, 19(2), 94-110.
- Anderson, B. (1994). Imagined communities. In J. Hutchinson and A. D. Smith (Eds.). *Nationalism Reader* (pp. 89-96). Oxford University Press.
- Anderson, P. (1983) *In the tracks of historical materialism*. London: NLB.
- Anthes, E. (2022, August 30). The animal translators. *New York Times*. Retrieved from <https://www.nytimes.com/2022/08/30/science/translators-animals-naked-mole-rats.html>
- Appadurai, A. (1996). *Modernity at large: Cultural dimensions of globalization*. Minneapolis, MN: University of Minnesota Press.
- Appiah, K. A. (2006). *Cosmopolitanism: Ethics in a world of strangers*. New York, NY: W. W. Norton & Co.
- Appiah, A. A. (2019, March/April). The importance of elsewhere: In defense of cosmopolitanism. *Foreign Affairs*. Retrieved from

https://www.foreignaffairs.com/articles/2019-02-12/importance-elsewhere?utm_medium=promo_email&utm_source=lo_flows&utm_campaign=registered_user_welcome&utm_term=email_1&utm_content=20210604

Aristotle. (1991). *Nicomachean ethics* (H.G. Apostle & L. P. Gerson, Trans.). In *Selected Works* (3rd ed., pp. 425-555). Grinnell, AI: The Peripatetic Press.

Aristotle (2013). *Politics*. (C. Lord, Trans.) Chicago, IL: University of Chicago Press.

Arendt, H. (1951/1973). *The origins of totalitarianism*. London: Secker & Warburg.

Auner, J. (2003). 'Sing it for me': Posthuman ventriloquism in recent popular music. *Journal of the Royal Musical Association*, 128(1), 98-122.

Bachelard, G. (1938/1986). *The formation of the scientific mind: A contribution to a psychoanalysis of objective knowledge*. Boston, MA: Beacon Press.

Bangstad, S. (2019, September 5). Thoughts on the planetary: An interview with Achille Mbembe. *Newframe*. Retrieved from <https://www.newframe.com/thoughts-on-the-planetary-an-interview-with-achille-mbembe/>

Barad, K. (2003). Posthumanist performativity: Toward an understanding of how matter comes to matter. *Signs: Journal of women in culture and society*, 28(3), 801-831.

Barad, K. (2007). *Meeting the universe halfway: Quantum physics and the entanglement of meaning and matter*. Durham, NC: Duke University Press.

Barclay, L. (2015). Biosphere soundscapes. Retrieved from <http://www.biospheresoundscapes.org/about.html>.

Barzun, J. (1984). *Critical questions: On music and letters, Culture and biography, 1940-1980*. Chicago, IL: University of Chicago Press.

- Bastian, M., Jones, O., Moore, N., & Roe, E. (Eds.). (2016). *Participatory research in more-than-human worlds*. London: Routledge.
- Bateson, G. (1973). *Steps to an ecology of mind*. New York, NY: Ballantine Books.
- Bauman, Z. (1995). The left as counterculture of modernity. In S. M. Lyman (Ed.), *Social movements: Critiques, concepts, case-studies* (pp. 356-370). New York, NY: New York University Press.
- Bauman, Z. (2008). Happiness in a society of individuals. *Soundings*, 38(38), 19-28.
- Benjamin, W. (1935). The Work of Art in the Age of Mechanical Reproduction, 1936.
- Benjamin, R. (2018). *Race after technology: Abolitionist tools for the New Jim Code*. Medford, MA: Polity
- Bennett, J. (2011). *The enchantment of modern life*. Princeton, NJ: Princeton University Press.
- Bergson, H. (1991). *Matter and memory*. (Trans. N. M. Paul & W. Scott Palmer.) New York, NY: Zone Books.
- Benton, T. (2013). Humanism = speciesism: Marx on Humans and animal. *Radical Philosophy*, 50, 4-18.
- Berman, M. (1988). *All that is solid melts into air: The experience of modernity*. New York, NY: Penguin.
- Bhabha, H. (1984). Of Mimicry and man: The ambivalence of colonial discourse. *October*, 28, 125–133.
- Bhabha, H. (2004). *The location of culture*. New York, NY: Routledge.

- Bignall, S., & Braidotti, R. (2019). Posthuman systems. In R. Braidotti and S. Bignall (Eds.), *Posthuman ecologies* (pp. 1-16). New York, NY: Rowman & Littlefield.
- Bioneers (n.d.). Spirit in the air: Reform, revolution, and regeneration: Tom Hayden. Retrieved from <https://bioneers.org/spirit-in-the-air-reform-revolution-and-regeneration-tom-hayden/>
- Bird, J. M. (2020). The cyborg queen: Lip-syncing and posthumanism in ShayShay's 'Mutual Core'. *Contemporary Music Review*, 39(5), 526-543.
- Blackburn, R. (2001). The force of example. In D. P. Geggus (Ed.), *The impact of the Haitian Revolution in the Atlantic World* (pp. 15-22). Columbia, SC: The University of South Carolina Press.
- Boler, M., & Davis, E. (Eds.) (2021). *Affective politics in digital media: Propaganda by other means* (pp. viii-xi). New York, NY: Routledge.
- Born, G., & Hesmondhalgh, D. (Eds.). (2000). *Western music and its others: Difference, representation, and appropriation in music*. Berkeley, CA: University of California Press.
- Born, G. (2010). Listening, mediation, event: Anthropological and sociological perspectives. *Journal of the Royal Musical Association*, 135(S1), 79-89.
- Born, G. (2011). Music and the materialisation of identities. *Journal of Material Culture*, 16(4), 376-388.
- Born, G. (2012). Music and the social. In M. Clayton, T. Herbert, R. Middleton (Eds.), *The Cultural Study of Music: A Critical Introduction* (pp. 261-274). New York, NY: Routledge.

- Bourdieu, P. (1977). *Cultural reproduction and social reproduction*. In J. Karabel and A.H. Halsey. (Eds.) *Power and Ideology in Education* (pp. 487-510). Oxford: Oxford University Press.
- Bourdieu, P. (1985). The forms of capital. In J. G. Richardson (Ed.), *Handbook for theory and research for the sociology of education* (p. 241-258). Westport, CT: Greenwood Press.
- Braidotti, R. (2006a). Posthuman, all too human: Towards a new process ontology. *Theory, culture & society*, 23(7-8), 197-208.
- Braidotti, R. (2006b). *Transpositions: On nomadic ethics*. Cambridge: Polity Press.
- Braidotti, R. (2010). The politics of “life itself” and new ways of dying. In D. Coole & S. Frost (Eds.), *New materialisms: Ontology, agency, and politics* (pp. 201–218). Durham, NC: Duke University Press.
- Braidotti, R. (2013). *The posthuman*. Malden, MA: Polity.
- Braidotti, R. (2014). Writing as a nomadic subject. *Comparative Critical Studies*, 11(2-3), 163-184.
- Braidotti, R. (2015). Posthuman feminist theory. In L. Disch & M. Hawkesworth (Eds.), *The Oxford handbook of feminist theory* (pp. 673-698). New York, NY: Oxford University Press.
- Braidotti, R. (2016a) The critical posthumanities; or, is medianatures to naturecultures as *zoe is to bios?* *Cultural Politics*, 12(3), 380-390.
- Braidotti, R. (2016b). Posthuman critical theory. In D. Banerji & M. R. Paranjape (Eds.), *Critical posthumanism and planetary futures* (pp. 13-32). India: Springer.

- Braidotti, R. (2019). *Posthuman knowledge*. Medford, MA: Polity.
- Braidotti, R. (2021). Placental politics. In A. Jaque, M. O. Verzier, & L. Pietroiusti (Eds.), *More-than-human* (pp. 46-48). Het Nieuwe Institute.
- Braun, H. J. (Ed.). (2002). *Music and technology in the twentieth century*. Baltimore, MD: JHU Press.
- brown, a. m. (2017). *Emergent strategy: Shaping change, changing worlds*. Chico, CA: AK Press.
- brown, a. m. (2019). *Pleasure activism: The politics of feeling good*. Chico, CA: AK Press.
- Brown, S., & Volgsten, U. (Eds.). (2005). *Music and manipulation: On the social uses and social control of music*. New York, NY: Berghahn Books.
- Brunkhorst, H. (2005). *Solidarity: From civic friendship to a global legal community*. Cambridge, MA: MIT Press.
- Buchanan, I., & Swiboda, M. (Eds.). (2004). *Deleuze and music*. Edinburgh: Edinburgh University Press.
- Burke, K. (1952). *A grammar of motives*. New York: Prentice Hall.
- Butler, J. (1990), *Gender trouble: feminism and the subversion of identity*, New York, NY: Routledge.
- Butler, J. (1993), *Bodies that matter: On the discursive limits of 'sex'*. New York, NY: Routledge.
- Bryant, L. R. (2011). *The democracy of objects*. Ann Arbor, MI: Open Humanities Press.

