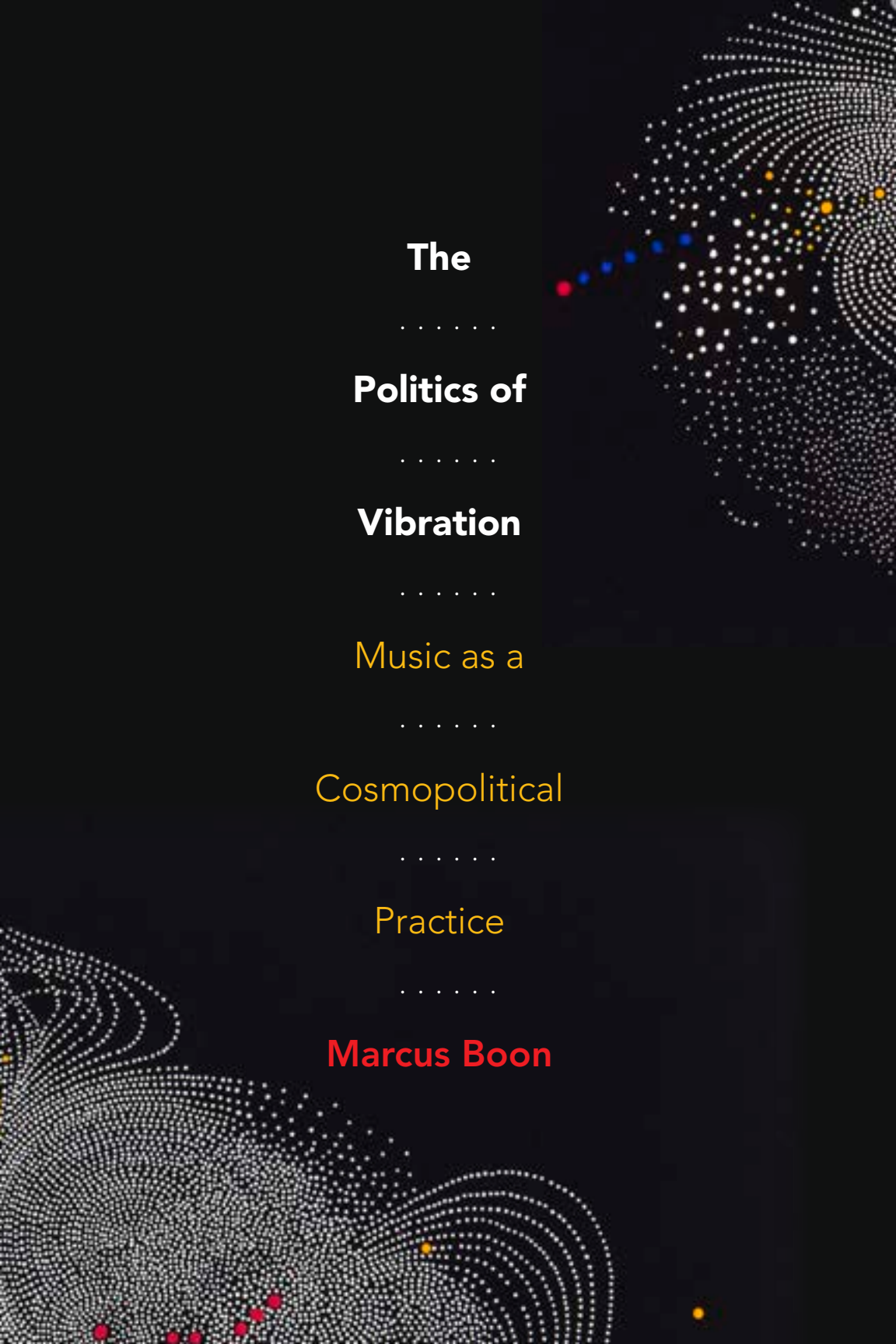




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DUKE

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For Christie and Christer

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Introduction

Music as a Cosmopolitical Practice

I

Yesterday evening we went to a free show in Scarborough, one of the annual Feast in the East events—this time in a park on Prairie Drive, against the train tracks, with high-rises looming in most directions, mostly Bangladeshi families playing in the park, dense, exuberant green vegetation everywhere almost growing visibly in the short steamy Canadian summer. A free dinner for everyone was served—a bowl of curried vegetables, a bitter melon salad, and a slice of grilled rice. Kids played on the swings, little groups of people sat on the grass and ate together.

There were three acts billed—Sandro Perri, Bernice, and New Chance—but in the end only Sandro Perri played. We spread a towel out on the grass and ate and Sandro's band started playing. For their second song, they played "Double Suicide," this song that I'd last heard Sandro sing with Ryan Driver at Cinecycle in maybe 2005 or 2006. They'd projected the Japanese movie of that name over their performance—in fact, I think that was the name of the duo too.

After they finished the song, they started another and it began to rain torrentially. I ran to the car and brought back four umbrellas, throwing them on the blanket. It really started to rain hard so we all clustered under the mass of umbrellas as the ground slowly flooded. We juggled the umbrellas around to stop the rain coming in between the cracks. The kids laughed. There wasn't

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much more we could do and our backs got wet. We ran under a tree nearby and when even that didn't stop the rain we ran back to the car and sheltered in it.

The rain waterlogged the ground and the rest of the show was cancelled. But the rain finally stopped and the art installations in the park were still there, including one that consisted of thousands of sponges, now soggy with the rainwater, which we threw at each other for a while. The trains went by.

We drove back to the city with the sun shining, surrounded by clouds and an incredible golden light looming out of the darkness of the clouds, with mist rising out of the river valleys and run-down shopping malls lining the roads back to Toronto. We looked for a rainbow but we didn't see one.

Sandro and Ryan must have written "Double Suicide" a long time ago, little imagining that one day they would be singing it in a park after two of their friends had killed themselves. They had been boys playing with ideas and images, and now time had passed, and things had happened, some life had happened, more than any of us expected, and yet they were still musicians despite everything and all that you could do was sing the song. My friend Adam, one of the two suicides, drowned in the lake. I felt angry at the lake for letting him drown, especially after having participated in these Tibetan Buddhist rituals for the naga that lives in the lake. Like, how could you let that happen to Adam?

When it poured down after Sandro and Ryan sang the song, it was like one of those rainy season ragas that call down the water. Except no one had really asked for anything to happen, or for it to rain. And none of us exactly believed in nagas either. But it was as if the lake burst into tears after hearing the song, and what could you do except feel the incredible sadness of their deaths, in the landscape, the landscape in its harsh historical violation by mountains of settler colonial trash and Victoriana in which Adam and Justin had lived. The lake burst into tears, and we huddled under umbrellas, and there was nothing you could do but accept it, feel the sadness of it. And then the rain stopped, would stop. And everything would carry on anyway. For a while. And then it would change again. Ragas for the times of day, for the seasons. None of us knew how to make that connection anymore, but it was almost better when it happened by accident, or through nothing more than the force of feeling, of loss, of love, of projection even, with no causality greater than the fact of its happening.

This book sets out a model for thinking about music as emerging out of a politics of vibration. It focuses on the work of three contemporary musicians—Pandit Pran Nath, Catherine Christer Hennix, and DJ Screw—each emerging

from a different but entangled set of musical traditions or scenes, whose work is ontologically instructive. From these particular cases, the book expands in the direction of considering the vibrational nature of music more generally. Vibration is understood in multiple ways, as a mathematical and a physical concept, as a religious or ontological force, and as a psychological/psychoanalytic determinant of subjectivity. The organization of sonic vibration that is determinant of subjectivity, aka music, is understood to be pluralistic and modal—and topological rather than phenomenological or time-based. I argue that understanding how/why this is the case is of ontological and political significance. And that the difficulty or obscurity of such an argument is due to the cosmopolitical nature of debates as to what music is.

In opening up the topic of vibration, I turn to the Brazilian writer Clarice Lispector's 1973 text, *Água Viva*, often translated as "Living Water" but also colloquially understood in Brazilian Portuguese to mean "jellyfish"—thus invoking a transparent entity that is engaged and articulated within a wavefield. In this book, Lispector explores what it means to write and be in the instant of writing and thinking, and more broadly what it means to fully BE in the NOW. She does this through an informal improvisation, which she likens to jazz and the way that jazz inhabits the NOW modally. And what she finds as she immerses herself in the now are vibrations:

I see that I've never told you how I listen to music—I gently rest my hand on the record player and my hand vibrates, sending waves through my whole body; and I listen to the electricity of the vibrations, the last substratum of reality's realm, and the world trembles inside my hands.¹

Sound-system style, what Lispector feels are vibrations, not simply sound, "the last substratum of reality's realm." What is that substratum then?

