

Listening to Nature, Listening to Difference

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Preface to the Special Issue

Stephen Meyer, Editor-in-Chief

As the first issue devoted almost entirely to a special topic, “Teaching Ecomusicology” represents a new departure for our *Journal*.¹ Ecomusicological topics are an especially appropriate focus, for they have played an increasingly important role in music history curricula over the past decade. Music history instructors have developed new courses such as “Music and the Environment” or “Introduction to Ecomusicology,” but they have also sought ways to incorporate ecological and environmental perspectives into other, more established parts of the curriculum. The publication of this special issue reflects some of these developments in our discipline, and the diversity of views represented by the different authors here is a sign of the robustness of our field. But this issue—we hope—serves another purpose as well. As I write these words, millions are grappling with catastrophic flooding, and hurricane and fire damage of nearly unimaginable proportions. Heat waves, droughts, and other extreme weather events have become an inescapable part of our world. Events such as these remind us of the fragility of our ecological systems and of the ways in which these are being radically altered by human activity. It is my hope that the ideas presented here will help us all to find new ways to respond with thoughtfulness and integrity to the rapidly changing world in which we work and live.

1. Although vol. 4, issue 2 of this *Journal* included a collection of essays in honor of Douglass Seaton, these were not dedicated to a specific topic.

Introduction

Rachel Mundy, Guest Editor

In 2015, editor-in-chief Stephen Meyer and I began discussing the idea of a special issue of the *Journal of Music History Pedagogy* devoted to ecomusicology. I asked that we focus the issue on nature and measures of difference, locating notions of natural sound in relation to other historically constructed categories of difference such as race, gender, sexuality, and national origin. My premise, then and now, is that the task of listening beyond the boundaries of human identity requires a map of the ways that sound is used to define the boundaries of personhood and the borders of privileged spaces. Under that premise, to teach ecomusicology is to teach through and with critical approaches to anti-speciesism, anti-racism, anti-sexism, anti-homophobia, and anti-xenophobia. As we emerge from a summer defined by parallel conversations about a white nationalism that contests the rights and worth of non-white individuals, and natural disasters that radically alter the habitats, borders, and lives of residents of Caribbean islands, central Mexico, and the Gulf coast, that premise seems just as vital.

Bringing ecomusicology into the music classroom raises profound questions about power and the privilege of human identity. For the past two centuries, notions of natural sound have served as a benchmark for broad evaluations of musical difference that allow for comparisons between categories such as race, gender, and sexuality. Western classical music is deeply shaped by the expression of these categorical comparisons in the form of idioms and styles. Theories that draw on traditions of intersectionality and posthumanism reveal the effects of such categories, but they do not explain the mechanisms that caused modern categories of identity to operate in the first place, nor do they account for the radical inequalities that govern the human/nonhuman divide. In this context, the task of teaching ecomusicology is conditioned by the task of teaching histories of musical difference from a critical and informed perspective. What, as Rosi Braidotti and others have asked, is the “anthropocene” if human identity is contested?² What, as Syl Ko has asked, is an animal if you’re not quite human yourself?³

This issue of the *Journal of Music History Pedagogy* is devoted to the questions about ethics, rights, and equity that arise when listening to those who are considered less than fully human. Environmentalism, soundscape composition,

2. See Braidotti’s “Four Theses on Posthuman Feminism” and other essays in Richard Grusin, ed. *Anthropocene Feminism* (Minneapolis: University of Minnesota Press, 2017), 21-48.

3. Syl Ko, “By “Human,” Everybody Just Means “White,” in Aph and Syl Ko, *Aphro-isms: Essays on Pop Culture, Feminism, and Black Veganism from Two Sisters* (NY: Lantern Books, 2017), 20-27.

and animal vocalizations have been increasingly frequent topics in music classrooms since the early 2000s. But students and teachers also need to engage with the ways that natural sound forms part of a broader history in which nature has been used to mark non-dominant peoples as inferior. In this issue, Stephen and I have brought together essays whose topics range from urban hip-hop to environmental activism in order to address the very broad stakes of sounding less than fully “human.” The humanities and sciences as we know them are bound to these stakes, and to engage with them is to work from within a tangled relationship in which nature has become tied to categorical notions of difference and experiences of human hierarchy. This issue examines the challenges of teaching ecomusicology at this moment, in which to talk about natural sound is to talk about how we hear and value human equity, and to talk about human equity is to talk about how we hear and value nature.

Those challenges begin with the interdisciplinary character of teaching ecomusicology against and through notions of natural difference. The essays in this issue draw on a wide range of traditions in order to do that work: critical identity studies (Black, Bohlman, and Burton), digital humanities (Galloway), Deep Listening (Hahn), grass roots activism (Pedelty), and ecocriticism (Allen). Authors in this issue draw on many fields specifically devoted to the study of sound, such as musicology, ethnomusicology, and sound studies.

In the pages that follow, “ecomusicology,” “sound studies,” and “soundscape” emerge as three especially significant words. Ecomusicology refers to music scholarship informed by environmental concerns, and its authors are primarily scholars, performers, and composers of music.⁴ Sound studies is a distinct area of research that locates sound in its cultural contexts. Authors in sound studies have a strong presence in Europe, and many come from backgrounds in media studies and science and technology studies.⁵ The concept of the soundscape bridges ecomusicology and sound studies. Popularized in 1977 with the publication of R. Murray Schafer’s *The Soundscape: Our Sonic Environment and the Tuning of the World*, the term has acquired a broad usage in and beyond sound studies that is largely separate from its original environmental connotation.⁶ The practice of performing soundwalks, which is referred to in several essays in this issue, originated in parallel with Schafer’s World Soundscape Project

4. See, for example, Aaron S. Allen and Kevin Dawe, eds., *Current Directions in Ecomusicology* (NY: Routledge, 2016).

5. See Karin Bijsterveld and Trevor Pinch, eds., *Oxford Handbook of Sound Studies* (Oxford: Oxford University Press, 2012); and Jonathan Sterne, ed., *The Sound Studies Reader* (NY: Routledge, 2012).

6. As in, for example, Emily Thompson, *The Soundscape of Modernity: Architectural Acoustics and the Culture of Listening in America 1900-1933* (Cambridge, MA: MIT Press, 2002); and Karin Bijsterveld, *Mechanical Sound: Technology, Culture, and Public Problems of Noise in the Twentieth Century* (Cambridge, MA: MIT Press, 2008).

and the work of environmentalist composer Hildegard Westerkamp, and the exercise has likewise developed a broader usage.

The authors in this issue navigate a secondary encounter with disciplinary divides that is inherent to classes on music and nature: the disparate character of knowledge-making in the sciences and in the humanities. Ecocriticism, posthumanism, and animal studies engage with topics in biology and ecology; they also engage with problems of structural inequality and naturalized stereotypes. Research on these disparate topics relies on equally diverse methods of argumentation that have been developed to address the varying needs of researchers in different fields.⁷ The essays in this issue reflect these varied approaches, and can be adapted to explore different epistemologies of “natural” sound in the classroom.

The first two articles in this issue consider soundscapes whose “nature” is defined by the complexity of human histories. “Resounding the Campus: Pedagogy, Race, and the Environment,” by Amanda Black and Andrea Bohlman, turns to the problem of hearing through and against the presence of Confederate monuments on a college’s grounds as the authors confront histories of racial inequality through campus soundwalks. “Welcome to the Dirty South” by Justin Burton brings the ecological soundscape into conversation with urban hip-hop. Following these is Kate Galloway’s essay, “Digital Ecomusicologies: Applications of the Digital Humanities in Ecomusicology Research and Pedagogy,” which explores the place of ecomusicology in digital pedagogy. Finally, Mark Pedelty’s “We Live in the Lake: Ecomusicology as Public Pedagogy” suggests ways to teach ecomusicology through collaborative community activism, drawing on Freirean pedagogical theory.

The final two contributions of the issue offer methods to help teachers and students hear nonhuman natures and locate ecomusicology within music studies more broadly. Tomie Hahn’s graphic score and essay, “Layered Listeners: Lessons of the Land, Air, and Sea,” draws on the Deep Listening practices of Pauline Oliveros to invite students to compose immersive soundscapes inspired by the experience of a bird in flight. Juxtaposing the “long history” of music *per se* with the “short history” of ecomusicology, Aaron Allen’s “Greening the Curriculum: Beyond a Short Music History in Ecomusicology” offers a concrete example of ways to bring ecomusicology into the undergraduate classroom,

7. For teachers, resources that may help expose the intersection of scientific and cultural methodologies include Kalpana Rahita Seshadri’s study of linguistics and racial law in *HumAnimal: Race, Law, Language* (Minneapolis, MN: University of Minnesota Press, 2012); Eduardo Kohn’s anthropology of nature in *How Forests Think: Toward an Anthropology Beyond the Human* (Berkeley, CA: University of California Press, 2013); and Vivieros de Castro’s theory of perspectivism. See especially “Exchanging Perspectives: The Transformation of Objects into Subjects in Amerindian Ontologies,” *Common Knowledge* 10, no. 3 (2004): 463–484.

alongside some broader thoughts about the future role of ecomusicology in music history pedagogy.

As Aaron Allen points out in his essay, ecomusicology has been described as the study of music in a time of environmental crisis. Taken together, this issue's essays draw on that shared point of origin to outline the beginnings of another view of ecomusicology, one in which to ask about environmental crisis is to ask about the social and scientific valuation of difference. How does listening to birdsong connect us to the histories and practices that teach us to hear Bach and New Orleans bounce? How do the rights, values, and ethics that we ascribe to different kinds of music inform the ways we hear those who are not considered fully human? Scholarship outside of musicology has laid the foundation for these questions by asking how modern ecologies of the human are connected to histories of social marginalization.⁸ My hope is that the essays presented here will help teachers and students build on these precedents by asking whose natures we listen to, and under what conditions we hear their call.

8. Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham, NC: Duke University Press, 2010); Mel Y. Chen, *Animacies: Biopolitics, Racial Mattering, and Queer Affect* (Durham, NC: Duke University Press, 2012); Kalpana Rahita Seshadri, *HumAnimal: Race, Law, Language* (Minneapolis, MN: University of Minnesota Press, 2012); Alexander Weheliye, *Habeus Viscus: Racializing Assemblages, Biopolitics, and Black Feminist Theories of the Human* (Durham, NC: Duke University Press, 2014).

Resounding the Campus: Pedagogy, Race, and the Environment

AMANDA M. BLACK AND ANDREA F. BOHLMAN, UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

As a technique to excite students about the work of listening, to challenge musical ontologies, and to incite heightened environmental awareness, the soundwalk has become a canonic exercise in the undergraduate classroom. With the recent expansion and revision of music department curricula and the institutionalization of sound studies across North American campuses, the environment-oriented immersive listening projects are often introduced as a neutral opening into learning how to hear—a twenty-first century alternative to ear training lab. Motivated by the ecocritical discourse that flows through ecomusicology, this essay pushes back against the assumption that soundwalks are transferable scores and impartial pedagogical tools.¹ If framed as normative (as if there is a best listening practice and some listeners are better than others) they have the potential to reinscribe differences among our students. Our reflection provides an opportunity to draw attention to the assumptions about students' mobility, social backgrounds, and hearing ability at the base of much classroom listening.² These are exacerbated by soundwalks with their ambulatory mode, generalized scripts, and emphasis on the “unheard.”

The notion of the “unheard” has a particular and haunting resonance for our home campus, the University of North Carolina at Chapel Hill, which has a history steeped in racial violence, segregation, and silencing. In this essay, we explore whether soundwalks might offer an opportunity for us, as educators, to emplace audible pasts. Here we plunge you into the details of a project to encounter and uncover our own campus history. We present an example of

1. See for example the essays gathered as “textual directions” in Aaron Allen and Kevin Dawe, *Current Directions in Ecomusicology* (New York: Routledge, 2016), 221–57.

2. For another recent commentary on race and vulnerability in the music history classroom see Cassandra L. Hartford, “Beyond the Trigger Warning: Teaching Operas that Depict Sexual Violence,” in this *Journal* 7, no. 1, 19–34.

how soundwalks can be utilized in the classroom as an intersectional space for sound history, race, performance, and environmental awareness. Our aim is to highlight the (research and pedagogical) labor involved in locally tuned soundwalks and to urge that any soundwalk project must not only be historically informed and site-specific, but also attuned to the range of abilities and backgrounds of our students. With British and US-American universities and their monuments (including those nearby) increasingly the sparkplugs for debates and conflicts about the legacy of colonialism and slavery, the concept of the “unheard” cannot but take on a richer meaning when working toward racial justice. As a powerful pedagogical practice, soundwalks must not only attune students to the sounds of the bucolic and industrial, but also to the sounds of past and present hegemony and resistance.

Two Days in McCorkle Place with Silent Sam



Figure 1. McCorkle Place, shown on the left with a suggested self-guided walking tour and on the right as digitally modeled on the university’s official map.³

12 October 2015: A soundwalk with undergraduate music majors (Andrea)

McCorkle Place at the University of North Carolina, Chapel Hill (UNC) was being groomed for the annual University Day celebrations, the anniversary of the ceremonial first brick-laying in 1793. Gardening crews took care of the finishing touches on the shrubs, lawns, and fallen leaves that cluttered the grove of the majestic grounds with its lofty poplar trees and plentiful oaks. Unaware of the bustle on campus, I had scheduled—for that morning at 9:05—a soundwalk

3. “Self-Guided Tour of the University of North Carolina at Chapel Hill,” accessed August 17, 2017, <https://admissions.unc.edu/files/2013/10/UNC-Self-Guided-Tour-Map.pdf>. Screenshot from “Maps,” accessed August 17, 2017, <http://maps.unc.edu/>.

through this space with 21 students enrolled in a course on the history, culture, and practice of magnetic tape for music majors. We planned on following the pioneering score by Hildegard Westerkamp, published in her influential essay on soundwalking, in preparation for some environmental recording projects with portable tape decks.⁴ The walk, like many such educational soundwalks, was designed to lead students to notice the unremarkable—to start to imagine what their tape decks would pick up that they had never actively heard.

Our soundwalk had a fairly simple trajectory: I told the students that we would end by spending time in the arboretum that abuts the University, crossing McCorkle Place on the way. I invited them to shape our path there, either by leading on foot or by making verbal suggestions. Our first steps away from the Kenan Music Building drew attention to the pomp and circumstance of the day. “Toward the belltower!” one student impelled us, so that we could test whether or not we could hear the chimes of the campus’s loudest music maker. As we strolled we heard leaf blowers and hedge trimmers. We heard the tower strike quarter after the hour. When we paused to reflect, one student noted what they could not hear: the sounds of Franklin Street, the college town’s main street, notoriously packed with busses and delivery trucks at the beginning of the workday. So we struck out to hear when and where Franklin’s “noise” might come into our range.

“Lead your ears away from your own sounds and / listen to the sounds nearby.” Heeding the attention-oriented instructions of Westerkamp’s soundwalk, we passed the rest of our ramble through McCorkle Place without speaking. “What else do you hear? / What else? / What else? / What else? / What else?” The prompt to keep ears wandering along with our bodies proved difficult when we passed the “Silent Sam” Confederate Memorial, where a social movement was underfoot. As the Black Lives Matter movement has gained momentum in the United States, this sentinel statue, which faces north to commemorate fallen Confederate Soldiers, has been an organizing site for demonstrations of many political slants. In conjunction with University Day, members of the student and community group, “The Real Silent Sam,” organized a “Rally to Silence Sam.” The removal—the silencing—of the statue was (and remains) their symbolic demand, a signal that they urge the University of North Carolina to send, one that would be interpreted as a reckoning with the institution’s complicated history of discrimination. From at least 50 yards away, we heard unison clapping and, as we approached, the chant became clear: “Hey, hey! Ho, ho! This racist statue has got to go!”

4. Hildegard Westerkamp, “Soundwalking,” accessed August 17, 2017, <http://www.sfu.ca/~westerka/writings%20page/articles%20pages/soundwalking.html>. Originally published in *Sound Heritage* 3, no. 4 (1974): 25. The score for the soundwalk discussed below is included here.

I walked by this disruption with students ahead and behind me and suddenly felt vulnerable as their teacher. I recognized a friend among the protesters, with whom I sympathize and, occasionally, stand alongside. I steered us out of the sightline of news cameras and police officers who granted the protest space by demarcating a boundary with the rest of McCorkle Place. I worried: that I had put the students at risk by pulling them into a political event without their consent, that I was implying a political stance by leading them past this conversation, and, most of all, that I had not sensitively prepared our environmental foray.

The pedagogical discomfort I felt was a result of my efforts to bring the stock tools, orientations, and practices of ecomusicology and sound studies alike to the undergraduate classroom. In this essay, Amanda, a graduate student in music at UNC-CH, and I share a collaborative approach to teaching with and through soundwalks that, we hope, is attuned to (but cannot overcome) local histories of race, class, and difference. By sharing our own experiences and drawing attention to the details of UNC-CH's past, we relay the work that a soundwalk directed toward the politics of listening on a twenty-first century campus entails. Rather than offering a model product, we focus on process. We propose dialogue—across communities whose daily routines intersect with campus life, among colleagues who hear the institution differently, and with the students whom we guide—as a driving force for the soundwalks of the twenty-first century classroom. These can build on the radical experimentalist aesthetics and environmentalist politics of their 1970s predecessors, with scores that call students to participate and with an investment in guiding people to listen differently. However, we do not offer here a scavenger hunt checklist of sounds presumed to be ignored. Instead, the *inaudible* we urge scholars to seek out might be better understood as an auditory scar, or as auditory scars—the results of acts of silencing past and present. The inaudible can prompt performance or stimulate conversation. We can also work to provide the inaudible space in students' lives and on our shared campuses. Through hearing and walking together, we can dwell more alertly on our “home turf.” Through this theoretical reflection on the place of sound studies in teaching, we suggest that care-oriented and site-specific “sonic meditations” (to borrow the generous language of Pauline Oliveros) have the potential to reposition listening as a collective exercise in the music (history) classroom—and thus as an activity fundamentally linked with community and collective action.

To return to the soundwalk that intersected with a demonstration: merely alerting students to listening *more* did not ensure—or even facilitate—the perception or comprehension of the saturated sonic environment. Emily Thompson usefully shapes her definition of the soundscape through the important relationship between *what* is heard and *how* we listen in physical environments,

underscoring the importance of “the social circumstances that dictate who gets to hear what.”⁵ Martin Daughtry builds on this insistence that ears have techniques with a pedagogical slant: “We learn how to listen in an environment that is already shaped by and coursing with power.”⁶ The constructed nature of our environments implicates any study of music and the environment in discourses of difference. On University Day, I could not ignore the campus’s history or its present, or that the classroom was a crucial gateway to these political layers for students. As we wandered toward the arboretum, a fourth-year undergraduate pulled me aside. “What was the statue we passed? Why were they protesting?” Her questions revealed the radically shifting stakes of our soundwalk and drew attention to the site- and rite-specific nature of any journey through the environment. Teaching, of course, comes with its own attendant rituals and power relations.

30 January 2015: Student-organized political demonstration (Amanda)

As a follower of the Real Silent Sam Coalition Facebook page, I received an invite to the #KickOuttheKKK event. I stood in the circle of approximately one hundred and fifty undergraduate and graduate students, alumni, and community members protesting Silent Sam, as one student read aloud the commemoration speech for the statue given by Julian Carr in 1913.⁷

The animated text reading was instrumental to generating discomfort among those gathered. The Real Silent Sam Coalition frequently uploaded scanned images from documents in the University Archives, drawing attention to the accessibility of these materials and encouraging community members to explore for themselves.⁸ The student actor brought a historical text to life, and the effect was an eerie portrayal that only increased in emotional fervor as he read, unnervingly celebrating a history of sexual and racial violence on this ground. His bluster rose in a mirthful crescendo as he recounted:

5. Emily Thompson, *The Soundscapes of Modernity: Architectural Acoustics and the Culture of Listening in America, 1900–1933* (Cambridge, MA: MIT Press, 2002), 1–2. The concept of the “soundscape” is diffuse and increasingly contested, and so we have generally avoided the term for the purposes of precision. See for example J. Martin Daughtry, *Listening to War: Sound, Music, Trauma, and Survival in Wartime Iraq* (New York: Oxford, 2015), 121–27.

6. Daughtry, *Listening to War*, 123.

7. A fragment of a similar performance of this text in 2013 can be found on YouTube. See “At Silent Sam Protest: Bishop Thomas Hoyt and Rev. William Barber II,” accessed August 17, 2107, <https://www.youtube.com/watch?v=hBMB3GM0M0c>.

8. There are numerous efforts within the university to draw attention to the monument’s dark history and present. See the University Library’s resource page “A Guide to Researching Campus Monuments and Buildings: “Silent Sam” Confederate Monument, accessed August 17, 2017, <http://guides.lib.unc.edu/campus-monuments/silent-sam>.

One hundred yards from where we stand, less than ninety days perhaps after my return from Appomattox, I horse-whipped a negro wench until her skirts hung in shreds, because upon the streets of this quiet village she had publicly insulted and maligned a Southern lady, and then rushed for protection to these University buildings where was stationed a garrison of 100 Federal soldiers. I performed the pleasing duty in the immediate presence of the entire garrison.⁹

The rally advocated for the removal of the monument. The coalition insisted that our physical environments give voice to ideologies and assumptions. “Physical markers speak volumes about our university and our towns,” reads their official invitation to conversation.¹⁰ The Real Silent Sam Coalition is a critical geography project. For this collective, monuments are neither durable nor timeless: the very presumption of their permanence silences UNC-CH’s social history.¹¹ This is reflected in the collective’s manifesto, which reconceives the campus itself as a site of many histories: “We believe that we cannot move forward wisely unless we understand our entire history, one that has not been edited selectively.”¹² This proclamation shares, we would argue, the ambition of exhaustive inclusion within the practice of soundwalking and soundscape projects.

As I stood at its base and listened, the statue became louder and more present. I was overwhelmed by the affective power of the reading; the crowd’s devastated response was palpable. The students had instrumentalized the archive to teach and to create, and this didactic historical performance resonated within me for weeks. I went to middle and high school in Chapel Hill, and I had heard my mother, a UNC-CH graduate, complain about how sexist and racist Silent Sam was. She always recounted walking in front of the statue in her time as an undergraduate in the 1970s and hearing men yell, “He didn’t

9. Julian Shakespeare Carr Papers (Southern Historical Collection #00141) Box 4, Folder 26, Scans 93-112, accessed September 11, 2017. <https://exhibits.lib.unc.edu/exhibits/show/silent-sam/archives>

10. Stephanie Lamm, “Kick out the KKK’ group gathers to rename campus hall,” *The Daily Tarheel*, accessed September 11, 2017. <https://www.scribd.com/document/254156717/The-Daily-Tar-Heel-for-Jan-30-2015>

11. This article was composed in the summer of 2016. Many of the events we describe here, such as the debate around the Confederate monument, have had violent echoes in the twelve months since. As the piece was being prepared for publication in August 2017, for example, a state of emergency was declared in Charlottesville, VA, after neo-Nazi and white nationalist protesters marched across the University of Virginia campus to rally against the removal of a statue of Robert E. Lee. As of September 2017 the events have escalated demands to remove Silent Sam in Chapel Hill through formal statements by the city’s mayor and the university’s Faculty Council as well as ongoing protests spearheaded by undergraduate students at the foot of the statue.

12. From the Real Silent Sam informational page of the Facebook group, established in 2011: https://www.facebook.com/pg/realsilentsam/about/?ref=page_internal

shoot his rifle! Guess he's waiting for a virgin to walk by!"¹³ I had long been disturbed by the knowledge that the statue was a donation from the Daughters of the Confederacy, but I had never heard Carr's speech, "hidden" in plain sight within the walls of the university. His words were fused into the materiality of the statue itself: they are the hate speech that consecrated its unveiling. I, like so many others, had naturalized this emblem of racism into the university landscape, despite my only partial awareness of its history.

In my graduate studies that semester, I was sensitized to moments when local history—or an ignorance thereof—was on the table. When, in Andrea's course on sound studies and music history in spring 2015, we were charged with creating a project that incorporated performance, curation, and history into a public musicology project inspired by sound studies, it made sense to return to the particular archives that were the source of the text that had so troubled me and to provoke a conversation with my classmates. We all decided on UNC's racial history as the project theme because of the contemporary protests, with a hope of producing a piece of local music history with a performative component. We began by initiating conversations with the organizers of the "Black and Blue" Tour, an alternative walking tour of campus that is focused on African-American history.¹⁴ We were inspired to craft a sensory complement to this project and headed to the archives.

Beyond the Score: Soundwalk as Collaboration

We began writing this essay in the first person in order to position our own paths to the project that emerged out of these moments of discomfort: a soundwalk geared toward guiding an undergraduate class to think about race and history *with* and *through* music and sound. Despite the "we" that dominates the rest of this essay, the authors fulfill two distinct roles within the university setting: graduate student and faculty. In our literary opening vignettes, our subjective contact with protest around Silent Sam reveal different—if complementary—experiences of a campus friction that motivated a pedagogical intervention. A

13. In 1908, the UNC Board of Trustees approved a request from the United Daughters of the Confederacy North Carolina Chapter to erect a monument to honor UNC alumni who served in the Confederate army. The monument was completed in 1913, and features a statue of a young soldier carrying a gun but no ammunition, leading to the nickname "Silent Sam." The June 2, 1913 dedication was held on commencement day. "Timeline" from *A Guide to Resources About UNC's Confederate Monument*, accessed September 11, 2017. <http://exhibits.lib.unc.edu/exhibits/show/silent-sam/timeline>

14. This tour is just one of many local history initiatives at UNC-CH. Perhaps the most prominent of these—and significant for music studies—are the Southern Folklife Center, the Southern Historical Collection, and the Center for the Study of the American South. All focus on vernacular traditions and devote substantial resources to public engagement and conversations in the form of exhibitions, festivals, and oral history projects.

soundwalk, *Beyond the Belltower*, collects the work of a graduate seminar in musicology and was first performed by an undergraduate lecture course on music and politics.¹⁵ The score itself was imagined as a kind of connective tissue, a script tailored to UNC-CH that weaves local history into the experience of the campus everyday through site-specific performance acts. The symbolic and urgent targets of this political action were campus landmarks: monuments, street names, and buildings implicated in white racist organizations.¹⁶

This is a project in campus and civic responsibility. The soundwalk began as a collaborative graduate research endeavor, was brought into the undergraduate classroom as an ungraded assignment, and is finally offered as a reflective and collaborative essay. It grew out of free conversation, but, with facilitation by the professor, the students worked as a team. The initial project was always to be evaluated for a grade, and this knowledge shaped the project in meaningful ways. For example, it instilled an imperative to inject our texted product with academic prose. After Andrea invited Amanda to develop the project as a soundwalk to be performed by an undergraduate class, we worked with the course's graduate teaching assistant, Alexander Marsden, to remove or simplify some of the academic text so that the students could read it with ease and jettisoned pieces of the soundwalk that presented logistical hurdles for the short class period.