- Byerly, I. B. (2013). What every revolutionary should know: A musical model of global protest. In J. C. Friedman (Ed.), *The Routledge history of social protest in music* (pp. 229-248). New York, NY: Routledge.
- Carrió, M. S., & Cooper, D. (2022). The red deal: Decolonising climate action. *Architectural Design*, 92(1), 78-85.
- Carson, R. L. (1962). *Silent spring*. Cambridge, MA: Houghton Mifflin Co.
- Castells, M. (1996-1998). *The information age: Economy, society, and culture*. Oxford: Blackwell.
- Castells, M. (2015). *Networks of outrage and hope: Social movements in the Internet age*. John Wiley & Sons.
- CELDF. (2021, March 3). International rights of nature solidarity. celdf.org. Retrieved from <https://celdf.org/2021/03/international-rights-of-nature-solidarity/>
- Chakrabarty, D. (2000). *Provincializing Europe*. Princeton, NJ: Princeton University Press.
- Chakrabarty, D. (2009). The climate of history: Four theses. *Critical inquiry*, 35(2), 197-222.
- Chambers, I. (2001). *Culture after humanism: History, culture, subjectivity*. New York, NY: Routledge.
- Chaney, D. (1994). *The cultural turn: Scene-setting essays on contemporary cultural history*. New York, NY: Routledge.
- Chomsky, N. (1999). *The new military humanism: Lessons from Kosovo*. Monroe, ME: Common Courage Press.

- Clayton, M. (2009). The social and personal functions of music in cross-cultural perspective. In S. Halman, I. Cross, & M. Thaut (Eds.), *The Oxford handbook of music psychology* (pp. 35-44). New York, NY: Oxford University Press.
- Clifford, J. (1992). Traveling cultures. In L. Grossberg, C. Nelson, & P. Treichler (Eds.), *Cultural studies* (pp. 96-116). New York, NY: Routledge.
- Clough, P. T., & Halley, J. (Eds.) (2007). *The affective turn. Theorizing the social*. Durham, N. C.: Duke University Press.
- Cohen, J. L., & Arato, A. (1994). *Civil society and political theory*. MIT press.
- Colebrook, C. (2014). *Sex after life*. Ann Arbor, MI: Open Humanities Press/University of Michigan Press.
- Collins, P. H. (1990). *Black feminist thought: Consciousness and the politics of empowerment*. London: HarperCollins.
- Conway, J. (2013). Transnational feminisms building anti-globalizations solidarity. In R. Reitan (Ed.), *Global movement* (pp. 57-72). New York, NY: Routledge.
- Corona, I., & Madrid, A. L. (Eds.). (2007). *Postnational musical identities: cultural production, distribution, and consumption in a globalized scenario*. Plymouth, UK: Lexington Books.
- Correal, A. (2018, May 28). What drove a man to set himself on fire in Brooklyn? *New York Times*. Retrieved from <https://www.nytimes.com/2018/05/28/nyregion/david-buckel-fire-prospect-park-fossil-fuels.html>

- Crosby, A. W. (2003). *The Colombian exchange: Biological and cultural consequences of 1492*. Westport, CT: Praeger.
- Crow, G. (2002). *Social solidarities: Theories, identities, and social change*. Philadelphia, PA: Open University.
- Cross, I. (2001). Music, cognition, culture and evolution. *Annals of the New York Academy of Sciences*, 930, 28-42.
- Cunningham, P. G. (2007). "A laughter that will bury you all": Irony as protest and language as struggle in the Italian 1977 movement. *International Review of Social History*, 52(S15), 153-168.
- Curnow, J., & Helferty, A. (2018). Contradictions of solidarity: Whiteness, settler coloniality, and the mainstream environmental movement. *Environment and Society*, 9(1), 145-163.
- Daggett, C. (2018). Petro-masculinity: Fossil fuels and authoritarian desire. *Millennium*, 47(1), 25-44.
- Damasio, A. R. (2003). *Looking for Spinoza: Joy, sorrow, and the feeling brain*. New York, NY: Harcourt.
- Danius, S., Jonsson, S., & Spivak, G. C. (1993). An interview with Gayatri Chakravorty Spivak. *Boundary 2*, 20(2), 24-50.
- Darwin, C. (1871). *The descent of man*. New York: D. Appleton.
- Dawson, M. (1994). *Behind the mule: Race and class in African-American politics*. Princeton, NY: Princeton University Press

- Davis, H., & Todd, Z. (2017). On the importance of a date, or, decolonizing the anthropocene. *ACME: An International Journal for Critical Geographies*, 16(4): 761–780.
- Dean, J. (1996). *Solidarity of strangers: Feminism after identity politics*. Berkeley: University of California Press.
- deCerteau, M. (1984). *The practice of everyday life*. (Trans. S. Rendall). Berkeley, CA: University of California Press.
- de La Bellacasa, M. P. (2017). *Matters of care: Speculative ethics in more than human worlds* (Vol. 41). University of Minnesota Press.
- Deleuze, G. (1988). *Spinoza: Practical philosophy*. (Trans. R. Hurley). San Francisco, CA: City Light Books.
- Deleuze, G., & Guattari, F. (1987). *A thousand plateaus: Capitalism and schizophrenia*. (Trans. B. Massumi). London, UK: Continuum.
- Deleuze, G. & Guattari, F. (1994). *What is philosophy?* (H. Tomlinson & G. Burchell, Trans.). New York, NY: Columbia University Press.
- Denning, M. (2015). *Noise uprising: The audiopolitics of a world music revolution*. Brooklyn, NY: Verso
- DeNora, T. (2000). *Music in everyday life*. New York, NY: Cambridge
- Derpmann, S. (2009). Solidarity and cosmopolitanism. *Ethical theory and moral practice*, 12(3), 303-315.
- Derrida, J. (2008). *The animal that I therefore am*. New York, NY: Fordham University Press.

- Descartes, R. (1984). *Principles of philosophy: Translated, with explanatory notes. Vol. 24*. Boston, MA: Springer Science & Business Media.
- Descartes, R. (1996/1637). *Discourse on the method and meditations on the first philosophy*. D. Weissman (Ed.). New Haven, CT: Yale University Press.
- Des Chene, D. (2018). *Spirits and clocks: Machine and organism in Descartes*. Cornell University Press.
- De Waal, F. B. M. (1997). Are we in anthropodenial? *Discover*, 18(7), 50-53.
- Dewey, J. (1934/2005). *Art as experience*. New York, NY: Perigree.
- Devine, K. (2019). *Decomposed: The political ecology of music*. Cambridge, MA: MIT Press.
- Dhillon, J. K. (2015). Indigenous girls and the violence of settler colonial policing. *Decolonization: Indigeneity, education and society*, 4(2), 1–31.
- Dixon, C., & Davis, A. Y. (2014). *Another politics: Talking across today's transformative movements*. Univ of California Press.
- Dobrin, D. (2020). The hashtag in digital activism: A cultural revolution. *Journal of Cultural Analysis and Social Change*, 5(1), 1-14.
- Donovan, J. (2017). Interspecies dialogue and animal ethics. In L. Kalof (Ed.). *The Oxford handbook of animal studies* (pp. 208-226). New York, NY: Oxford University Press.
- Douglass, F. (2011). *Narrative of the life of an American slave*. Transaction Publishers.
- Douglas, M. (1996). *Natural symbols: Explorations in cosmology*. New York, NY: Routledge.