To tell you of my substratum I make a sentence of words made only from instants-now. Read therefore, my invention as pure vibration with no meaning beyond each whistling syllable, read this: "with the passing of the centuries I lost the secret of Egypt, when I moved in longitudes, latitudes, and altitudes with the energetic action of electrons, protons, and neutrons, under the spell of the word and its shadow." What I wrote you here is an electronic drawing without past or future: it is simply now.²

In the first passage, Lispector receives or transduces vibration through her body—in the second, a transduced vibration emerges as words. I will have much to say about vibration as substratum, but the phrase *my substratum* displaces any conventional physical notion of substratum. What are we talking

about here? A material, realist, mechanical, idealist, unconscious, or panpsychic substratum? Note that this is also the problem of the foundations of mathematics, which precisely concerns where periodicity emerges from—out of emptiness, mind, a formalism, or the continuum?—and it is in the midst of such questions that it becomes possible to think about a vibrational ontology. Already we are in the realm of cosmopolitics—Lispector assembles, with breathtaking succinctness and elegance a world or cosmos that is revealed in the simple act of listening to her record player.

The particular use of the term *cosmopolitics* that interests me was developed by the French philosopher of science Isabelle Stengers in the 1990s.³ Stengers's concern, emerging out of the anthropology of science, was initially to situate scientific knowledge within the broad matrix of human practices of the production of knowledge; conversely, to understand the ways in which different kinds of being in, and knowledge of, the world can negotiate their coexistence—for example, modern practices such as particle physics and nonmodern practices such as the reciting of a spell. Although the term has historically been used, for example by Kant in *Perpetual Peace*, to indicate a “universal state of humankind (ius cosmopoliticum)” that is associated with cosmopolitanism,⁴ Stengers's use of the term specifically concerns a politics that engages both human and nonhuman actors. Stengers raises the question of how nonhuman actors might be rendered visible as political actors in situations where politics, defined according to a horizon of human dissensus, denies them such visibility.

The idea has been adopted in many fields—notably in the ontological turn in anthropology as practiced by Eduardo Vivieros de Castro and others. In her book *Earth Beings*, the anthropologist Marisol de la Cadena gives a particularly striking and clear example of this: the disputes between the Indigenous Quechua people in the Andes, who view the mountains they inhabit as “earth beings,” deities with particular kinds of agency, and the Peruvian nation-state and businesses, who see the mountains as the source of materials subject to extractive technologies.⁵ The dispute between these actors is cosmopolitical because it concerns radically different ontologies and ways of constellating the world around particular but disputed objects, including these entities known to us as mountains. The political struggle, of course, usually involves the radical asymmetry of the parties involved—with those who hold power getting to define not only “what happens to the land” but the ontology through which actors, human and nonhuman, and their relations are articulated.

It is striking that, so far, music has not been thought of in cosmopolitical terms. Lispector's text can be understood as a deceptively modest but also radical cosmopolitical gesture—synthesizing spells and particle physics in fact—in the

direction of an ontology of music. I argue that music always involves a similar act of constellation, a worlding, yet this is not appreciated in the existing scholarship on music because the modern, reified form of music—as sounds arranged for aesthetic pleasure and entertainment—is accepted as being objective and universal, despite the incredible proliferation of hybrid musical forms that anyone attentive to the diversity of global musical practices is aware of. This worlding is cosmopolitical because it is sanctioned or not sanctioned by power, in its various geopolitical and historical forms, and as such, is a place of gathering and of dissensus. It is also cosmopolitical because it involves nonhumans and their articulation—or not. It is uncontroversial today to consider acoustics, or a broader physics that is necessarily part of the understanding of music. Yet, nonhumans, whether spirits or vibrational forces, or the various materials that musical instruments are made from, or for that matter animals such as birds or whales, more generally tend to be crossed out or rendered mutely available to the almost exclusively human horizon of a secularized musical aesthetics. Even when the plurality of musical practices is acknowledged, it is their ontological dimension that is ignored or bracketed—as such, our understanding of the diversity of global and historical cosmopolitical practices of music is mutilated, fragmented, a distorted shadow—one might say that we do not (yet) know what a musical body can do.

Consider the triad: music—sound—vibration. Music is a particular organization of sound, and sound is a particular kind of vibration. Music, as jazz musician and composer William Parker put it, can be defined informally as “just sound and rhythm.”⁶ Patterned sound. What is a vibration? A vibration is a wave—and this is already where we seem to have to make a choice or decision as to what kind of language, discourse, cosmopolitical framework we’re going to use. As per Alain Badiou, I work in this book in a philosophical language, with the understanding that philosophy’s work is to clarify concepts such as they appear in various kinds of truth procedures: for Badiou, there are four such truth procedures—science, art, love, politics, to which I will add, without apology, religion or spirituality.⁷ Can music be a kind of truth procedure then? If so, *where does it belong?* Again, that is a cosmopolitical question.

With this in mind, we ask again: What is a wave? In scientific terms, waves are geometric forms that can also be rendered algebraically (this is the basis of the Fourier series), which is to say that they are essentially mathematical objects that are abstractable from the particular phenomenological or physical forms or instances that they take. Vibrations make/articulate patterns—musical events (a composition, a performance, a track, etc.) take the form of a pattern, often a very complex one. The possibility of abstracting and formalizing such

patterns is also the basis of musical notation, of the digital recording and representation of a performance, and more—one can code the sonic relationships that make up the pattern, whether as sequences of pitches and their combinations, or as waves occurring at certain frequencies (i.e., Hz). In this sense, vibration is mathematical first of all, since mathematics takes up the challenge of articulating what pattern is, and the Newtonian acoustics of sound are in that sense but one aspect of vibration. And this matters because it suggests that understanding what music is does not entirely depend on understanding acoustic phenomena, or even the physics of sound—it concerns patterns (and waves) at a more fundamental level.

In arguing that a mathematical sense of vibration matters here, it should be emphasized that this does not mean a reduction of music to a vulgarized high school version of mathematics—or the mathematical music of various historical periods. Contemporary mathematical attempts to account for music, such as those of Guerino Mazzola and Catherine Christer Hennix, do so via creative acts of synthesis that recognize the complexity of the space of music, including its more radical and challenging contemporary forms, such as free improvisation.⁸ The version of mathematics involved is open and evolving, a field of continued contestation and debate where significant problems in the foundations of mathematics remain unresolved. Indeed, mathematics has its own rich cosmopolitical shadow, ignored for the most part by the practicing mathematician who works in a particular milieu where a set of norms as to the parameters of mathematics prevail. Hennix argues that a consideration of music can contribute to thinking more deeply about such mathematical problems. I am not a trained mathematician and the presentation of mathematical ideas here is of necessity informal. This book is, to extend a trope of Fred Moten's, an "an-mathematical" work—and the essential points can be understood by anyone.⁹

I am also not a musicologist, but again, following the work of scholars like Julian Henriques and Moten, I believe that certain musicians, composers, and participants in various music scenes have an understanding of music that is cosmopolitical in its framing of the powers of vibration.¹⁰ The wager of this book is that musical vibration stands as an example of and analogy for periodicity at the ontological level—and that this analogy or exemplarity forms the basis of music's power.

To generalize again, in this book, *vibration is understood as formally concerning periodicity and the patterns that emerge out of it*. According to the *Encyclopedia Britannica*, vibration concerns "periodic back-and-forth motion of the particles of an elastic body or medium, commonly resulting when almost any physical system is displaced from its equilibrium condition and allowed

to respond to the forces that tend to restore equilibrium.”¹¹ Vibration takes many forms—sound is a kind of mechanical vibration, as are ocean waves or the shaking of a tree in the wind; light is a kind of electromagnetic vibration; there are also gravitation waves. As to what periodicity really is—and where it can be located in terms of scholarly discipline—we will explore the ways different musics and musicians approach this problem. The decision made within a particular musical milieu as to the nature and value of periodicity is a cosmopolitical one—encompassing, for example, the Vedic/Tantric idea of Nada Brahma, the Afrodiasporic mythos of Ishmael Reed’s *Jes Grew* in his 1972 novel *Mumbo Jumbo*, or various versions of string theory in contemporary quantum physics. Sound, of course, can be periodic or aperiodic—as the drummer and vibrational philosopher Milford Graves notes in the documentary *Milford Graves: Full Mantis*, a heartbeat is never mechanically consistent such that we could speak of it as an absolutely periodic phenomenon. Every beat of the heart is its own adventure in difference and repetition, the uncertainty of cyclic processes in living beings. This tension between the periodic and the aperiodic is also part of what music is, even at its most perfectly executed. It is part of the pathos of music, the way it leans into the now, the moment, being.

Vibrations happen in a field—they constitute a field, or more generally, a space. This, therefore, is a book about fields and spaces. What kinds of spaces? We will make use of the concept of a topos from mathematics, whose simplest definition is “a generalization of space”—rather than, say, Euclidian space. In his wonderful book *Sonic Bodies*, Julian Henriques gives an exemplary cosmopolitical account of the density and complexity of this vibrational space and the collective project of constructing it in the context of the Jamaican dancehall scene.¹² For Henriques, the sound system session can be thought of as the coming together of different kinds of vibrational bandwidths that encompass everything from the actual wavelengths of sound passing through an acoustic medium, to the cognitive psychoacoustic assimilation of these wavelengths as music, to the sociocultural organization of “vibes” as interpersonal experience in the dancehall session. In this book, we will examine what it means to think of music as an emergent property of a field—and the complexity and challenges of defining what kind of field might be involved and how to model it.