As we implemented the script, it became the focus for the pedagogical conversations we—Andrea and Amanda—were already having together about race, activism, and empathy. As we have reflected on the project's first classroom execution in fall 2015, we continue to think of our primary task as creating space for conversations about the race and sound that students can bring into their lives beyond the classroom. We imagine that this project, in its next iteration, might involve inter-campus and interdisciplinary conversations. It is not

15. We wish to extend thanks to our collaborators in the spring 2015 graduate seminar that first generated this project, in particular Joanna Helms, Barkley Heuser, and Alberto Napoli, as well as the undergraduates in the fall 2015 iteration of MUSC 291 at UNC-CH and that course's teaching assistant, Alexander Marsden. Thanks also to Louis Epstein, Rachel Mundy, Chérie Rivers Ndaliko, Timothy Rommen, and an anonymous reader for this *Journal* for suggestions to improve this essay.

16. The debate around removing the name of a former Ku Klux Klan leader from a campus building and renaming the building Hurston Hall, after author Zora Neale Hurston, reached national media. See Jalessa Jones, "UNC protests to #KickOutTheKKK and rename building honoring former Klansman," *USA Today College*, accessed August 17, 2017, <http://college.usatoday.com/2015/01/30/unc-protests-to-kickoutthekkk-and-rename-building-honoring-former-klansmen/>. On commemoration, racism, and mental geography, see Altha Cravey, Derek Alderman, Josh Inwood, Omololu Refilwe Babatunde, Reuben Rose-Redwood, and Scott Kirsch, "#KickOutTheKKK: Challenging White Supremacy at UNC," *American Association of Geographers News* (blog), accessed August 17, 2017, <http://news.aag.org/2015/06/op-ed-kickoutthekkk-challenging-white-supremacy-at-unc/>.

the only project of its ilk—at Binghamton University Jennifer Stoever and her students are developing a historic sound walk that foregrounds civic engagement with their city and its citizens.¹⁷ Our questions are questions that affect all music teachers in the twenty-first century at some point: How do we shape our students as citizens? What does our curriculum do for them as citizens?

I (Andrea) never imagined the profound way in which the soundwalk project would—and does—shape my understanding of the classroom community as it interfaces with the broader campus environment (history, mobility, and discourse; trees, people, and weather). Around the graduate seminar table students encouraged explicitly political engagement from their colleagues during discussions. I seized the opportunity to ask Amanda to integrate her advocacy work with the Latin@ communities of North Carolina's Research Triangle and her commitment to developing a scholarly voice out of activism into a clear assignment for my undergraduate class. I hope, but do not assume, that this invitation and the work that we have done together does not result from a power difference, but from a willingness to confront what the sum of our perspectives might contribute to the community in which we both work, learn, and teach. The implicit assumption I have always had is that through collaboration we are more than just the sum of our parts.

Our goal is not only to highlight how collaboration is essential to our soundwalk, but also to suggest that collaboration is central to what we hope historical work can empower: connections with past communities and concern for those future. We reflect upon the challenges and limitations of the soundwalk—that particular soundwalk and its trajectory, as well as the broader endeavor of soundwalking with students. Throughout this contribution, we ask questions of ourselves and draw out the challenges we gave the score's performers. What is our relationship, as current campus citizens, to the environment constructed through and by racial struggle? How can scripted sonic experiences enhance the connection between the racial past and the racialized everyday? What are the mitigating factors, both environmental and personal, that work to complicate this experience for undergraduate students? Rather than conclude with teaching tips or lessons learned, however, we offer a simple and perhaps hopeful message.

17. "Re Sounding Binghamton," accessed August 17, 2017, <https://binghamtonsoundwalkproject.wordpress.com/>

Canada, have proven adaptable for classes in music history, media studies, acoustics, ecomusicology, and composition. The recent attention to sound studies across the academy has only buoyed their popularity. A quick online search turns up an ever-growing corpus of open-access syllabi across disciplines, which are a tremendous resource for teachers brainstorming adaptations of this practice for the undergraduate classroom. Many explicitly reference the strand of North American experimentalism that christened the practice, adapting the spirit of R. Murray Schafer's *A Sound Education: 100 Exercises in Listening and Sound-Making*.²⁰ Some urge students to collect and organize the sounds that they hear, extracting sounds from their landscapes to create typologies and open conversations about sonic epistemologies.²¹ Turning to the environment around us as a shared commons is on some level a resourceful pedagogical move—it is the teacher's embrace of “having class outside,” after all. However, these exercises that make the familiar unfamiliar are predicated on student groups with similar backgrounds. At UNC-CH a simple example of the ways soundwalks can draw attention to class difference occurred when one first-year student offered that she was literally hearing the beeping alert of a pedestrian call button for the first time: her hometown had no traffic lights. Other soundwalk lesson plans transform the impetus to listen differently (or aggressively) into a demand to listen and hear correctly. The author of a walk aimed at future studio recordists describes that “the long-term goal is to learn to listen better to unmediated as well as mediated sounds, which should manifest in students' general awareness of soundscapes and, eventually, their production work.”²² These examples, with their rubric- and outcome-oriented language, are missed opportunities to work through sound to open conversations about diversity, difference, and privilege.

Despite the bounty of lesson plans—or perhaps because so many of these soundwalks treat listening as an ignored, universal, and intuitive skill to be reawakened—a conversation surrounding the pedagogy of sound studies is

20. R. Murray Schafer's *A Sound Education: 100 Exercises in Listening and Sound-Making* (Indian River, Ontario: Arcana, 1992). See also Keeril Makan's composition course at the Massachusetts Institute of Technology, accessed August 17, 2017, <http://ocw.mit.edu/courses/music-and-theater-arts/21m-065-introduction-to-musical-composition-spring-2014/index.htm>. Others foreground the subjectivity—and unrepeatability—of the soundwalk experience; for example see Jennifer Stoever's two-part soundwalk assignment, which asks students to first prepare a soundwalk and then embark upon another student's script, putting into relief the divergence of their perceptual and aesthetic labor (accessed August 17, 2017, https://www.binghamton.edu/cce/faculty/engaged-teaching/course-designation/stoever_english380w.pdf).

21. Karen Collins and Bill Kapralos, “Sound Design for Media: Introducing Students to Sound” *Journal of Sonic Studies* 6, no. 1 (2014), accessed August 17, 2017, <http://journal.sonic-studies.org/vol06/nr01/a04>.

22. Ian Reyes, “Mediating a Soundwalk: An Exercise in Claireaudience,” *The International Journal of Listening*, 26 (2012): 98–101.

rather undeveloped, especially in comparison with the pages devoted to evaluating the interdisciplinary's value and original contribution to the academy. That there is a demand for introductory texts is clear: two edited volumes from 2012—Jonathan Sterne's *Sound Studies Reader* and Karin Bijsterveld and Trevor Pinch's *Oxford Handbook of Sound Studies*—collect and organize introductory texts for the *au courant* interdisciplinary.²³ They also mark particular texts and ideas as “key.” However, along with the compendium of incisive essays in David Novak and Mark Sakakeeny's *Keywords in Sound*, these texts are certainly best suited to the graduate classroom. Within the context of the undergraduate classroom, there is more of a blank page, and the conversations about attention, hearing, and the sensorium leave plenty of room for play—trial and error?—within and beyond the classroom.²⁴

For us, the movement between self-critique, creativity, and conversation that soundwalks facilitate provided an opportunity to explore how the questions raised by sound studies might be introduced in the undergraduate classroom. Walking we could stumble, get lost, and still be in dialogue with our students along the way. We wanted to instill humility and curiosity in our students. Jonathan Sterne's introduction to the 2012 anthology *Sound Studies Reader* emphasizes the importance of and concern for learning as exploration—what we read as an insistence on contingency—when he describes the “people who do sound studies” as “sound students.”²⁵ The suggestion that there is no mastery of sound underscores Sterne's hope that sound studies maintain its interdisciplinarity and that “hearing requires positionality”—perhaps, as we learned in the process of creating and organizing *Beyond the Belltower*, a fundamental lesson from any soundwalk.²⁶

Take as an example the goal of soundwalking as articulated in Hildegard Westerkamp's aforementioned practice-defining essay “Soundwalking”: She advocates for a *reorientation* of our sensorium in order to correct what she observes to be commonplace negligent listening. She instructs, “Wherever we go we will give our ears priority. They have been neglected by us for a long

23. Jonathan Sterne, ed., *The Sound Studies Reader* (New York: Routledge, 2012); Karin Bijsterveld and Trevor Pinch, eds., *The Oxford Handbook of Sound Studies* (Oxford and New York: Oxford University Press, 2012).

24. David Novak and Matt Sakakeeny, *Keywords in Sound* (Durham: Duke University Press, 2015). A stimulating exception to this is Katherine Spring, “Walk This Way: The Pedagogical Value of Soundwalking to the Study of Film Sound,” *Music and the Moving Image* 5, no. 2 (2012), 34–42. Spring employs soundwalks to problematize the authority of a sound at its source. Building on the work of James Lastra, she summarizes the message for her students: “Any sound is transformed by the architecture in which it occurs in the same way that it is transformed by recording technologies” (37).

25. Jonathan Sterne, “Sonic Imaginations,” in Jonathan Sterne, ed., *The Sound Studies Reader* (New York: Routledge, 2012), 3.

26. Sterne, “Sonic Imaginations,” 5.

time and, as a result, we have done little to develop an acoustic environment of good quality.”²⁷ As educators, we must work against the corrective and didactic spirit of such texts, even if they reflect the aesthetic values of this practice. Soundwalks’ emphasis on listening, left unchallenged and abstracted, can perform what Jonathan Sterne has critiqued as the “audio-visual litany”—a set of assumptions about the liberating (and, by extension, exceptional) potential of listening vis à vis seeing for the modern subject.²⁸ It is, after all, no coincidence that R. Murray Schafer’s influential text *The Soundscape* likewise begins with a presentist insistence upon listening, borrowed from Walt Whitman’s *Song of Myself*: “Now I will do nothing but listen.”²⁹

If Westerkamp’s project begins with an inward focus that grows into a meditation on one’s own subject position, the classroom-based soundwalk experience we share here strikes a different fundamental. Our soundwalk, *Beyond the Belltower*, consists of nine scores inspired by research in the University Archives that focused on the themes of race, access, and violence within institutional history. It is a project in aural history that draws attention to a larger collective history, that of the campus and community which shapes our everyday lives in Chapel Hill, NC. The introductory note to the collection frames this departure from the reflective mode that often characterizes soundwalks: “Many of the scores will ask you to read someone else’s words; others demand that you bring up your personal memories and values; finally, some will ask you to talk and listen to different people on campus.” Just as this is a collaborative, coauthored essay, we positioned listening within the soundwalk as a collective experience, albeit one that drew attention to difference more than sameness.

Around the graduate seminar table, we asked, “How can we inflect the retrospection of the historical method—‘listening over one’s shoulder’³⁰—with the introspection and self-reflexivity of performance studies?” The soundwalk grew out of the practice-oriented activities in our graduate seminar, through which we toyed with modes of learning about and through sound. This is the peculiar background of *our* soundwalk, which we offer to encourage others to similarly build upon the discourses that invite debate on their campuses. Together we devised tutorials for playing instruments of our own creation, wrote guides for sound-journeys, and made mixtapes that narrated history through a compilation of sound effects, documentary recordings, and musical examples. We planned lesson plans to teach undergraduates about the silence-inspired art of Marina Abramović, John Cage, and Erdem Gündüz. These exercises paved the

27. Hildegard Westerkamp, “Soundwalking.”

28. Sterne, “Sonic Imaginations,” 9.

29. R. Murray Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World* (Rochester, VT: Destiny, 1993), 3.

30. Hillel Schwartz, *Making Noise: From Babel to the Big Bang* (Cambridge: Zone Books, 2011), 29.

way (and strongly guided our thinking) for *Beyond the Belltower*. They shaped the importance of the performative and embodied as we undertook historical research to deepen our knowledge of the physicality of UNC at Chapel Hill's campus through sound. For our final projects, we linked the campus environment to the wider debate on race, violence, and institution in the United States in three interconnected projects: a digital soundmap, an exhibition of primary source materials hosted at the Music Library, and the soundwalk that became *Beyond the Belltower*.

Amanda, along with fellow graduate student Alberto Napoli, spearheaded the collaborative soundwalk project. The seminar members were to create site-specific, performable scores, each connected to a monument on UNC at Chapel Hill's campus. Each was responsible for choosing a site, conducting archival research on that site, and composing, however they saw fit, a piece based on this history. They received the following prompt:

- Imagine a composition that could provoke thoughts, reactions, and/or delight, and that is related to the place of your choice.
- Prepare a score for your composition—you can use the materials you collected, expand on that if you want, draw your notation system from the transcriptions we did last month, or explore new techniques.
- If applicable, compile a set of instructions to read and perform your score—again, bear in mind what you did last week for the sound instrument's instructions.

Each location—the undergraduate dining hall, the music building, Silent Sam, Franklin Street, the segregated cemetery located on campus, the Sonja Haynes Stone Center for Black Culture and History, another contentious statue (“The Campus Body”), the historic Playmakers Theatre³¹, and the pavilion in front of the campus bookstore (“the Pit”)—hosts or hides Black history. The scores took six weeks to complete, and we workshopped them together. We curated the campus, mapping a series of itineraries across its terrain with a critical program. Alejandro Madrid describes the limited inroads that performance studies has made as an analytical paradigm within musicology, arguing that music and performance studies' intersection involves two fields that do “not always present the same coordinates.”³² We kept his cartographic language

31. Zora Neale Hurston had participated in a drama workshop as the first black student at UNC in 1939, although the campus's segregation meant her status was “unofficial.”

32. Alejandro L. Madrid, “Why Music and Performance Studies? Why Now?: An Introduction to the Special Issue,” *TRANS-Revista Transcultural de Música* 13 (2009), accessed August 17, 2017, <http://www.sibetrans.com/trans/articulo/1/why-music-and-performance-studies-why-now-an-introduction-to-the-special-issue>

in mind as we wrote. The final 30-page anthology of scores offered performers the opportunity to choose their own adventure across the terrain. In the introduction, we suggested paths through the scores by highlighting poetic and political themes (ceremonial, silent, performance, “the student”), as well as didactic routes with predicted timings (Black Campus History, Chronological, and Student Activism). Many of the seminar members were familiar with graphic notation and open-form composition from music studies, and we pushed our scholar-composers to consider their work from the perspective of performance studies. We worked toward an ethos of care in our work—with each other, with our subject matter, and imagining potential performers. Wrestling with our own bodily anxieties about actually performing the scores, we held up artist Guillermo Gómez-Peña’s hopeful assertion: “I believe in the sophistication of the human condition. I believe that performance art is such a visceral art form that it allows for multiple points of entry—some are intellectual, but some are spiritual or emotional.”³³ His text would become the epigram to *Beyond the Belltower*.

We were drawn to walking and movement as a way of amplifying the everyday. Attempting to balance aspects of comfort with discomfort, the intellectual intertwined with the spiritual and emotional, the visceral experience of walking seemed to create a kinetic setting propitious for the creation of embodied knowledge, attempting to decenter what performance studies scholar Dwight Conquergood described as the “dominant epistemologies that link knowing with seeing.”³⁴ The American residential college campus is shaped by its function as a shared space. We wanted our students to revise and rethink: at our boldest we hoped to reconstitute their everyday movements and challenge them to participate differently with campus life. The generative potential of creative practice foregrounded in sound, media, and performance studies could keep the project provisional more than entraining. Consider Brandon LaBelle’s compelling evocation: “Walking amplifies quotidian experience to fill the city with social energy and imagination. Such perspectives must also include the rather mundane and at times brutal experience walking comes to express.”³⁵ Even if our idealistic mission of opening up the potential of history for the students were to fail, we reasoned, we hoped that the process of walking together would generate a conversation among the students that would reveal divergent paths and lives at UNC.

33. Bean Gilsdorf, “Guillermo Gómez Peña: Linguistic Resistance,” *Art21* (blog), February 12, 2014, accessed August 17, 2017, <http://blog.art21.org/2014/02/12/guillermo-gomez-pe-na-linguistic-resistance/#.V8gBRZMrI0o>

34. Dwight Conquergood, “Performance Studies: Interventions and Radical Research,” *The Drama Review* 46, 2 (T174), Summer 2002, 146.

35. Brandon LaBelle, *Acoustic Territories: Sound Culture and Everyday Life* (New York and London: Continuum, 2010), 91.

Archival Silence, Interrupted

Each author wrestled with how to project—or perhaps with how to return—archival documents into the campus landscape, a task which entailed teaching performers while also providing them with directives and ideas. For example, the score for Franklin Street, Chapel Hill's throughfare, asks participants to revive historical activism from the Civil Rights Era protests of 1963–64. Samantha Horn's score, “_untitled,” asks participants to gather in front of a local diner. In the explanatory note, Horn notes that business owners on Franklin Street raised their voices in opposition to the demands made by student protests advocating for equality. The score then asks the soundwalk participants to reenact and refract historical fragments. These excerpts reflect a range of positions and are culled from activists' signs; articles and letters from a local newspaper, a sermon given by the white pro-integration Presbyterian reverend Charles M. Jones; and lastly, a pamphlet distributed by the African-American organizers of a fast performed in protest during Holy Week on the street.

The Franklin Street score encourages the creative reinterpretation of the sounds of the words the participant-performers would read off the documents, suggesting that “modes of performance include but are not limited to: shouting, singing, whispering, stuttering.” Horn placed considerable power in the hands of the performer-participant to modify their texts so that they would not need to speak words with which they were uncomfortable: “NOTE: The texts below are taken from historical documents. They have (in most cases) been truncated, but the original wording has been preserved. If the performers or audience find aspects of the original wording objectionable (e.g. ‘negro’), they may substitute alternative words or phrases.”

The author-composer note is a point of comfort that recognizes the semantic shift of certain words over time and empowers the performer-participants to continue engaging with the documents as critical editors and curators. While reading aloud documents indicating the town of Chapel Hill's deep split over the benefits of allowing African Americans physical access to local businesses, the performer-participant was asked to give voice to oppression in a direct, active way. The protest-sign excerpts struck an uncanny chord for the seminar participants: “Chapel Hill: Home Of Candy-Coated Racists,” “Equality Now!,” “Make Democracy More Than A Word In Chapel Hill.” The incisive utterances reflected and even echoed the same sentiment that we had heard expressed in 2015 at campus protests.

As our opening experiences at the foot of Silent Sam suggest, silence is perhaps the critical term to understand this project's local traction and execution, as well as its critical stance toward the soundwalk tradition. Around the statue itself, silence has an entangled multiplicity of meanings: the commemorative

silence that Silent Sam performs stands in for a politics of domination and oppression—the silencing—that the Army of the Confederacy represents. The commemorative silence conjures the dead soldiers while the hegemonic silence suggests that their very presence haunts. Silence is also recast in its popular role as the “lynchpin” of American experimentalism’s relativism, to quote David Novak.³⁶ It makes time for creative and individual work within a group walking exercise. The graduate students who prepared the scores also began their work with quiet individual reflection at the sites they had been assigned.

Barkley Heuser’s score for Silent Sam, “Please Join Me In Observing a Moment of Noise,” marks a departure from other anti-racist action at the monument, such as the assemblies of the Real Silent Sam Coalition. Thinking musically, the UNC Institute for Arts and Humanities hosted a Silent Sam Cypher in December 2015 that explicitly aimed to “encourage discussion.” A group of student rappers asked the audience for keywords they associate with the monument and burst into a flow, backed by a small musical ensemble, amplifying the crowd’s ideas. The performance was loud and intensely punctuated. In contrast, Heuser asked students to slowly amplify the sonic architecture of McCorkle Place:

Performers listen to the sounds around them. When attention is drawn towards a particular sound, the performer “captures” that sound by repeating it periodically, with whatever frequency seems fitting. By “repeat” is meant “vocally reproduce in some way” (this could be mimetic, but it could also be symbolic— i.e. repeating linguistic representations of the sound—if mimesis is not possible).

In fall 2016, Heuser explained that his score challenges the comfort of quiet reflection, which is often interrupted. Sound, he suggests, “demonstrates indifference,” while the visual tone of the monument “insist[s] on commemoration.”³⁷

Our ambition to reanimate—or at least to represent and re-present—archival material presented perhaps the most conflicted silence, for it was through the process of reproducing often violent texts that were left behind and cast as bygone. In drawing attention to hurtful voices—even asking students to shape the words again in their mind’s ear or with their mouths and vocal chords—we asked students to ponder the power of the voice and body to both articulate subjectivity and to subjugate. Hearing the texts in their present, as present, prompted some students to understand themselves in an explicit coexistence with the dead. One student’s response captures the confusing agency of multiple ontologies of silence:

36. David Novak, “Playing Off Site: The Untranslation of Onkyō,” *Asian Music* 44, no. 1 (2011), 48.

37. Email communication with authors, August 22, 2016.

Starting at the segregated cemetery, my group read aloud the text on the monument to Wilson Caldwell, a black man who I had to look up after the walk to find out was the slave of the president of the University during his lifetime in the mid 1800's. While the monument certainly was respectful and kind to Mr. Caldwell, there was a slight sense of racism about it that was very subtle. Here are a few lines that I find especially troubling: "The Student's friend and servant... The best type of black man... The solution of the race problem... Diligence dignified his service. Three generations of white men testify of his faithfulness. Let him rest here till he's ready for work again." As I said, these words certainly do not insult Caldwell and are meant to be genuine, but there is something inherently troubling when the best type of black man is one who was complacent and a hardworking servant. [...] This monument praises Caldwell for staying silent, obeying white folks, and not questioning the status quo.

We hear in the student's overriding concern and hesitant tone what David Toop calls the "sinister resonance" of silence.³⁸ The individual's sensitive comments, we hope, grow out of the careful reorientation of the familiar that we aspired to with the project. Likewise, that this student spoke out (both in the cemetery but also in their blog entry) marks resistance to the "aestheticized silence" that George Lewis hears as counter to the "socially constituted scenes" prized in the black experimental tradition.³⁹ At the same time we cannot ignore the discomfort so patently described as we reflect on the students' collective engagement with *Beyond the Belltower*.

Beyond the Belltower in Practice

MUSC 291, "Music and Politics," is a medium-sized lecture course that can be tailored to the teaching and research interests of individual lecturers. It satisfies an elective requirement for music majors and a general education requirement (Visual and Performing Arts) for any undergraduate. The course assumes no previous musical experience: in Fall 2016, fewer than 10 of the 71 students enrolled claimed musical literacy. This iteration of the course wove together historical case studies and contemporary debates that cohered around four broad topics: 1) politics, music, and identity; 2) music and race in the United States; 3) music and ideology in Europe; and 4) music and migration in contemporary Europe. Each unit focused on developing students' abilities to synthesize a comparative framework for specific case studies rather than satisfying objective

38. David Toop, *Sinister Resonance: The Mediumship of the Listener* (New York and London: Continuum, 2010).

39. George E. Lewis, *A Power Stronger Than Itself: The AACM and American Experimental Music* (Chicago: University of Chicago Press, 2008), xii.

learning tasks. The bulk of the students' work consisted of argument-driven essays and a blog of weekly responses.⁴⁰

Over the fifteen-week semester, the soundwalk belonged to a handful of class meetings with an unusual format that was not based upon the typical lecture punctuated by brief small-group discussions. It concluded the unit on music and race in the United States. Though the course was not conceived of as an introduction to sound studies, this particular unit was strongly influenced by the significant place aurality has had in putting structures of dominance into relief. As Ronald Radano and Tejumola Olaniyan write, "Sound studies have heightened our attention to what we might call auditory significance, to the power and effect of sound's production and its reception in the formation of social and political orders."⁴¹ Over the course of the unit we had read W. E. B. DuBois on sorrow songs while studying "Roll, Jordan, Roll," analyzed the different performances of black feminism by Beyoncé and Nina Simone with bell hooks in hand, compared the documentation of the Civil Rights/Black Freedom Movement in sound, and dove into Sun Ra's racial imagination.

The last two case studies were conceived as preparation for the soundwalk—a way of exposing the students to a performance studies-inflected approach to history and the allure of the archive, with all of its gaps. We compared documentary recordings of sit-ins to songs that recounted specific demonstrations and to Bernice Johnson Reagon's life-long devotion to writing Black history through oral transmission.⁴² Our lecture on Sun Ra's 1972 film *Space is the Place* was punctuated by radical disruptions: every five minutes a student stood to read (or, if they felt so inspired, shout, whisper, or sing) a passage from the avant-garde musician's 1950s broadsides.⁴³ Crucially, for these students the soundwalk was situated within the legacy of radical black performance rather than the Canadian soundscape school, which has largely avoided connecting sound with the politics of race and was shaped exclusively by white composers of European heritage.⁴⁴ While we cannot presume to speak on behalf of the students and do not wish here to evaluate the soundwalk in terms of its "suc-

40. For an extended discussion on freewriting and blogs in the classroom see Sara Haefeli, "Using Blogs for Better Student Writing Outcomes," in this *Journal* 4, no. 1 (2013), 39–70.

41. Ronald Radano and Tejumola Olaniyan, "Hearing Empire—Imperial Listening," in *Audible Empire*, eds. idem (Durham: Duke University Press, 2016), 2.

42. Bernice Johnson Reagon, "Let the Church Sing 'Freedom,'" *Black Music Research Journal* 7 (1997), 106.

43. John Corbett, ed., *The Wisdom of Sun-Ra: Sun Ra's Polemical Broadsheets and Streetcorner Leaflets* (Chicago: WhiteWalls, 2006).