- Dowie, M. (2011). *Conservation refugees: The hundred-year conflict between global conservation and native peoples*. Cambridge, MA: MIT Press.
- Dunlap, R. E., & McCright, A. M. (2008). A widening gap: Republican and Democratic views on climate change. *Environment*, 50(5), 26–35.
- Durkheim, É. (1926/1893). *De la Division du travail social: étude sur l'organisation des sociétés supérieures*. Paris: Alcan (cf. translation of Durkheim 1902b).
- Durkheim, É. 1897a. Le Suicide: étude de sociologie. Paris: Alcan
- Durkheim, É. (1969/1898). Individualism and the intellectuals. Tr. by S. Lukes with note. *Political Studies*, 17, 14-30.
- Durkheim, É. (2013). *Durkheim: The division of labour in society*. Macmillan International Higher Education.
- Edensor, T. (2002). *National identity, popular culture and everyday life*. New York, NY: Routledge.
- Eisenstadt, S. (2000) *Fundamentalism, sectarianism and revolution*. Cambridge, MA: Cambridge University Press.
- Elliott, D. J., & Silverman, M. (2017). Identities and musics. In R. MacDonald, D.J. Hargreaves, & D. Miell (Eds.), *Handbook of musical identities* (pp. 27-45), New York, NY: Oxford.
- Ellis, E. C. (2018). *Anthropocene: A very short introduction*. New York, NY: Oxford.
- Escobar, A. (2017). Other worlds are (already) possible: Self-organization, complexity and post-capitalist cultures. In Savyasaachi & R. Kumar (Eds.), *Social*

- movements: Transformative shifts and turning points* (pp. 289-303). New York, NY: Routledge.
- Espinosa, C. (2019). Intelligibility and the intricacies of knowledge and power in transnational activism for the rights of nature. *Environmental Sociology*, 5(3), 243-254.
- Eyerman, R., & Jamison, A. (1998). *Music and social movements: Mobilizing traditions in the twentieth century*. New York, NY: Cambridge University Press.
- Fanon, F. (1952/2008). *Black skin, white faces*. Trans. R. Philcox. New York, NY: Grove Press.
- Farrier, D. (2019). *Anthropocene poetics: Deep time, sacrifice zones, and extinction*. Minneapolis, MN: University of Minnesota Press.
- Federici, S. (1995). *Enduring western civilization. The construction of the concept of western civilization and its others*. Westport, CT: Praeger.
- Feld, S. (1984). Communication, music, and speech about music. *Yearbook for Traditional Music*, 16, 1-18.
- Feld, S. (2015). Acoustemology. In D. Novak & Sakakeeny (Eds.). *Keywords in sound* (pp. 12-21). Duke University Press.
- Feld, S., & Fox, A. A. (1994). Music and language. *Annual review of anthropology*, 23(1), 25-53.
- Ferrando, F. (2019). *Philosophical posthumanism*. New York, NY: Bloomsbury Publishing.

- Firestone, S. (1970). *The dialectic of sex: The case for feminist revolution*. William Morrow & Company.
- Fischer, F. (2000). *Citizens, experts, and the environment: The politics of local knowledge*. Durham, NC: Duke University Press.
- Folkestad, G. (2017). Post-national identities in music In R. MacDonald, D.J. Hargreaves, & D. Miell (Eds.), *Handbook of musical identities* (pp. 123-137), New York, NY: Oxford.
- Foss, S. K., & Foss, K. A. (2019). *Inviting transformation: Presentational speaking for a changing world*. Long Grove, IL: Waveland Press.
- Foucault, M. (1984). Polemics, politics, and problematizations: An interview with Michel Foucault. In P. Rabinow (Ed.), *The Foucault reader* (pp. 381-390). New York, NY: Random House.
- Foucault, M. (1988). Technologies of self. In L. H. Martin, H. Gutman, & P. H. Hutton (Eds.), *Technologies of self*. Amherst, MA: University of Massachusetts Press.
- Foucault, M. (2005). *The order of things*. New York, NY: Routledge.
- Fox, N. J., & Alldred, P. (2020). Re-assembling climate change policy: Materialism, posthumanism, and the policy assemblage. *The British journal of sociology*, 71(2), 269-283
- Fraser, N. (1992). Rethinking the public sphere: A contribution to the critique of actually existing democracy. In C. Calhoun (Ed.), *Habermas and the public sphere* (pp. 109-142). Cambridge, MA: MIT Press.
- Fraser, N. (2014). *Transnationalizing the public sphere*. Malden, MA: Polity.

- Fraser, N., & Honneth, A. (2003). *Redistribution or recognition?: A political-philosophical exchange*. Brooklyn, NY: Verso.
- Freedman, E. (2022). 'It's critical the message makes it to the mainstream': Nasa climate scientist speaks on his tearful protest. *Independent*. Retrieved from <https://www.independent.co.uk/climate-change/news/protest-nasa-scientist-rebellion-b2059788.html>
- Freire, P. (1970), *Pedagogy of the oppressed*. New York, NY: Bloomsbury Academy.
- Frith, S. (2003). Music and everyday life. In M. Clayton, T. Herbert, & R. Middleton (Eds.), *The cultural study of music: A critical introduction* (pp. 92-101). New York, NY: Routledge.
- Fukuyama, F. (2002). *Our posthuman future: Consequences of the biotechnology future*. New York, NY: Picador.
- Gatens, M., & Lloyd, G. (1999). *Collective imaginings: Spinoza past, present*. New York, NY: Routledge.
- Gaztambide-Fernández, R. A. (2012). Decolonization and the pedagogy of solidarity. *Decolonization: Indigeneity, Education & Society*, 1(1) 41-67.
- Genosko, G. (2000). The life and work of Felix Guattari: From transversality to ecosophy. In F. Guattari, *The three ecologies* (pp. 49-85). New York, NY: Bloomsbury.
- Genosko, G. (2002). *Félix Guattari: An aberrant introduction*. New York, NY: Continuum.

- Giffney, N., & Hird, M. J. (Eds.). (2008). *Queering the non/human*. Burlington, VT: Ashgate Publishing, Ltd..
- Gilbert, S. F. (2017). Holobiont by birth: Multilineage individuals as the concretion of cooperative processes. In A. L. Tsing, N. Bubandt, E. Gan, & H. A. Swanson (Eds.), *Arts of living on a damaged planet: Ghosts and monsters of the Anthropocene* (pp. M73-M89). Minneapolis, MN: University of Minnesota Press.
- Gillespie, T. (2010). The politics of 'platforms'. *New media & society*, 12(3), 347-364.
- Gilroy, P. (1991). *There ain't no black in the Union Jack*. Chicago, IL: University of Chicago Press.
- Gilroy, P. (2000). *Against race. Imagining political culture beyond the color line*. Cambridge, MA: Harvard University Press.
- Gioia, T. (2019). *Music: A subversive history*. New York, NY: Basic Books.
- Gladden, M. E. (2018). *Sapient circuits and digitalized flesh: The organization as locus of technological posthumanization*. Indianapolis, IN: Defragmenter Media.
- Gluckstein, D. (2011). *The Paris Commune: A revolution in democracy*. Chicago, IL: Haymarket Books.
- Gómez-Barris, M. (2017). *The extractive zone: Social ecologies and decolonial perspectives*. Durham, NC: Duke University Press.
- Goodale, G. (2011). *Sonic persuasion: Reading sound in the recorded age* (Vol. 30). Champaign, IL: University of Illinois Press.
- Goodale, G. (2013). The sonorous envelope and political deliberation. *Quarterly Journal of Speech*, 99(2), 218-224.

- Goodman, S. (2012a). *Sonic warfare: Sound affect and the ecology of fear*. Cambridge, MA: MIT Press.
- Goodman, S. (2012b). The ontology of vibrational force. In J. Sterne (Ed.), *The sound studies reader* (pp. 70-72). New York, NY: Routledge.
- Gould, C. C. (2007). Transnational solidarities. *Journal of Social Philosophy*, 38(1), 148–164.
- Gourgouris, S. (2016). Musical dispossessions. In R. Braidotit & P. Gilroy (Eds.), *Conflicting humanities* (pp. 245-266). New York, NY: Bloomsbury.
- Gramsci, A. (1994). *Letters from prison* (Vol. 2). New York, NY: Columbia University Press.
- Grasso, C., Lenzi, C., Speiran, S., & Pirrone, F. (2020). Anthropomorphized nonhuman animals in mass media and their influence on human attitudes toward wildlife. *Society & Animals*, 1, 1-25.
- Gray, T. L. J. (2013). Eco-protest music and the U.S. environmental movement In E. Rojas & L. Michie (Eds.), *Sounds of resistance: The role of music in multicultural activism* (pp. 163-182). Santa Barbara, CA: Praeger.
- Grossberg, L. (1992). *We gotta get out of this place: Popular conservatism and postmodern culture*. London: Routledge
- Grosz, E. (2004). *The nick of time: Politics, evolution, and the untimely*. Durham, NC: Duke University Press.
- Grosz, E. (2005). *Time travels*. Durham, NC: Duke University Press.
- Guattari, F. (1972). *Psychanalyse et transversalité*. Paris: François Maspero.