Waves constitute one of the basic structural principles of physics, whether mechanical, electromagnetic, or otherwise. Musical sound, for example, is mechanically produced by the vibration of an object, for example the string of a guitar, which sets the air or other medium vibrating, causing the vibration of the human eardrum, which in turn is transduced by the nervous system. The famous electron diffraction experiments conducted circa 1927 by George

Thomson, Clinton Davisson, and Lester Germer showing that electrons passing through slits in a screen displayed wavelike properties such as diffraction and interference, and vice versa, form part of the experimental basis of the wave-particle duality that is canonical for quantum physics, meaning that wave and particle are the two models for describing subatomic actors and events. Louis de Broglie, who in 1924 formalized the wave-particle duality and the idea of “matter waves,” that is, that matter in general consists of waves, evidently came to the idea from his interest in music—the quantization of the orbits of electrons around the nucleus of a hydrogen atom being restricted in the same way that overtones of any pitch played on a string or wind instrument are restricted to integer multiples of whole wave cycles. From Erwin Schrodinger’s wave equation (and the concept of “probability waves”), to Richard Feynman’s quantum electrodynamics, to the various iterations of string theory, waves have played a key role in quantum physicists’ attempts to build complete and successful models of the structure of reality.¹³

Quantum field theory offers a model for thinking about a universe of wave/particles and the ways in which the phenomenal world we inhabit condenses out of the interactions of these waves and their field. Indeed, it is quantum field theory that provides the crucial link or transition between the notoriously strange behavior of subatomic particles/waves and the more recognizable ordering of larger than atomic worlds. One of Hennix’s preferred ways of speaking about music is to compare it to the way certain objects behave in condensed matter theory, for example the Bose-Einstein condensation that she claims occurs when one makes Bearnaise sauce, a subtle but decisive shift in the form of things caused by a shift in energy levels (the stirring of the sauce produces a viscosity that was not there before). The Bearnaise sauce, here, is us, when we are listening to music, and (speculatively) undergo a decisive psychic shift that is the result of quantum level restructuring of psychoneurophysiological systems exposed to music’s vibrational force. How much more complex then are the musical scenes and events that Henriques describes with their vast but also local gatherings of actors and practices. Yet, for a successful sound system session to occur, a “condensation,” call it “vibes” if you like, needs to happen, which is familiar to anyone who’s attended a successful party, club night, or sound system session. This condensation can be considered, via Mazzola, Hennix, and others, a gesture—a complex, multifactorial act of field shaping in which the object called music emerges or is invited to appear. Not that physics necessarily takes precedence here—instead, we seek to open up the cosmopolitical problem of what music is, the ways different musics and musicians gather their own ontological tools in making the object called music appear, and to include within

that cosmopolitical opening, scientific frameworks, as and when they arise. Stengers, it should be noted, developed the idea of cosmopolitics in thinking through the discordances that are found in the field of modern physics itself. Cosmopolitics is not an anti-scientific endeavor, or a naive celebration of relativism, but it seeks to hold a space where scientific and other kinds of explanations and narratives can coexist.

Another basic definition of vibration is “an energy transfer through a medium.” This works at the level of acoustics but also at the quantum level. So would we be better off talking about energy rather than vibration here? I don’t think it’s an either/or issue, and as a participant in current debates about energy and the arts, stimulated by the work of Douglas Kahn and others, I am very interested in understanding the ways in which various framings of energy occur in different music scenes or musical works.¹⁴ And I am well aware that the politics of vibration and the politics of energy are profoundly interrelated. A vibration constitutes the transmission of a quantum of energy, a unit of force, through a medium.

But what if one of those media that energy passes through is the subject? In bringing this up, we bring up another cosmopolitical matter, that of our understanding of subjectivity. Psychoanalytically, vibration is the often obscured or forgotten energetic space of subjectivity, of the unconscious in its movements (traversed by drives, by libido, by desire), and the topological arrangement of this nonspace that is contained by or situated within (or not, depending on the model) the limits of the body.¹⁵ This may be harder to accept than references to quantum field theory because of the necessarily speculative nature of psychoanalytic theory. But in trying to understand the impact of music on the psyche, let alone the collective organization of subjects in assemblages of humans and nonhumans in music scenes, events, and so on, we need a speculative language that allows us to track and account for what happens to us when we make or hear music. And that means we need a persuasive account of interiority, or subjectivity, such as it is. Again, we could try to track this neurobiologically (although how one could practically do this in the collective unfolding of the moment of a Jamaican dancehall session is hard to say), but it would remain the case that what Vladimir Jankélévitch calls the “Charm” of music (linked to its ineffability), not to mention the many, many variations by which this “Charm” is organized in different situations, would be described or represented yet remain itself unthought.¹⁶ In listening to Pandit Pran Nath, in reflecting on the long history of Indian aesthetics and the evolving multiplicity of musical practices in India, which Pran Nath was connected to, we inevitably confront the question of subjectivity as a cosmopolitical one, whose dimensions, most obviously

those related to religion and spirituality, can only come into view at the point where we actually listen carefully to how such figures understood and practiced music.

This is also a book about music and time, and, challenged by Hennix's assertion that "Being = Space $\times$ Action," it explores the wager that music is not, as most musicologists or philosophers of music tell us, the quintessential art of or in time.¹⁷ The linear model of time that dominated Western metaphysics (and musicology) for most of its history was displaced by Einstein's theory of general relativity in 1915. Music is an action in a space(time)(continuum). Furthermore, while music may occur phenomenologically "in time," which is to say it may be provisionally captured by our concept of time, what if music were fundamentally an art of sequence or ordering, and every piece of music, every performance, every moment of musicking were actually the manifesting of a musical object in the form of a sequence and ordering of sonic vibration and relationality? This book explores that "what if . . ." from a number of perspectives and situations and argues that many of those deeply involved with music are aware of this possibility, even as they inhabit the ideology or, if you like, lived reality of physical time under the sway of the second law of thermodynamics (the arrow, irreversibility). In that wavering between ideology and lived reality of physical time is where a cosmopolitics of vibration is to be found. Conversely, what is mysterious about music, what Jankélévitch calls its "Charm," lies in this disjuncture between the vibratory power of music and the time regime that we are subject to, that is, what we don't understand about music relates to a cosmopolitical and categorical mistake as to where its intelligibility and being is to be found.

This brings up the difficult topic of the relation between music and technics (i.e., technological systems or structures)—especially in the light of Yuk Hui's recent work on *cosmotechnics*, a term that overlaps with *cosmopolitics*, but focuses more specifically on the ways in which the articulation of technics in a particular community or society is related to the cosmology or worlding of that society.¹⁸ The topic is especially significant for an understanding of music, given Bernard Stiegler's provocative thesis concerning the relation of technics to time—time being produced by a kind of originary supplement or prosthesis that would "always already" be technical and "relative" in the sense that it correlates different entities in their movement.¹⁹ While musical examples and metaphors appear throughout Stiegler's work, music is not itself considered as a form of technics. And while musical instruments are obviously prosthetic technologies, it is not clear that the human voice, or harmonics and other aspects of the physics of sound, or the entity of the raga can be considered prosthetically. Perhaps they refer to a broader history of techniques (vocal training,

awareness of pitch) that is covered by Hui's cosmotechnics, in the sense of a different configuration of the technical in relation to the world and being. I will argue over the course of this book, however, that music's ambiguous status in terms of technics tells us something more specific about time.

In elaborating on what it means to think of music as an action on/in a space, I explore what it means to think about "a life" (Deleuze) as a topological entity, or, in Fred Moten's words, what it would mean to embrace a "topological existence" through music.²⁰ If vibrational praxis and culture inevitably concern actions on or in a field, and a modal view of ontology, then the specificity of different kinds of music, music scenes, and musical practices may be found in what Giovanni Maddalena calls a philosophy of gesture—where gesture is no longer just a kind of nonverbal signaling but a morphing of a space, be it a social space or a corporeal/psychic space.²¹ The world of dance, of course, takes precedence here, but so do the various forms of multidisciplinary/in-between/intermedial cultural praxis such as the dance/ritual/music/theater of Balinese gamelan, or voguing practices at the ballrooms in Harlem and elsewhere—such practices are not peripheral to music, not add-ons or ornaments, but the unfolding and flourishing of music's topological basis.²² Improvisation takes on a particular importance in this model, in rendering and exploring the topological possibilities of a space. In writing this book, I also engage in the practice of improvisation in response to the life and work of particular musicians. It takes me to some strange places, including "myself"—and my stories—there is no (valid) way around this.