44. We would underscore that our project is not unique in wrestling with "how listening operates as an organ of racial discernment, categorization, and resistance" as we bring the field of ecomusicology and the interdiscipline of sound studies together. See Jennifer Lynn Stoeber, *The Sonic Color Line: Race and the Cultural Politics of Listening* (New York: New York University Press, 2016), 4.

cess,” the students’ 250–500 word responses to the experience, written up on their weekly blogs, provided an opportunity to reflect—perhaps in the sense that Westerkamp intimates. These comments, abstracted in the soundcloud in figure 2, provide insight into the collective experience and a dialogue with our own top-down perspective on the soundwalk as learning tool. As we wrap up our comments, these student voices guide our reflections on our soundwalk in practice.

October 2, 2015: Music 291’s performance of *Beyond the Belltower* was met with one of the stormiest days of the season. For undergraduate students accustomed to performing the learned, rather than learning during and from the performative process, the scores proved to be a difficult exercise in patience and vulnerability when faced with wet sidewalks, wet shoes, and wet paper texts. As one student wrote, “I was not excited for or about the sound walk. I don’t typically like experimental things, and performance art kind of bores me. So when I woke up on Friday and it was pouring down rain, the last thing I wanted to do was walk around campus listening to sounds for an hour.” Almost every student response commented on the torrential downpour that we all endured. They gravitated toward sheltered events and truncated other performances. The rain—real, cold, and relentless—heightened any preconceptions and reservations held by the students.

The rain exacerbated the discomfort perhaps inherent in this project, a permutation of Andrea’s experience on University Day. A couple of students asked for alternate assignments, due to illness or injury. We wondered if we asked the students to make themselves too vulnerable to the environment, even though the graduate students had taken special care to control for several factors, including sensitivity towards the diverse student body, student vulnerability, and performability in adapting it for the undergraduate classroom. If soundwalks are meant to heighten the modern subject’s attention to nature in a reparative mode, this soundwalk drove that point home. The students put away their soaked paper scores, but the accounts of listening and feeling the rain were vivid and sensorial. One student recounted: “Well. We were all very wet. And the wind picked up. And there wasn’t much noise besides the rain hitting various objects, such as umbrellas, bricks, and cars. [We] just huddled under the awning to take refuge from the rain, listening somewhat arbitrarily to the sounds of the cars spraying water from the street everywhere.” The rain provided a welcome way out, too: “huddling” under the awnings away from the rain also allowed some students to retreat from the performance. At the same time, they found themselves in new “communities of affinity.”⁴⁵ The close listening—here a product of physical proximity rather than an analytical point

45. Kay Kaufman Shelemay, “Musical Communities: Rethinking the Collective in Music,” *Journal of the American Musicological Society* 64, no. 2 (2011), 373–75.

of entry—stimulated a conversation within the groups. As one student wrote: “I was able to really hone in on the reactions of my fellow group members based on their understanding of the significance of that specific place during that time.”

Some described the rain confirming the positive embrace of the natural one might expect from any activity that provides relief from the more traditional performance spaces of the stage and classroom. “Nature really does make its own music and Friday its music was the sound of raindrops,” read one poetic response. Another student aptly summed up the unpredictability of site-specific activities: “I thought it was an interesting reminder of the power nature has in manipulating our sonic environments, that no matter how in control and ingenious we humans we believe we are over our surroundings, nature always illustrates its musical prowess.” The soundwalk’s rainy setting lent a “somber and eerie” quality to the segregated cemetery experience, as another student remarked, “rain thumped against my head and soaked through my shoes.”

Other students reflected on the soundwalk through the lenses of power and vulnerability—arguably one of the desired outcomes we had for this project, which was designed to counter institutional hegemonies. As a student completed the sound performance in Lenoir Dining Hall, they reflected that it “made me open my eyes to the sounds of the dining service workers. They all mostly seemed cheerful when taking orders despite the low pay, hectic rush hours, and tiring work.” Another student experienced the historical aspects of the project as a window to the past, imagining themselves in the middle of a protest: “As someone who isn’t a fan of yelling or conflicting noises, I decided that I would not have liked to experience such conflict and animosity in the middle of large crowds.”

To what extent were we responsible for subjecting our students to hostility, not just that of the natural environment when it rains, but that of historical agents? For the creators of *Beyond the Belltower*, it was a novel, if nerve-wracking, idea to have the text actually performed by undergraduate students. We trusted that we would have more in common with the students than not, since we understood ourselves to be a part of the same under-informed student body. Yet, the agitation at the base of our project leaves the evaluation of its success difficult. When we sat to write this essay, we invited the authors of the scores to reflect again on *Beyond the Belltower*. Many commented on the fact that the score seemed too fixed and final in comparison to the creative process of its genesis. One student shared that at one year’s remove she still has “a major pedagogical concern, namely that it takes a lot of work to rewrite someone’s understanding of a space that’s very familiar to them from an everyday context, especially if the major institutions that structure their life have always presented

a different history.”⁴⁶ We hoped to create new experiences of the campus, reorienting our students’ sensorium while also alerting them to muted and silenced histories.

Were we able to shift the status of the texts that shaped UNC’s history for our performers? Perhaps this is the wrong question with which to return to the project, for the process of walking the campus—with new routes, new communities, and new histories—is ongoing, not only for the authors of this essay and the authors of *Beyond the Belltower*, but also for these undergraduates. The score’s performances may always fall short of what we dream for them, much like the brief experience of an undergraduate class. But our students, we hope, live with the ideas and the experiences of our teaching. While we cannot, as individuals, deny or reroute the uneasy slippage between liberal politics, the language of white supremacy, and the whitewashing of UNC’s contentious past, we can suggest our students walk differently on campus. That visceral experience of walking through campus on a rainy day raised questions about a community with a shared geography and put into relief our differences. On a university campus which is, in equal parts, stubbornly immutable in its monuments and steadfast in its declarations of a commitment to students of color, soundwalks and sonic experimentation can play a crucial role in disrupting, questioning, and revealing the sounds of the past—sounds which so many assume dwindle into silence.

46. Joanna Helms, email communication with authors, August 23, 2016.

Welcome to the Dirty South: Listening to the Politics of Southern Hip-hop in an Ecomusicological Framework

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“Welcome to the Dirty South” was not conceived as an ecomusicological course. Inspired by Ali Colleen Neff’s “Crunkology” at the University of North Carolina in the 2000s, I had been thinking about what kind of Southern hip-hop syllabus I might put together for several years—long before I had a sense of ecomusicology as a field.¹ However, when it came time to draft an actual syllabus for a real, live Dirty South class, I decided to approach the content in a manner that would integrate ecomusicological questions with southern hip-hop. I am on record as finding chronology to be too constrictive an organizational tool for course syllabi, so while I could have started with Miami Bass and Houston’s Geto Boys in the 1980s (and the blues, funk, soundsystem, and signifyin practices those early hip-hop styles are rooted in) and proceeded to the Young Thug and Bryson Tiller sounds that helped define Southern hip-hop in the mid-2010s, I prefer a more looping approach to time that plugs contemporary artists—the ones my students are most likely to be familiar with already—immediately into the discourse. Other organizational structures were possible: I could have focused primarily on performances of gender, formulations of race, or Southern rappers’ often ambivalent attitudes toward the sorts of authenticity debates that can obsess artists and fans stretched across the East Coast/West Coast spectrum. Indeed, gender, class, race, performativity, and even chronology were all central to our discussions during the semester, but the primary organizing structure of “Welcome to the Dirty South” was a regional approach that forced us to consider ecomusicological questions revolving around soundscape: What sounds are most common or dominant in the hip-hop of each region? Which sounds are distinctive to each region? How can we understand politics to be formed by and formative of these soundscapes? In this essay, I demonstrate how ecomusicological questions

1. Ali Colleen Neff, “Crunkology: Teaching the Southern Hip-Hop Aesthetic,” in *Pop-Culture Pedagogy in the Music Classroom: Teaching Tools from American Idol to YouTube*, ed. Nicole Biamonte (Plymouth, UK: Scarecrow Press, 2011), 281–306.

guided my class's analysis of Dirty Southern hip-hop. Furthermore, I argue that posing and answering these questions highlighted the political dimensions of the music, renegotiating the cities and spaces in which that music reverberates. After defining ecomusicology as we used it in "Welcome to the Dirty South," I provide a brief description of our analytic framework and offer three case studies from the course that fold together ecomusicological soundscapes, Dirty Southern hip-hop, and the politics that animate these spaces and sounds.

Each week in "Welcome to the Dirty South," we would "travel" to a different city to hear its music, shifting the backdrop of the soundscape, as Schafer describes it, from a natural environment to a *built* environment. Where skyscrapers soar alongside trees, concrete parallels a neighbor's grass, and air traffic twinkles in concert with stars in the night sky, we traveled into a postlapsarian world not to recover something lost but to hear the sound of cityscapes, focusing specifically on Southern hip-hop music. Our itinerary included six primary stops.

Houston → New Orleans → Miami → Atlanta → Virginia Beach → Memphis

The last few weeks I reserved for locales—Mississippi, Nashville, North Carolina, Kentucky, and Alabama—whose music has not yet taken over the mainstream in quite the way the six primary scenes have, as well as a dive into that mainstream to consider the ways in which Dirty Southern sounds have circulated through several different global and US music genres.² The goal of the regional approach was to focus our attention on the sonic and political elements of Dirty Southern sub-genres. Students completed weekly listening assignments outside of class and searched different resources to contextualize what they were hearing, then shared their three best sources on a class spreadsheet each week. Instead of dedicating the bulk of class time to the history of Southern hip-hop, then, I used our sessions together to analyze what we heard and to read accounts of the cities we "visited" in order to learn their social, political, and sonic contexts. The overarching question "what does the Dirty South sound like?" when asked from a regional vantage point, also forces the question "what do these different cities sound like?" Then, crucially, "well, why do they sound that way?" Here, my students and I accessed the Dirty South in the role of what Murray Schafer would call "soundscape analysts."

Ecomusicology tends to conjure images of nature as its primary site of interest (for a literal example, see the banner at the top of the website for

2. Like any syllabus, the one for "Welcome to the Dirty South" isn't exhaustive. It privileges the USA, the urban, and the mainstream, leaving less space for global, rural, and underground practices to resonate. Moreover, the centrality of the six cities not only relegates rural spaces to the sidelines but also catches suburban and small-urban scenes in the larger metropolis's orbits. The B-side of this class—let's call it "What Y'All *Really* Know about the Dirty South??"—would interrogate all of the urban, USA-bound, mainstream assumptions that informed "Welcome."

ecomusicology.info), framing discussion of cities and other built environments in opposition to nature instead of as independent objects of ecomusicological analysis. A perusal of the table of contents of 2016's *Current Directions in Ecomusicology*, edited by Aaron Allen and Kevin Dawe, supports this observation. However, during my time among ecomusicology cohorts over the last few years, I have been drawn to the way ecomusicological questions can be applied to built and urban environments. This is in part because Adam Krims's *Music and Urban Geography* (2000) was my entrée into the discipline, and in part because my interests include hip-hop and dance genres whose scenes have tended to cohere around cities. Schafer's attention to soundscapes includes a link between what a place sounds like and the "social welfare" of that place.³ His description of this linkage is too simplistic: he treats music as a reflection of existing conditions without acknowledging its critical and futuristic possibilities. Here, I infused "Welcome" with intersectional queer, Marxist, and critical race theory that would tune our ears to these cities neither as stagnant or irredeemably broken locales nor—following Rosi Braidotti's theory of "becoming-earth"—as a place where technology exists in binary opposition to nature.⁴ Rather, we considered sites of environmental degradation (cars and roads are the key themes below) as negotiations over power and as a spectrum of natural and built environments. Nature is not absent from a city; it is built into a city. We can understand this not just by thinking about public parks and urban beautification. When an expressway plows through a neighborhood, part of its purpose is to connect suburbs in a way that limits a commuter's time in an urban environment—it strings together environments (the 'burbs) that are considered less built and closer to nature. Those who live under the overpasses and in hearing distance of these busy thruways may rarely—if ever—use them to leave the city, but their lived experience is shaped by ideas of natural and built environments all the same.

Though we do not often think of an expressway constructed in the middle of a city as environmental degradation (since it is usually just concrete on top of more concrete), remembering that cities are environments in both definitions of the word—both one's surroundings or habitat and a place that includes the natural world—can draw our attention to environmental degradation in more local terms. Here, my understanding of ecomusicology is shaped by non-musicological theorists like Rosi Braidotti, Dipesh Chakrabarty, and Vijay Prasad, among others, who have each highlighted the fact that environmental degradation tends to be experienced most by those least responsible for its existence;

3. Murray R. Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World* (Rochester, VT: Destiny Books, 1994), 7.

4. Rosti Braidotti, *The Posthuman* (Malden, MA: Polity Press, 2013), 81-89.

they have also all problematized the limits of that observation.⁵ As Chakrabarty puts it, “Capitalist globalization exists; so should its critiques. But these critiques do not give us an adequate hold on human history once we accept that the crisis of climate change is here with us and may exist as part of this planet for much longer than capitalism or long after capitalism has undergone many more historic mutations.” The primary goal of “Welcome to the Dirty South” was not to gain “an adequate hold on human history” but to burrow into some of the critiques Chakrabarty permits and to listen for soundscapes that tell us about the political negotiations of environments.

The ecomusicological dimensions of “Welcome” can be summed up as follows:

1. We theorized cities as environments—both habitats and places that include nature.
2. We politicized these environments by remembering that they are not experienced equally: one’s race, class, and gender (among other factors) will shape one’s relationship with their environment.
3. While we discussed sites of environmental degradation, we also accounted for practices of vitalization and revitalization.

This last point builds on the second, injects critical theory into the discourse of “Welcome” and ecomusicology more broadly, and perhaps takes a step toward Chakrabarty’s “adequate hold on human history.” Schafer is right: we can hear “social welfare” echoed in a soundscape. But all of his examples involve music that only *reflects* welfare:

Such a theory would suggest that the egalitarian and enlightened reign of Maria Theresa (for instance, as expressed in her unified criminal code of 1768) and the grace and balance of Mozart’s music are not accidental. Or that the sentimental vagaries of Richard Strauss are perfectly consistent with the waning of the same Austro-Hungarian Empire. In Gustav Mahler we find, etched in an acid Jewish hand, marches and German dances of such sarcasm as to give us a presentiment of the political *danse macabre* soon to follow.⁶

5. See Dipesh Chakrabarty, “The Climate of History: Four Theses,” *Eurozine*, 30 October 2009, <http://www.eurozine.com/articles/2009-10-30-chakrabarty-en.html>; Braidotti, *The Posthuman*, 88; and Vijay Prashad. *The Poorer Nations: A Possible History of the Global South* (Brooklyn, NY: Verso, 2013), 192. Prashad also shows that the Global South—the “poorer nations” of Prashad’s title—has been *blamed* for environmental degradation: “The Brundtland Report saw poverty as the main cause of environmental degradation (not capitalist development), so that it called for countries to achieve their ‘full growth potential’ by ‘high levels of productive activity’” (134).

6. Schafer, *The Soundscape*, 9.

Each of these examples involves music that is only capable of sounding like its environment, cutting short the political possibilities music holds, its ability to move out of step with its surroundings, and even its potential to change the contours of its environment. Being able to hear these potentials involves a profound critical reorientation. Sylvia Wynter, in her career-long insistence on reconceptualizing the human, has argued that the humanist subject—the subject at the heart of Western democracy—has “overrepresented” itself as the human.⁷ Put another way, the humanist subject opposes itself to blackness, queerness, disability, poverty, and Otherness, and it aspires to totalization so that anything black, queer, disabled, poor, or Other cannot fit into the category of the human. But, Wynter counters, there are ways to exist “completely outside our present conception of what it is to be human”—outside this violently exclusionary version of humanism.⁸ My approach to soundscapes in “Welcome to the Dirty South” incorporated ecomusicology by following Wynter outside our present conception of the human. If we hear only the reflection of dominant politics in music, as Schafer outlines, then we are bound up in the totalizing goals of liberal/neoliberal humanism—we are letting that kind of humanism set our discourse. If, however, we listen for sounds that exist in the context of but not in lockstep with dominant politics, we hold open other possibilities for being human, and we access the sound of Southern hip-hop politics engaged with and capable of reshaping its environment. What follows is a description of our listening practices and three examples of how our attention to politicized soundscapes informed our understanding of the Dirty South.

Analysis

If the goal of “Welcome to the Dirty South” is to listen beyond dominant narratives, then it is important to first establish how my classes listen to and analyze popular music. I incorporate popular music analysis into all of my MUS courses, and twelve of the fourteen students enrolled in “Welcome to the Dirty South” had taken at least one prior class with me, which meant we were able to build on already strong listening skills during the semester. When teaching popular music analysis, I encourage students to focus especially on timbre, texture, frequency range, rhythmic motifs, and large-scale structure.

7. Sylvia Wynter, “Unsettling the Coloniality of Being/Power/Truth/Freedom: Towards the Human, After Man, Its Overrepresentation—An Argument,” *CR: The New Centennial Review* 3, no. 3 (2003): 257-337.

8. Sylvia Wynter, interview by David Scott, “The Re-Enchantment of Humanism: An Interview with Sylvia Wynter,” *Small Axe: A Caribbean Journal of Criticism* 4 no. 2 (September 2000): 136.

With the rise of sampling technologies and digital audio workstations over the last three decades, the timbral possibilities of sampled and synthesized sounds are practically limitless, so being able to describe, for example, what one kick drum sounds like in relation to another—using informal terms (like “boomy” or “muddy”) as well as more formal ones (like attack, decay, sustain, and release)—can prove a valuable point of comparison when mapping subtly different styles across regions. Similarly, an ear for texture not only clues students into the instruments playing at any given moment, but also helps differentiate between sampled, synthesized, and live sounds. While traditional music analysis prioritizes melody, harmony, and rhythm, I approach popular music analysis with frequency range and rhythmic motifs in mind. Melody and harmony matter, but the idea is to divide a song like an EQ filter, deciphering what is happening in the low, mid, and high ranges. We similarly consolidate rhythm into larger chunks, focusing on recurring motifs or loops to help separate a classic Miami Bass break from a New Orleans bounce “Brown” beat from a contemporary Atlanta trap figuration. Finally, attention to large-scale structure means fine-tuning our listening habits to genre norms so that we can notice when a section is too long or too short, or when a song departs from conventional structure altogether.

Instead of imposing hard and fast rules that discipline the listening process, I encourage students to approach analysis with all of these elements in mind and figure out as they listen which elements seem most interesting, most important, and most compelling from one song to the next. While this risks missing something crucial—if a student is so focused on timbre that they forget to pay attention to the fact that the second verse is half the length it is supposed to be—it also allows us to move through a lot of music as efficiently as possible. By semester’s end, our Spotify playlist included 124 songs; doing a formal analysis on every individual song would have taken more time than we had in the semester. Yet listening to that much music from overlapping sub-genres sets our expectations for a normal range of structural possibilities so that we are more likely to notice when something deviates from that normal range. To further cover for the fact that none of us would exhaustively analyze every song, listening was a collaborative process in which the whole class would discuss what we heard from one week to the next. The more we described what we heard to each other, the more we were able to hear what we otherwise might have missed.

Case Study I: Interstates, New Orleans Bounce, and Miami Bass

I coupled these popular music listening practices with assigned readings that would draw our attention to cities’ soundscapes, the sounds that, “either

because of their individuality, their numerousness or their domination,” shape one’s sonic experience of a city and informed our understanding of the music and politics emanating from each city.⁹ In the case of New Orleans and Miami, we listened to the ways their bounce and bass genres, respectively, reverberate through spaces whose contours were shaped by mid-twentieth century interstate construction projects.

Bounce echoes.¹⁰ It bounces off of every surface, a phrase uttered or sample triggered, released into an endlessly reverberant space, at first retreating into the quieter parts of a mix before rebounding back. Big Freedia’s vocals on “Explode” are exemplary in this regard. She shouts, “Oooooohhhhhh, let’s go!” at 0:51 of the YouTube video, then sets the phrase loose in the soundscape as she layers other (often repeated) vocals on top of it. A minute later (1:52), after a verse and hook have passed, “Oooooohhhhhh, let’s go!”—which was quieter but never gone—boomerangs back into the foreground.

In “New Orleans and Kingston: A Beginning, A Recurrence,” Nadia Ellis describes the similar way second line brass instruments ring out and clang around the concrete and asphalt spaces opened under the overpass of the I-10 along Claiborne Avenue. The metaphor is irresistible: the sounds of a lively thoroughfare that runs through black neighborhoods are quashed by interstate construction, buried in a mix of high-speed traffic and the sonic residue of urban life that swirls in the overpass’s echo chambers, until vibrant black sound in the form of brass bands and drumlines overpowers the din. Echoes, reverberations, and sonic bounces all “*recreate* the space of conviviality, commerce, and promenade that was taken away from them.”¹¹ As soundscape analysts, my Dirty South students marked the way black communities in New Orleans have been shaped by echoes so that we could hear the overwhelming layering of bounce production in conversation with the soundscape of the city that produces it.

The politics of race and space ensured that whenever mid-twentieth century interstate construction projects ran into a heavily populated urban area, as the I-10 did in New Orleans, by default black and brown communities would take the brunt of the construction’s disruption. Tricia Rose’s foundational *Black*

9. Schafer, *The Soundscape*, 9.

10. Bounce is a New Orleans hip-hop genre that extends back to the 1990s and features insistent vocal repetition atop musical textures that frequently draw on two key sample sources: the “Brown beat” (Cameron Paul’s “Brown Beats” (1987)) and the “Triggerman” (The Showboys’ “Drag Rap” (1986)). In addition to Nadia Ellis’s article cited in the text, a good resource for bounce is Matt Miller’s *Bounce: Rap Music and Local Identity in New Orleans* (Amherst, MA: University of Massachusetts Press, 2012), which explores the genre in connection to other New Orleans musical traditions.

11. Nadia Ellis, “New Orleans and Kingston: A Beginning, A Recurrence,” *Journal of Popular Music Studies* 27 no. 4 (2015): 391.

Noise spotlights the Cross-Bronx Expressway as a major influence in the creation of the socioeconomic conditions that would pave the way for Bronx hip-hop's origin story.¹² Meanwhile, at the southern end of I-95, the bypassing of Overtown in Miami “effectively strangl[ed] the neighborhood geographically and economically.”¹³ The students read David Font-Navarette's description of the isolation of Miami's inner city alongside his account of the pirate radio stations that carried the sounds of Miami bass through those same neighborhoods and heard the genre anew.¹⁴ The music, before it was popular on mainstream channels, lived in a medium that lacked the bandwidth to carry its most integral feature: bass. If the overpasses of New Orleans's I-10 resonate as so many echoes in bounce music, the overpasses of Miami's I-95 are like massive filter bands removing not only vital resources from the neighborhoods they swept over but also the fundamental sound of the music those neighborhoods would produce. Listening to the soundscapes of New Orleans and Miami in “Welcome” meant keying into similar political processes that produced different geographic contours. The reasons bounce and bass sound like they do are not reducible to interstate construction projects, but attending to the movement of I-10 and I-95 through dense urban areas deepens our understanding of the soundscapes where bounce and bass took shape.

Case Study II: Traffic, Trafficking, and Atlanta Trap

Any discussion of Southern hip-hop requires an account of trap, the contemporary hip-hop genre whose boomy bass and busy hihats rattle across the mid-2010s hip-hop and pop radio dial.¹⁵ The opening shot of *Noisey: Atlanta* shows a complex interchange where I-20, I-75, and I-85 all knot together in the music capital of the Dirty South. Vice media host Thomas Morton greets us: “Welcome to Atlanta, the city too busy to hate, the drug trafficking hub of the East Coast,

12. Tricia Rose, *Black Noise: Rap Music and Black Culture in Contemporary America* (Middletown, CT: Wesleyan University Press, 1994), 31.

13. David Font-Navarette, “Bass 101: Miami, Rio, and the Global Music South,” *Journal of Popular Music Studies* 27 no. 4 (2015): 494.

14. Miami Bass is genre of hip-hop that, as its name suggests, revolves around heavy bass frequencies. The genre coalesced in the 1980s, and its key sonic features are the percussion sounds of the Roland TR-808 drum machine and a rhythmic motif most directly linked to electro (a dance and hip-hop hybrid whose most well-known song is Afrika Bambaataa's “Planet Rock” (1982)). In addition to the Font-Navarrete article cited in the text, there are a variety of Miami Bass resources available for students, including a good website that includes interviews and accounts from practitioners, miamibasshistory.tumblr.com, and a 1994 special issue of *The Source* (no. 54, March 1994).

15. Trap is a genre of hip-hop and is most closely connected to Atlanta. Its primary sonic elements crystallized in the DJ Toomp productions on rapper TI's 2003 *Trap Muzik*. I discuss trap in detail in my book *Posthuman Rap* (New York: Oxford University Press, 2017).

and the home of trap music.”¹⁶ The Vice conglomerate—of which the *Noisey* series is just one piece—trades in neocolonial exoticism, traipsing into the cultural wilderness to report on various regional practices its broader viewership may be unaware of. In *Noisey: Atlanta*, Morton’s white hipster nebbishness is meant to stand in stark relief to the black subjects and black music that are the film’s focus. I’ve written elsewhere about the complex politics of trap’s sonic blackness, but in the hands of *Noisey*, the connection between trap, drugs, and blackness is more journalistic sensationalism than thoughtful critique. The epigraph for the YouTube description of the first episode reads, “When a rapper’s rapping, you should be able to smell the dope cooking.”¹⁷

Noisey doesn’t have it all wrong. Often credited as the album that, especially through DJ. Toomp productions, defined what the genre of trap would sound like, TI described his 2003 *Trap Muzik* as one that was meant to be heard specifically in the context of the drug game: “whether you in the trap selling dope, in the trap buying dope, or in the trap trying to get out.”¹⁸ The genre, in fact, is named for a trap house: a place for cooking dope with a single entry/exit point. While we critiqued the flatness of *Noisey*’s documentary in “Welcome to the Dirty South,” we took seriously the connection between traffic and trafficking that Morton and interviewee Curtis Snow lay out in the opening minutes. As a “spaghetti junction,” as Snow calls it, a hub for both ground and air transportation, Atlanta has functioned as an ideal place for dispersing drugs along the East Coast and the US South. The trap genre represents a set of aesthetic practices that its artists have explicitly linked to the dope game.