- Guattari, F. (1995). *Chaosmosis*, (Trans. P. Bains and J. Pefanis). Bloomington, IN: UP.
- Guattari, F. (2000). *The three ecologies*. London: Athlone Press.
- Guattari, F. (2011). The vertigo of immanence: Interview with John Johnston, June 1992. In E. Alliez and A. Goffey (Ed.), *The Guattari Effect* (pp. 25-29). New York, NY: Continuum.
- Gunn, J., Goodale, G., Hall, M. M., & Eberly, R. A. (2013). Auscultating again: Rhetoric and sound studies. *Rhetoric Society Quarterly*, 43(5), 475-489.
- Gupta, S. (2007). *Social constructionist identity politics and literary studies*. New York, NY: Springer.
- Guy, N. (2009). Flowing down Taiwan's Tamsui river: Towards an ecomusicology of the environmental imagination. *Ethnomusicology*, 53(2), 218-248.
- Hackett, A., MacLure, M., & McMahon, S. (2021). Reconceptualising early language development: matter, sensation and the more-than-human. *Discourse: studies in the cultural politics of education*, 42(6), 913-929.
- Hagood, M. (2019). *Hush: Media and sonic self-control (sign, storage, and transmission)*. Durham. NC: Duke University Press.
- Häkli, J. (2018). The subject of citizenship—Can there be a posthuman civil society?. *Political Geography*, 67, 166-175.
- Harding, S. (1991). *Whose science, whose knowledge?* London: Open University Press.
- Harding, S. (1993). ‘Rethinking standpoint epistemology: “What is strong objectivity?”’ in L. Alcoff & E. Potter (Eds.), *Feminist Epistemologies* (pp. 49–82). New York, NY: Routledge

- Hardt, M. (2007). Foreward: What affects are good for. In P. T. Clough & J. Halley (Eds.) *The affective turn. Theorizing the social* (pp. ix-xiii). Durham, N. C.: Duke University Press.
- Hardt, M., & Negri, A. (2000). *Empire*. New York, NY: Harvard University Press.
- Halberstam, J. M., & Livingston, I. (Eds.). (1995). *Posthuman bodies*. Bloomington, IN: Indiana University Press.
- Halliwell, M., & Mousley, A. (2003). *Critical humanisms: Humanist/anti-humanist dialogues*. Edinburgh: Edinburgh University Press.
- Hall, S. (1991). Ethnicity: Identity and difference. *Radical America*, 23(4), 9-20.
- Haraway, D. (1988). Situated knowledges: The science question in feminism and the privilege of partial perspective. *Feminist studies*, 14(3), 575-599.
- Haraway, D. (1991). *Simians, cyborgs, and women*. New York, NY: Routledge.
- Haraway, D. J., & Goodeve, T. (1997). *Modest_Witness@ Second_Millennium. FemaleMan_Meets_OncoMouse: Feminism and technoscience*. New York, NY: Routledge.
- Haraway, D. J. (2003). *The companion species manifesto: Dogs, people, and significant otherness*. Chicago, IL: Prickly Paradigm Press.
- Haraway, D. (2014). Anthropocene, Capitolocene, Chthulucene: Staying with the trouble. A lecture given by Donna Haraway at University of California, Santa Cruz. Retrieved from <https://vimeo.com/97663518>
- Haraway, D. J. (2016). *Staying with the trouble: Making kin in the Chthulucene*. Durham, NC: Duke University Press.

- Harding, S. (1993). Rethinking standpoint epistemology: What is “strong objectivity”?
In L. Alcoff and E. Potter (Eds.), *Feminist epistemologies* (pp. 49-82). New York,
NY: Routledge.
- Harding, S. (2008). *Sciences from below*. Durham, NC: Duke University Press.
- Harding, S. (2018). One planet, many sciences. In R. Bernd (Ed.). *Constructing the
pluriverse: The geopolitics of knowledge* (pp. 39-62). Durham, NC: Duke
University Press.
- Hardt, M., & Negri, A. (2000). *Empire*. Cambridge, MA: Harvard University Press.
- Hardt, M., & Negri, A. (2017). *Assembly*. New York, NY: Oxford University Press.
- Hardy, R. D., Milligan, R. A., & Heynen, N. (2017). Racial coastal formation: The
environmental injustice of colorblind adaptation planning for sea-level
rise. *Geoforum*, 87, 62-72.
- Harman, G. (2002). *Tool-being: Heidegger and the metaphysics of objects*. Peru, IL:
Open Court.
- Hayden, P. (2005). *Cosmopolitan global politics (Ethics and global politics)*. Burlington,
VT: Ashgate Pub Ltd.
- Hayles, K. M. (1999). *How we became posthuman: Virtual bodies in cybernetics,
literature, and infomatics*. Chicago, IL: University of Chicago Press.
- Hayles, N. K. (2011). Wrestling with transhumanism. In G. R. Hansell and W. Grassie
(Eds.), *H+/- Transhumanism and its critics* (pp. 215-226). Philadelphia, PA:
Metanexus Institute.

- Hayward, E. (2008). More lessons from a starfish: Prefixial flesh and transspiciated selves. *Women's Studies Quarterly*, 36(3/4), 64-85.
- Hayward, E. (2012). Sensational jellyfish: Aquarium affects and the matter of immersion. *Differences*, 23(3), 161-196.
- Hawhee, D. (2015). Rhetoric's sensorium. *Quarterly Journal of Speech*, 101(1), 2-17.
- Heidegger, M. (1977). *The question of technology and other essays*. New York, NY: Harper & Row.
- Hesmondhalgh, D. (2013). *Why music matters*. Malden, MA: John Wiley & Sons.
- Heyes, C. J. (2000). *Line drawings: Defining women through feminist practice*. Ithaca, NY: Cornell University Press.
- Higgins, K. M. (2012). *The music between us: Is music a universal language*. Chicago IL: University of Chicago Press.
- Higgins, D. (2017). *British romanticism, climate change, and the Anthropocene: Writing Tambora*. Leeds, UK: Springer.
- Hobbes, T. (1998). *Man and citizen*. B. Gert (Ed.). Indianapolis: IN: Hackett Publishing Company.
- Hoelzl, M. (2005). Recognizing the sacrificial victim: The problem of solidarity for critical social theory. *Journal for Cultural and Religious Theory*, 6(1), 45-64.
- Hosseini, S. H. (2015). Transversality in diversity: Experiencing networks of confusion and convergence in the World Social Forum. *RIMCIS: Revista Internacional y Multidisciplinar en Ciencias Sociales*, 4(1), 54-87.

- Hsiang, S., Kopp, R., Jina, A., Rising, J., Delgado, M., Mohan, S., & Larsen, K. (2017). Estimating economic damage from climate change in the United States. *Science*, 356(6345), 1362-1369.
- Hulse, B. C., & Nesbitt, N. (Eds.). (2010). *Sounding the virtual: Gilles Deleuze and the theory and philosophy of music*. Burlington, VT: Ashgate.
- Hulse, B. C. (2010). Thinking musical difference: Music theory as minor science. In B. C. Hulse & N. Nesbitt (Eds.), *Sounding the virtual: Gilles Deleuze and the theory and philosophy of music* (pp. 23-50). Burlington, VT: Ashgate.
- Hume, D. (1739). *A treatise of human nature: Being an attempt to introduce the experimental method of reasoning into moral subjects*. Davidhume.org. Retrieved from <https://davidhume.org/texts/t/full>
- Idhe, D. (2007). *Listening and voice: Phenomenologies of sound*. Albany, NY: State University of New York Press.
- Ingle, G. (2016, November 16). Decolonizing our music. *New Music USA*. Retrieved from <https://nmbx.newmusicusa.org/decolonizing-our-music/>
- “Internationale”. (2009). www.sovmusic.ru. Retrieved from <http://www.sovmusic.ru/english/list.php?gold=no&category=inter&part=1>
- Jabr, F. (2020, December 2). The social life of forests. *New York Times*. Retrieved from <https://www.nytimes.com/interactive/2020/12/02/magazine/tree-communication-mycorrhiza.html>
- James, R. (2019). *The sonic episteme: Acoustic resonance, neoliberalism, and biopolitics*. Duke University Press.