As to why there should even be such a thing as a politics of vibration, which is to say a cosmopolitical negotiation of the possibilities of organizing and ordering vibration as the collective practice of resituating ourselves where being is to be found—well, that strikes me as strange too. Jacques Attali wrote of the fear of noise engendered by power, and the need to organize, even "sacrifice" sound to a particular political order.²³ I was struck, attending a (beautiful) classical music concert in Toronto recently, by the strangeness of the formality of the string quartet's performance—their entrance and exit after each piece, the bowing, the ritual of audience applause—how rigid it felt, and how much the ritual betrayed an incredible fear of music as something too hot to be handled otherwise. Conversely, in the lives of the musicians I write about, I have often experienced a kind of bewilderment or innocence, a noble determination or willful self-destructiveness in situations where the demands of music and the demands of the world went in different directions. DJ Screw, Catherine Christer Hennix, and Pandit Pran Nath were/are all fugitive in their own and different ways, all backed into a corner by a world "of strange and brutal design," to

quote the South African poet Keorapetse Kgositsile—but all also insistent on valuing music differently, otherwise, and thus cosmopolitically.²⁴

The phrase *politics of vibration* clearly encompasses many things, from the negotiation of decibel levels that some DJs include in the written contracts for their festival performances, to the funding of competing models of string theory in physics. There is also, of course, a significant body of work that considers the politics of music from various viewpoints and frameworks.²⁵ Here, my main focus will be on the cosmopolitical aspect of the politics of vibration because it is a key in many cases to rendering explicit the political nature of questions and disputes concerning vibration, and in particular music's status as a vibrational form or practice. Music, it turns out, is cosmopolitical: it participates, actively or passively, in a worlding—the constellation or construction of a cosmos or an ontology—in precisely the way that Stengers set out the cosmopolitical “question” or “proposal.” And this worlding involves a set of ideological restrictions that in turn shapes and orders the object that we call music, and our implication in it.

We usually understand the plurality or diversity of musical practices via ethnomusicology and/or the anthropology of music. But that is not exactly what is at stake here. The missing or obscured question as to the ontology of music—despite or maybe because of the vast archive of musicological treatises—can only be raised when music's ontological significance or power is actually asserted—and denied. If there is a general agreement today that this ontological power does not exist because music is nothing more than the set of examples of what a particular group of people call music (as a sociologist colleague recently suggested to me), or must be left as “ineffable” as per Jankélévitch,²⁶ this general agreement only attests to the success of a particular political-aesthetic enframings of music within modern societies that appears, but is not in fact, unquestionable. To recall that music in medieval Europe was part of the “quadrivium” and taught alongside arithmetic, geometry, and astronomy is just one way to remind ourselves that things were (and are still!) not always so. It suffices to start to listen to other voices who understand music otherwise, and to take those voices seriously—which is what we will do in this book—for the cosmopolitical nature of music to become apparent. The question of what music *is* depends on, in Hennix's words, what practices and ontologies are permitted within any particular society, for example what duration of a performance is allowed. It suffices to ask for more, to want more, to want otherwise, to listen to those who are already doing more, doing otherwise for music's cosmopolitical power to emerge. And this emergence should be a matter of great joy to anyone who loves the music, the game.

I came to my current understanding of these things through my association with Catherine Christer Hennix, a brilliant but still relatively unknown Swedish-born musician, mathematician, and composer. This book recounts some of the stages of that association, my attempts to unpack the remarkable assemblage of ideas and fields that Hennix synthesizes in her work, to document my own response to that work, and to show how, despite its initial difficulty, it opens up new ways of thinking about music in general. I first began talking to Hennix about twenty years ago, while researching an article on the great but also unheralded Indian classical vocalist, Pandit Pran Nath of the Kirana gharana, who is the subject of the first chapter of this book. Pran Nath, trained within the gharana system in India in the early decades of the twentieth century, moved to America in 1970 and became the teacher and muse of generations of European and American composers and musicians, most famously Terry Riley, La Monte Young, and Marian Zazeela. I had learned about Pran Nath in the late 1990s when I went on an internet date with someone in the East Village in New York City, and, feeling little attraction to each other but sharing a mutual interest in “world music,” we ended up in a music store, where I discovered an advertisement offering classes in Indian classical vocal. At that time, I was practicing yoga quite intensely, and, as a soft-spoken, fairly introverted dude, I came to enjoy kirtan, the collective singing of religious songs, at the end of yoga classes. Despite playing in punk bands, it had never occurred to me that I could sing, and that singing was not only a disciplinary ritual enacted in school assemblies and churches or the work of professionals known as singers but also a social practice and a collective offering of joy (and pain). I took Indian classical vocal classes with the composer and tuning expert Michael Harrison at his piano store on West Fifty-Eighth Street, and when he told me that a group of students of Pran Nath would be traveling to India to study together, I jumped at the opportunity to go along. We visited some of the sites where Pran Nath had lived before he moved to America, took basic singing lessons, and on the last night of the workshop, for lack of any better idea, I sang a version of Donna Summer’s “I Feel Love,” arranged as a raga, accompanied by a tambura drone. In a sense, the continuity between Pran Nath, DJ Screw, and Catherine Christer Hennix—the three main focuses of this book—already existed for me in that act. But I didn’t know that at the time!

I spent the summer working on the Pran Nath article, and La Monte Young and Marian Zazeela generously put me in touch with many of the musicians who had studied with him. My article was published in the *Wire*, but I stayed

in touch with some of the people I'd interviewed for the piece—including Hennix, whom I likely first heard about from her long-term collaborator and friend, the philosopher, musical, and visual artist Henry Flynt, another student of Pran Nath's and a generous interlocutor with me throughout the 2000s. Hennix at that time was living in Amsterdam and would send me mesmerizing CD-Rs of her newly composed Soliton computer drone pieces, urging me to do my singing practice along with them. I nearly crashed my car several times, driving around Toronto listening to the intensely psychotropic recordings, which would make the car's interior throb and pulse with resonances. In 2011 I began visiting Hennix at her studio in Berlin, and I immersed myself in her work—whose depth and power only expanded, the further I went into it. There were some challenges—just intonation and Lacan I was already familiar with, but despite a background in science studies, my grasp of debates in the foundations of mathematics or condensed matter physics was very limited. And Hennix not only referred to the work of key figures in this history (Brouwer, Hilbert, Grothendieck, and Lawvere, for starters) but also made her own playful and creative synthesis of this work—as it applied to music and other things too. So the bar of entry was set quite high.

As I thought about Hennix's ideas, they pushed up against my own engagement with music scenes since I was a kid. I can discern at least three separate but interwoven threads there: (1) the avant-garde and experimental music scenes, especially as they emerged globally after or around punk; (2) Afro-diasporic music scenes centered around reggae, jazz, funk, house, and especially hip-hop; and (3) much more amorphously, the sense of a world of traditional musics, each with its own historicity and politics, emerging out of the ethnomusicological practices of study and documentation on record labels such as Smithsonian Folkways, Ocora, and more recently Sublime Frequencies. The interweaving of these scenes was already happening at some of the first shows I went to as a teenager, notably the Pop Group concert at The Electric Ballroom in London in November 1979 at which, dazzled, I first heard Funkadelic's "One Nation under a Groove" over a loud sound system. One of post-punk's promises was not only the constellation of different musics from around the world but also the constellation of political struggles and solidarities—whether the Campaign for Nuclear Disarmament (CND) and the Greenham Common women, or Rock Against Racism and the Anti-Nazi League—all in the UK context, but with awareness of what was going on elsewhere and of history. Of course, now things look a little different. In fact, they looked different very quickly after that Pop Group show, where the five-white-boy unit, high on Rimbaud and P-Funk, was shaken apart by Ishmael Reed's *Jes Grew* virus

and the politics of vibration, resulting in the formation of Rip Rig and Panic with Sean Oliver and Neneh Cherry . . . and Mark Stewart's collaborations with Adrian Sherwood and the dub label On U sound. I started going to the funk parties at the Beat Route, and the queer disco events hosted at Heaven—both in central London. And, in January 1982, I went to New York for the first time where I attended Kool Lady Blue's hip-hop parties at Negril and other locations. And got saturated in the Paradise Garage—nurtured sounds of West End and SAM and Arthur Russell's Dinosaur L project, which I wrote about for the *New Musical Express* (!). This book formed as I synthesized my experience of the various kinds of music in my life with Hennix's philosophical ideas—into a new kind of reflection on the nature of music.

In the first chapter of this book, I describe Pran Nath's life and work, and the complex ways in which certain elements of Indian classical music, as they existed around the time of partition, were translated and rethought as Pran Nath traveled and taught in Europe and America. I look at Pran Nath's insistence on music as a practice rather than performance—"practice practice practice!" he said—as an offering to the Divine and as a matter of cultivation of the soul, and the misunderstandings and projections that this engendered, both in India and America. I consider how Pran Nath's music emerged not as the implementation of concepts or discourses but as ways of working with the primordial vibrational structure of the universe. I explore how one might think of Pran Nath's music and its meaning as something cosmopolitical—requiring a reframing of what we understand music to be.