Trap has an easily identifiable sound, with deep kick drums, inhumanly rapid hihats, and a double-time vocal feel highlighting its most recognizable characteristics. However, what we focused on in “Welcome” was the way in which the music moves through the city. Beyond the production aesthetics, what marks trap more than anything else is the incomprehensibly prolific output of its rappers. Young Thug released six mixtapes between April 2015 and August 2016, a rate that would be impressive except for his January-September 2014 run that produced six more mixtapes. Future, perhaps the most mainstream trapper, released a combination of seven mixtapes and studio albums in an eighteen-month span in 2015-16. At the extreme end of productivity is Gucci Mane, with 79 albums and mixtapes (and counting!) to his name since 2005. Fans of most genres often chart the distance from one album release to the next in years; trap fans, meanwhile, are not likely to make it two months without a fresh set of Gucci Mane songs. One reason trap musicians crank out

16. Andy Capper, *Noisey: Atlanta*. VICE Media, 2015.

17. Capper, *Noisey: Atlanta*.

18. Puja Patel, “From T.I. to TNGHT: A Look at Trap Rave,” *Stereogum* 6, August 2012, <http://www.stereogum.com/1115091/from-t-i-to-tnght-a-look-at-trap-rave/top-stories/>.

so much product is because they, like the drug game trap is connected to, operate in an unofficial parallel market, a kind of deregulated shadow capitalism propelled by supply and demand.

While most trap artists are signed to major labels and release studio albums periodically, many also subvert the long bureaucracy of official album production by way of mixtapes. Mixtapes have been around for as long as hip-hop has, often used as demos for unsigned artists, promotional tools ahead of a studio release, or vehicles for songs that use unlicensed samples. Trap mixtapes, though, are finished products, albums by another name that net artists and producers indirect profits from streaming services, YouTube advertising, and perhaps most coveted of all, reputation. Trap explicitly evokes the dope game, and trap mixtapes tap into the ethos of drug trafficking, where new product is at a premium and must be pumped into the city before the old is consumed. And trap confounds the traditional flow of capital. A good deal of the money to be found in trap lines the pockets of major labels, to be sure, but using shadow routes has allowed trap artists to siphon off some of that profit. In a neoliberal context, where capitalist logic governs not just the economy but also the shape of a person's life, redirecting money in this way reshapes the contours of who counts as human.¹⁹ Those who operate in the drug game's shadow economy are meant to be pulled into the mainstream as prisoners—those who no longer count as fully human—who will fuel a prison industrial complex that collects government contracts and churns out products made by virtually unwaged labor. Trap invokes drug trafficking to reroute money to populations the mainstream economy regards primarily as potential prisoners. As noted with bounce and bass, the entirety of trap cannot be contained in its relationship to traffic and trafficking. However, understanding the contemporary Atlanta soundscape entails an account of the constantly renewed stock of trap music cycling through the city each week, a production model that makes use of well-worn channels to move unsanctioned freight.

Case Study III: Tactility, Cars, and Mississippi Sub-Bass

Cities are not the only built environments where Southern hip-hop soundscapes map alternate ways of being. The opening moments of Big K.R.I.T.'s "My Sub" (2011) mark sonic rurality, a retreat from the loud, reverberant cities often associated with Dirty South production. The first eight bars, before K.R.I.T.'s sub begins to vibrate, are sparsely textured with repeated, filtered vocals ("my sub" x3, "I put that on"), the muffled sound of K.R.I.T.'s chains jangling on beats two and four of every measure, and a soul sample on the turnaround of measure

19. Lester Spencer, *Stare in the Darkness: The Limits of Hip-Hop and Black Politics* (Minneapolis: University of Minnesota Press, 2011), 13.

four. The backdrop is the drone of crickets, a sound that immediately conjures a vast, starlit sky miles from the din of a metropolis. The “sub” in question is Big K.R.I.T.’s ever-expanding subwoofer, which by the time he recorded “My Sub Pt 3 (Big Bang)” (2014), had increased to two fifteen-inch speakers tucked into his trunk. More than just a flexing of sonic muscle, K.R.I.T.’s sub is the built source of deeply undulating infrasonic pulsations that map his country soundscape.

Loud bass in cars is not just a Southern thing. West Coast hip-hop icon Dr. Dre famously produced “Jeep beats” in the 1990s, crafting a finished mix heavy on the low end and attuned to cars’ sound systems. Dre and other producers targeting car systems would use exaggerated compression (where the loudest and quietest sounds are squeezed together, creating an overall louder mix) and boosted bass to overcome the ambient noise of highways.²⁰ Bass heavy styles tend to take hold especially in urban areas with under-developed public transportation options, where car owners may compete with cities’ noise by amplifying and blasting low frequencies at the edge of human hearing through their subwoofers. K.R.I.T.’s three-part paean to his sub moves us out of the city and into the country, a place, as Zandria Robinson describes it, “rooted in dirt and power, and the ability to survive and maneuver in a world that would rather [black southerners] not.”²¹

The crickets that open “My Sub” reappear in “My Sub (Part 2: The Jackin’)” and “My Sub Pt 3 (Big Bang).” Each track in the trilogy features an introduction (and, in the case of “Pt 3,” a first verse) that is sparsely textured, composed primarily of vocals, sub-bass, and crickets. Here the subwoofer is not competing with other urban noise; in the country night, it *is* the noise, emitting sub-frequencies that rattle “your neighbor’s neighbor’s neighbor’s neighbor’s” house (“Pt 3”). In K.R.I.T.’s telling, the rural Mississippi soundscape does not so much shape the sound of his music as it is shaped *by* his music. The hook on “Part 2” is a line borrowed from Dallas rapper Big Tuck, “I done cut up my bang, and I shook up the stars.” What could be heard as hyperbolic boast—my subwoofer is so loud it shakes the stars—instead speaks to the tactility of sub-bass. When Big K.R.I.T. cranks his sub, his “neighbor’s neighbor’s neighbor’s neighbor” probably does not hear it but certainly feels it, a deep rumble that produces sympathetic vibrations up through the floors and walls. Inside the car, the shook-up stars are the result of a windshield’s vibrating glass, itself moving imperceptibly so that those bright country stars go fuzzy with each kick of the bass. Indeed, “My Sub Pt 3 (Big Bang)” finds K.R.I.T. not only shaping the soundscape of

20. Justin A. Williams, “‘You Never Been on a Ride like This Befo’: Los Angeles, Automotive Listening, and Dr. Dre’s G-Funk.” *Popular Music History*, 4 no.2 (2009): 173.

21. Zandria Robinson, “Mississippi Prometheus: Big K.R.I.T. and the Southern Black/Rap Snapback,” *New South Negress*, 21 May 2014. <http://newsouthnegress.com/mississippiprometheus/>.

the Mississippi countryside but also, as the “big bang” title suggests, building entire new worlds from the boom in his trunk. Through a series of double- and triple-entendres, K.R.I.T. uses the opening tracks of *Cadillactica* (2014)—including “Pt 3”—to tie his music and masculinity together in an Afro-futurist vision of a world called Cadillactica. His never-ending goal for more bass isn’t quixotic but an attempt to shake and bang himself, his town, and his state out of “a world that would rather [black southerners] not” survive and into a more hospitable realm.²²

K.R.I.T.’s performance of sub-bass is a tactile one that takes advantage of a relatively quiet country space to map a neighborhood in relation to a sound source, to chart the stars and the universe with every thud, and to place listeners in the midst of this cosmic diagram while blasting sub-frequencies at the edge of aural perception up into their feet from the dirt below. On the day we discussed Big K.R.I.T. in “Welcome to the Dirty South,” we first filed out to the parking lot where a generous student opened his car so that we could hear and feel his subwoofer from a variety of vantage points—across the parking lot, standing in front of the open trunk, sitting in the backseat. Back in the classroom, we talked through some of the technical points of installation and tuning that K.R.I.T. alludes to in his “Sub” series, but more than anything else, my students focused on what sub-bass feels like. The campus was bustling that day, and we had witnessed a single 12” woofer instead of the “two fifteens” K.R.I.T. boasts, but the soundscape he conjures—rural, expansive, quiet but for crickets and K.R.I.T.’s built sonic environment—felt a little closer after some reflexive time with tactile bass. *Cadillactica* may be a metaphor, but the means by which K.R.I.T. creates it are not; as soundscape analysts, my students could better comprehend K.R.I.T.’s vision of a somewhere else by listening in the context of where he is.

Conclusion: Built Environments Real and Imaginary

Big K.R.I.T. explicitly straddles the difference between real and imaginary, between rural Mississippi and outer space *Cadillactica*. In fact, the real/imaginary divide informs everything a soundscape analyst hears. Schafer speaks of “earwitnesses,” firsthand accounts of what a particular place sounded like at a particular time.²³ Importantly, Schafer also describes the way we learn to filter out some sounds, and Jennifer Stoeber has interrogated this kind of filtering process as one that is socially learned and that reproduces social concepts of

22. Robinson, “Mississippi Prometheus.”

23. Schafer, *The Soundscape*, 8-9.

race, gender, and heteronormativity, for instance.²⁴ For every sound an earwitness reports—even when we're our own earwitness—countless others were ignored, some benignly and some through deeply embedded social structures that inform our perception of the world. Another way of putting this is that all soundscapes are built environments, constructed by a listener: to understand what a place sounds like is an unavoidably anthropocentric pursuit, an imagining of a soundscape.

This is perhaps especially apparent in “Welcome to the Dirty South” when we approach music as an earwitness account. Cadillactica isn't a real place, but neither is the soundscape Big K.R.I.T. crafts as the backdrop for his “My Sub” songs. The sparse texture, empty spaces, and incessant crickets are meant to conjure an idea of Mississippi, but it is an idea K.R.I.T. distills from many different sonic experiences in rural Mississippi, no one of which sounds like any of his “My Sub” tracks. Rural Mississippi is not a real place in the recordings of Big K.R.I.T., but the sonic environment he builds is a direct engagement with the real soundscapes—and the real politics of those soundscapes—that he has encountered over time. This holds true for the other examples included here. Whether it's the echoes-on-echoes-on-echoes in New Orleans bounce, the blunted bass in Miami Bass pirate radio, or the constant turnover of Atlanta trap, the music of the Dirty South is shaped by, responds to, and critiques the soundscapes of the places it comes from while simultaneously embedding itself into those places as part of the soundscape. To listen to the Dirty South as a politicized environment requires the imagination to hear beyond the boundaries of what counts as natural. In part, this involves understanding cities and other built environments as existing within—not just in opposition to—nature. As theorists like Braidotti, Chakrabarty, and Prashad have demonstrated by linking environmental degradation to discourses of race, gender, and class, this kind of listening also involves hearing “outside our present conception of what it is to be human.”²⁵ In “Welcome,” our earwitness accounts of Dirty South soundscapes required us to tune our ears—our “listening ears,” to use Stoever's term—in the hopes of uncovering sonic politics otherwise hidden in the mix.²⁶

24. Schafer, *The Soundscape*, 3-4; Jennifer Stoever, “Reproducing US Citizenship in *Blackboard Jungle*: Race, Cold War Liberalism, and the Tape Recorder,” *American Quarterly* 63 no. 3 (2011).

25. Sylvia Wynter, interview with David Scott in “The Re-Enchantment of Humanism,” 136.

26. Stoever, “Reproducing US Citizenship in *Blackboard Jungle*,” 783.

Appendix

MUS 495—Special Topics: Welcome to the Dirty South

Overview and Method: MUS 495 is a special topics course that, in this iteration, explores the music of the Dirty South. Southern rappers and producers have ruled the hip-hop and pop charts since the turn of the century, and their roots push deeper than that. We'll take a regional approach to Southern hip-hop this semester, moving through Houston, New Orleans, Miami, Atlanta, Virginia Beach, Memphis, and Mississippi. We'll also keep our ears open to sounds outside the geography of the US South to hear how nearly two decades of mainstream play have spread the sound of the Dirty South to other regions and genres. We'll be guided more by sonic aesthetics than by chronology, more by gender and race politics than discourses of authenticity or respectability. Over the course of the semester, we'll work toward the following goals:

- 1). Students will become familiar with the sub-regional sounds of Southern hip-hop through extensive listening, complicating any notion of a monolithic South.
- 2). Students will develop a vocabulary for analyzing and describing the music of the Dirty South with an ear toward drawing comparisons across regions and genres.
- 3). Students will be able to articulate ways that gender, race, and class politics present themselves in the sound, lyrics, and images of the Dirty South.
- 4). Students will actively contribute to and periodically lead the class in discussion of the assigned material.

These objectives intersect with the following Popular Music Studies degree learning outcomes:

- 1). Analyze both the musical and technological elements of music. Compare stylistic elements of composition and production across a variety of popular genres.
- 2). Convey music analysis through writing and conversation to experts and non-experts in an accessible manner, demonstrating a familiarity with technical language as well as an ability to translate technical language into understandable terms.
- 3). Contextualize music analysis within the broader histories, cultures, and

politics of popular music styles and genres. Pull from multiple disciplinary perspectives to best understand and explain popular music in context.

Required Text: We have no single textbook for the course. We'll read articles and chapters that are available online and through the university library.

You'll need a subscription to Spotify for this course. I'll post a playlist there that we'll add to and listen to each week. Students can subscribe to Spotify for \$5/month if you don't want the free version.

Week 1

Introductions, Syllabus, Listening

Week 2—Houston

Read: Regina Bradley, "I Been On: Baddie Bey and Beyoncé's Sonic Masculinity," *Sounding Out!* 22 September 2014.

Aisha Durham, "Beyoncé, Southern Booty, and Black Femininities in Music Video," *Feminist Media Studies* 12:1 (2012): 35-49.

Listen: DJ Screw, UGK, Geto Boys, Chamillionaire, Beyoncé, Jibbs, Travi\$ Scott, Mike Jones, Paul Wall, Slim Thug, Riff Raff, Drastik (Austin), Mike Dean

Week 3—New Orleans

Read: Nadia Ellis, "New Orleans and Kingston: A Beginning, A Recurrence," *Journal of Popular Music Studies* 27:4 (2015): 387-407.

Tryon P Woods, "'Beat it Like a Cop': The Erotic Cultural Politics of Punishment in the Era of Postracialism," *Social Text* 31:1 (2013): 21-41.

Listen: Lil Wayne, Kevin Gates (Baton Rouge), Big Freedia, Boozy Badass, Juvenile, Master P, Mystikal, Birdman, Mannie Fresh, N.O. Joe

Week 4—Miami

Read: Regina Bradley, "I Like the Way You Rhyme, Boy: Hip-hop Sensibility and Racial Trauma in Django Unchained," *Sounding Out!* (28 January 2013).

Regina Bradley, "To Sir, With Ratchety Love: Listening to the (Dis)Respectability Politics of Rachel Jeantel," *Sounding Out!* (1 July 2013).

David Font-Navarette, "Bass 101: Miami, Rio, and the Global Music South," *Journal of Popular Music Studies* 27:4 (2015): 488-517.

Listen: 2 Live Crew, Jock Jamz, Diplo's Favela on Blast, Trina, Trick Daddy, DJ Khaled, Flo Rida, Pitbull, Rick Ross, J.U.S.T.I.C.E. League (Tampa), Jim Jonsin, Ace Hood, Infamous, Plies, StreeRunner

Week 5—ATL

Read: Kemi Adeyemi, "Straight Leanin': Sounding Black Life at the Intersection of Hip-hop and Pharmaceuticals," *Sounding Out!* (21 September 2015).

Zandria Robinson, "Honeybabychickeecheile: Honey Boo Boo Fierce and the Language of Race and Region," *New South Negress*.

Listen: Outkast, I Love Makonnen, T-Pain (Tallahassee), Bone Crusher, 2 Chainz/Playaz Circle, Goodie Mob, Future, Migos, Young Thug, Organized Noize, Metro Boomin, Young Jeezy, Maestro

Week 6—More ATL

Read: Zandria Robinson, "Givin Em What They Love: Janelle Monae and the Sonic Aesthetics of Black Womanhood," *New South Negress*.

Zandria Robinson, "What's More Special Than Gold? 'Hustle & Flow,' Trinidad James, and the Southern Gold Standard," *New South Negress*.

Listen for 3/3: Lil Jon, Ying Yang Twins, TI, TLC, Rich Homie Quan, Pastor Troy, Ludacris, Killer Mike, Usher, Gucci Mane, Trinidad Jame\$, Janelle Monae, Bangladesh (Iowa), Mr DJ, Shawty Redd, Midnight Black, Dead Prez (Tallahassee), Mike Will Made It

Week 7—Noisey Atlanta

Week 8—Virginia Beach

Read for 3/22: Steven Shaviro, "Supa Dupa Fly: Black Women as Cyborgs in Hip-hop Videos," *Quarterly Review of Film & Video* 22:2 (2005): 169-79.

Alison Pezanoski-Browne, "Black to the Future: How Women in Pop are Carrying the Mantle of Afrofuturism," *Bitch Media* (16 February 2014).

Dale Chapman, "That Ill, Tight Sound: Telepresence and Biopolitics in Post-Timbaland Rap Production," *Journal of the Society for American Music* 2:2 (2008): 155-75.

Listen: Missy Elliott, Timbaland, Pharrell/Neptunes/NERD, Clipse/Pusha T, Wale (DC), Chris Brown, Benny Blanco, Lex Luger, Danja, The Inkredibles

Week 9—Memphis

Read for 3/29: Regina Bradley, “The (Magic) Upper Room: Sonic Pleasure Politics in Southern Hip-hop,” *Sounding Out!* (16 June 2014).

Zandria Robinson, “Pioneer Up in This Bitch: Gangsta Boo & Feminist Histroriographies of Rap,” *New South Negress*.

Zandria Robinson, “Drake Plays the Blues: ‘Down South’ and the Black Imaginary in ‘Worst Behavior,’” *New South Negress*.

Listen: 8Ball & MJG, T-Mix, Yo Gotti, Three 6 Mafia/Juicy J, Gangsta Boo, Drumma Boy, Jazze Pha, Project Pat, Justin Timberlake

Week 10—Mississippi/NC/TN/KY/AL/StL

Read: Zandria Robinson, “Mississippi Prometheus: Big K.R.I.T. and the Southern Black/Rap Snapback,” *New South Negress* (21 May 2014).

Ali Colleen Neff, *Let the World Listen Right: The Mississippi Delta Hip-Hop Story*. Jackson: University of Mississippi Press, 2009: 141-68.

Listen: David Banner, Big K.R.I.T., Petey Pablo, Starlito, Nappy Roots, Rich Boy, Rae Sremmurd, St Lunatics

Week 11—Beyond the US South

Read: Adrienne Brown, “Drive Slow: Rehearing Hip-hop Automotivity,” *Journal of Popular Music Studies* 24:3 (2012): 265-75.

Doreen St. Felix, “The Prosperity Gospel of Rihanna,” *Pitchfork* (1 April 2015).

Listen: Rihanna, Nicki Minaj, Drake, DJ Mustard, E-40, Tyga, YG, A\$AP, Fetty Wap

Week 12—Beyond the US South

Read: Justin D Burton and Ali Colleen Neff, “Sounding Global Southernness,” *Journal of Popular Music Studies* 27:4 (2015): 381-86.

Christina Giacona, “A Tribe Called Red Remixes Sonic Stereotypes,” *Sounding Out!* 13 (February 2014)

Listen: A Tribe Called Red, TNGHT, Yogi, Rockwell, Iggy Azalea, Alison Wonderland

Week 13—Final Project Presentations

Making and Learning with Environmental Sound: Maker Culture, Ecomusicology, and the Digital Humanities in Music History Pedagogy

KATE GALLOWAY, WESLEYAN UNIVERSITY

How can we use digital media in music history research and our teaching to tell stories, create visual art, perform stage works, and compose music about ecologies of climate change, and other pressing global environmental issues in the twenty-first century in a way that reaches everyone? The adoption of digital humanities methods, tools, and values by ecomusicology is one potential answer to this question. As Yi-Fu Tuan suggests, when humans give meaning to spaces, places come into being.¹ Tuan recognized that there is “an important distinction between the passive and active modes of experience: the sensations of the passive mode are locked inside individuals and have no public existence.”² We come to understand places through their spatiality and the relationships we forge with their human and nonhuman sensorial (including musical) content. We come to understand environments—their soundscapes and the environmental issues that shape them, as well as the music used to represent those environments—through acts of collective listening and making sound using recording technologies.

To facilitate project-based learning, the classroom becomes a community maker space, one in which connections are made among people, ideas, and made things, and one that is informed by collective critical thinking about these connections.³ Makerspaces are “informal sites for creative production in art, science, and engineering where people of all ages blend digital and physical

1. Yi-Fu Tuan, *Space and Place: The Perspective of Experience* (Minneapolis: University of Minnesota Press, 1977).

2. Yi-Fu Tuan, “Place: An Experiential Perspective,” *Geographical Review* 65, no. 2 (1975): 152.

3. Dale Dougherty, “The Maker Movement,” *Innovations* 7, no. 3 (2012): 11–14; and Jentery Sayers, “Tinker-centric Pedagogy in Literature and Language Classrooms,” in *Collaborative Approaches to the Digital in English Studies*, ed. Laura McGrath (Logan, UT: Computers and Composition Digital Press, 2011), 279–300.

technologies to explore ideas, learn technical skills, and create new products.”⁴ Maker culture promotes open innovation, sharing, exchange, versioning, and critical creativity in a learning environment where members participate in both digital making and traditional analog crafts and do-it-yourself resources.⁵ This process of creating knowledge and understanding through hands-on creation adopts principles of design thinking in higher education. Design methodology involves a scaffolded and repeated sequence of identifying a problem, drafting ideas and approaches, creating a product, experimenting with and reflecting on the product to determine whether it provides an answer to the research question, and revising where necessary.⁶ The application of maker culture to the teaching of music history is another way of fostering experiential object-based learning, where students understand the materiality and processes of music through creation and direct interaction with objects, technologies, and sounds.

The concept of the digital humanities has been in circulation through North American academic institutions for more than a decade now. Digital humanities is an area of scholarly activity at the intersection of digital technologies and the disciplines of the humanities. It can be defined as a new way of doing scholarship using digital formats and methods that involve collaborative, transdisciplinary, and computationally engaged research; teaching; and publishing. Its impact on disciplines such as literary studies has been profound, and scholars in other humanities fields (such as history, anthropology, gender studies, indigenous studies, theater, ethnomusicology and musicology) are beginning to explore what the digital humanities can offer.⁷ And yet sound studies, musicology, and ethnomusicology have not had a pronounced impact

4. Kimberly Sheridan, Erica Rosenfeld Halverson, Breanne Litts, Lisa Brahms, Lynette Jacobs-Priebe, and Trevor Owens, “Learning in the Making: A Comparative Case Study of Three Makerspaces,” *Harvard Educational Review* 84, no. 4 (2014): 505.

5. See Alex Christie, Jana Miller Usiskin, Jentery Sayers, and Kathryn Tanigawa, “Introduction: Digital Humanities, Public Humanities,” *NANO: New American Notes Online* 4 (2014), accessed September 15, 2017, <https://nanocrit.com/issues/issue5/introduction-digital-humanities-public-humanities>; Sheridan et al., “Learning in the Making,” 505–531; and Dale Dougherty, “The Maker Movement,” *Innovations* 7, no. 3 (2012): 11–14.

6. Nigel Cross, *Design Thinking: Understanding How Designers Think and Work* (Oxford: Berg Publishers, 2011).

7. The Digital Humanities Summer Institute (DHSI) at the University of Victoria has recently included new curriculum opportunities in their catalogue of intensive summer week-long courses, including Feminist Digital Humanities: Theoretical, Social, and Material Engagements; Digital Storytelling; Digital Indigeneity; Palpability and Wearable Computing; and Sounds and Digital Humanities. For further information on DHSI training and course offerings, see <http://www.dhsi.org>. Other partnering DHSI institutes and conference workshops affiliated with DHSI include DH@Guelph, DH@Leipzig, DH@Oxford, and the conference workshops DHSI@Congress and DHSI@MLA, among others. DH@Oxford is the only institute that offers a course geared specifically to musicologists and ethnomusicologists, Digital Musicology, first offered in summer 2015.

on the digital humanities. In those fields, the digital humanities continues to be astonishingly silent. Soundwork, however, is gradually being incorporated into digital humanities training and scholarship. By soundwork, I refer not only to academic writings concerned with sound, but also to the practice of using and analyzing sound in varying ways to make digital objects that readers can interact with—even hear—rather than simply reading music scholarship on the pages of an academic journal. Above all, the digital humanities promote open-access scholarship, ensuring that research findings are accessible across varied social, economic, geographic, and education demographics. Often this soundwork involves both the creation of born-digital research materials, such as making an MP3 field recording of a mockingbird’s call, or the digitization of analog materials.

As evidenced by the numerous job calls for applicants with digital humanities training and collaborative funding opportunities that intersect with digital humanities, the opening of digital humanities centers, and the creation of maker spaces on campuses that bridge the university and the community, the field of digital humanities is increasingly important in academia. Many scholars, moreover, are also overwhelmed by the breadth of the field when trying to decipher what form a digital humanities-informed approach to music history should take. What can the digital humanities offer music history and, specifically, ecomusicology research and pedagogy?

The digital humanities can vary academic modes of communication. In ecomusicology, we can use the tools, methods, and values of the digital humanities to vary how we communicate music history to our students, our colleagues, and the public.⁸ Most importantly, digital humanities methods and modes of presentation expand our audience to include not only academics, but also those who are dealing first-hand with climate change, poor ecosystem health, and environmental degradation.

Digital humanities tools and methods can also assist those working in ecomusicology, as well as scholars interested in the geospatial analysis of music—the study of soundscapes and artistic renderings of environmental conditions and events. The archive is a central concept to the digital humanities and sound studies. We can archive and tell the stories of places and music inspired by those environments through forms of digital storytelling, using a combination of sound, digital editing and recording methods, and the multisensory experiences of ethnographic fieldwork to evocatively narrate music history.⁹ Digital

8. My approach to music history pedagogy is one in which the fields of historical musicology and ethnomusicology and the techniques of historical and ethnographic methodologies are folded together.