- Jeffries, V. (Ed.). (2014). *The Palgrave handbook of altruism, morality, and social solidarity: Formulating a field of study*. New York, NY: Springer.
- Jennings, M. (2014). *Exaltation: Ecstatic experience in Pentecostalism and popular music*. Bern: Peter Lang.
- Johnson, T. G. (2013). *Spaces of conflict, sounds of solidarity: Music, race, and spatial entitlement in Los Angeles*. Berkley, CA: University of California Press.
- Julie's bicycle. (2022). Welcome to julie's bicycle.com. Retrieved from <https://juliesbicycle.com>
- Kanngieser, A. (2012). ... and... and... and... the Transversal politics of performative encounters. *Deleuze Studies*, 6(2), 265-290.
- Kant, I. (1990). *Foundations of the metaphysics of morals* (2nd ed.), trans. L. W. Beck. New York, NY: Macmillan Publishing Co.
- Kauffman, C. M. (2020, March). Mapping transnational rights of nature networks & laws: New global governance structures for more sustainable development. In *International Studies Association Annual Conference, Toronto* (Vol. 29).
- Kavada, A. (2016). Social movements and political agency in the digital age: A communication approach. *Media and Communication*, 4(4), 8-12.
- Kenfack, C. E. (2022). Saving our "common home" through them: A critical analysis of the "for our common home" campaign in Alberta. *Environmental Justice*.
- Kim, C. J. (2015). *Dangerous crossings*. New York, NY: Cambridge University Press.
- Kittler, F. A. (1999). *Gramophone, film, typewriter*. New York, NY: Stanford University Press.

- Kivy, P. (1983). Platonism in music: A kind of defense. *Grazer Philosophisch Studien*, 19, 123-128.
- Knudsen, J.S. (2011). Music of the multiethnic minority. A postnational perspective. *Music and Arts in Action*, 3(3), 77–91
- Kramer, L. (2003). Musicology and meaning. *The Musical Times*, 144(1883), 6-12.
- Kramer, L. (2013). Classical music for the posthuman condition. In J. Richardson, C. Gorbman, & C. Vernallis (Eds.), *The Oxford handbook of new audiovisual aesthetics* (pp. 39-52). New York, NY: Oxford.
- Kruger, F. (2016). Posthumanism and educational research for sustainable futures. *Journal of Education*, (65), 77-94.
- Kun, J. (2005). *Audiotopia: music, race, and America*. Berkley, CA: University of California Press.
- LaBelle, B. (2018). *Sonic agency: Sound and emergent forms of resistance*. Cambridge, MA: MIT Press.
- Lather, P. (1986). Issues of validity in openly ideological research: Between a rock and a soft place. *Interchange*, 17(4), 63-84.
- Lather, P., & St. Pierre, E. A. (2013). Post-qualitative research. *International journal of qualitative studies in education*, 26(6), 629-633.
- Latour, B. (1990). Drawing things together. In M. Lynch and S. Woolgar (Eds.), *Representation in scientific practice* (pp. 19-68). Cambridge, MA: MIT Press.
- Latour, B. (1991) *We have never been modern*. Cambridge, MA: Harvard University Press.

- Latour, B. (2004). Why has critique run out of steam? From matters of fact to matters of concern. *Critical inquiry*, 30(2), 225-248.
- Latour, B. (2013). *An inquiry into modes of existence: An anthropology of the moderns*. London: Harvard University Press.
- Latour, B. (2017). *Down to Earth: Politics in the new climatic regime*. Medford, MA: Polity Press.
- Laurence, F., & Urbain, O. (Eds.). (1999). *Music and solidarity: Questions of universality, consciousness, and connection* (Vol. 1). Transaction Publishers.
- Law, J. (2008). Actor-network theory and material semiotics. in B. S. Turner (Ed.), *The new Blackwell companion to social theory* (3rd ed.) (pp. 141-158). London: Blackwell.
- Law, J., Afdal, G., Asdal, K., Lin, W. Y., Moser, I., & Singleton, V. (2014). Modes of syncretism: Notes on noncoherence. *Common knowledge*, 20(1), 172-192.
- Lefebvre, H. (2004). *Rhythmanalysis: Space, time and everyday life*. New York, NY: Continuum.
- Lewis, T. (2020, December 6). 'It always hits me hard': How a haunting album helped save the whales. *The Guardian*. Retrieved from <https://www.theguardian.com/environment/2020/dec/06/the-songs-that-saved-the-whales>
- Lindgren, N., & Öhman, J. (2019). A posthuman approach to human-animal relationships: Advocating critical pluralism. *Environmental Education Research*, 25(8), 1200-1215.

- Lindner, K. (2010). Marx's Eurocentrism. Postcolonial studies and Marx scholarship. *Radical philosophy*, (161), 27-41.
- Lipari, L. (2009). Listening otherwise: The voice of ethics. *The Intl. Journal of Listening*, 23(1), 44-59.
- Lipsitz, G. (1994). *Dangerous crossroads: Popular music, postmodernism, and the poetics of place*: New York, NY: Verso.
- Lipsitz, G. (2006). *The possessive investment in whiteness: How white people profit from identity politics*. Philadelphia, PA: Temple University Press.
- Livingston, J., & Puar, J. K. (2011). Interspecies. *Social Text*, 29[1 (106)], 3-14.
- Llorente, R. (2011). Reflections on the prospects for a non-speciesist Marxism. In J. Sanbonmatsu (Ed.). *Critical theory and animal liberation* (pp. 121-136). New York, NY: Rowman & Littlefield.
- Lloyd, G. (1996). *Spinoza and the ethics*. New York, NY: Routledge.
- Loui, P., S. Patterson, M. E. Sachs, Y. Leung, T. Zeng, and E. Przynsinda. 2017. White matter correlates of musical anhedonia: Implications for evolution of music. *Frontiers in Psychology*. Retrieved from https://www.frontiersin.org/articles/10.3389/fpsyg.2017.01664/full?utm_source=Email_to_authors&utm_medium=Email&utm_content=T1_11.5e1_author&utm_campaign=Email_publication&field=&journalName=Frontiers_in_Psychology&id=281556
- Loza, S. (2017). *Electronica, dance, and club music*. New York, NY: Routledge.

- Luke, T. W. (2019). *Anthropocene alerts: Critical theory of the contemporary as ecocritique*. Candor, NY: Telos Press Publishing.
- Lupton, D. (2019). Toward a more-than-human analysis of digital health: Inspirations from feminist new materialism. *Qualitative health research*, 29(14), 1998-2009.
- Lupton, D. (2020). A more-than-human approach to bioethics: the example of digital health. *Bioethics*, 34(9), 969-976.
- Lustgarten, A. (2020, July 23). The climate migration. *The New York Times*. Retrieved from <https://www.nytimes.com/interactive/2020/07/23/magazine/climate-migration.html>
- Lytle, M. H. (2007). *The gentle subversive: Rachel Carson, Silent Spring, and the rise of the environmental movement*. New York, NY: Oxford University Press.
- MacCormack, P. (2008). *Cinesexualities*. London, UK: Ashgate.
- MacCormack, P. (2012). *Posthuman ethics*. London, UK: Ashgate.
- Manning, E. (2013). *Always more than one: Individuation's dance*. Durham, NC: Duke University Press.
- Manuel, P. (1993). *Cassette culture: Popular music and technology in North India*. Chicago, IL: University of Chicago Press.
- Martin, P. J. (1995). *Sounds and society: Themes in the sociology of music*. New York, NY: Manchester University Press.
- Marx, K. (1845/1967). *Writings on the young Marx on philosophy and society*. (Trans. by L. D. Easton and K. H. Guddat). Garden City, NY: Anchor.