In chapter 2, I focus on Hennix and her extraordinarily rich and dense reframing of Pran Nath's teachings via intuitionistic mathematics, postminimalist composition and jazz, quantum field theories in physics, Lacanian psychoanalysis, transfeminist readings of Islam, and more. In this chapter, I set out the full richness of Hennix's thought as it relates to music, in a way that is rigorous but accessible to the reader with minimal technical knowledge of some of the fields involved—and I show how Hennix's life and work opens up new ways of thinking about music as emergent from a politics of vibration.

In chapter 3, I synthesize some of these insights into a model of music in its vibratory emergence from the (problem of the) continuum. Building on the theoretical work of Fernando Zalamea, Guerino Mazzola, and Hennix, I explore a variety of examples from around the world, including José Maceda's writing about Philippine musical practices, Keiji Haino's noise improvisations, and—Prince. Building on ideas of the local and global, and the rich and nuanced idea of a topos as place, space, or locale, I show how music can be understood as a pragmatic construction on/in/out of the continuum. The examples

are not random—they reflect my own interests, attractions, and exposures—but the point is to integrate an affirmation of the cosmopolitical potentials of global musical practices with a specific ontological model as to what music is.

In the fourth and final chapter of the book, I attempt to think through some of these ideas in relation to an ostensibly “different” music that has concerned and sustained me since my dad first played me Duke Ellington records as a little kid—the music of the Black radical tradition, and specifically the work of the much-revered originator of the chopped and screwed dirty south hip-hop style, Houston’s DJ Screw, renowned for his practice of slowing sounds down. In the chapter, I locate the importance of a politics of vibration for the Black radical tradition (indeed, it was a primary force in Hennix’s education as a child in Stockholm, where musicians such as Eric Dolphy and Idries Suleyman lived in her mother’s house at various points). I also think about my own relation to Black music, as itself a part of the complex politics of vibration, mediated by a “sonic color line” (Stoever) that distributes depression, utopian flashes, and “otherwise possibilities” (Crawley).²⁷ I reflect on what separates us from continuity, and how this separation appears in musical form—as well as the possibility, guided by the Indigenous hip-hop crew A Tribe Called Red, of its reversal in a vibrational decolonization of time.

4

I encountered the phrase *vibrational ontology* through the work of Steve Goodman in his book *Sonic Warfare: Sound, Affect, and the Ecology of Fear*. Goodman has assembled a formidable set of connections in pursuing vibration, yet the displacement of vibration within the book (it doesn’t appear in the index for example) actually impedes any positive articulation of vibrational ontology. Goodman’s discussion of vibrational ontology emerges out of an exploration of the political ecology of fear and the use of technologies and practices of “vibrational force” both in warfare and the broader biopolitical management of populations in modern societies. As a counterpoint to this instrumental use of vibration as force, Goodman writes of the way that subaltern dancehall or bass cultures appropriate such technologies to mobilize a community, transforming fear into joy. Among other things, this explains the preference some bass cultures have for the use of police siren sounds in the middle of dancehall sessions; the focus on intensely amplified sound that is situated at the threshold of pain and pleasure, audible and inaudible, clear and distorted; and the pervasive appropriation of military discourses in the language of “sound clashes” and “DJ battles.” For early twenty-first-century dwellers such as I, who have found the

cultural studies discourse of popular and subculture highly inadequate in articulating what is so powerful about participating in music cultures, Goodman's bold attempt to link music cultures to fundamental ontological and political questions has opened up a number of new fields of inquiry.

There are a number of problems with Goodman's book though.

- 1 Because Goodman tends to focus on contemporary UK dance scenes that are generally quite smoothly integrated into the functioning of the industrial leisure complex, he reduces collective experiences of vibration to mere epiphenomena of instrumental and industrialized societies. But looked at in a broader historical and geographic framework, human societies' relationships to music are much more varied, and at times much stronger than those suggested by the contemporary club culture. Even within club culture, the devotion to sound that is documented in a book like Timothy Lawrence's *Love Saves the Day*, in describing 1970s queer disco culture in New York, is somehow absent from his book. Yet it is precisely scenes and cultures with more intense commitments to sound that have something to say to us about vibrational ontology.
- 2 Because Goodman's book was published before the current renaissance in Black studies, the sense of the importance of sound and music to Afrodiasporic cultures that is conveyed by Fred Moten, Ashon Crawley, Jayna Brown, or for that matter Achille Mbembe is absent from the book. But again, close attention to the reality of Black lives in modernity shows us the importance and power of sound in its various dimensions.
- 3 In his 1929 book *Civilization and Its Discontents*, Sigmund Freud set out a broad and powerful model for thinking about culture as a struggle between two fundamental human, and arguably nonhuman, and also arguably cosmic forces, those of Eros and Thanatos, life and death, love and violence. Freud's model has a clear application to recent work on sonic subcultures. In *Sonic Warfare*, Goodman argues that contemporary sound cultures such as hip-hop and dancehall are built out of a reappropriation of military and industrial technological colonizations of the sound spectrum, putting them at the service of the people, who satisfy their own aggressive drives via this appropriation and sublimation of a pervasive violence. While Goodman's argument is very compelling in describing a long lineage of subcultural musics—from Throbbing Gristle and the Stooges, through Public

Enemy and gangsta rap, dancehall reggae and grime, dubstep, and so on—the absence of any discussion of Eros or sexuality in his book is also rather striking. There is a strong fear of the body, of intimacy, of the erotics of vibration in Goodman's book. He overemphasizes the real but only partial significance of military metaphors and violence in, say, gangsta rap or dubstep, at the expense of the powerful discourse and practice of love that is operative in the history of queer dance scenes such as Deep House.

- 4 Related to this, Goodman gives no real explanation of how specific music scenes emerge from a mobilization of sound that is at the same time a mobilization of vibration—beyond an observation as to the importance of deep bass and subsonic frequencies, which constitute a new frontier of music since they exist at the edge or limit of audition, and are explicitly vibrational since they are felt as a movement or pulsation enveloping the body rather than just as something heard. The specific music that is heard in particular music scenes remains a black box or just music. Music presents an interesting problem for sound studies when it is presented in this neutral or descriptive way. Edgar Varèse famously defined music as “organized sound,”²⁸ but some forms of organization have more significance than others, both from a social sciences point of view (particular communities express preferences for certain organizations of sound), and from an aesthetic-political point of view (certain organizations of sound may be said to have specific aesthetico-political consequences or possibilities attached). Music matters for a vibrational ontology, because music reveals matters of ontological significance through the particular ways in which it reveals the potential/available forces within sound and vibration.

Some of these problems can be worked through by developing the idea of a vibrational ontology in other ways. What if the “ontologies of vibrational force” that Goodman focuses on, with their obvious masculinist bias (which he points out himself), characterized by control, instrumentalization, and so on, were actually secondary or at least reactive attempts to prevent the full opening up of a different, more fundamental vibrational ontology that is variously queer, feminist, decolonial, cosmopolitical, and “of the people” in yet unprecedented ways? Furthermore, given that the opening up of vibration at the ontological level is in Goodman's work coextensive with the military and political economic appropriation of the newly enlarged spectrum of available vibratory frequencies, one wonders how it is possible today for any ontological

wager, vibratory or not, to avoid becoming part of an instrumentalized political project?

Such a project, which I attempt here, is echoed and explored in a series of recent works about vibration, notably Elizabeth Grosz's *Chaos, Territory, Art*, Julian Henriques's *Sonic Bodies*, Ashon Crawley's *Blackpentecostal Breath*, and Nina Sun Eidsheim's *Sensing Sound*. Grosz's work on vibration, like that of Goodman and others, is indebted to Deleuze and Guattari's work on vibratory assemblages, notably in the "Of the Refrain" chapter of *A Thousand Plateaus*, and in scattered places throughout both thinkers' works.²⁹ Grosz develops a theory of music as part of a practice of sexual selection running parallel to but separately from natural selection. Music is an assemblage, an ordering of a primordial vibratory chaos that is exuberant and joyful, bringing pleasure. Grosz argues that "what science and art share is precisely the vibratory structure of the universe, the emanating vibratory force of chaos itself."³⁰ Art and science, then, are particular modes of ordering the primordial force of vibration. "Vibrations are oscillations, differences, movements of back and forth, contraction and dilation: they are a becoming-temporal of spatial movements and spatial processes, the promise of a future modeled in some ways on the rhythm and regularity of the present. Vibrations are vectors of movement, radiating outward, vibrating through and around all objects or being dampened by them. Music is the result of the movements of territorialization, deterritorialization, and reterritorialization of vibratory force in its articulation of (the division or difference between) the body and the earth."³¹

The difficulty with this model, as is the case with most vibrational models derived from Deleuze and Guattari, is that there is no real account given of why any particular vibrational assemblage matters to any particular community—an assemblage is anything that works, and while the free improvisation of the assemblage may feel liberating, in practice assemblages are intentional entities that can be and are repeatable and varied. Musical vibration may serve a Darwinian purpose in terms of sexual selection, it may be an abstraction or deterritorialization of refrains that serve a primordially territorial purpose, both in terms of geography and environment on the one hand (the model of bird song), and the parameters of subjectivity on the other (the model of the small child who sings to himself or herself in the dark), but the actual ordering of vibration itself as music remains unexplained or unexamined.