9. See also Veit Erlmann, “But What of the Ethnographic Ear? Anthropology, Sound, and the Senses,” in *Hearing Cultures: Essays on Sound, Listening and Modernity*, ed. Veit Erlmann (Oxford: Berg Publishers, 2004), 1-20.

storytelling can take a variety of forms, including audio recorded soundwalks, multi-modal sound maps, and digital radio and audio documentary, providing “new opportunities for humanities scholarship and teaching, especially with regard to critical thinking, communication, digital literacy, and civic engagement.”¹⁰ For music historians, music, its material culture, and other forms of aural culture such as oral histories are already regarded as valuable materials to archive. However, the less-valued, ubiquitous, and ephemeral sounds of the everyday are less frequently recorded and granted archival space.

This essay sketches out some of the ways scholars of music history, specifically those interested in issues of place, environmental politics, and the geospatial analysis of music, can have a sustained engagement with the digital humanities. This essay is informed by my experiences designing and implementing assignments where students directly make and work with the sounds connected to place. It also draws from developing digital objects for my research addressing how sound technology is used by artists of experimental music and popular music to remix, reuse, and remediate climate change information, soundscape field recordings, and environmentalism discourse. Drawing on evidence from project-based learning incorporated into my seminar *Music, Sound, and the Environment in the Anthropocene*, I illustrate that by treating assignments and seminar meetings as research-creation components of a digital media workshop, students put into practice the ideas and concepts from readings by making with sound and come to an understanding of how the sonic environment operates in their everyday experience.¹¹ Students become what Tara McPherson calls “hybrid practitioners,” taking on roles in different forms, including “artist-theorists, programming humanist, activist scholars, critical race coders,” entangling traditional, public, and digital humanities work.¹² By working with environmental sound and music directly and creatively, students learn how technologies and participatory approaches can be used to convey narratives and social activism, illustrating the importance of embodied knowledge to musicological scholarship.

By incorporating tools, methods, and perspectives from the digital humanities, music history pedagogy can foster experiential, process-based learning

10. John F. Barber, “Digital Storytelling: New Opportunities for Humanities Scholarship and Pedagogy,” *Cogent Arts & Humanities* 3, no. 1 (2016): 2.

11. This seminar was first offered at Wesleyan University during the Spring 2017 semester and cross-listed between the Department of Music and the College of the Environment. Enrollment was capped at eighteen students with junior or senior standing, while students with alternate standing were admitted by permission of the instructor. The course incorporated pedagogical materials and ideas that I first developed during the 2015 Digital Humanities Summer Institute (DHSI) held annually at the University of Victoria (see Appendix A).

12. Tara McPherson, “Why Are the Digital Humanities So White? or Thinking the Histories of Race and Computation,” in *Debates in the Digital Humanities*, ed. Matthew K. Gold (Minneapolis: University of Minnesota Press, 2012), 154.

through making and experimenting with sound. I explore two approaches to geospatial musical analysis that use digital media to illustrate how methods, tools, and values developed in the digital humanities inform a multisensory understanding of music history topics, particularly in ecomusicology. I will also detail some of the possible applications of digital humanities practice and theory in music history pedagogy, such as addressing the intersections of music, sound, culture, and the environment. I use an ethnographer's perspective in this article by presenting a selection of the digital methods and tools that I have brought to my own work at the intersections of music, site-specific performance, and the geospatial analysis of music, specifically my research concerning R. Murray Schafer's *Patria* cycle and the St. John's Sound Symposium's *Harbour Symphony* series.

The applications of the digital humanities that I reference in this article can extend beyond ecomusicology to music history pedagogy. As an advocate for digital scholarship I argue that the digital platforms, tools, and spaces developed by digital humanists afford scholars alternative communication formats and research environments. For musicologists and ethnomusicologists, this means an unprecedented array of methods and tools to analyze, remediate, and exhibit the diverse sonic environments and sounds of research materials previously qualified as ephemeral sonic artifacts.¹³

Although I have applied these digital methodologies to pedagogy and research in ecomusicology, they have broad applications across all areas of musicology, ethnomusicology, and sound studies. Digital literacy is more than just learning how to code, build a website, or use Twitter. In music history pedagogy, we must integrate digital literacy and digital humanities methods and values through the use of research-creation projects as we explore what digital humanities has to offer music history.

Sound studies and music history benefit from multimodal formats of presentation. By augmenting our text-based works (e.g., articles, books, dissertations, and the like) with multimodal digital objects, our readers more fully experience the sensory worlds of the communities and practices portrayed. Music history and sound studies critically engage with the production, performance, circulation, and reception of diverse sound cultures and practices. Yet scholars are not acquiring digital humanities training on a regular basis. One

13. In my courses, I have used the following large-scale digital humanities projects of note that address the curation and historiography of sound, music, and performance cultures: Emily Thompson's *The Roaring Twenties*, <http://vectorsdev.usc.edu/NYCsound/777b.html>; Louis Epstein's *Mapping the Sounds of 1920s Paris*, <https://pages.stolaf.edu/musicalgeography/>; Duke University's *NC Jukebox*, <http://dukewired.net/ncjukebox/exhibits/show/ncjukebox/fcb-overview>; *Provoke! Digital Sound Studies*, <http://soundboxproject.com/index.html>; and Ryan Bañagale, Idris Goodwin, and Steve Hayward's *Critical Karaoke* at Colorado College, <http://www.criticalkaraoke.com/>, among others.

way to rectify this shortage of digital humanities soundwork is through the use of open-access sound maps to audiovisually model our scholarship for our readers' ears.¹⁴ Sound maps, soundwalk recordings, sound collages, and other digital objects are potent pedagogical tools. Used in this manner, the production of these objects can stimulate practice-based learning focused on the development of digital literacy, critical media studies, and deep engagement with the material and aural practices of working with and making sound. In my own research and teaching in ecomusicology, I see the creation of digital objects as an opportunity for community outreach and research engagement outside the academy. Indeed, through sustained digital humanities training, such community outreach has become an essential part of my scholarship. Creating and presenting in alternative formats allows me to reach a wide audience outside of the academy.

When I first began to incorporate the digital humanities into my research and teaching, I realized that environmental soundwork has an important place in digital pedagogy. Digitization has enabled the environmental humanities to communicate information concerning the relationships among society, the human and nonhuman environment, and culture in alternative, often multimodal formats. Indeed, the newly digitized environmental humanities may provide solutions for some of our most pressing problems. For instance, environmental and energy issues have received sustained attention in varied forms of cultural expression, which could include music compositions that incorporate sounds from the environment or projects that map perceivable changes in the composition of regional soundscapes.

The scarcity of sustained digital humanities soundwork could be attributed to the tendency for scholars who do not specialize in music and sound studies to perceive themselves as "deficient in" the necessary technical vocabulary and scholarly tools to critically engage with aestheticized sound. In their introduction to *Sound Clash: Listening to American Studies*, Kara Keeling and Josh Kun point out that the "increase in scholarly attention to sonic phenomena is [...] perhaps attributable to more recent, turn of the twenty-first century innovations

14. A sound map is a digital geographic map that places emphasis on the sonic representation of a location. It associates the individual features of a location (e.g., schools, stores, pathways, lakes, botanical garden, transportation systems) with their representative sounds and the overall soundscape of the place. Sound mapping involves the association of landmarks and soundscapes. Sound maps can also, for example, model geographic data applying to a composer's biography, music genres, the performance and reception history of a composition, and networks of musicians and composers in a city. Louis Epstein's *The Musical Geography of 1920s* (<http://pages.stolaf.edu/musicalgeography>) is an excellent example of the latter form of a sound map and was awarded the 2016 American Musicological Society (AMS) Teaching Award honoring an exceptional pedagogical resource for musicology.

in audio technology and new media practices.”¹⁵ A number of humanist scholars participating in the 2015 class of “*Sound of/in Digital Humanities*” at DHSI, who also work outside the fields of music history and sound studies, disclosed that they are more comfortable discussing “everyday sound” rather than “music.”¹⁶

I have adopted design thinking and maker culture into my music history pedagogy to transform seminars into learning spaces that promote critical thinking, versioning, discovery, and making connections to everyday life. These instances of maker culture digital storytelling addressing relationships among music, sound, culture, and the environment can be adapted to other subject matter in music history pedagogy as well. Jentery Sayers observes that collaboration, digital media, and making and tinkering are not ubiquitous in English studies (aside from those with digital humanities initiatives), therefore “embracing tinkering’s inexpert, tactical, and situational experimentation lends itself well to introducing students of literature and language to otherwise unfamiliar modes of learning.”¹⁷ I argue that Sayers’ argument applies across the humanities and the visual and performing arts. As digital media becomes more common in today’s reading, writing, performance, outreach, and researching practices, acts of making, tinkering, and explorative play with analog and digital technology, especially sound technologies, are a valuable inclusion to the graduate and undergraduate music history classroom. Students learn that media and technologies are not neutral apolitical tools.

The Making and Sharing of Sonic Research

Maker culture is a form of public humanities work. Through acts of bringing people together to create, experiment with, and reconsider environmental sound and music, collective making in the music history classroom encourages students to think through the social, cultural, geospatial, and historical significance of music and everyday sound. This process also can involve working directly with the technologies, texts, and artifacts related to music making and listening cultures. “Even when texts are treated more like physical objects for hands-on engagement (e.g., during archival research or in textual studies),” Jentery Sayers explains, “that engagement must be incredibly careful and methodical, especially if rare books, incunabula, or other such artifacts are

15. Kara Keeling and Josh Kun, “Introduction,” in *Soundclash: Listening to American Studies*, ed. Kara Keeling and Josh Kun (Baltimore: John Hopkins University Press, 2012), 3.

16. Group Workshop Discussion on sounds and the digital humanities at the University of Victoria Digital Humanities Summer Institute (DHSI), June 10, 2017.

17. Sayers, “Tinker-centric Pedagogy in Literature and Language Classrooms,” 279.

involved.”¹⁸ In ecomusicology, studying and making music, everyday sound, and soundscapes through new media helps us understand through embodied experience the mechanics, politics, and cultural significance of the relationships among sound, music, nature, and culture.

The making of digital objects that circulate in an open-access format and often contain research materials contributed by a research collective rather than an individual researcher is a form of social knowledge creation. Digital humanities knowledge creation takes on a variety of forms, including archival representation and textual editing, interpretive theory and criticism, and protocols of knowledge construction and communication—all using computational and digital tools and techniques.¹⁹ As a field based in both theory and practice, the digital humanities continues to develop tools, methods, and theories to address issues concerning the remediation of humanistic research materials, the analysis originating in those materials, and the communication of the results of research-creation.

As twenty-first century scholars question how they can make their research more readily accessible, the digital humanities is developing multimodal and collaborative methods to communicate open-access research. This groundbreaking work is taking place in two emergent areas of the digital humanities: Critical Making and Social Knowledge Creation (SKC). These subfields promote experimental forms of knowledge creation and circulation that promote interdisciplinary exchange, collaboration, and research-creation. Scholars in these subfields are also performing critical interventions with traditional formats of scholarly knowledge transfer.²⁰ Critical making, in particular, uses design thinking and hands-on projects to connect digital technologies with society to answer humanist research questions through processes of experimentation

18. Jentery Sayers, “Tinker-centric Pedagogy in Literature and Language Classrooms,” 279.

19. For an exhaustive online registry of digital research tools for scholarly use (both open-access and with paid subscription) see *Digital Research Tools (DIRT)*, <http://dirtdirectory.org>.

20. See for further information Alyssa Arbuckle et al., “Social Knowledge Creation: Three Annotated Bibliographies,” *Scholarly and Research Communication* 5, no. 2 (2014), available at: <http://src-online.ca/index.php/src/article/view/150/299>, accessed 1 August 2016; Alyssa Arbuckle, Alex Christie, ETCL Research Group, INKE Research Group, and MVP Research Group, “Intersections Between Social Knowledge Creation and Critical Making,” *Scholarly and Research Communication* 6, no. 3 (2015): 1-13; William R. Bowen, Matthew Hiebert, and Constance Crompton, “Iter Community: Prototyping an Environment for Social Knowledge Creation and Communication,” *Scholarly and Research Communication* 5, no. 4 (2014); Matthew Hiebert, William R. Bowen, and Raymond Siemens, “Implementing a Social Knowledge Creation Environment,” *Scholarly and Research Communication* 6, no. 3 (2015): 1-9; and Ray Siemens and Jentery Sayers, “Toward Problem-based Modelling in the Digital Humanities,” in *Humanities and the Digital*, ed. Patrik Svensson and David Theo Goldberg (Cambridge, MA: MIT Press, 2015), 145-63.

and the creation of material digital objects. It is a research-creation approach that incorporates physical and conceptual exploration. These two experiential forms of knowledge creation could, for example, take the form of peer-reviewed open-access publication platforms that support multimedia scholarship as an alternative to print-only and paywall-controlled journals; a DIY hand-crafted zine that critically reflects on the interconnections among technology, society, and the environment; or building small sound producing electronics using contact microphones and sensors that produce sound in respond to small movements of the body.

By bringing ecomusicology into the broader fields of the environmental humanities and digital humanities, scholars can use multisensory modes of communication to tell stories in order to converse with the public about aural culture, environments, and environmental issues. Digital storytelling methods that use sound and music can be used to craft narratives about sonic environments, performance spaces, and how audiences and composers listen to and understand music inspired by place and environmental issues. In many cases, digital storytelling projects are collaboratively produced, generating knowledge that is socially created and intended to extend scholarly outreach to those directly dealing with the consequences of environmental change.

Taking as our starting point Karin Bijsterveld's observation in the introduction to *Soundscapes of the Urban Past* that any study of urban sounds before 1900 must engage with the question of how sounds are staged, sound studies is not so much the study of sound as the study of a "*mediated* cultural heritage of sound."²¹ The same can be said for curated and exhibited digital humanities soundwork, as sonic content moves from one environment to another, and is remediated (or staged, to use Bijsterveld's term) in a digital environment. Even born-digital sound takes on new form and meaning when recontextualized alongside other media in multimodal digital humanities projects. The sound, for example a recording of a lake, in conjunction with the image forms an associative relationship, sound = image, through knowledge and memory. When the sound is in opposition to the image, the sound of a lake in a war movie, sound \neq image, it forms a dissociative relationship and gives new meaning to the sound. Bijsterveld's approach can be adopted in digital ecomusicology projects. When environmental sound is remediated and curated in a digital environment, decontextualized from the non-aural connective tissues of place, these digital media texts and spaces become valuable sites for what Bijsterveld refers to as the "dramatization of sound."²² The sounds of our digital ecomusicology projects are mediated, and recording and listening technology connect

21. Karin Bijsterveld, "Introduction," in *Soundscapes of the Urban Past: Staged Sound as Mediated Cultural Heritage*, ed. Karin Bijsterveld (Bielefeld: transcript Verlag, 2014), 14.

22. Karin Bijsterveld, "Introduction," 14.

the actual sounds of the environment and a composer's mimetic musical representation of nature and the nonhuman to listeners' ears.

Soundwalking and Field Recording in Digital Ecomusicology Pedagogy

In my digital musicology practice I advocate for an exploratory and collaborative approach to sound through the "making" of digital ecomusicology objects. Although it is not conventionally defined as such, soundwalking is a form of social knowledge formation in which listeners individually and collectively make meaning about a place and its defining aural features. The research-creation practice of soundwalking does not mandate digital recording and mediation; however, by recording soundwalks, we can re-listen to place in detail and to the sounds we might have initially missed, examining how the microphone registers place differently than the human ear. According to Jonathan Sterne, the central challenge of sound studies is the need "to think across sounds, to consider sonic phenomena in relation to one another," crossing disciplinary boundary lines to engage with "alternative epistemologies, methods [and] approaches," and ultimately to "move beyond the academy to try and effect change in the world."²³ Soundwalking is situated uniquely as a method of teaching, research-creation, and community outreach grounded in sound studies and ecomusicology. Digital soundwalking can interrogate our technologized interactions with sound and place when recorded soundscapes are analyzed and then communicated through research or community soundwalk activities.

Audio projects informed by critical making, such as the creation and curation of field recordings, sound collages of remixed found sounds, and recorded soundwalks, embed humanities values and methodologies into technologies and position "research production within an ongoing and interactive process and public engagement."²⁴ The making of digital objects is intentionally iterative and values process, versioning, and revision as researchers understand the intricacies of their research objects. Through versioning, experimentation, and productive failure, researchers learn from what did not work as well as what immediately did work, rather than solely privileging the final product. By taking such an approach, scholars experiment with and work through different versions of their research to produce meaning and understanding.

Hildegard Westerkamp, a founding member of the World Soundscape Project and an early proponent of soundwalking and soundscape composition,

23. Jonathan Sterne, "Sonic Imaginations," in *The Sound Studies Reader*, ed. Jonathan Sterne (New York: Routledge, 2012), 3-4.

24. Arbuckle, Alyssa, Alex Christie, ETCL Research Group, INKE Research Group, and MVP Research Group, "Intersections Between Social Knowledge Creation and Critical Making," *Scholarly and Research Communication* 6, no. 3 (2015): 5.

inclusively positions a soundwalk as “any excursion whose main purpose is listening to the environment. It is exposing our ears to every sound around us no matter where we are.”²⁵ Westerkamp frequently uses her soundwalk field recordings in her soundscape compositions, as heard in *Kits Beach Soundwalk* (1989). Andra McCartney further situates soundwalking as a “creative and research practice that involves listening and sometimes recording while moving through a place at a walking pace. Soundwalking, whether conducted solo or in a group, is concerned with the relationship between soundwalkers and their surrounding sonic environment.”²⁶ McCartney prefers to record her soundwalks and the community discussions she hosts following her group soundwalks using binaural stereo microphones affixed to her head adjacent to her ears.

I argue that soundwalking is a maker practice. It is a method of integrating the study of sound and music into the digital humanities and incorporating digital humanities into the narratives of the history of electroacoustic music composition taught in the music history classroom. She contributes sound to the acoustic environment as her body occupies space and listens to its surroundings, and she creates audio archival documents that record these aural and physical encounters.

In my teaching I experiment with multimodal assignments where students work directly with live and recorded sound to augment print-based forms of scholarship. I have designed digital soundwork assignments for two courses: *Music, Sound, and the Environment in the Anthropocene* and *Music, Technology, and Critical Geography* (see Appendix A for two sample digital audio assignments that combine digital technology, environmental sound, and ecomusicology). As Joanna Demers explains, “audio footage ties a soundscape composition to the ecological, social, historical, or cultural dynamics of a specific location, which both personalizes and politicizes the act of listening.”²⁷ In these seminars, students use digital humanities training to develop communication strategies to convey sound studies and music history research to a broader audience by using different media, and they additionally consider the political stakes in producing research intended for public use.²⁸

25. Hildegard Westerkamp, “Soundwalking,” in *Autumn Leaves, Sound and the Environment in Artistic Practice*, ed. Agnus Carlyle (Paris: Double Entendre: 2007), 49.

26. Andra McCartney, “Soundwalking: Creating Moving Environmental Sound Narratives,” in *The Oxford Handbook to Mobile Media Studies*, vol. 2, ed. Sumanth Gopinath and Jason Stanyek (Oxford: Oxford University Press: 2014), 212.

27. Joanna Demers, *Listening through the Noise: The Aesthetics of Experimental Electronic Music* (Oxford: Oxford University Press, 2010), 120.

28. Throughout the semester, students contribute to an open-access course webpage that archives and makes publically accessible all soundwork and digital scholarship created in the course.

The digital research-creation assignment guides students through the critical design, practice, and analysis of the intersectional relationships among movement, place, community, and everyday sound. Through the use of ubiquitous technology (e.g., iPhones) and immersive listening (e.g., earphones), the students and the public who later listen to the course's soundwork are encouraged to focus on sounds they might typically ignore. This digital audio soundwalk exercise and the accompanying pedagogical document inform the public (including the students) in embodied explorations of places and their soundscapes.

In these digital audio assignments, students are directed to use a digital audio recorder (or a similar device such as an iPhone outfitted with a good quality external microphone) to record and curate three soundwalks or sound collages (at least one of each). Each sound document must be approximately fifteen minutes in duration. Using Audacity, a free open-access audio recording and editing program suitable for beginners, students edit their field recordings. In the editing process, students add metadata describing the audiovisual details of the field recordings, route, and other supplementary commentary detailing the sounds and sensory information encountered on the soundwalk that may or may not be audible in the digital recording. They also provide a physical map of their route and recording locations. Students then upload their audio files to the course audio playlist platform account page (in this case I used SoundCloud in a high quality .WAV format and permitted public download of these files). Metadata entry fields in Audacity and other sound recording and editing programs are designed for the input of archival cataloguing information for popular music, and therefore include fields for artist, producer, song title, album title, and instrumentation, as well as an "other" field for uncategorized information. Much of the sound information that students include in their metadata will fall outside the purview of popular music cataloguing. This unconventional metadata includes ethnographic thick description, time code markers to identify notable sounds, sound sources, route, time of day, and physical and weather conditions. This information is entered into the "other" input field, and remains searchable by users.

By exhibiting soundwalks, sound collages, and digital radio soundwork on digital audio platforms like SoundCloud and by allowing public download, a broad audience of listeners has access to our sonic experiences of place. They can listen on location if they have access to the site where the sound recording was initially made, or they can listen to the recording off-site, imagining place through the author's aural prompts and the sounds highlighted through the approach to recording the soundscape. Open-access soundwalking documentation and compositions operate as a form of public humanities whereby the general public can listen to and interact with sound recordings that explore a

variety of natural and urban spaces from different physical, social, economic, aesthetic, and political perspectives.

One of the challenges that I encountered while workshopping these exercises at DHSI occurred when listeners who had not participated in the soundwalk listened to the resulting recordings. The soundscape is heard without visual reference, and the sounds are displaced from the things that produce them. For this reason, I revised the exercise, requesting recordists to visually document their recording locations using different focal lengths and photographic framing methods, photographing the sound sources that caught the attention of their ears during their soundwalk.

Future iterations of this digital audio assignment will incorporate personalized approaches to experiencing space through movement. Many of the available GPS mapping applications used can track human activity, but like many of the popular cardio fitness and driving apps, stop short and do not map all forms of human movement. GPS mobile media mapping applications are restrictive and can't track human movement in architectural structures. For example, the applications are not designed to track a soundwalker's path through the various floors and corridors of a mall or museum. They are not able to record a walk from the city street to the inside of buildings, through the many possible unofficial paths across a neighbor's lawn, or through a city park or conservation area. To map a walk that moves from a landscaped courtyard, through the hallways of a university building, into the student cafeteria, and back outside into a sports field, the field recordists must manipulate the map and its data to reflect their path through a combination of exterior and interior structures. I often turn to a combination of digital and hand drawn maps to present my geographic data in order to augment the experience of listening to soundwalks in my own research, until such time I can develop a custom designed soundwalk GPS mapping mobile media application.

In an age of ubiquitous digital online listening formats and platforms where active and close listening can suffer, how can we as digital pedagogues develop the listening skills of both our students and the general public? Publically available open-access audio documentaries, whether in the format of a digital radio program, podcast, recorded soundwalk, or sound art, encourage listeners and the students who create these digital objects to think about how audiences, publics, and listening are conceptualized and realized in relation to environments, as well as how society inscribes evident, often degradative, change upon these environments. The increase in listening to digital audio and listening in virtual spaces has led many skeptics to comment on the decline of the active listener through the rise of digital broadcasting. Challenging the skeptics of new media practices, David Kusek and Gerd Leonhard write that digital music invigorates and empowers listeners through its immediacy, proximity, accessibility, and

convenience.²⁹ Kusek and Leonhard suggest that “the digital distribution of music will gradually minimize the pay-for-product mentality that has dominated the music business for over a century, and technology may finally create some deeper empowerment for more of the involved parties.”³⁰ New media extends the reach and attends to the multisensory character of music history scholarship, and in particular to the ecomusicological subject matter, in the areas of analysis, synthesis, communication, and formal dissemination.³¹

Sound Maps and the Spatiality of Environmental Information

A clear intervention by the digital humanities into music history is in the geospatial analysis of music whereby humanities data and information addressing music, place, and geography is organized and remediated in sound maps. Environmental sound and music can be archived in a variety of forms, ranging from websites with publically accessible sound files and detailed databases to rich sound maps featuring geo-located sounds contributed by a community of listeners. Geospatial formats that organize sound data, model the spatial features of a performance event, and map performance venue and community locations and their site-specific information are all forms of research-creation that can be adapted by scholars interested in digital methods in ecomusicology. Geographic information refers in some way to a location on the earth’s surface and has both a spatial (where) and a thematic (what) component that communicate how things occur differently at different locations on the earth’s surface. It is necessary to explore the available open-source mapping software to see which mapping methods best suit a project’s data and research questions. Each program has strengths and limitations depending on the kind of humanities data available for analysis.

Digital mapping reveals a variety of ways that the spatial documentation of field recordings and performance events can be used to establish a sense of place for a digital audience. Soundwalks and field recordings made within the local community, as I discussed earlier in this essay, are just a few examples of

29. For further information see David Kusek, Gerd Leonhard, and Susan Gedutis Lindsay, *The Future of Music: Manifesto for the Digital Music Revolution* (Berkeley, CA: Berklee Press, 2005). This controversy about the liberation or dehumanizing effects of technology is an ongoing debate in the digital humanities circles and extends back to Walter Benjamin’s *The Work of Art in the Age of Mechanical Reproduction* (1935).

30. David Kusek, Gerd Leonhard, and Susan Gedutis Lindsay, *The Future of Music: Manifesto for the Digital Music Revolution* (Berkeley, CA: Berklee Press, 2005), 12.

31. See Ray Siemens, Meagan Timney, Cara Leitch, Corina Koolen, Alex Garnett, with the ETCL, INKE, and PKP Research Groups, “Toward Modeling the Social Edition: An Approach to Understanding the Electronic Scholarly Edition in the Context of New and Emerging Social Media,” *Literary and Linguistic Computing* 27, no. 4 (2012): 452.

how ecomusicology can be informed by geospatial analysis and sound mapping. An ideal community-based model is the launch of an open-access sound map featuring preliminary contributions from the members of a research team or students in a course, but after a period of development the map would be turned over to the community. At that point the community can not only listen to the sound map, but also contribute field recordings of their own. By opening sound maps up to public contributors, the sound map archives varied points of audition, recording locations and sounds collected using different qualities of recording equipment. By listening to and mapping place from multiple perspectives, sound maps archive how places and performances are heard and remembered. Static maps, however, even if accurate, serve only as historical snapshots and do not depict the dynamic reshaping of place that occurs over time and is documented in the aural histories of a region's community members. Dynamic, multimodal maps express the experiential and vagarious sensory information that defines a place. These maps might outline the shifts in the sonic profile of a region over time, show the social flows and networks of musicians engaged in eco-activist activity, or document the source location of field recordings used in a composer's soundscape composition.