- Marx, K. (1978). *Critical marginal notes on the article "The King of Prussia and Social Reform"*. In R. C. Tucker (Ed.), *The Marx-Engels reader*. New York, NY: W. W. Norton & Company.
- Marx, K., & Engels, F. (1967). *The German ideology* (R. Pascal Trans.). New York, NY: International Publishers.
- Marx, K. & Engels, F. (1975). *Collected works of*, vol. 3. New York, NY: International Publ.
- Maslan, S. (2004). The anti-human: Man and citizen before the Declaration of the Rights of Man and of the Citizen. *The South Atlantic Quarterly*, 103(2), 357-374.
- Massumi, B. (1995). The autonomy of affect. *Cultural critique*, (31), 83-109.
- Massumi, B. (2002). *Parables for the virtual: Movement, affect, sensation*. Durham, NC: Duke University Press.
- Massumi, B. (2009). Of microperception and micropolitics. *Inflexions: A Journal for Research-Creation*, 3, 1–20.
- Massumi, B. (2014). *What animals teach us about politics*. Durham, NC: Duke University Press.
- Massumi, B. (2015). *Politics of affect*. Malden, MA: Polity.
- Mathur, C., & Kasmir, S. (2018). On the heterogeneity of the US working class. *Dialectical Anthropology*, 42(2), 101-104.
- Maturana, H. R., & Varela, F. J. (1987). *The tree of knowledge: The biological roots of human understanding*. Boston, MA: New Science Library/Shambhala Publications.

- Mbembe, A. (2017). *Critique of black reason*. Durham, NC: Duke University Press.
- Mbembe, A. (2021). *Out of the dark night: Essays on decolonization*. New York, NY: Columbia University Press.
- McAdam, D. (1999). *Political process and the development of black insurgency, 1930–1970* (2nd ed.). Chicago, IL: University of Chicago Press.
- McAdam, D. (2017). Social movement theory and the prospects for climate change activism in the United States. *Annual Review of Political Science*, 20, 189-208.
- McFarlane, C. (2009). Translocal assemblages: space, power and social movements. *Geoforum*, 40(4), 561-567.
- McDonald, K. (2002). From solidarity to fluidarity: Social movements beyond ‘collective identity’--the case of globalization conflicts. *Social Movement Studies*, 1(2), 109-128.
- McDonald, K. (2004) ‘Oneself as another: From social movement to experience movement’, *Current Sociology*, 52(4), 575-595
- McKibbin, B. (2003). *Enough: Staying human in an engineered age*: New York, NY: Owl Books.
- McLuhan, M., & Powers, B. R. (1989). *The global village: Transformations in world life and media in the 21st century*. New York, NY: Oxford University Press.
- McNeill, J. R., & Unger, C. R. (Eds.). (2010). *Environmental histories of the Cold War*. Washington, D.C.: Cambridge University Press.
- Mignolo, W. (2000). The many faces of cosmo-polis: Border thinking and critical cosmopolitanism. *Public culture*, 12(3), 721-748.

- Mignolo, W. D. (2011). Geopolitics of sensing and knowing: on (de) coloniality, border thinking and epistemic disobedience. *Postcolonial studies*, 14(3), 273-283.
- Mignolo, W. D., & Walsh, C. E. (2018). *On decoloniality: Concepts, analytics, praxis*. Durham, NC: Duke University Press.
- Miller, G. (2000). Evolution of human music through sexual selection. In N. Wallin, B. Merker, and Steven Brown (Eds.), *The origins of music* (pp. 329-360). Cambridge, Mass.: MIT Press.
- Mills, C. W. (1997). *The racial contract*. Ithaca New York: Cornell University Press.
- Mithen, S. (2007). *The singing neanderthals: The origins of music, language, mind, and body*. Cambridge, MA: Harvard University Press
- Melucci, A. (1995). The process of collective identity. *Social movements and culture*, 4, 41-63.
- Moisala, P., Leppänen, T., Tiainen, M., & Väätäinen, H. (2017). *Musical encounters with Deleuze and Guattari*. New York, NY: Bloomsbury.
- Moreton-Robinson, A. (2004). Whiteness, epistemology and Indigenous representation. In A. Moreton-Robinson (Ed.), *Whitening race: Essays in social and cultural criticism* (pp. 75–88). Acton: Aboriginal Studies Press.
- Morton, T. (2010). *The ecological thought*. Cambridge, MA: Harvard University Press.
- Morton, T. (2019). *Humankind: Solidarity with nonhuman people*. New York, NY: Verso.
- Mouffe, C. (2013). *Agonistics: Thinking the world politically*. New York, NY: Verso.

- Mullen, B. V., & Vials, C. (Eds.) (2020). *The US antifascism reader*. New York, NY: Verso.
- Naam, R. (2005). *More than human: Embracing the promise of biological enhancement*. New York, NY: Broadway Books.
- Naess, A. (1973). The shallow and deep, long range ecology movement: A summary. *Inquiry*, 16(4), 95-100.
- Nail, T. (2017). What is an assemblage?. *SubStance*, 46(1), 21-37.
- Nail, T. (2019). Forum 1: Migrant climate in the Kinocene. *Mobilities*, 14(3), 375-380.
- Nelson, J. (2020). Petro-masculinity and climate change denial among white, politically conservative American males. *International Journal of Applied Psychoanalytic Studies*, 17(4), 282-295.
- Nietzsche, F. (1967a). *On the genealogy of morals and ecce homo*. W. Kauffman (trans.) New York, NY: Vintage
- Nietzsche, F. (1967b). *The birth of tragedy*. W. Kauffman (trans.) New York, NY: Vintage.
- Nimmo, R. (2011). The making of the human: Anthropocentrism in modern social thought. *Anthropocentrism*, 12, 59-80.
- Nixon, R. (2011). *Slow violence and the environmentalism of the poor*. Cambridge, MA: Harvard University Press.
- Noble, S. U. (2018). *Algorithms of oppression: How search engines reinforce racism*. New York, NY: New York University Press.

- Nye, D. E. (2006). Technology and the production of difference. *American Quarterly*, 58(3), 597-618.
- Olaveson, T. (2001). Collective effervescence and communitas: Processual models of ritual and society in Emile Durkheim and Victor Turner. *Dialectical Anthropology*, 26(2), 89-124.
- Orbaugh, S. (2015). The cult film as affective technology: Anime and Oshii Mamoru's innocence. In J. P. Telotte & G. Duchovny (Eds.), *Science fiction double feature. The science fiction film as cult text* (pp. 84-97). Liverpool, UK: Liverpool University Press.
- Painter, N. I. (2010). *The history of white people*. New York, NY: W.W. Norton & Company.
- Papadopoulos, D. (2010). Insurgent posthumanism. *Ephemera: Theory & Politics in Organization*, 10(2), 134-151.
- Papadopoulos, D. (2018). *Experimental practice: Technoscience, alterontologies, and more-than-social movements*. Durham, NC: Duke University Press.
- Pareles, J. (2021, September 7). Bomba Estéreo strives to save the planet and soothe the heart. *New York Times*. Retrieved from <https://www.nytimes.com/2021/09/07/arts/music/bomba-estereo-deja.html>
- Parr, A. (2014). *The wrath of capital: Neoliberalism and climate change politics*. New York, NY: Columbia University Press.

- Passy, F. (2001). Political altruism and the solidarity movement. In M. Giugni & F. Passy (Eds.), *Political altruism? Solidarity movements in international perspective* (pp. 3–25). Rowman & Littlefield.
- Patapios, A. (2018). “Here have we no abiding city”: From the Ancient Greek polis to the Christian cosmopolis. *CALÍOPE: Presença Clássica*, 1(35), 4-42.
- Pateman, C. (1988). *The sexual contract*. Cambridge, MA: Polity Press.
- Pecl, G. T., Araújo, M. B., Bell, J. D., Blanchard, J., Bonebrake, T. C., Chen, I. C., ... & Williams, S. E. (2017). Biodiversity redistribution under climate change: Impacts on ecosystems and human well-being. *Science*, 355(6332).
- Pensky, M. (2007). Two cheers for cosmopolitanism. Solidarity as second-order inclusion. In: C. Gould, (Ed). *Journal of Social Philosophy. Special Issue: Solidarity*, 38(1), 165–184.
- Pensky, M. (2008). *The ends of solidarity: Discourse theory in ethics and politics*. Albany, NY: State University of New York Press.
- Petersen, S. (1999). Congress and charismatic megafauna: A legislative history of the endangered species act. *Envtl. Law*, 29, 463-478.
- Peterson, C. (2011). The posthumanism to come. *Angelaki: Journal of the Theoretical Humanities*, 16(2), 127-141.
- Perlo, K. (2002). Marxism and the underdog. *Society & Animals*, 10(3), 303-318.
- Pickering, A. (1995). *The mangle of practice: Time, agency, and science*. Chicago: University of Chicago Press.