In *Sonic Bodies*, Julian Henriques's book, the real complexity of actually existing sonic assemblages is elaborated, perhaps for the first time. Henriques emphasizes the importance of thinking through sound, of a sonic praxis that concerns "sound qua sound, that is, auditory vibrations" (xvii). These vibrations

come together in a “sonic body” or bodies. In describing what the sonic praxis of a Stone Love Movement sound system event in Jamaica entails, Henriques describes the various kinds of specific know-how, materiality, and so on, that are assembled in the session. He identifies three different media or bandwidths of vibration: (1) the material waveband of sound moving through air via equipment and audio engineers working with the physics of sound; (2) the corporeal waveband of a particular crew and crowd responding to each other with the particular choices of tracks and mixing but also the dancing of the crowd; and (3) the sociocultural waveband or the broader sociocultural context in which equipment, crew, crowd, and sound come together and are intelligible as an event. That Henriques is able to write over three hundred pages on the particular factors and frameworks that go into a particular sound system session speaks to the density of the assemblage involved—and the importance of a notion of vibrational praxis, at so many levels, as indicating the care, specificity, and intentionality that are involved. In other words, a musical, sonic, or vibrational assemblage is not simply an experiment—it constitutes an evolving, forever contingently improvised but also repeatable, specific, and noncontingent set of practices that are collectively cultivated in a scene, subculture, or community which gathers around the sound. Environment, history, ideology, and capacity all come into play. And the larger point that Henriques is making is that any musical event or performance—whether an opera performance at Bayreuth, a Balinese ritual procession involving gamelan instruments, or a YouTube video of the newest K-Pop sensation—involves a similarly dense although nonidentical condensation of different kinds of praxis, materiality, and so on, whose goal is the generation of the object that is music. It is with this expansive and cosmopolitical idea of vibrational praxis that I think about contemporary music in this book.

One of the problems that looms over Deleuzian models of vibration is the absence of a theorization of the subject’s imbrication in the world of vibration. This matters because music’s power is clearly connected to affect and a transformation of the conditions of subjectivity, whether these are modeled as ecstatic, transpersonal, or otherwise. While Brian Massumi’s Deleuzian version of affect theory speaks of vibrational transduction across media—for example, from instrument, to air, to ear, to mind—there is little sense of the way in which music specifically produces particular kinds of affects that are integrated into the intentional structure of the subject. Ashon Crawley’s *Blackpentecostal Breath* develops its own particular notion of vibrational praxis in the history of the Black Pentecostal church in the United States. While Crawley’s work

broadly coheres with Henriques's in describing the way a music scene emerges out of the total social, historical, political, and material conditions in which a community finds itself, it also differs by focusing not on a music scene per se, but on a scene of religious (but "atheological, aphilosophical") ritual and practice in which music and sound play crucial rather than supplementary or supporting roles. Crawley's nuanced reading of the particular ways in which vibration is mobilized as a socioreligious force brings out an ontological level of vibration that is inherently religious or spiritual in the sense that it is ecstatic with relation to the subject (in Heideggerian terms) but at the same time social, ecstatically social, or, in his word, "choreosonic"—that is, a collectively established choreography in relation to sound, that produces a sound, and is produced by a sound. Of the "noise" of Blackpentecostalism, Crawley writes: "That noise can be joyful and joy can be unspeakable produces another way to analyze and interrogate categorical distinction. And that because the unspeakable is vibrated and sounded out, and such vibration and sound is produced from, and emerges from within while producing, joy. Joyful noise, the noise of Blackpentecostal aesthetics, operates from a different epistemological decentering, a centrifugitive refusal of centeredness."³²

As such the vibrational praxis of the Black Pentecostal church cannot be understood or framed in terms of Euro-American categories of religion and music, or of subject and object, but instead works and plays to generate a space in which an "aesthetics of possibility" in which the "otherwise" than racist, settler colonial, capitalist America can manifest. In Crawley's work, the political nature of vibration is made clear—and Crawley challenges us to think about what our own relationship to this politics, coming from different subject positions, might be. Thinking through Crawley's work via Bruno Latour's observation of the religious or spiritual impulse as being omnipresent but "crossed out" in modernity, I explore Crawley's ideas across contemporary musical scenes and genres.³³

Nina Sun Eidsheim's *Sensing Sound: Singing and Listening as Vibrational Practice* also shifts the framework in which music and vibration are understood—the key for her is the shift from musical performance to vibrational practice. Reflecting on twenty-first-century contemporary music forms, including works by Meredith Monk and Juliana Snapper, Eidsheim argues that music is most accurately understood as an intermaterial practice of vibration, in which the body of the person making music, the person listening, and the environment all experience transductions of energy in the form of vibratory movement. Different bodies transduce vibration and energy differently at

different points, and the frequencies of the vibrations involved extend beyond the limits of human audition. Thus, the emphasis on “sensing sound” as encompassing listening but also on other modes of sensing, notably touch.

Singing and listening are particular expressions of the processes of vibration. What we understand as sound ultimately reverberates throughout the material body that produces and senses it; it is precisely because sound—undulating energy—is transduced through the listener’s body that it is sensed. On the one hand, by projecting music out into the air, we have an impact on the world around us. We do not engage with music at a distance but, by definition, we do so by entering into a relationship that changes us. The most extreme definition of music possible, then, is vibrational energy—and, at times, transformation through that vibrational energy, which is an always already unfolding relational process.³⁴

Furthermore, even the relational model of vibratory transduction is itself a simplification of what Eidsheim calls the “thick event” of music that is entangled and beyond disciplinary and conceptual labels. What we label as music or vibrational practice is nonetheless truly a practice in the sense of an action in a space that changes the configuration of entities and/or actants in the space. Although Eidsheim does not further specify what this thick event involves beyond being a distribution within and perturbation of an energy field, I argue here that Hennix’s ideas concerning continuity and vibratory condensation offer promising ways to explore the situation further.

5

As already noted, this book concerns the relationship of music to ontology—a much overused word these days. By “ontology of music” standard scholarly sources today usually mean “what music is.” The metaphysical assumptions contained in this phrase are dismally predictable. For example, a recent study that proposes an “ontology of musical works” sets out the criteria as follows: “The ontology of music is its metaphysics, its identity conditions and metaphysical categorizations.”³⁵ Similarly, the *Stanford Encyclopedia of Philosophy* begins its article on “the philosophy of music” by observing that “musical ontology is the study of the kinds of musical things there are and the relations that hold between them.”³⁶ Both articles note that their “ontologies” are derived solely from “Western musical traditions” or to “works . . . after Beethoven.” The ontological inquiry that follows, then, usually proceeds via a focus on the dilemmas created by notation and contested theories of the emotions—or, in more contemporary works, wave analysis plus some neuroscience. From this

perspective, as Roger Scruton indicates at the end of his chapter on ontology in his *Aesthetics of Music*, aside from the musical object and the psychology of the listener, “there is no third possibility, which means that there is nothing further to be said.”³⁷

This claim needs to be understood as a cosmopolitical barring of the ontological question as it concerns music. The anthropology and history of music in all their variety suggest that there is much to be said. Where to begin? First, framing the ontological question in terms of “what music is” is not in fact a genuinely ontological way of proceeding—it merely reiterates the metaphysical stance of Western philosophy, which Heidegger already and eloquently dismissed in the opening sections of *Being and Time*. It is in the nature of music and its vibrational field to dissolve the syntax of the sentence “what music is”: “is” and “music,” not to mention subject and object, are co-emergent in the field of the “what” that occupies the “now.” The “what” being “always already” vibratory, always already a field. In this book, I will use the word *topos* to explore the richness and particularity of the concept of “field.” The field is in fact that “third possibility” that Scruton’s otherwise plausible subject/object model has failed to give an account of. Recognizing the historicity of, for example, the design of the acoustic space in which music occurs is one of the simplest ways to affirm the importance and variability of the concept of the field to understanding music’s ontology—but that is just one aspect of the diamondlike lattice of the *topos* of music.

Then there is the question of “onto-logy” itself—and what the relation between “being qua being,” “being itself,” or “mere being” (Stevens) and “what can be said about being” is.³⁸ This issue underlies the major shift of focus in recent decades away from the linguistic turn in philosophy and theory, both Continental and analytic and the (vulgarized) version of that turn which claims we can know nothing outside of language—to a speculative philosophy that takes into account the descriptive power of the sciences and is willing to engage with reality’s recalcitrant nondiscursivity and insistence.