Digital mapping provides many ways to document, analyze, and experience field recordings that communicate an understanding of place and soundscape. GIS, for example, facilitates the mapping of recording locations on a topographic map that includes vital information to the visualization and analysis of a landscape. This geographic information could include the gradation of the landscape or the historic urban planning of a city, which shape and are shaped by the soundscape of a certain time and place. However, these approaches to mapping aural culture do not provide users with a three-dimensional perspective of a listening position or the audio recording described in the text of an article, because sound files cannot be easily embedded into many GIS map platforms. The limitations of existing and accessible GIS software for sound mapping have led some projects to develop their own project platforms or to extend the reach of Google Maps.³²

In my research and pedagogy, I advocate for a move towards increased multimodal forms of presentation (for example, sound maps) as a potential solution to the current characteristic silence of the digital humanities that I referenced at the start of this essay. Much of my research involves the geospatial analysis of contemporary music, particularly experimental and popular music that addresses environmental and energy issues, remediates live and field recorded environmental sound, or is performed in an outdoor context (e.g., on a lake or in a forest). For many of these works, spatiality is important. My work

32. See for example the British Library's *UK Sound Map*, <http://sounds.bl.uk/sound-maps/uk-soundmap>, and *Cities and Memory*, <http://citiesandmemory.com/>.

in the digital humanities asks three principle questions: How can we document the spatiality of site-specific field recording and performance events through digital mapping practices? Will I be able to generate accurate representations of a particular performance space? How can digital mapping augment the geospatial analysis of my research and its public presentation?

Spatiality refers to the shaping characteristics of space and place, including, for example, topography, vegetation, weather conditions, and community populations. I examine how those spatial factors figure into the practice and theory of contemporary music and sound art. The central issue that digital humanists encounter in map creation is that much of the available mapping software is not designed for the types of data humanists use to model the complex relationships among space, place, and society. I have encountered these issues in my own research and teaching on the music dramas of R. Murray Schafer's *Patria* cycle (1966-), particularly *The Princess of the Stars* (1981/1986), which is staged on and around a wilderness lake.³³ I am exploring different sound mapping strategies for site-specific performance in order to analyze the relationships among site, environment, community, and performance in a single production; namely, the performances from the late summer/early autumn 2007 production on Bone Lake in the Haliburton Forest and Wildlife Reserve (Haliburton, Ontario, Canada). Conventional mapping software is unable to model the site-specific spatial and sonic characteristics of these ephemeral performance events and their environment.

In the geospatial analysis and presentation of music, digital tools proved useful for analyzing and understanding the spatiality of performance sites, the field recording practices of composers, networks of circulation, and compositional representations of environmental sound. Map creation augments ethnographic thick description and analytic text-based modes of communication, and can enhance discussions of music and place. My application of digital humanities mapping tools to my research and teaching in ecomusicology is an iterative process in a constant state of exploration and adaptation. I am currently using Google Maps and Google Earth in conjunction with Excel to organize my data sets of geolocated performance sites and recording location coordinates in CSV (comma-separated values) format.³⁴ In the future, I will also use the same data

33. See also Kate Galloway, "Roughing It in the Woods: Community and Emplaced Experience in the Cultural Practice of *Patria*," *MUSICultures* 39, no. 2 (2012): 30-60; and "Pathways and Pilgrimages: The In-Between Spaces in the *Patria* Cycle," *Intersections: Canadian Journal of Music/Intersections: Revue canadienne de musique* 28, no. 1 (2007): 139-50.

34. A CSV (comma-separated values) file format is a simple file format used to store tabular data, such as a spreadsheet or database. Files in the CSV format can be imported to and exported from programs that store data in tables, such as Microsoft Excel or OpenOffice Calc.

sets in ArcGIS.³⁵ The main disadvantages of ArcGIS are that it is not freeware, is costly, has a steep learning curve, and is only available for use on PCs. There is a web-based platform that serves as a useful alternative; however, the analytic toolkit of the web-based platform is not as extensive as the ArcGIS PC program. That is why I use the open-access GIS software package Quantum GIS (QGIS), which is available for both PC and Mac operating systems. GIS programs are used to create and use maps, analyze mapped information, compile and manage geographic data, share maps and geographic information, and use maps and geographic information in a range of spatial analysis applications.

I continue to explore other open-source mapping software that may better accommodate performance data and can be applied to small-scale localized maps (e.g., one lake vs. one country). I anticipate encountering a variety of challenges when I begin to visualize the geographic data I collected during my fieldwork on site-specific performance events and field recording. While mapping the 2007 production of *The Princess of the Stars* performed on and around Bone Lake in the Haliburton Forest and Wildlife Reserve, for example, I discovered that some performance location information is idiosyncratic, derived from personal field notes and interviews rather than conventional cartographic records or geographical information systems. These names and labels, which include the positions of each performer around Bone Lake, location of crew camping and production tents, and the regions of a city with colloquial names used by local residents, do not appear in conventional maps (e.g., Google Earth), and I must approximate the longitudinal and latitudinal coordinates from memory or by using a GPS tool to recreate specific performance positions that were not recorded at the time by the creative team.

I have also adopted digital humanities mapping methods as an analytic and presentation tool in my research on the St. John's Sound Symposium's *Harbour Symphony*.³⁶ I use sound maps to synthesize and organize my fieldwork conducted in 2012, 2014, and 2016 during the biannual event, which is held for one week in early July. The *Harbour Symphony* is a collection of site-specific works composed for the docked ships and performed in collaboration with the soundscape and landscape of the St. John's harbor. The *Harbour Symphony* was inaugurated in 1983 at the first Sound Symposium, an experimental music festival held throughout the provincial capital of St. John's, Newfoundland. Since its inception, numerous composers have created works that interpret the soundscape and landscape of St. John's harbour, particularly the distinct

35. ArcGIS is a geographic information system (GIS) PC program and web-based platform for working with maps and geographic information.

36. For further information on the *Harbour Symphony*, see Kate Galloway, "Materiality and Aural Memory in the *Harbour Symphony* (St. John's, Newfoundland)," *Sound Studies* 1, no. 1 (2015): 118-143.

soundmarks of the tugboats, trawlers, and ocean freighters. In my work on the *Harbour Symphony*, I use Google Maps to show my own physical (and auditory) position as a field recordist, listener, and performer. These sound map prototypes will serve as a research-creation model for future crowdsourced research (Figure 1).³⁷ Future versions of the *Harbour Symphony* sound map will feature an interface with one color-coded layer per composition, as multiple student and community member field recordists contribute recordings to the map, solicited using crowdsourcing methods.³⁸ Through the process of working on this project, students have learned strategies for recording and listening to environmental sound, and have gained insight into the ways that different geospatial conditions impact how we listen to and record performances. They have learned how to participate in an ethics of field recording by recording sensitively in public spaces, in order to avoid recording without consent the private conversations and activities of the public in the everyday spaces of performance.³⁹ Crowdsourcing field recordings and geographic data in future iterations of the *Harbour Symphony* map will lead to a more nuanced understanding of the geospatial relationships among the event, its performance space, and the community of listeners. We may, for instance, use different layers for each day or for each composition, although this is complicated by deviations in the performance schedule in which two compositions are performed in one day (at the discretion of the performance director Delf Hohmann and with the cooperation of the Port Authority). Research assistants will solicit crowdsourced recordings, and composers and performers participating in the Sound Symposium will be granted editorial control to map their personal listening practices and compositional intentions.

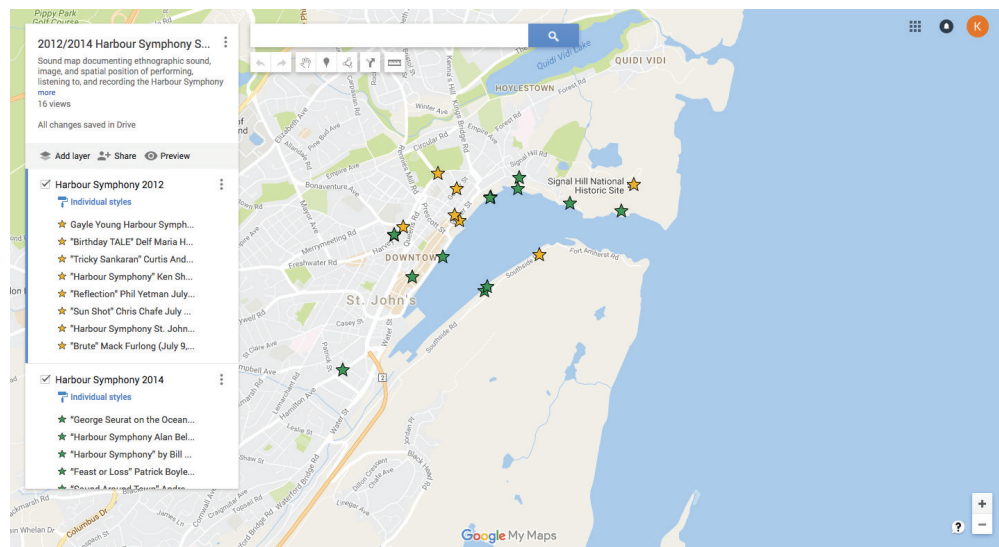
37. See https://www.google.com/maps/d/edit?mid=1UA5bgOhjfAXgmdcx1_uIC_gBudY for phase one of the iterative project “Sound Maps and the St. John’s *Harbour Symphony*,” which uses digital humanities methodologies and tools.

38. Crowdsourcing is a method of gathering and obtaining information and data by enlisting the services of a number of people, often the general public. Their contributions are either paid or unpaid, and typically solicited via the Internet, particularly social media. Crowdsourcing continues to be an asset to activist digital humanities projects and Science and Technology Studies (STS) citizen science initiatives as a research tool that directly interfaces with the general public on topics that impact their way of life, values and includes their voices in research findings, and gets everyday individuals involved in the collection and analysis of research data.

39. Before my class begins any field recording assignment, I assign articles by Andra McCartney in which she self-reflexively writes about her soundwalking and field recording practices in public spaces. See Andra McCartney, “Soundwalking: Creating Moving Environmental Sound Narratives,” in *The Oxford Handbook to Mobile Media Studies*, vol. 2, ed. Sumanth Gopinath and Jason Stanyek (Oxford: Oxford University Press: 2014), 212-237; and “Performing soundwalks for *Journées Sonores, canal de Lachine*,” in *Performing Nature: Explorations in Ecology and the Arts*, ed. Gabriella Giannachi and Nigel Stewart (Bern, Switzerland: Peter Lang, 2005), 217-234.

Sound maps are examples of how music history and sound studies can adopt multimodal methods from the digital humanities to express the aurality of music history to the academic community and the public. The text of an article can only express the spatial experience to a limited extent, even with detailed thick ethnographic description. A sound map, however, compiles and formats into a virtual image the listening practices of the public during the sound event; accompanying images provide a sense of topography and the local character of each site of audition. Sound mapping shapes how sound is encountered in the digital humanities, and by using digital sound mapping as an ethnographic method, an analytic research tool, and a teaching resource, music history can participate in the advancement of and future developments in the digital humanities.

Figure 1: 2012/2014 Harbour Symphony Sound Map (Image by Author)



Making and Telling Stories of an Environment

Ecomusicology and the digital humanities are interdisciplinary fields in constant dialogue with contemporary social issues. It might seem incongruous to use digital technology to tell stories about the environment and environmental change; however, digital media enriches how we present and disseminate our work. There is an ironic dissonance between the subject (an environmental message) and its technological mode of presentation that could potentially be exploitative. Many examples of composers addressing environmental and energy issues in their music use technology, for example, digital field recorders, SuperCollider, or Max/MSP, to collect and compose with human and nonhuman sounds. Those working in the environmental humanities need to move past a reductive approach to electronic technology as a cause of environmental harm, and instead realize that technology can be used in creative and affective

ways to communicate environmental issues and experiences. Digital resources can help us democratize our scholarship and make tremendous resources available at the touch of a button, obviating the need for extensive travel and thereby reducing the carbon footprint of our scholarship. By exploring forms of digital storytelling tools and methods both in the classroom and in recorded soundwalks, sound collages, and sound maps, new insight into narratives of environmental change can be presented to listeners directly impacted by contemporary environmental challenges.

One of the pioneering sound archive projects that influenced the proliferation of archival, creative, and scholarly sound research and soundwork in the digital humanities is the World Soundscape Project. Founded by R. Murray Schafer in the late 1960s at Simon Fraser University, the World Soundscape Project sought to record, analyze, and compile a comparative archive of field recordings of the soundscapes of Canada and Western Europe.⁴⁰ Since its inception, the interdisciplinary collective has faced the challenges associated with different recording formats and their material degradation. The sound collection has been transferred from magnetic reel-to-reel tape to Digital Audio Tape (DAT), and most recently from DAT to online digital audio MP3 files as the DAT recordings deteriorated.⁴¹ Sound scholars are seeking new ways to present the World Soundscape Project archive and make it publically accessible and relevant for public use. The researchers at the Simon Fraser University Sonic Research Studio, for example, continue to develop projects that archive the Vancouver Soundscape and document incremental changes in the sonic environment. They are applying visualization techniques, such as sound maps of the World Soundscape Project archive, to analyze and organize its content.⁴² Over the years this repository of sound files and field recording metadata has been used by soundscape composers like Hildegard Westerkamp, researchers from fields across the humanities and social sciences, and educators teaching modules on sonic citizenship, noise pollution, and the sonic environment.

Critical making with new media extends the reach of humanities scholarship, particularly “in areas of analysis, synthesis, communication, and formal

40. R. Murray Schafer, *The Tuning of the World* (Toronto: McClelland & Stewart, 1977).

41. See the website for the Sonic Arts Studio and World Soundscape Project archive at Simon Fraser University, <http://www.sfu.ca/sonic-studio/>.

42. See “mapping Audiovisual Vancouver,” a digital cartography project led by Randolph Jordan during his postdoctoral research at Simon Fraser University. Phase one of this project sought to plot the recording locations of the World Soundscape Project archive into Google Maps and interlink the relevant pages in the World Soundscape Project database (see <http://www.randolphjordan.com/schizophone/vancouver-soundscape-chronicles-mapping-the-wsp-archive/> and https://www.google.com/maps/d/viewer?ll=49.307441%2C-123.051682&spn=0.268168%2C0.517387&msa=0&iwloc=0004e22f3529ca2d57084&mid=1jldsIo6UwID-dnk_0Y8W973deqI)

dissemination.”⁴³ Critical making is a model of knowledge creation that integrates research, creation, dissemination through practices of doing and making things that are connected to, supplement, or *constitute* our scholarship. By approaching music history pedagogy and research from a digital humanities perspective, these methods can “facilitate a model of textual interaction and intervention that encourage us to see the scholarly text as a process rather than a product, and the initial, primary editor as a facilitator, rather than progenitor.”⁴⁴ As Arbuckle et al. propose, critical making “offers an opportunity to transform and recirculate research materials that figure into such [scholarly] publications, particularly in online environments.”⁴⁵ Critical making in ecomusicology takes the form of digital objects that communicate and are created from environmental information, field recordings, musical interpretations of an environment or environmental phenomena, or political messages.

The purpose of these objects, ultimately, is to tell stories. Digital storytelling is a key example of how the digital humanities can inform research and teaching in ecomusicology. Sound and radio artist John Barber defines digital storytelling as “combining storytelling, digital tools, and humanities scholarship.”⁴⁶ Ecomusicology could be enhanced by the variety of expressive possibilities afforded by digital storytelling for the transmission of research and creative soundwork across environmental humanities disciplines in the academy and the general public. Digital storytelling practices are central to digital humanities narrative strategies in the presentation of research to the public, and sound plays an important narrative role in the telling of those stories (especially those conveying environmental messages). In ecomusicology, digital storytelling uses music and found everyday sound to translate non-humanist data and information (e.g., climate change data) into graspable narratives for the public, students, and academic colleagues. Digital storytelling provides musicologists and their students with the creative and scholarly tools to depict the ways knowledge concerning the relationships among society, music, sound, and the environment are constructed and conveyed to listeners.

43. Ray Siemens, Meagan Timney, Cara Leitch, Corina Koolen, and Alex Garnett, “Toward Modeling the Social Edition: An Approach to Understanding the Electronic Scholarly Edition in the Context of New and Emerging Social Media,” *Literary and Linguistic Computing* 27, no. 4 (2012): 452. See also Lisa Gitelman, *Always Already New: Media, History, and the Data of Culture* (Cambridge: MIT Press, 2006).

44. Ray Siemens et al., “Toward Modeling the Social Edition,” 453.

45. Arbuckle et al., “Intersections Between Social Knowledge Creation and Critical Making,” 5.

46. John F. Barber, “Digital Storytelling: New Opportunities for Humanities Scholarship and Pedagogy,” *Cogent Arts & Humanities* 3, no. 1 (2016): 2.

Digital ecomusicology communicates the complicated relationships among music, nature, environment, society, and technology. In this article, I outlined a selection of the practical and political implications of combining ecomusicology, pedagogy, and research with the digital humanities, particularly in the areas of critical making and social knowledge creation. Digital humanities is a huge field with varied approaches, and this essay is intentionally a starting point in the ongoing conversation identifying emerging opportunities for music history to adopt digital humanities methods and values. Both ecomusicology and the digital humanities strive towards activism within and beyond the academy, working towards the creation and dissemination of information and developing tools that keep communities informed on important issues and experiential environments.

Digital ecomusicology projects that bring communities facing environmental change into the conversation are important resources that connect academic and non-academic audiences committed to environmental issues and socially-engaged listening. Digital storytelling, moreover, is an incredibly productive way for ecomusicology scholars to further their own research, enabling them to think about how listeners and environments are conceptualized in relation to each other and about how all might contribute to social change and democratic ways of being and listening together.⁴⁷ I will conclude with words from the research team at the Electronic Textual Cultures Lab (ETCL) based at the University of Victoria led by Ray Siemens: “Through privileging social knowledge creation/production/access/dissemination as necessary activities in higher education,” they write, “we can engage individuals from many communities and contribute, together and purposefully, to the human record at the heart of the humanities.”⁴⁸ The digital remediation and sound-based methods and projects surveyed in this essay present some of the ways that sharing research about music, sound, and the environment challenge how listeners hear the eco-conscious music and sound art in music history.

47. See for further information Kate Lacey, *Listening Publics: The Politics and Experience of Listening in the Media Age* (Cambridge: Polity Press, 2013).

48. Arbuckle et al., “Intersections Between Social Knowledge Creation and Critical Making,” 9.

Appendix A: Two Sample Creative Digital Humanities Audio Ecomusicology Assignments

Digital Humanities Activity #1: Digital Storytelling through Soundwalks and Sound Collages

The objective of this assignment is to work collaboratively in the design, development, reflection on, and theorization of a soundwalk of an everyday environment. I have appended to this assignment three soundwalk examples: 1) a through-composed soundwalk, 2) an unconventional “walk” (e.g., involving types of non-walking movement), and 3) a soundwalk sound collage

What is a Soundwalk?

Hildegard Westerkamp, a founding member of the World Soundscape Project and an early proponent of soundwalking and soundscape composition, inclusively positions a soundwalk as “any excursion whose main purpose is listening to the environment. It is exposing our ears to every sound around us no matter where we are” (2007: 49). Andra McCartney further defines soundwalking as a “creative and research practice that involves listening and sometimes recording while moving through a place at a walking pace. It is concerned with the relationship between soundwalkers and their surrounding sonic environment” (2014: 212). As Joanna Demers explains, “audio footage ties a soundscape composition to the ecological, social, historical, or cultural dynamics of a specific location, which both personalizes and politicizes the act of listening” (2010: 120).

Assignment Objective

The objective of this assignment is to learn how to listen to, reflect on, and critically articulate your experience of the sonic world.

Soundwalk Design, Methodology, and Documentation

1. Select a route: You may select a route and location that is familiar to you or one that you have little familiarity with. It is a good idea to have a general idea of the route you choose, but be prepared to adapt to new listening conditions. It is also a good idea to first walk the route, just listening with the naked ear and taking into account particular sounds and sound relationships you encounter. Follow-up that walk with your formal recorded soundwalk so that you can return to those sounds that first sparked your interest to hear if they are still present while exploring the sounds that you did not notice initially.

2. Record: Using your digital recorder, make a recording of your soundwalk. Each person's recording will differ because his/her point of audition will be different and will move and position the microphone in different ways according to movement in space and individual physiology (e.g., height).

3. Actively Listen: Listen closely and carefully both during your soundwalk and when you listen back to your soundwalk for the ways in which specific sounds shape, inform, condition, and communicate place. What function do these sounds play in the soundscape? What would be lost in the soundscape if these sounds were no longer present? As a group, reflect on how your individual listening experiences differed or were similar. How was each walk personalized?

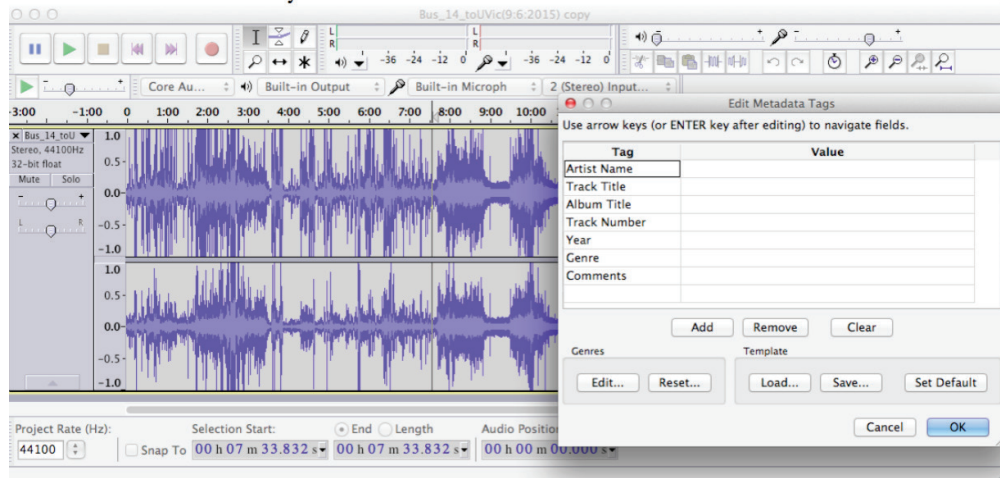
4. Create Soundwalk Images: During your soundwalk, stop to take close and distant images of the physical source of the sounds you are recording at a minimum of five moments of sonic interest during the walk. These will help map the audio of the walk when you listen back through your recording and spatially orient what you are hearing and remembering. For each interest point, take one distant and one detailed photograph.

5. Critically Reflect: Write approximately 500 words describing your experience of the soundwalk. Following this writing activity, discuss how your listening experiences differed from other members of your group and how your approach to listening might have shifted and changed since the start of this activity. It is helpful to create a listening log where you document your process of designing, composing, and listening to your soundwalk. The log should include the following:

- The location of your route. Use a Google Map or another GPS map to track your route, but take into account that it may not track you into built structures (e.g., coffee shop)
- Information about location particulars (street address/intersection, neighborhood, city, and country)
- Your reaction to the sounds, as well as the reactions of those around you (e.g., members of your group, those who pass by)
- Other comments about what you learned about listening and place.

6. Archive Metadata in Audacity:

Figure 2: Screenshot of a sample Audacity file



7. Create: Using a copy of your original soundwalk file, use segments of your favorite sounds from this file to compose a sound collage that you feel best evokes your subject/place. This sound collage should be no more than four minutes in duration. Try to compose your sound collage in such a way that the arrangement of the recordings and segments provide the listener with a sense of movement across contrasting spaces and points of audition and through your selected region of the city.

8. Upload: Upload your soundwalk and sound collage files to SoundCloud in high quality .WAV format and permit public download. Include a brief description for your potential audience.

Digital Humanities Activity #2: Digital Storytelling with Digital Radio

Assignment Objectives

The objective of this assignment is to engage in a close reading of sound composed for an online and campus/community radio broadcast to a local community of listeners. In groups of three, you will compose a radio program that is a close reading of a sound or of a location that is defined by a specific type of sound. In the sound design of your radio program, consider the following questions: What is “radio” in the age of new digital media and listening practices? How has the format of radio changed? How have our expectations of radio changed? How has digital sound recording equipment and production software

impacted how we engage and create with everyday environmental sound? How does encountering unconventional sound materials (e.g., the sounds of water or traffic) on the radio alter the listening experience?

Design, Methodology, and Documentation:

1. Select a sound: Select a sound (e.g., water feature or fountain) or a location that features a specific type of sound (e.g., a café with espresso machines)

2. Record: Using your digital recorder, make a recording of your sound from a variety of physical (close recording, distance recording), spatial (different angles), and temporal (different times of day) perspectives. Each recording will differ because the point of audition will be different and the microphone will be moved and positioned in different ways according to personal movement in space and individual physiology (e.g., your height).

3. Actively Listen: Before you start editing and compiling your recordings into an audio collage, carefully listen back through your recordings, planning which sounds might sound better when juxtaposed against other recordings and where silence could be carefully positioned to aid the close listening process. How will your audience listen to these sounds? How can you attract and maintain listeners for your broadcast soundwork?

4. Sound Editing: Using Audacity or another sound editing program with which you are comfortable and familiar, compose a sound compilation of your specific sound source using a variety of different sound perspectives (or recordings) from your field recording.

5. Critically Reflect: Write approximately 500 words describing your experience of recording your sound from multiple perspectives and closely listening to these recordings. Following this writing activity, discuss how your listening experiences differed from other members of the class and how your approach to listening might have shifted and changed since the outset of this activity. It is helpful to create a listening log where you document your process of designing, composing, and listening to your sound and the radio soundwork you composed from your field recordings. This reflection should include:

- The location and the social and sonic context of your sound.
- The location particulars (street address/intersection, neighborhood, city, etc.)
- Your reaction to the sounds as well as the reactions of those around you during field recording
- Comments about what you learned through close listening and multi-perspective field recording

As you critically analyze how you composed and listened to your soundwork, compile a visualization of the most frequently used words used to describe the sound(s) you selected for your close listening study.