- Pickering, A. (2005). Asian eels and global warming: A posthuman perspective on society and the environment. *Ethics & the Environment*, 10(2), 29-43.
- Piering, J. (n.d.). "Cynics." *Internet Encyclopedia of Philosophy*. Retrieved from <https://iep.utm.edu/cynics/>
- Pinup_Panda. (2021). Re: *Bomba Estéreo ft. Nidia Góngora - Sonic Forest (Déjame respirar / Let me breathe)*. [Video file]. Retrieved from <https://www.youtube.com/watch?v=xSslID60JPI>
- Pranav, J. (2002). Marx, Eurocentrism, and the 1857 revolt in British India. In C. Bartolovitch and N. Lazarus (Eds.), *Marxism, modernity, and postcolonial studies* (pp. 81-97). Cambridge: Cambridge University Press.
- Punke, M. (2007). *Last stand: George Bird Grinnell, the battle to save the buffalo, and the birth of the new West*. New York, NY: Smithsonian Books/Collins.
- Rapport, M. (2009). *1848: year of revolution*. New York, NY: Basic Books.
- Ray, S. J. (2021, March 21). Climate anxiety is an overwhelmingly white phenomenon. *Scientific American*. Retrieved from <https://www.scientificamerican.com/article/the-unbearable-whiteness-of-climate-anxiety/>
- Rice, J. (2013). Further beyond the Durkheimian problematic: Environmental sociology and the co-construction of the social and the natural. *Sociological Forum*, 28(2), 236-260.
- Rickert, T. (2013). *Ambient rhetoric: The attunements of rhetorical being*. Pittsburgh, PA: University of Pittsburgh Press.

- Riley, A. (2005). The rebirth of tragedy out of the spirit of hip hop: A cultural sociology of gangsta rap music. *Journal of youth studies*, 8(3), 297-311.
- Rodine, Z. (2022). Janelle Monáe, dirty computers, and embodied posthumanism. *MELUS*, 47(1), 154-174.
- Rome, A. (2006). 'Political hermaphrodites': Gender and environmental reform in progressive America. *Environmental History*, 11(3), 440-463.
- Rorty, R. (1980). *Philosophy and the mirror of nature*. Princeton, NJ: Princeton University Press.
- Rorty, R. (1989). *Contingency, irony, and solidarity*. Cambridge, MA: Cambridge University Press.
- Rose, N. (2007). *The politics of life itself: Biomedicine, power, and subjectivity in the twenty-first century*. Princeton, NJ: Princeton University Press.
- Rosenthal, R., & Flacks, R. (2015). *Playing for change: Music and musicians in the service of social movements*. New York, NY: Routledge.
- Ross, J. (2017). Durkheim and the homo duplex: Anthropocentrism in sociology. *Sociological Spectrum*, 37(1), 18-26.
- Rousseau, J. J. (1761). *A discourse upon the origin and foundation of the inequality among mankind*. New York, NY: R. and J. Dodsley.
- Rousseau, J. J. (2018). *Rousseau: The social contract and other later political writings*. (V. Gourevitsh, Ed.). New York, NY: Cambridge University Press.
- Sagan, D. (2017). Coda. Beautiful monsters: Terra in the Cyanocene. In A. L. Tsing, N. Bubandt, E. Gan, & H. A. Swanson (Eds.). *Arts of living on a damaged planet:*

- Ghosts and monsters of the Anthropocene* (pp. M169-M174). Minneapolis, MN: University of Minnesota Press.
- Said, E. (1978). *Orientalism*. New York, NY: Vintage.
- Said, E. (1993). The politics of knowledge. In C. McCarthy & W. Crichlow (Eds.), *Race, identity and representation in education* (pp. 453-460) New York, NY: Routledge.
- Sanbonmatsu, J. (Ed.). (2004). *The postmodern prince*. New York, NY: Monthly Review Press.
- Sandoval, C. (2000). *Methodology of the oppressed*. Minneapolis, MN: University of Minnesota Press.
- Santos, B. S. (2015). *Epistemologies of the South: Justice against epistemicide*. New York, NY: Routledge.
- Sauter, M. (2014). *The coming swarm: DDOS actions, hacktivism, and civil disobedience on the Internet*. New York, NY: Bloomsbury Publishing USA.
- Scharff, R. C. (2017). Living after positivism, but not without it. In A. Wernick (Ed.), *The Anthem companion to Auguste Comte* (pp. 227-246). New York, NY: Anthem Press.
- Schiermer, B. (2014). Durkheim's concept of mechanical solidarity—where did it go? *Durkheimian Studies*, 20, 64-88.
- Scholz, S. J. (2008). *Political solidarity*. University Park, PA: Penn State Press.
- Scholz, S. (2013). Political solidarity and the more-than-human world. *Ethics and the Environment*, 18(2), 81-99.

- Sedgwick, E. (2003). *Touching feeling: Affect, pedagogy, performativity*. Durham, NC: Duke University Press.
- Sengupta, S. (2019, December 15). U.N. climate talks end with few commitments and a 'lost' opportunity. *New York Times*. Retrieved from <https://www.nytimes.com/2019/12/15/climate/cop25-un-climate-talks-madrid.html>
- Shaw, R. (2015). Bringing Deleuze and Guattari down to earth through Gregory Bateson: Plateaus, rhizomes and ecosophical subjectivity. *Theory, Culture & Society*, 32(7/8), 151-171.
- Sharp, H. (2011). *Spinoza and the politics of renaturalization*. Chicago, IL: University of Chicago Press.
- Sharpe, R. A. (2000). *Music and humanism: An essay in the aesthetics of music*. New York, NY: Oxford.
- Shiva, V. (1993). *Monocultures of the mind: Perspectives on biodiversity and biotechnology*. New York, NY: Zen Books.
- Shiva, V. (1997). *Bio-piracy: The plunder of nature and knowledge*. Boston, MA: South End Press.
- Shiva, V. (2006). *Earth democracy: Justice, sustainability, and peace*. Berkeley, CA: North Atlantic Books.
- Shotwell, A. (2016). *Against purity: Living ethically in compromised times*. U of Minnesota Press.

- Skibins, J. C., Powell, R. B., & Hallo, J. C. (2013). Charisma and conservation: charismatic megafauna's influence on safari and zoo tourists' pro-conservation behaviors. *Biodiversity and conservation*, 22(4), 959-982.
- Smith, A. (1759/1982). *The theory of moral sentiments*. D. D. Raphael and A. L. Macfie (Ed.). Indianapolis: Liberty Fund.
- Smith, D. (1990) *The conceptual practices of power: A feminist sociology of knowledge*. Boston, MA: Northeastern University Press.
- Smith, M. L. (1987). *Pacific visions: California scientists and the environment 1850-1915*. New Haven, CT: Yale University Press.
- Snow, D., & McAdam, D. (2000). Identity work processes in the context of social movements: Clarifying the identity/movement nexus. In S. Stryker, T. Owens & R. White (Eds.), *Self, identity and social movements* (pp. 41–67). Minneapolis, MN: University of Minnesota Press.
- Solnit, R. (2016). *Hope in the dark: Untold histories, wild possibilities*. Chicago, IL: Haymarket Books.
- Sólon, P. (2018). The rights of mother earth. In V. Satgar (Ed.), *The climate crisis: South African and global democratic eco-socialist alternatives* (pp. 107- 130). Johannesburg. South Africa: Wits University Press.
- Spinoza, B. (1992). *The ethics*. Indianapolis, IN: Hackett.
- Spivak, G. (1996). Subaltern studies: Deconstructing historiography? In D. Landry and G. MacLean (Eds.), *The Spivak reader* (pp. 203-237). London: Routledge.