The issue here, then, is not an “ontology of music,” where music serves as a specimen or example to which a general theory can be applied, but what music tells us about ontology in the sense of “being qua being” and the general theory itself. A musical ontology does not consist in describing “what” a “musical object” “is” with all the problems involved in assembling those words together in the grammar of a sentence. If, as Heidegger says, questioning opens a path, then music also opens a path, as does mathematics.³⁹ Here, we follow that path and see where music leads us. It already leads us, when we listen to it and/or play it—“explain by singing,” as Pandit Pran Nath sang in his composition “Nadam

Brahmam (Sound Is God).” Here, we attempt to put that vibratory explanation into words, aware of the inevitably secondary or provisional status of such work. We do so in gratitude to those who have opened up vibrational paths—John Coltrane, Pauline Oliveros, Abdul Karim Khan, Claude Debussy, Betty Carter, Fela Kuti, Wayang Lotring . . . their names standing here as metonyms for the richness of the sonic paths they took.

Of course, not all music has ontological significance in this sense. While all music must by definition be an iteration of sound ontological principles, only some music actually and explicitly targets and reveals that ontology—and, in doing so, the cosmopolitical stakes involved in such a revealing. It is this latter kind of music that we are concerned with here. Why, then, Pandit Pran Nath, Catherine Christer Hennix, and DJ Screw? Each of these musicians pushes at the limits of what our understanding of music is in ways that open up the question of music as a cosmopolitical practice. They do so from three different situations/genres/milieus—Pran Nath from the tradition of Hindustani classical vocal music as it manifested in the middle of the twentieth century, rendered stereotypically via ethnomusicology; Catherine Christer Hennix from the space of European/North American avant-garde/experimental music in the second half of the twentieth century, rendered stereotypically via discourses of the historical European avant-gardes; DJ Screw from hip-hop and the Black radical tradition as he found it in Houston, Texas, in the 1990s, stereotypically absent from any scholarly discourse about music. *Stereotypical* here marking the particular way that their work has been obscured or undervalued. Each of these figures is also errant or uncontainable in the traditions within which they are usually located—they stray in surprising and moving ways, they all seek within music something far beyond the normative expectations of the tradition at the historical moment that they are or were working, and, in their own way, each found in music a way of opening up another world than the one they found themselves in. Is it only a coincidence that each of these musicians’ sound is slow—and long? Probably not. Because it turns out that slow and long are both very helpful in terms of a tactics of attention that sustains an ontological inquiry into the nature of music.

Nonetheless, I recognize that it may seem strange to write an ontological essay built on an analysis of contemporary hip-hop, drone music, and a relatively unknown figure in the history of Indian classical music—in fact, a noted musicologist in Berlin railed against ontologies of music based on hip-hop after I gave a paper related to that topic. My choices are perhaps far away from the concerns of traditional musicology and especially the philosophy of music that still, astonishingly or not, defines music within the terms set by the Western

classical tradition ca. 1800–1950.⁴⁰ And, at the same time, my analysis remains also far away from where discussion of hip-hop or experimental rock is usually bracketed in cultural studies or the study of popular music or, for that matter, sound studies. It is this sense of dislocation or feeling of trespass in raising the ontological question in relation to “inappropriate” genres, disciplines, or fields that often indicates a cosmopolitical matter. No less so, then, in music. Here, I am guided by the music itself. One of the many important lessons that contemporary Black studies scholars have given us is that there is more at stake in popular Black music than a musicological analysis, or a sociological one, can articulate. “As serious as your life,” as Val Wilmer recorded in her book on free jazz.⁴¹ Or, as Hennix told me, about her childhood exposure to jazz with the trumpeter Idrees Suleiman in Stockholm in the early 1960s, “He taught me that jazz was a serious matter.” I learned it, without really understanding it, at early hip-hop shows, dub sound systems in London but also through free jazz, punk, techno, Dhrupad, Afrobeat, and . . . Stockhausen. Thinking about this brings me back to my friends’ deaths—Adam and Justin were both musicians, and music held them up, the way it has also held me up, in many moments of destitution. As I have suggested, their deaths, and the possibility of mourning them musically also strikes me as a cosmopolitical matter: it is cosmopolitical in the sense that we, my friends and I, seem to be almost totally lost, and have little other than our attraction to music by which to orient ourselves in the world. And I am writing this in order to understand that better, to understand what music’s possibilities are, for me, for others.

I write from a position of destitution, despite my various privileges and material advantages. I see the wreckage all around me (and in me too), despite the layer of neoliberal consumer gloss and wokeness that occupies our surfaces, on social media and in the streets of the gentrified cities. It is a fucked-up moment and time, with not much light available, but some good vibrations, still. And despite the darkness, which I am not trying to avoid or escape, there is good news, and “the great game” continues. But what is my own relationship to that? It’s a challenging and necessary question today, in the moment of liberal-left discourses of white male privilege, cultural appropriation, and so on, looking back on my history and identity as a white British guy exposed to and transformed by Black and other musics. I have tried to write this accordingly, understanding my structural separation from the material realities and history of Blackness (and brownness) but also recognizing my indebtedness to and transformation by the Black radical tradition, the Chisti Sabri Sufis, as well as the postwar European experimentalists and their desire to confront and transform the brutal histories that they and I are entangled in. Destitution, a lifeline, that

maybe was not even intended for me, but which has nonetheless held me (and others) up. That's something worth thinking about. "Be humble. Sit down" (Kendrick Lamar). So I sit and I try to write it out.

This is a book about improvising, and is the product of my own improvisation too—in other words, by starting where I actually was/am and working with that. Thus, the choice of particular topics is not arbitrary—it represents what I was attracted to, what I love(d), and what I wanted to understand. Or to put it in Heidegger's or Cornel West's terms . . . if my existential condition is one of thrownness, if the moment that I woke up and discovered myself thrown, was that day, aged sixteen, when I put the needle to the record of a used copy of John Coltrane's *Selflessness Featuring My Favourite Things*, in my bedroom in my parents' house in the suburbs of London, England, and was immersed in that sonic glory which, despite my dad's love of jazz, I had not yet even imagined—hearing Coltrane's call and having at that moment no way of integrating it into my life, but suddenly a sense of care, purpose, and orientation in the world, then I should write about music in a way that is true to the contingency of that moment. So my own improvisation here is an offering.

More pragmatically, some of the essays in this book began as music journalism, and gradually evolved into something else. Greil Marcus once said that to understand Lester Bangs, you'd have to be able to believe that the most important literature being produced in America could take the form of nothing more than record reviews.⁴² In those terms, popular music criticism of the kind practiced by Lester Bangs, Jessica Hopper, or Greg Tate but also a much broader history of informal writing about music that would include Zora Neale Hurston's descriptions of Black southern folk musics, or the German Romantic E. T. A. Hoffmann's ecstatic rants about music, or Nathaniel Mackey's profound letters to the "Angel of Dust," generated out of immediate and passionate concern for something happening around them, often brings us much closer to what music is than an academic analysis. Improvisation is a method and an ethics, both in music and in opening up a path philosophically—improvisation in the terms of the Black radical tradition rather than that of the European avant-gardes: as a matter of informality. Informality is not a failure to be formal, but a decision as to how to talk, think, and be, how to relate and offer and accept relation.

What I offer here, then, is a kind of ontology of music—one that trembles, in the sense that Édouard Glissant proposed "trembling thought" ("la pensée du tremblement") as the true horizon of a shared world.⁴³ Trembling—a vibrational mode. The argument is not entirely my own—I came to it over years of conversations with Hennix and other musicians, slowly trying to understand

their work and how they heard the world, trembling with them too. I like to think of it as my own way of playing with them, for better or for worse. I am particularly grateful beyond all words to Hennix for her patience and generosity with me—and the generosity of her own lifelong commitment to a rigorous and emancipatory thought and practice. An ontology of music is just one part of an elaborated philosophical approach to vibration and, outside of music and sound, there is much work to be done on the ways in which vibration itself has been understood as a medium or material, central to various forms of life, practices, “lieux communs” (Glissant).