6. Upload: Upload your soundwalk and sound collage files to SoundCloud in high quality .WAV format and permit public download. Include a brief description for your potential audience. We will also distribute these .WAV files to the local campus radio station, where each of you will introduce your soundwork over the airwaves from the radio studio with assistance from the station studio manager of our partnered program.

“We Live in the Lake”: Ecomusicology as Community Pedagogy

MARK PEDELTY, UNIVERSITY OF MINNESOTA

Writing in a recent issue of *Ethnomusicology Review*, Rebecca Dirksen posed an important and challenging question: “As a group of specialists, do we adequately get out into the community and connect with people about our work other than with those around whom we have done our research?”¹ Ecosong is one such attempt to “connect with people” in the local community in order to learn with them, make music and media together, and accomplish a shared goal. Ecosong is a community-based project powered by the collective work of two scientists, four professors, an extension director, four environmental organizations, two accountants, fourteen musicians, a videographer, an audio engineer, video game animators, four college students, festival organizers, and audiences. It has garnered 4 awards and 13 official film festival selections as well as over 3200 viewer-listeners on YouTube (thus far).² I provide that long list of participants because it indicates how many people were required to mount the community-based production projects that I will be discussing here. More to the pedagogical point, it has required all those involved to become teachers as well as learners, working in the Freirean tradition of community-based education and activism.³ This article is designed to provide a set of ideas that might be of use to scholars who are either considering or already involved in community music projects.

From the start, we viewed Ecosong as community pedagogy. Like the Brazilian educator and educational philosopher Paulo Freire, we sought to move beyond the “banking model of education” in these partnerships.⁴ We aspired to take part in the co-creation of community. Collective goals and problem solving are placed at the center in a constitutive learning process rather

1. Rebecca Dirksen, “Reconsidering theory and practice in ethnomusicology: Applying, advocating, and engaging beyond academia,” *Ethnomusicology Review* 17 (2012): 1-35, <http://ethnomusicologyreview.ucla.edu/journal/volume/17/piece/602>.

2. For more information on this project, see Ecosong.net.

3. Paulo Freire, *Pedagogy of the Oppressed*, trans. Myra Bergman Ramos (New York: Continuum, 2000), 74-86.

4. Freire, *Pedagogy of the Oppressed*, 74-86.

than a linear transfer of information from one professional expert to a group of novice “students.”

Ecosong has its origins in live performances by the Hypoxic Punks band, starting in 2007, and a full-length documentary released in 2010, *A Neighborhood of Raingardens*, now archived on Vimeo.⁵ The first projects released under the Ecosong label, however, were two music videos that we created with partner organizations in Minnesota in 2016: “You Can Build a Garden” and “We Live in the Lake.”⁶ The first music video, “You Can Build a Garden,” is about raingarden installation. The other, “We Live in the Lake,” is designed to recruit community members for the Lake Pepin Legacy Alliance (LPLA). The LPLA is organizing a massive restoration and reclamation project of their namesake lake. I hope that readers will watch both videos (accessible on Ecosong.net) so that they can familiarize themselves with the subject matter and so that they might draw their own interpretations and better assess the argument laid out here and at the same time see our ongoing work.

The goal of this article is to present what we learned about community pedagogy through both projects. Specifically, Freirean notions of praxis, dialogue, and codification will be used as an explanatory framework, each representing a central lesson learned through working with community partners and Ecosong team members.⁷

During the creation of these videos, we taught each other new skills, advanced our existing abilities, and created new knowledge together about the articulation of community learning, community building, and environmental stewardship as a collective concern. We sought to create one of the “new communities” envisioned by Margaret Ledwith in her essay, “Community work as critical pedagogy: re-envisioning Freire and Gramsci.”⁸ In that work, Ledwith suggests that we move away from “bemoaning the loss of community,” and instead go about the difficult and pleasurable work of creating “new communities.” She proposes that we emphasize the “core values” of “conviviality and culture; education; strong democracy; health and well-being; economic equity; and information and communication.”⁹ I would add conflict, creativity, and

5. Mark Pedelty, *A Neighborhood of Raingardens* (documentary film, 2010: <https://vimeo.com/27821233>).

6. The videos have garnered ten film festival selections and four awards.

7. Freire argued for educational methods that take social hierarchies and social justice into account. He emphasized methods that help oppressed groups to identify, understand, and resist oppression and argued that education should transform the dominant classes as well. Arguing against capitalist methods focused mainly on individuated credentialing, Freire articulated a pedagogical philosophy designed to promote collective transformation, resist unjust social structures, and create positive alternatives.

8. Margaret Ledwith, “Community work as critical pedagogy: re-envisioning Freire and Gramsci,” *Community Development Journal* 36, no. 3 (2001): 175.

9. Ledwith, “Community work as critical pedagogy,” 175.

conundrums to that list of community characteristics, because they are inevitable and integral to healthy communities as well.

In telling this story, I am somewhat self-conscious. Having completed more traditional ethnographic and case study projects, and preferring that form of exposition, I am never certain how to write about projects in which I am intimately involved at the performance level. However, this is the dilemma every action researcher faces. If we are to engage deeply in Freirean praxis and community work, we are never simply writing about others but instead about our intersubjective entanglements with a complex world of others. It is therefore more misleading to ignore our participation than to engage with it reflexively.

Granted, sometimes such writing can become too confessional, reflexive to the point of self-deconstruction. At the other extreme, writing about community pedagogy and engagement can become overly promotional. We write about our most successful projects and exercises because we find them worth sharing. That is my main motivation for discussing these music video projects with fellow music scholars and teachers in this forum. I want to put Ecosong in conversation with fellow instructors' community projects, knowing that there are many scholars who can answer Dirksen's challenge in the affirmative. An increasing number of young scholars, in particular, are engaging in community-based projects and pedagogies.

However, community learning is certainly not new to music scholars. In fact, in the very first article published in this *Journal*, James Davis discussed the importance of community to music education, providing an ethnographic snapshot into the cultural world of music majors.¹⁰ Community pedagogy is also central to the community music movement, applied ethnomusicology, and ecomusicology.¹¹

In addition to the theorists and practitioners mentioned above, those involved in the conversation increasingly titled "ecomusicology" have very directly informed this project.¹² Denise Von Glahn's work regarding "skillful listening" is at the center of Ecosong.¹³ As will be explained, our most important advances in Ecosong have taken place due to a shift of emphasis from performing to listening. Jeff Todd Titon's conception of a "sound commons" informs

10. James A. Davis, "Classroom Discussion and the Community of Music Majors" this *Journal* vol. 1, no. 1 (2010): 5-17.

11. See especially Lee Higgins, *Community music: In theory and in practice* (Oxford: Oxford University Press, 2012); Klisala Harrison, "Epistemologies of applied ethnomusicology," *Ethnomusicology* 56, no. 3 (2012): 505-529; and Tiffany Challe, *Ecomusicology: back to the roots of sound/music and environmental sustainability* (New York: CUNY Academic Works, 2015), available online at http://academicworks.cuny.edu/gc_etds/883.

12. Aaron Allen and Kevin Dawe, *Current Directions in Ecomusicology: Music, Nature, Environment* (New York: Routledge, 2015).

13. Denise Von Glahn, *Music and the Skillful Listener: American Women Compose the Natural World* (Bloomington, IN: Indiana University Press, 2013).

Ecosong as well.¹⁴ Titon asks us to think about soundscape as a shared space. This requires not only hearing and listening, but also considering the ethical dimensions of soundscape. The influence of Titon and Von Glahn’s perspectives are implicitly threaded throughout this essay and explicitly provide the end framing.

While the virtues of community teaching and learning provide subtext, the point is not that these projects are by any means exceptional: it is quite the opposite. There are environmentally-oriented community music projects scattered throughout the globe. Therefore, there are thousands of such stories to tell. This one begins in 1992 with a six year-old girl and a talking fish.

Community through Dialogue: “We Live in the Lake”

Rylee Main, Executive Director of the Lake Pepin Legacy Alliance (LPLA), was only six when she saw an animated fish on the Sesame Street show talking about water pollution. The cartoon character explained water pollution and how everything we do connects to the aquatic world. Sitting on the couch with her mother, young Rylee (in her own words) “became very nervous for the fish that was losing the water in his pond. When the child in the video finally turned off the water,” remembers Rylee, “the fish was still alive, but he had to live in this shallow pond, all crunched up.”

That animated encounter was real and highly visceral for Rylee, connecting the young girl and would-be-scientist to an ecosystem. Unlike most people, Rylee would no longer ignore the water system beyond her faucet when running a bath or dumping shampoo down the drain. There were animate beings at the other end, directly related to her daily experience. The moment so greatly impacted Rylee that she still remembers it vividly to this day, citing it as an early inspiration for her later decision to become a water specialist. In an act of “ecological imagination” akin to C. Wright Mills’s concept of “sociological imagination,” Rylee learned to connect her individual reality to larger systems.¹⁵

Twenty-three years later, Rylee approached Erin Meier, Executive Director of the University of Minnesota Extension’s Southeast Regional Sustainable Development Partnership, about working with the University of Minnesota. The LPLA wanted to inform the public about Lake Pepin’s severe sedimentation problems and recruit new members. Main and Meier’s conversation led Meier to contact my colleague Mark Neuman-Scott, Director of Media Production

14. Jeff Todd Titon, “A Sound Commons for All Living Creatures,” *Smithsonian Folkways Magazine* (2012), <http://www.folkways.si.edu/magazine-fall-winter-2012-sound-commons-living-creatures/science-and-nature-world/music/article/smithsonian>.

15. C. Wright Mills, *The Sociological Imagination* (Oxford: Oxford University Press, 2000).

for the Department of Communication Studies at the University of Minnesota. Mark sent Erin to me.

I leapt at the opportunity, but warned Rylee that there was no way we could afford to create animated fish for the video. She persisted and before I knew it Karl Demer, our sound engineer and video editor, had recruited a team of professional animators at Big John Games to make a fish sequence possible. I then wrote “We Live in the Lake,” a song inspired by the concept of singing fish, and storyboarded the fish sequence. We would do better than talking fish; they would also dance and sing. Although I was initially convinced that we could not create an animated video, I entered into dialogue with a smart group of people who showed me that animation was indeed possible. I am very glad that I did so. In the process I learned a great deal about the work that professional animators do, about composing music for animation, and about the need to avoid making assumptions about what is and is not possible.

Because we were visitors to Lake Pepin, local residents were essential interlocutors in the dialogue. LPLA founder Mike McKay played a particularly important role in this respect. He spent the final seven years of his life managing the St. James Hotel in Redwing, Minnesota, which overlooked Lake Pepin. I had the privilege of meeting Mike when first pitching “We Live in the Lake.” I suggested that we make a music video rather than another talking head mini-documentary. After a series of emails, I met with Mike, Rylee, and Erin Mein, the University of Minnesota Extension’s Executive Director of the Southeast Regional Sustainable Development Partnership, at the St. James Hotel.

Mike was very enthusiastic about the project from the start. Arguing that standard documentary forms and organizational biopics are limited, I suggested to Mike and Rylee that a music video might work well in the era of social media. Mike agreed, noting that most water-related media involved “water people talking to water people.” He wanted this work to reach new audiences. The LPLA Board agreed that music video could be a welcome complement to their existing, interview-based media.

So we got to work. As I listened to Mike, Rylee, and Erin discuss why the lake matters to so many people, I continually returned to the story of Rylee’s talking fish. The phrase, “we live in the lake” popped into my mind. After a few more storyboard pitches and a plea from Rylee to keep her animated fish, we were ready to get started in earnest. I did not know it at the time, Mike was terminally ill and would not see the project to its end. However, his early input and inspiration were felt throughout.

Community through Dialogue: “You Can Build a Garden”

“You Can Build a Garden” is also the product of dialogic learning. My University of Minnesota colleague and bandmate, Tim Gustafson, originally composed “You Can Build a Garden” for an event led by students in my Environmental Communication course. The event—at which Tim performed his song—was a planting party for a large on-campus raingarden that the students themselves had installed. Over a year later, I suggested Tim’s song for our garden video. Our grantor, the Minnehaha Creek Watershed District (MCWD), awarded us \$7,000. When combined with a University of Minnesota Imagine Grant of \$5,000, the total amount allowed us to compensate community singers for their participation (\$500 each), to pay for a studio recording, and to cover costs for catering, promotions, distribution, and all of the other expenses that go into producing a music video and executing a release campaign.¹⁶

I mention financing in part because throughout the process we were reminded of how essential accountants and administrators are to making music and producing media. They are part of the learning community and dialogue as well. It is tempting to fetishize the musical text and performance, but each time we undertake a project like this I understand more fully how making music means far more than creating sound, executing a performance, producing textual notation and so on; music is a form of collective communication (i.e. “making common”) that is from the start inextricably linked to community and requires the participation of far more than musicians. As Lee Higgins explains, “community music is an expression of cultural democracy.”¹⁷

As was true for “We Live in the Lake,” a Freirean conception of dialogue—egalitarian, critical and reciprocal—played a central role in the making of “You Can Build a Garden.” Of course, authentic dialogue is not easy, and many of us are neither well trained nor designed for it. As musicians, we sometimes find it easier to engage with others in song rather than through talk. Yet—and this is a key point—community learning is not about achieving some sort of fractal consensus among undifferentiated members. It is about allowing difference to flourish and actually matter. That is why constant and high-quality dialogue is essential. Every participant contributed to “You Can Build a Garden” where and how we could, some doing a little, some doing more, and each individual doing something different from the rest. Conversely, “consensus” is often fictional and more of a reflection of what Laura Nader refers to as “harmony ideology”

16. We put too few resources into distribution and in our projects and have habitually underestimated the time and money required to effectively launch and “market” music videos via social media. This is an aspect of Ecosong that we are currently attempting to address.

17. Lee Higgins, *Community Music in Theory and Practice* (Oxford: Oxford University Press, 2012), 7.

than something approximating the rhetorical ideal.¹⁸ Anyone who has been in a community organization knows that consensus-speak can easily become a tool for undemocratic leaders to obfuscate and legitimate their inordinate control of group outcomes. In truth, no complex media production has ever been completed via pure consensus, and I would not want the Freirean framework in this analysis to mask the fact that the production-oriented work of Ecosong was also a product of nested hierarchies and variegated teams.

When people come to community with an appreciation for difference and a willingness to contribute in a manner and to a degree of their own choosing, however, much can be accomplished, and this is the main point. Free association is key. For example, “You Can Build a Garden” took on the sound, look, and personality of three incredibly talented vocalists. They were the winners of a singing contest we held at the Powderhorn Park Community Center. The project would have been far different had another set of musicians been chosen from that very impressive group of contestants who had gathered in a public gym in the Powderhorn Park Neighborhood in the center of Minneapolis, and “You Can Build a Garden” was radically influenced by each new contributor. And in the same way, each new contributor taught us something. For example, I am absolutely certain I learned more about performance from singer Jayanthi Kyle than she learned from taking my direction while on set.

Creative Praxis: “We Live in the Lake”

Biologists have defined ecology in terms of material formations, distributions, and relationships. Ecocriticism, political ecology, and the environmental humanities have expanded materialist definitions to include symbolic (i.e., cultural) contexts (e.g., environments), discourses, and processes. The LPLA is working hard to deal with an overwhelming problem, and that work requires an equally holistic definition of the local ecosystem and problems therein. Silt is entering the lake at ten times historical levels, clouding the water and literally filling up the lake. One-third of the lake will be gone by the end of the century if something is not done to deal with the increased inflow, especially the Minnesota River Valley’s increasing erosion and pollution loads. Unsustainable agricultural practices and urban development, together with increased rainfall and more intense “rain events” brought about by climate change, have all played major roles.¹⁹ Lake Pepin’s inflow problem is thus the result of material,

18. Laura Nader, *Harmony Ideology: Justice and Control in a Zapotec Mountain Village* (Stanford, CA: Stanford University Press, 1990).

19. Christian Lenhart et al., “The role of hydrologic alteration and riparian vegetation dynamics in channel evolution along the lower Minnesota River,” *Trans. ASABE* 56, no. 2 (2013): 549-561.

social, and cultural forces, and any solution to the problem will require serious attention to each of these three aspects.

Such crises often cue predictable genre-specific media practices. For example, musical soundtracks for many environmental documentaries employ heavy-handed sounds of lamentation and/or anxiety-producing drones to signal dystopian decline before predictably switching to upbeat music near the end to underscore calls for action. With that as our intertextual antecedent, we decided to go in a different direction, keeping the entire work incongruently upbeat from the start.

The decision to keep the piece upbeat was also driven by the project’s main objective: to recruit new members. The LPLA seeks volunteers to help with restoration projects and outreach efforts. Their hope at present is to convince the Army Corps of Engineers to spend millions on “island building” projects that could help restore structure and habitat at the head of the lake in order to lessen the impact of increased siltation loads. “Stakeholders” range from microscopic benthic organisms on up to tens of thousands of people who live near the lake, and millions more downstream. “We Live in the Lake” took inspiration sonically and visually from Lake Pepin’s human and animal residents. Practical engagement with Lake Pepin, as a community, informed the production and reformed theoretical preconceptions we brought to the project initially.

The “crazy fish dance” from “We Live in the Lake” illustrates how community praxis, as reflected in music, is a creative process. When writing that part of the song, I had in mind a Rage Against the Machine-style riff. I imagined a simple downward run of dyads and single notes (GB->F#A#->FA->D#->D), a punk-metal reference to decline, shockingly discordant with the pastoral expectations of an environmental music video. What resulted from our collective creative process was instead a carnivalesque and klezmer-like run of notes more properly befitting a fish dance. Klezmer inflections were brought to the song when Natalie Warren, River Corridor Steward of the St. Croix River Association, recorded a saxophone part in studio. That was then combined with violinist Leon Hsu’s improvisation, which he purposely made “rusty” through roughly scraping the bow across well-worn strings, an act that went against everything that Hsu, an accomplished classically-trained musician, had learned in his formative years. When combined with Tim Gustafson’s metallic guitar riff and finally mixed by sound engineer Karl Demer, the result was something delightfully new that I, as composer and producer, did not plan when I first entered the studio. When I have showed the video at conferences and in classes I have stood to the side and watched audiences react to it. That moment never fails to make people laugh, and I don’t think it is just the dancing fish but rather the audio and visual materials working in tandem. That level of audience engagement might not have become possible had my initial conception

survived. Community creativity results in the unexpected as people, instruments, movement, images, and ideas produce a very different sound than any one member could make or predict.

Creative Praxis: “You Can Build a Garden”

Community inspiration was key to the creation of “You Can Build a Garden” as well. In order to find singers for the video (as I mentioned above), we held a community singing contest at the Powderhorn Park Community Recreation Center, which sits astride Powderhorn Lake. That evening, a talented set of singers competed for three singing roles, and were judged by Sarah Fellows (education coordinator of the MCWD) and volunteer Ann Agrimson.

From among twelve talented participants, the judges chose Jayanthi Kyle, her husband Robin Kyle, and Rosie Jablansky. I did not know it at the time, but I later learned that Jayanthi had composed the song “Hand in Hand,” an anthem for the Black Lives Matter movement.²⁰ Singing with the band *Romantica*, Jayanthi has been gaining a national reputation as well. We were lucky indeed that Jayanthi, Robin, Rosie, and other singers performed at the community singing contest that night. Granted, there are talented musicians in every community (one of the fundamental principles and revelations of community musicianship), and there are environmental activists in every community. Yet there is far less overlap between the two groups than might be imagined. Both practices—activism and musicianship—are time-consuming, and neither leaves much space for anything else. Thus there are relatively few “environmentalist musicians” or “musical environmentalists” as called for in this project. Perhaps *one* of the potential roles for ecomusicology, therefore, is to widen that space, to encourage more musicians and environmentalists to engage in environmentally relevant music, to support projects through which that is made possible, and to envision ecomusicology as a field of praxis that promises to enrich both the musical experience and ecosystems. Such a goal requires attention to community musics of all forms. Community learning and empowerment reinforces the notion that one does not need formal training to become part of a meaningful musical community. However, despite the relative paucity of environmentalist musicians, twelve talented participants turned out to audition for the three available roles. Next time we hope to provide a space

20. Natalie Daher, “Meet Jayanthi Kyle, whose song ‘Hand in Hand’ has become an anthem for local protest movements,” *Minneapolis Star Tribune*, October 1, 2015, <http://www.startribune.com/meet-jayanthi-kyle-whose-song-hand-in-hand-has-become-an-anthem-for-local-protest-movements/330281711/>.

for all those interested in taking part so that we can more fully enact the principles of community music and pedagogy.

Codification: “You Can Build a Garden”

Freire used the term “codification” to explain how community values and aspirations can be represented symbolically in order to help people understand how their individual interests relate to the collective desires of a larger community.²¹ “You Can Build a Garden” is partly an effort at such a codification. Produced by disparate musicians, scientists, residents, nonprofit partners Metro Blooms and Blue Thumb, and the Minnehaha Creek Watershed District, the music video does for this intentional community what musical ritual has always done for social groups. It renders culture into communicable form, encourages and expresses affective attachment, and affectively communicates the community’s collective purpose. The song’s lyrics explain that we install raingardens to clean storm runoff, but more importantly communicates the idea that we do so because raingardening connects us to our neighbors, plants, animals, lakes, and rivers. Beyond the instrumental logic of raingardening is a subtextual argument promoting the collective good, the idea that people install raingardens and make other changes to their residences to enact ethical citizenship within a wider watershed community. Instead of a “how to” video, we decided to create a “why to” video, hoping to create an affective connection between viewers, organization, problem, place, and solution by modeling that community in media. Perhaps nothing is more effective at communicating emotion than music, especially when performed in a ritual context, and in many ways “You Can Build a Garden” is a media ritual, a stylized performance of a shared narrative of stewardship, a ritual reenactment through which community values can be explicitly codified and therefore reproduced.

In the above my use of codification has strayed a bit from Freire’s more narrowly tailored instructions. *Pedagogy of the Oppressed* is filled with proscriptions and prescriptions that might not apply to all communities and conditions. There are many “should” and “should not” phrases peppered throughout the book that might at times even contradict Freire’s goals of critical awareness, community creativity, and adaptation. However, if one moves past the sometimes overly directive rhetoric, one sees the value of codification as an organizing and educational principle. “Codifications are not slogans,” warns Freire, “they are cognizable objects, challenges towards which the critical reflection of the decoders should be directed.”²² Rather than to create groupthink or prefigured ideologies, the goal is to think critically about social reality, to reimagine

21. Freire, *Pedagogy of the Oppressed*, 114-121.

22. Freire, *Pedagogy of the Oppressed*, 115.

that reality, and to codify new possibilities, in other words, to instantiate values rather than merely to speak about them.

This concept of codification brings us back to the theme of change. As Freire argued, codification is not about simply re-representing what already is, but also about ways to articulate (in the semiotic sense) problems and possibilities in order to create something new. Hegel's ideational and Marx's materialist dialectics clearly influenced Freire's concept of codification. Creative articulation is how semiotic theory provides the possibility for change through making new and sometimes surprisingly enlightening connections. Such articulations leave open the possibility for fundamental cultural change. Through "We Live in the Lake," we made new connections in both the conventional sense—new relationships between individuals and groups—but also in terms of conceptual and perceptual changes as we thought anew about the relationship of city to suburb, lawn to park, house to lake, ethics to equity, public to private, and so on. Codification, in this case instantiating values in the form of musical media, assisted in that ongoing process of discovery and creation.

Codification: "We Live in the Lake"

Creative articulation and change were key to "We Live in the Lake" as well. Nothing that the Ecosong team initially brought to the "We Live in the Lake" project was retained in its original form. The video and song that I brought in demo form to the St. James Hotel was far different than the one that eventually emerged as "We Live in the Lake." For example, the five singers involved sounded surprisingly like the Andrews Sisters when blended. I could have never planned or predicted that. The result motivated a change in musical texture when Karl and I mixed instrumental tracks in the verses. That led, in turn, to radical modifications in the look and theme of the video. The initial plan was to film "found groups" around the lake in action, such as asking a group of sailors to sing or shout the chorus "We Live in the Lake!" Once the vocal blend lent itself to a sister-group vibe, we decided to instead have three group leaders, Natalie Warren (St. Croix River Association), Rylee Main (LPLA), and Erin Mein (UMN Extension), perform the entire song and story against a green screen, with props. Only Natalie sang and also acted in the video. New voices begot new visuals and thus new meanings were created.²³

In that same spirit, Freirean codification is about crafting a collective voice. Unfortunately, in much of the humanities and social sciences, "voice"

23. I am not making an absolute distinction here between music video and other film formats. There are examples where films have been scripted, directed, and edited in response to music, but the far more common practice in both shorts and full-length filmmaking is to match ambient sound and music to the dominant visual narrative.

is reduced to an individuated metaphor, and that is true of most pedagogical uses of the term as well. Voice becomes a stand-in for agency and little more. That is problematic in ways that go beyond the purpose here, so I will point the reader to Mikko Keskinen’s critique of feminist theorists’ “insistence of voice in texts that otherwise muzzle the essentialized body.”²⁴ Keskinen is not singling out feminist theorists *per se*, but rather he is using that body of literature to note that even where “voice” might ostensibly reach beyond liberal individualist arguments for metaphoric agency and extend into actual, embodied voices, voice is still reduced to a metaphoric tool that one uses to achieve agency. Keskinen reminds us that voice is both metaphor and something more, a visceral, embodied phenomenon.

Similarly, we cannot understand lead singer Natalie Warren’s voice in “We Live in the Lake” merely in terms of her denotative call for action, “Join the LPLA crew!” Her voice is not just the words she mouths but also her rich timbre, inflection, and projection. Joined with the voices of other singers on the soundtrack and actors in studio, Natalie and the “crew” created a collective voice, codifying collective goals in sound as well as in character, image, words, plot, movement, costuming, setting, and so on. Not only were ideals “given voice” in the video or represented “in voice,” voice is part of the argument. This is perhaps the hardest element to characterize or explain in print. Among the vocal characteristics representing community in the video are a sense of close rhythmic entrainment and the timbral blending reminiscent of the Andrews Sisters that I mentioned above. The fact that the Andrews Sisters were from Minnesota connects the project to a specific people and place. The rich vocal harmonies and sense of rhythmic entrainment represent an idealized and aspirational form of social harmony that might further the argument for concerted stewardship when sung in this context. The hope is that through listening to and watching the performance, a local viewer might want—figuratively speaking—to add his or her voice to the LPLA’s community effort.