- Stallybrass, P. (1990). Marx and heterogeneity: thinking the lumpenproletariat. *Representations*, 31, 69-95.
- Stand for Trees. (2022). Sonic forest film. Retrieved from <https://standfortrees.org/sonic-forest-film/>
- Sterne, J. (2003). *The audible past: Cultural origins of sound reproduction*. Durham, NC: Duke University Press.
- Sterne, J. (2006). Communication as techné. In G. J. Sheppard, J. St John, & T. Stiphas (Eds.), *Communication as... perspectives on theory* (pp. 91-98). Thousand Oaks, CA: Sage.
- Stevenson, D. K. (1996). *American life and institutions*. Stuttgart: Ernst Klett Sprachen.
- Stewart, K. (2010). Afterword: Worlding refrains. In S. Seigworth & M. Gregg (Eds.), *The affect theory reader* (pp. 339–355). London: Duke University Press.
- Stewart, K. (2011). Atmospheric attunements. *Environment and Planning D: Society and Space*, 29(3), 445-453.
- Stiegler, B. (1998). *Technics and time: The fault of Epimetheus*. Stanford, CA: Stanford University Press.
- Stoeber, J. L. (2016). *The color line: Race and the cultural politics of listening*. New York, NY: New York University Press.
- Stokes, M. (Ed.). (1994). *Ethnicity, identity and music: The musical construction of place*. Oxford, England: Berg.

- Stokes, M. (2007). On musical cosmopolitanism. *The Macalester International Roundtable 2007*. Paper 3. Retrieved from <http://digitalcommons.macalester.edu/intlrdtable/3>
- Stoetzler, M., & Yuval-Davis, N. (2002). Standpoint theory, situated knowledge and the situated imagination. *Feminist theory*, 3(3), 315-333.
- Stoop, D. C. (2014). Difference, solidarity and non-identity: A negative dialectical approach towards solidarity. In S. H. Boyd & M. A. Walter (Eds.), *Cultural difference and social solidarity: Solidarities and social function* (pp. 48 - 57). Newcastle, UK: Cambridge Scholars Publishing.
- Sturgeon, T. (1953). *More than human*. London: Galaxy Publishing.
- St. Pierre, E. A. (2014). A brief and personal history of post qualitative research: Toward 'post inquiry'. *Journal of Curriculum Theorizing*, 2(30), 2-19.
- Sundberg, J. (2007). Reconfiguring north-south solidarity: Critical reflections on experiences of transnational resistance. *Antipode*, 39(1), 144-166.
- Sztybel, D. (1997). Marxism and animal rights. *Ethics and the Environment*, 2(2), 169-185.
- Taussig, M. (1993). *Mimesis and alterity: A particular history of the senses*. New York, NY: Routledge.
- Taylor, C. (2003). *Cross-purposes: The liberal-communitarian debate*. In D. Matravers and J. Pike (Eds.), *Debates in contemporary political philosophy: An anthology* (pp. 195-212). New York, NY: Routledge.

- Tessum, C. W., Apte, J. S., Goodkind, A. L., Muller, N. Z., Mullins, K. A., Paoella, D. A., & Hill, J. D. (2019). Inequity in consumption of goods and services adds to racial–ethnic disparities in air pollution exposure. *Proceedings of the National Academy of Sciences*, *116*(13), 6001-6006.
- Thomas, P. (2014). *Trees: Their natural history*. Cambridge, UK: Cambridge University Press.
- Thompson, M. (2019). Spinoza and musical power. *Textual Practice*, *33*(5), 803-820.
- Tomlinson, G. (2015). *A million years of music: The emergence of human modernity*. New York, NY: Zone Books.
- Tomlinson, G. (2021). Sign, affect, and musicking before man. In J. Lochhead, E. Mendieta & S. D. Smith (Eds.), *Sound and Affect: Voice, Music, World* (pp. 71-98). Chicago, IL: University of Chicago Press.
- Touraine, A. (1985). An introduction to the study of social movements. *Social research*, *52*(4), 749-787.
- Trevarthen, C. (1999). Musicality and the intrinsic motive pulse: evidence from human psychobiology and infant communication. *Musicae scientiae*, *3*(1), 155-215.
- Tsing, A. L. (2005). *Friction. An ethnography of global connection*. Princeton, NJ: Princeton University Press.
- Tsing, A. L. (2013). More-than-human sociality: A call for critical description. In K. Hastrup (Ed.), *Anthropology and nature* (pp. 27- 42). New York, NY: Routledge.
- Tsing, A. L. (2014). More-than-human sociality: A call for critical description. In K. Hastrup (Ed.), *Anthropology and nature* (pp. 27- 42). New York, NY: Routledge.

- Tsing, A. L. (2015). *The mushroom at the end of the world: On the possibility of life in capitalist ruins*. Princeton University Press.
- Tsing, A. L. (2021). When the things we study respond to each other: Tools for unpacking the material. In A. Jaque, M. O. Verzier, & L. Pietroiusti (Eds.), *More-than-human* (pp. 16-26). Het Nieuwe Institute.
- Tsing, A. L., Bubandt, N., Gan, E., & Swanson, H. A. (Eds.). (2017). *Arts of living on a damaged planet: Ghosts and monsters of the Anthropocene*. Minneapolis, MN: University of Minnesota Press
- Tuck, E., McKenzie, M., & McCoy, K. (2014). Land education: Indigenous, post-colonial, and decolonizing perspectives on place and environmental education research. *Environmental education research*, 20(1), 1-23.
- Tuck, E., Smith, M., Guess, A. M., Benjamin, T., & Jones, B. K. (2014). Geotheorizing Black/land : Contestations and contingent collaborations. *Departures in Critical Qualitative Research*, 3(1), 52–74
- Tuck, E., & Yang, K. W. (2012). Decolonization is not a metaphor. *Decolonization: Indigeneity, Education, & Society*, 1(1), 1-40.
- Turino, T. (2008). *Music as social life: The politics of participation*. University of Chicago Press.
- Verbeek, P. P. (2005). *What things do: Philosophical reflections on technology, agency and design*. University Park, PA: Penn State University Press.
- Verbeek, P. P. (2011). *Moralizing technology: Understanding and designing the morality of things*. Chicago, IL: University of Chicago Press.

- Verlie, B. (2022). Climate justice in more-than-human worlds. *Environmental Politics*, 31(2), 297-319.
- Villegas, R. (2020, November 18). Bomba Estéreo's 'sonic forest' is a powerful call for environmental awareness in the Colombian Pacific. *Remezcla*. Retrived from <https://remezcla.com/music/bomba-estereos-sonic-forest-is-a-powerful-call-for-environmental-awareness-in-the-colombian-pacific/>
- Von Uexküll, J. (1926). *Theoretical biology*. New York, NY: Harcourt.
- Wallin, N. L., Merker, B., & Brown, S. (Eds.). (2001). *The origins of music*. MIT press.
- Wallerstein, I. M. (2004). *World-systems analysis: An introduction*. Durham, NC: Duke University Press.
- Weber, M. (1946). Class, status, party. In H. H. Gerth, & C. W. Mills (Eds.), *From Max Weber: Essays in sociology* (pp. 180-195). New York, NY: Oxford University Press.
- Weber, M. (1948). *Essays in sociology*. Trans. H. H. Gerth. London: Kegan Paul, Trench, Trubner & Co.
- Weheliye, A. G. (2002). "Feenin": Posthuman voices in contemporary black popular music. *Social Text*, 20(2), 21-47.
- What's driving deforestation. (2016, February 8). Union of Concerned Scientists. Retrieved from <https://www.ucsusa.org/resources/whats-driving-deforestation>
- Whyte, K. P. (2018). Indigenous science (fiction) for the Anthropocene: Ancestral dystopias and fantasies of climate change crises. *Environment and Planning E: Nature and Space*, 1(1-2), 224-242.

- Wildt, A. (1999). Solidarity: Its history and contemporary definition. In K. Bayertz (Ed.), *Solidarity* (pp. 209-220). Dordrecht: Kluwer Academic Publishers.
- Wolfe, C. (2010). *What is posthumanism*. Minneapolis, MN: University of Minnesota Press.
- Wuthnow, J. (2002). Deleuze in the postcolonial: On nomads and Indigenous politics. *Feminist Theory*, 3(2), 183-200.
- WWF. (2022). Recognizing Indigenous people's land interest is critical for people and nature. *Worldwildlife.org*. Retrieved from <https://www.worldwildlife.org/stories/recognizing-indigenous-peoples-land-interests-is-critical-for-people-and-nature>
- Wynter, S. (2003). Unsettling the coloniality of being/power/truth/freedom: Towards the human, after man, its overrepresentation—an argument. *The New Centennial Review*, 3(3), 257-337.
- Yuval-Davis, N. (1997). *Gender and nation*. London, UK: Sage.
- Yuval-Davis, N. (1999). What is' transversal politics?. *Soundings*, 12, 88-93.
- Yuval-Davis, N. (2011). *The politics of belonging: Intersectional contestations*. Thousand Oaks, CA: Sage.



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