There is an important question that needs to be asked about the relation between cosmopolitical disputes and ontology. How can cosmopolitical positions and dissensus be resolved into the consensus of an ontology? Isn't it precisely because there are cosmopolitical disputes that there can be no single ontology of music? It is a problem that haunts Stengers's and Latour's network/field models—as well as the more recent work of Yuk Hui who sees “cosmo-technics” as embodying a pluralist ontological position. Consider this a wager rather than an axiom, but I believe music does tell us something about being. It points to something universal, from all the places across the globe, across history, across the sonic spectrum in which human beings and others have undertaken to make or practice it. “Music exists,” to quote the wonderful title of a record by the Japanese alt pop group Tenniscoats. Philosophically and politically the word *universal* is a somewhat disreputable one today, in the wake of the long human struggle for emancipation from the despotism of ideologies of the universal.⁴⁴ Is it possible to formulate a universal that does not calcify into an ideology of the universal? What can music offer us in terms of paths of access to a real universality? We will approach these questions in new ways here in dialogue with contemporary music scenes across the globe, some of which I have encountered, others not. The cosmopolitical practice of music is a work in progress, as are we. In the words of John Coltrane, from the liner notes to *A Love Supreme* (1964):

Words—sounds—speech—men—memory
Thoughts—Fears—Emotions & time—all
Related—ALL made from one ALL made in one.
Blessed Be His Name.
Thought waves—Heat waves—ALL
Vibrations—ALL Paths Lead to God.
His way—it is Lovely—it is Gracious
It is merciful,

Thank you God.

One thought can produce millions of vibrations and they ALL go back
to God—Everything Does—

Thank you God.⁴⁵

Thank you John Coltrane.

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Notes

INTRODUCTION

1. Lispector, *Agua Viva*, 5.
2. Lispector, *Agua Viva*, 5.
3. Stengers, *Cosmopolitics*; see also Stengers, “Cosmopolitical Proposal.” A contemporary example of the use of “cosmopolitics” in articulating and debating a Kantian cosmopolitanism can be found in Cheah and Robbins, *Cosmopolitics*—but the horizon of the cosmopolitical in this text remains a humanist one. Yuk Hui has argued that Kantian cosmopolitanism does in fact concern a particular relationship between the political and nature, but of course a particular, secularized version of nature (“Cosmotechnics as Cosmopolitics”).
4. Kant, *Towards Perpetual Peace*, 73. In “Cosmopolitical Proposal,” Stengers notes that she was not aware of Kant’s usage and that her concerns are different from Kant’s. The German “kosmopolitische” is usually translated as “cosmopolitan,” to complicate matters.
5. De la Cadena, *Earth Beings*.
6. Parker, quoted in Bradley, *Universal Tonality*, 134.
7. Badiou, *Being and Event*.
8. Mazzola, *Topos of Music*; Hennix, *Poësy Matters*.
9. Moten, “Black Topological Existence.”
10. Henriques, *Sonic Bodies*; Moten, *In the Break*.
11. *Encyclopedia Britannica*, online edition, s.v. “vibration,” accessed July 15, 2019, <https://www.britannica.com/science/vibration>.
12. Henriques, *Sonic Bodies*.
13. For a useful history of the relationship of physics to music, see Johnston, *Measured Tones*, and Alexander, *Jazz of Physics*. For a usable popular account of quantum mechanics’ explorations of waves and particles, see Greene, *Elegant Universe*, 85–116; and Ford, *Quantum World*.
14. Kahn, *Energies in the Arts*.
15. Within the history of psychoanalysis, the question of what the materiality of libido consists in is a challenging one. It receives its first (undeveloped?) examination in Freud’s

early text “Project for a Scientific Psychology” (aka the “Entwurf”) via a vocabulary of “excitation,” “conduction,” “quantitation,” and so on. See the entry for “Libido” in Laplanche and Pontalis, *Vocabulaire de la psychanalyse*, 224–26. It is taken up most literally by Wilhelm Reich throughout his career, via concepts such as “bioelectricity” through which libido can ostensibly be measured, but also by Jung as “psychic energy.” Arguably, thereafter, there is a split in psychology between somatic-based therapies such as gestalt that directly address energetic or vibrational levels of bodily/psychic organization, and therapies that emphasize language. The early Lacan of Seminar II still explicitly discusses energetic processes, and Jean Laplanche’s *Life and Death in Psychoanalysis* focuses on the tension between “the vital order” and the psyche (for example, the assertion that “every function, and finally, every human activity, can be erotogenic” [21]).

16. Jankélévitch, *Music and the Ineffable*. For a recent exploration of music’s ineffability, see Gallope, *Deep Refrains*.

17. See Stein, *Being = Space × Action*, Io 41: 298 (“Being defines a space together with an action”).

18. Hui, *Question Concerning Technology in China*.

19. Stiegler, *Technics and Time*.

20. Moten, “Black Topological Existence.”

21. Maddalena, *Philosophy of Gesture*.

22. McPhee, *Music in Bali*; Hood, *Triguna*; Regnault, *Voguing*.

23. Attali, *Noise*.

24. Kgositsile, “For Art Blakey and the Jazz Messengers,” in *Homesoil in My Blood*, 224.

25. Barry Shank has usefully summarized some of this literature in his *Political Force of Musical Beauty*. Shank distinguishes between music that is directly involved in a particular political action or message, where music is merely a vehicle for conveying this message, and a Rancièrian model where music participates in a distribution of the sensible and a shared sense of musical beauty that is political in convening a community around it. I value this model, but there is a way in which the political meaning Shank finds in musical beauty is still separated from the topos of music, and its choreosonic decision—and this remains a problem for musical philosophies that assert the importance of ontological difference and listening without considering praxis, and the way that praxis goes beyond phenomenological (i.e., “sensible”) models.

26. See Gallope, *Deep Refrains*, for a nuanced reading of this problem.

27. Stoever, *Sonic Color Line*; Crawley, *Blackpentecostal Breath*.

28. Varèse and Chou, “Liberation of Sound,” 18.

29. Deleuze and Guattari, “Of the Refrain,” 310–50. A whole book could be devoted to tracking the sources of Deleuze and Guattari’s vibratory materialism, whether in Guattari’s reassertion, within a Lacanian context, of an energetic dynamics of the unconscious (see, for example, Guattari, *Schizoanalytic Cartographies*, 49–50), or in Deleuze’s reframing of the problem of vitalism in Spinoza, Nietzsche, and Bergson (consider, for example, the entire discussion of repetition, i.e., periodicity, in Deleuze, *Difference and Repetition*, as a discussion of vibration!).

30. Grosz, *Chaos, Territory, Art*, 62.

31. Grosz, *Chaos, Territory, Art*, 55.

32. Crawley, *Blackpentecostal Breath*, 145.
33. See Latour, *We Have Never Been Modern*, 32–35.
34. Eidsheim, *Sensing Sound*, 180.
35. University of Bern, Institute of Philosophy, “Ontology of Musical Works and Analysis of Musical Practice,” accessed November 4, 2021, https://www.philosophie.unibe.ch/research/projects/ontology_of_music/index_eng.html.
36. Kania, “Philosophy of Music.”
37. Scruton, *Aesthetics of Music*, 117.
38. Stevens, “Of Mere Being,” in *Palm at the End of the Mind*, 398.
39. Heidegger, “The Question Concerning Technology,” 311.
40. Jankélévitch, *Music and the Ineffable*; Zuckerkandl, *Sense of Music*.
41. Wilmer, *As Serious as Your Life*.
42. Marcus, preface to *Psychotic Reactions*, x.
43. I first encountered Glissant’s idea in Manthia Diawara’s brilliant essay on the French-Algerian artist Kader Attia. See Diawara, “All the Difference in the World.” The essay can also be found in Glissant’s later writings, including his *Une nouvelle région du monde*.
44. I draw here on Étienne Balibar’s analysis in Balibar and Jordan, *On Universals*.
45. John Coltrane, liner notes to *A Love Supreme*, 1964.

CHAPTER ONE: LORD’S HOUSE, NOBODY’S HOUSE

1. I make no particular judgment in using the phrase *Indian classical music*; I am aware of the problematic nature of the phrase and its complicity in South Asian colonial history, such that it allows for a valorization of particular kinds of musical tradition within a framework that has been imported from the West as a supposedly universal marker of value or quality.

2. See Lavezzoli, *Dawn of Indian Music*.
3. Zia Inayat Khan, ed., *Pearl in Wine*.
4. Suhani (“Shashi”) Maini, Pran Nath’s daughter, interview by author, September 12, 2020.
5. Pran Nath, quoted in Pace, “Pandit Pran Nath,” 10.
6. Shanta Serbjeet Singh, “Detractors of Punjabi,” *Tribune* (India), December 17, 1978.
7. See, for example, Sengupta, *Foundations of Indian Musicology*.
8. Suhani (“Shashi”) Maini, interview by author, September 12, 2020.
9. On Kirana, see the chapter on the gharana in Wade, *Khyāl*, 184–226; see also Kinnear, *Sangeet Ratna*, 3–9.
10. My primary source on Abdul Karim Khan are the sleeve notes to *Khansahib Abdul Karim Khan* (Mississippi Records, 2011) written by Ian Nagoski. Nagoski’s sources include Kinnear, *Sangeet Ratna*, and Bakhle’s chapter on Khan in *Two Men and Music*, 215–55.
11. On Abdul Wahid Khan, see Kinnear, *Sangeet Ratna*, 231–34.
12. See the biography of Abdul Wahid Khan at <http://www.kiranawest.com/abmianpage.htm>. The source of the quote is unclear.