In making codification central to his pedagogical methodology and publications, Freire reminds us that it is important to instantiate community dialogue and praxis in something relatively tangible. In this case, we hope that a music video might effectively codify our interests as an overlapping set of local communities: media producers, musicians, environmentalists, and the broader community.

This is just one example of what ecomusicologists can bring to community engagement. It is not an example that I would expect most scholars to emulate. Each of us brings a different set of skills, interests, and community connections to the task, and that is the main point. Much of what I have written about the

24. Mikko Keskinen, “Her mistress’s voice: Gynophonocentrism in feminist discourses,” *Journal of International Women’s Studies* 2, no. 1 (2013): 1-15.

Ecosong collective would apply equally well to community choral ensembles, rock festivals, dance troupes, or any other form of creative engagement, including genres, styles, and taste cultures undervalued in the academy.²⁵ Connected to the “crisis disciplines” of environmental science and environmental studies, ecomusicology may help to widen the space for community-oriented art and public music scholarship.²⁶

Conclusion

This discussion has been framed with the Freirean ideals of dialogue, praxis, and codification. Each of these concepts is simultaneously a cultural value and pedagogical technique. The ability to listen is key to operationalizing each of them. Denise Von Glahn’s perspective on listening is exceedingly helpful in this regard, not just as an elevated ethic but also as a practical skill for one to develop in a community learning context. Inspired in part by composer Pauline Oliveros, literary scholar Tina Gianquitto, and poet John Vance Cheney, Von Glahn presents rich and carefully drawn case studies of model listener-composers. In each case, Von Glahn shows how listening is essential to discovering the subtle and nuanced realities of our surroundings. For the same reason, skillful listening is essential if we are to understand, value, and actualize community. Von Glahn’s work reminds us that community is not just about people, but also about place, including all of the living beings that make a place live, breath, and sound. We listen to each other and we listen together. Activists often refer to “speaking out” as the key to resistance and voicing concerns is certainly necessary, but skillful listening is no less essential and is equally subversive as speech in an increasingly loud world.

As for where skillful listening might lead, Jeff Todd Titon’s “sound commons” provides a sense of what can be gained—or at least glimpsed—through community-level work. Community, commons, and communication are derived from a common Latin prefix meaning “together.” Progressive political and musical traditions work to imagine and to foster communities wherein healthy cooperation and coexistence take the place of selfish acquisition of, and competition over, resources. Titon expands the concept to sound, a domain where destructive libertarian values are even more fully expressed than they are on the visual landscape. Even while walking around relatively biodiverse

25. Pierre Bourdieu, trans. Richard Nice, *Distinction: A Social Critique of the Judgment of Taste* (Harvard University Press, 1984); Lawrence Levine, *Highbrow/Lowbrow* (Cambridge, MA: Harvard University Press, 1988).

26. M. Nils Peterson, M., Markus J. Peterson, and Tarla Rai Peterson, “Environmental communication: Why this crisis discipline should facilitate environmental democracy,” *Environmental Communication* 1, no. 1 (2007): 74-86.

preserves and public lands, one is still bombarded by the sounds of motorized vehicles, planes, amplified music, and other machines that crowd the soundscape. As humans we suffer severe consequences from noise pollution, ranging from endless annoyance to poor health.²⁷ Many animals suffer much worse from unregulated noise.²⁸

However, regulation of noise would only go so far to producing more pleasurable, healthy, and equitable soundscapes. The production of new sound communities is also essential, and this means connecting local, place-based identities to meaningful action, collective efforts that might foster biodiversity, improve health and create more just communities and ecosystems. Music is integral to all such efforts. This is the main premise of Ecosong, an attempt to actualize the sound commons wherever we might live. In Minnesota, “We Live in the Lake.”

27. Lisa Goines and Louis Hagler, “Noise pollution: a modern plague,” *Southern Medical Journal*. 100, no. 3 (2007): 287.

28. Graeme Shannon et al., “A synthesis of two decades of research documenting the effects of noise on wildlife,” *Biological Reviews*, 91, no. 4 (2015): 982-1005.

Layered Listenings: Lessons of the Land, Air and Sea

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LISTEN
as a bird in flight



FORM TWO GROUPS

Group 1.

Sits or lays down
creating earth chatter...
sounds of trees, trucks, insects,
parades, footsteps, and so on.

Group 2.

Walks around the space at
different speeds
periodically sounding moving
air
and winds.

Continue, listen, and remember.

I offer the graphic-text piece “As a Bird” as an example for embodied listening gatherings, as well as an opportunity for creative outpourings. It is purposely whimsical, to playfully break down barriers of musical “skill” within a group.

From such a playful atmosphere, participants can then focus on heightening awareness of sound and sense their environment. The following sections provide a context and suggestions on how to incorporate the piece into workshops or classes.

Background (or, How “As a Bird” Came to Be)

In the past ten years, my love of drawing, interest in text scores, experimentation, and “happenings” collided with my longstanding love of the environment and my concerns about politics of pollution. As a performance artist, themes of environmental concerns persistently surface as turbulent displays of concern or as urgings to encourage awareness. The work of composer Pauline Oliveros—specifically “Deep Listening”—propelled me to create what she refers to as “Sonic Meditations.” Oliveros coined the term “Deep Listening,” referring to the practice as “listening in every possible way to everything possible to hear no matter what one is doing.”¹ After working with her, receiving my teaching certificate in Deep Listening, and becoming the Director of the Center for Deep Listening, I find myself listening differently and embodying an increasingly heightened awareness to the environment.² “As a Bird” stands as a representation of how my worlds have collided and certainly also serves as a sonic meditation. Additionally, since I live with a bird, lessons of listening *as a bird* remains an everyday challenge.

As a performer and ethnomusicologist, I am fascinated by the senses as vehicles of the transmission of embodied knowledge.³ Listening, moving, and sensing the world around us, deeply, how might we understand where we are in time and locale? How might we effect change? How might we comprehend our presence in the world with other beings and things?

Listening Inside the Environment

If we listen to and from within our environment, what do we learn? How can we embody the knowledge? Listening within the environment can be done anywhere at any time and includes the rural, the metropolitan, and all the spaces in between. Listening within the environment involves listening to all vibrations,

1. See Pauline Oliveros, *Software for People: Collected Writings 1963-80* (1984; repr. CreateSpace Independent Publishing Platform, 2015); *Anthology of Text Scores* (Kingston: Deep Listening Publications, 2013); and *Deep Listening: A Composer’s Sound Practice* (New York: iUniverse, Inc., 2005).

2. My gratitude to Pauline Oliveros, Ione, and Heloise Gold for guiding me through the depths of Deep Listening and towards my certificate.

3. For example, see Tomie Hahn, *Sensational Knowledge: Embodying Culture through Japanese Dance* (Middletown: Wesleyan University Press, 2007).

from dirt, rocks, trees, and water to people and the machines built by people. What does the land-air-and-sea-scape sound like? Since we exist as part of the soundscape, how do we observe from “within”? Most importantly, how might the environment inspire a musical piece?

First, feel free to use “As a Bird” in classes or workshops and to alter it for your settings. Make it your own. Here are a few suggestions for incorporating “As a Bird” into a group setting or a personal practice:

1) *Use “As a Bird” to initiate a workshop*

- a) I suggest participants view the text and then, when possible, to go for a walk or sit outside for 5-10 minutes and listen to the environment. Ask everyone to listen and imagine how each person might vocally (and percussively) represent the sonic environment. When an expedition outdoors is not feasible, sitting in silence for a few minutes to create and improvise an imaginary landscape works well.
- b) Once participants have re-assembled, find ways to create a playful, upbeat, yet focused setting. For example, I often ask students to stretch and walk around the room smiling broadly, even wildly, at each other. On paper such a suggestion appears strange! In my experience, in practice participants of all ages appreciate wriggling and smiling to break the “performance” tremors.
- c) Create two groups and perform “As a Bird.”
- d) Leave time after the session for silence and journal writing, followed by a discussion (preferably in a circle or in the setting of the piece).

2) *The history of notation: Why not use a text piece as the impetus to discuss the essential question: Why notate anything?*

- a) Basic questions: Why do people notate music? Historically, how and why have notational systems changed? How do different styles of notation reveal what is culturally, socially, aesthetically, technically, or practically important?
- b) Does notation raise concerns about tradition, ownership, heritage, legacy, power, perpetuity, or fame? Why might these issues be significant or of value?
- c) An introduction of text pieces, graphical notation, and animated notation in the context of experimental music can easily supply a backdrop.
- d) How do scores reflect the values of a time and place? Reflect on the dynamics of prescriptive vs. descriptive (and subjective) representations of sound.⁴ How do various styles of notation reinforce or rupture notions of what “performance” might be (and performer-composer-audience relationships)?

4. See Charles Seeger, “Prescriptive and Descriptive Music Writing” in *Studies in Musicology, 1935-1975* (Berkeley: University of California Press, 1977), 168-181.

3) *Consider the relationship of “Nature” to music*

a) I find pondering the history of how sounds in the environment influence composers fascinating.⁵ How do composers represent sounds of nature in their music, both visually and sonically? For example, consider exploring early illuminated manuscripts that depict birds, animals, plants (not to mention the fantastic), Olivier Messiaen’s manuscripts, or the sounds of the environment reflected in Tuvan throat singing, Charles Ives, Chinese guqin and so on. There are numerous examples to generate a lively discussion.

In addition, the power of art to transform our experience of the world can range from subtle to dramatic. John Cage, in conversation with Joan Retallack, conveys how experiences of art—visual, dance, music—can transform the experience of everyday life. He tells a marvelous story of viewing Mark Tobey’s white painting in a gallery, and then afterwards pausing to look at the pavement beneath his feet quite differently.⁶

b) Ask students to present one or two historical examples of music inspired by nature. After the presentations, facilitate a discussion. The assignment could be a written one as well.

4) *Create text and/or graphic pieces*

a) Request that participants create their own text pieces for the purpose of awakening the senses—specifically a heightened awareness of sound in the environment. When teaching composition, music history, or music appreciation, consider examining the variety of historical and cultural practices of music notation.

b) Each piece needs a name.

c) Each piece needs to be performed and discussed, and then the composer given an opportunity to reflect and perhaps even make changes.

d) What topics arise if the group discusses form (structure, composition)?

Parting Dreams

I find that challenging participants to create text and/or graphical pieces involves them in the process of active listening and imagining. The activity not only hones awareness of sensory experiences in various environments, the act of performing the pieces essentially shapes the environment. The shaping occurs in a literal, sonic sense, but also socially, as the performance of the piece with

5. A comprehensive list of references documenting the influence of the environment on artistic works and research is outside the scope of this essay. However, for a variety of cases of experimental visual and sound works devoted to birds, insects, and nature, see *Antennae: The Journal of Nature in Visual Culture* 27 (Winter 2013).

6. See John Cage and Joan Retallack, *Musicage: Cage Muses on Words, Art, Music* (Middletown, CT: Wesleyan University Press, 1996), 98-100.

other participants creates a mini eco-community. Connections between participants form through performance, a kind of sensory bonding that hopefully spirals out to other environments, other communities, and other spaces as lush sensory experiences. Group participatory activities and discussion encourages embodied wellbeing and a connectedness between individuals that resonates well beyond the classroom.

Greening the Curriculum: Beyond a Short Music History in Ecomusicology

AARON S. ALLEN

In the 2011 *Journal of the American Musicological Society* colloquium on ecomusicology, I wrote that “work is needed on ecomusicology pedagogy.”¹ I wanted to call attention to a lacuna within the discipline of musicology, but I was also acknowledging my own need to develop teaching materials and approaches for ecomusicology. My broader goal was to accentuate the importance of ecomusicology in the classroom—both to challenge teacher-scholars and to demonstrate the relevance of ecomusicology in the world. And so it is exciting that within just six years, we have pieces on teaching ecomusicology in the *Ecomusicology Newsletter*, the publication of the edited volume *Current Directions in Ecomusicology* (designed, in part, with pedagogical aims), and this special issue of the *Journal of Music History Pedagogy*.² Given the complexities inherent in this emerging field, it is important to continue to reflect on ecomusicology as it is increasingly incorporated into the classroom. In particular, my present aim is to advocate for greater connections between ecomusicology and music history, which I argue are not as well established as connections between ecomusicology and other areas of sound and music studies. After considering ecomusicology and providing a brief conspectus of work in this field, I emphasize the problem of limited pre-nineteenth-century materials in ecomusicology—what I call the “short music history” in ecomusicology. I then present my own music and environment class, which represents that problem; in response, I critique my class and propose ideas for revising it and for incorporating

1. Aaron S. Allen, Daniel M. Grimley, Alexander Rehding, Denise Von Glahn, and Holly Watkins, “Colloquy: Ecomusicology,” *Journal of the American Musicological Society* 64, no. 2 (2011): 391–424, 416.

2. Pedagogical articles in the *Ecomusicology Newsletter* include Mark Pedelty & Melody Hoffman “Music, Place, People: An Audiovisual Learning Project,” *Ecomusicology Newsletter* 3, no. 1 (April 2014): 20–22; Aaron S. Allen, “Active Listening via Soundwalks,” *Ecomusicology Newsletter* 2, no. 2 (October 2013): 14–15; Sonia Downing, “A Survey of Ecomusicology-Related Courses,” *Ecomusicology Newsletter* 2, no. 1 (March 2013): 8–11. Pedagogical aims are invoked in Aaron S. Allen and Kevin Dawe, eds., *Current Directions in Ecomusicology: Music, Culture, Nature* (New York: Routledge, 2016), 4; see also Jacob A. Cohen, “Review of *Current Directions in Ecomusicology: Music, Culture, Nature*,” *Notes* 74, no. 1 (July 14, 2017): 83–86.

ecomusicology into a typical Western music history survey course. I conclude by reflecting on the larger aims of such a place for ecomusicology in the general greening of the curriculum.

Ecomusicologies

According to Jeff Titon, ecomusicology is “the study of music, culture, sound and nature in a period of environmental crisis.”³ How is that any different from musicological inquiry of the late-twentieth and early twenty-first centuries? After all, the environmental crisis as such is a roughly synchronous phenomenon.⁴ But Titon’s definition introduces keywords that emphasize the important differences. Consider, for present heuristic purposes, a simplistic conflation of music history as musicology, which in turn could be reduced to the dyad “music + culture”—musicology considers music *as* culture, music *in* culture, or any such similar formulation. Ecomusicology expands that dyad into a triad: “music + culture + nature.” The methods and approaches of (ethno)musicological research and teaching always involve music and/or sound in one or more disciplinary or interdisciplinary contexts relating to culture and/or society, from art and literature to politics and physics, from identity and history to sociology and anthropology. Hence, (ethno)musicology considers music/sound in relation to human culture/society in some way. Musicological inquiry has rarely included the natural and social sciences that consider the physical environments and the natural contexts for those human activities and constructs; and those fields and studies have blossomed particularly in the latter part of the twentieth century along with the increased severity and awareness of environmental crises.

Ecomusicology distinguishes itself from the usual musicological dyad of music/sound + culture/society through the addition of nature/environment. The terms *nature* and *environment*—along with the related *sustainability*, which injects questions of social justice and responsible economics to foundational environmental concerns—are extraordinarily complex, resulting in a great variety of scholarly and pedagogical approaches.⁵ A comprehensive sur-

3. Jeff Todd Titon, “The Nature of Ecomusicology,” *Música e Cultura* 8, no. 1 (2013): 8–18, 1.

4. Regarding this understanding of the environmental (or ecological) crisis, elaborated in any introductory environmental studies or sustainability textbook, see particularly David W. Orr, “The Problem of Sustainability,” in *Hope Is an Imperative: The Essential David Orr* (Washington, D.C: Island Press, 2010), 73-92.

5. I explore these terms further in Allen et al., “Colloquy,” pp. 392-393; Aaron Allen and Kevin Dawe, “Ecomusicologies,” in *Current Directions in Ecomusicology*, 1-2 and 8-10; and in Aaron S. Allen, Jeff Todd Titon, and Denise Von Glahn, “Sustainability and Sound: Ecomusicology Inside and Outside the University,” *Music and Politics* VIII, no. 2 (2014). I also make the case for aesthetics as a component of sustainability in “Sounding Sustainable; or,

vey is impossible here, but as a result of various ways and (inter)disciplinary conventions of incorporating the diverse meanings of nature/environment, it should be no surprise that ecomusicological perspectives range the gamut from the political and practical (activist and applied) to the poetic and intellectual (reflective).⁶ Ecomusicology is part of institutionalized ethnomusicology and musicology (as indicated by an entry in *Grove* as well as the Ecomusicology Special Interest Group of the Society for Ethnomusicology and the Ecocriticism Study Group of the American Musicological Society), but it also connects with acoustic ecology and sound studies, and even beyond with soundscape ecology (biology), ecocriticism (literary studies), environmental history, and interdisciplinary environmental studies.⁷ In making the case for ecomusicology as a multiperspectival “field” where many disciplines come together (rather than a “new” discipline or sub-discipline), Kevin Dawe and I concluded that, “Ecomusicology is not musicological or ethnomusicological; rather, it is both and more.... [A] useful and productive way to conceptualize the field of ecomusicology is as *ecomusicologies*.”⁸

The complexity and discipline-spanning nature of ecomusicology may have impeded its incorporation into the traditional music history curriculum. Yet the fact that the term has such deep and diverse historical roots would seem to offer myriad ways to integrate ecomusicological approaches into historical narratives. The term “ecomusicology” was used for the first time (as far as I have determined) in a 1972 discussion of music, ecology, and the soundscape

the Challenge of Sustainability,” in *Cultural Sustainabilities*, edited by Timothy J. Cooley and Gregory Barz (forthcoming from University of Illinois Press).

6. See the literature review and case studies in Aaron S. Allen, “Ecomusicology from Poetic to Practical,” in *Handbook of Ecocriticism and Cultural Ecology*, ed. Hubert Zapf (Berlin, Boston: De Gruyter, 2016), 644–663.

7. See especially Margaret Q. Guyette and Jennifer C. Post, “Ecomusicology, Ethnomusicology, and Soundscape Ecology: Scientific and Musical Responses to Sound Study,” in *Current Directions in Ecomusicology*, 40–56. See also John Herron, “Nature Sounds: Anthony Philip Heinrich and the Music of the American Environment,” *Environmental History* 21, no. 4 (October 1, 2016): 614–637; David Ingram, *The Jukebox in the Garden: Ecocriticism and American Popular Music Since 1960* (Amsterdam, New York: Rodopi, 2010); and Kate Turner and Bill Freedman, “Music and Environmental Studies,” *Journal of Environmental Education* 36, no. 1 (Fall 2004): 45–52.

According to the U.S. Department of Education’s National Center for Education Statistics (<https://nces.ed.gov/ipeds/cipcode/>), an academic “environmental studies” program is one “that focuses on environment-related issues using scientific, social scientific, or humanistic approaches or a combination. Includes instruction in the basic principles of ecology and environmental science and related subjects such as policy, politics, law, economics, social aspects, planning, pollution control, natural resources, and the interactions of human beings and nature” (CIP Code 03.0103, revised 2000).

8. Allen and Dawe, “Ecomusicologies,” 2 (see also 10–12).

work of R. Murray Schafer.⁹ But even if the term itself is a relatively recent one, ecomusicological ideas can be traced further back and more broadly: in late-nineteenth-century opera criticism, in a curious early-nineteenth-century book, in the millennia-long music-cultural discourses of the Ancient Greek “Harmony of the Spheres,” and in many other places and contexts.¹⁰

Given these historical roots, one might expect scholars to make ecomusicological contributions on Western historical materials, which could in turn be incorporated into teaching. Indeed, a body of relevant literature exists from scholars identified primarily with North American institutional musicology / music history.¹¹ There is also an overlapping circle of scholars who move between musicology and fields such as music theory, ethnomusicology, composition, and/or sound studies.¹² Ecocritics, anthropologists, sound studies scholars, and composers have also written important books on ecomusicological subjects.¹³ In parallel with the “greening of the curriculum” (increasing

9. Malcolm Troup, ed., *Guildhall School of Music and Drama Review* (London, 1972). In a brief editorial note above the table of contents, Troup said: “The aim of this year’s Review is to propose Ecomusicology—the specific study of our sonic environment—as an ear to Ecology’s eye, just as Ethnomusicology is to Ethnology.” The issue included essays by Troup (“All Work and No Play: Music in an Industrial Age”), Schafer (“The Music of the Environment”), Roger Payne (“Deep Harmony: The Song of the Humpback Whale”), Charles Dodge and Bruce Boller (“Earth’s Magnetic Field”), and E. J. Wells (“Nuclear Music”), among others. I have been unable to trace any earlier documented use of the term, although I do not doubt there could have been earlier ones. A use of the “ecology of music” from 1964 developed the idea of the ecological metaphor for music study, although there was no reference to “ecomusicology” or even significant environmental/nature issues; William Kay Archer, “On the Ecology of Music,” *Ethnomusicology* 8, no. 1 (1964): 28–33.

10. Aaron S. Allen, “New Directions: Ecological Imaginations, Soundscapes, and Italian Opera,” in *Current Directions in Ecomusicology*, 273–285; William Gardiner, *The Music of Nature, Or, an Attempt to Prove That What Is Passionate and Pleasing in the Art of Singing, Speaking, and Performing Upon Musical Instruments, Is Derived from the Sounds of the Animated World* (Boston: O. Ditson, 1832; reprint, Cambridge University Press, 2009); Allen and Dawe, “Ecomusicologies,” 3; David Rothenberg and Marta Ulvaeus, eds., *The Book of Music and Nature: An Anthology of Sounds, Words, Thoughts* (Middletown: Wesleyan University Press, 2001).

11. A selection includes Michael Beckerman, Robert Fallon, Sabine Feisst, Daniel Grimley, Julian Johnson, Elizabeth Le Guin, Stephen Meyer, Mitchell Morris, Thomas Peattie, Helena Spencer, Maja Trochimczyk, Denise Von Glahn, Holly Watkins, *inter alia*.

12. A selection includes William Bares, Suzannah Clark, Nathan Currier, Christopher DeLaurenti, Kate Galloway, Nancy Guy, John Z. McKay, Rachel Mundy, Alexander Rehding, Jessica Schwartz, Travis Stimmeling, Joshua Tucker, *inter alia*.

13. A selection includes: John Luther Adams, *The Place Where You Go to Listen: In Search of an Ecology of Music* (Middletown, CT.: Wesleyan University Press, 2009); Ingram, *The Jukebox in the Garden*; Helmi Järviluoma et al., eds., *Acoustic Environments in Change & Five Village Soundscapes* (Joensuu, Finland: Tampereen ammattikorkeakoulu, 2009); Bernard L. Krause, *The Great Animal Orchestra: Finding the Origins of Music in the World’s Wild Places* (New York: Little, Brown, 2012); Mark Pedelty, *A Song to Save the Salish Sea: Musical Performance as Environmental Activism* (Bloomington and Indianapolis: Indiana University Press, 2016); idem, *Ecomusicology: Rock, Folk, and the Environment* (Philadelphia: Temple University Press, 2012);

the environmental and ecological content of various disciplines) and with the “greening of the campus” (increasing attention on how physical campuses in higher education “teach” both good and bad habits regarding sustainability), we might be tempted to claim that the “greening of musicology” is under way.¹⁴ However, while music historians are represented in ecomusicology, scholars from other disciplines (especially ethnomusicology) are the majority.

Furthermore, ecomusicological writings in Western music history have been limited almost exclusively to the period of and after the nineteenth century. Relevant books are primarily on post-1800 content (although there are a few notable exceptions, which I address further below).¹⁵ *Current Directions in Ecomusicology* includes popular music studies, musics of the twentieth and twenty-first centuries (especially American musics), and even music theory (which has a longstanding interest in nature).¹⁶ Of the nineteen chapters in that volume, however, only a single one is on a subject from before the twentieth century.¹⁷

David Rothenberg, *Sudden Music: Improvisation, Sound, Nature* (Athens: University of Georgia Press, 2002); Rothenberg and Ulvaeus, *The Book of Music and Nature*; Hollis Taylor, *Is Birdsong Music? Outback Encounters With an Australian Songbird* (Bloomington and Indianapolis: Indiana University Press, 2017).

14. Regarding the greening of the curriculum, see Allen et al. “Colloquy: Ecomusicology,” 391; regarding the greening of the campus, see David W. Orr, “The Liberal Arts, the Campus, & the Biosphere,” in *Hope Is an Imperative*, 270–281.

15. Post-1800 subjects are addressed in the following books: Daniel M. Grimley, *Grieg: Music, Landscape and Norwegian Identity* (Woodbridge: Boydell Press, 2006); Julian Johnson, *Webern and the Transformation of Nature* (Cambridge: Cambridge University Press, 1999); Roland Schmenner, *Die Pastorale: Beethoven, das Gewitter und der Blitzableiter* (Kassel: Bärenreiter, 1998); Emanuele Senici, *Landscape and Gender in Italian Opera: The Alpine Virgin from Bellini to Puccini* (New York: Cambridge University Press, 2005); Denise Von Glahn, *The Sounds of Place: Music and the American Cultural Landscape* (Boston: Northeastern University Press, 2003); and idem, *Music and the Skillful Listener: American Women Compose the Natural World* (Bloomington and Indianapolis: Indiana University Press, 2013). Ecomusicological articles and chapters on post-1800 subjects are too numerous to begin listing, but some exceptions—i.e. pre-1800 subjects—are in the following articles and books: Emily Doolittle, “Crickets in the Concert Hall: A History of Animals in Western Music,” *TRANS: Revista Transcultural de Música/Transcultural Music Review* 12 (July 2008), <http://www.sibetrans.com/trans/trans12/art09.htm>; François Bernard Mâche, *Music, Myth, and Nature, or, the Dolphins of Arion* (Philadelphia: Harwood Academic Publishers, 1992); Suzannah Clark and Alexander Rehding, eds., *Music Theory and Natural Order from the Renaissance to the Early Twentieth Century* (New York: Cambridge University Press, 2001); and Elizabeth Eva Leach, *Sung Birds: Music, Nature, and Poetry in the Later Middle Ages* (Ithaca: Cornell University Press, 2007).

16. In addition to the table of contents in *CDE*, see the four section introductions that Allen and Dawe provide, which also provide further bibliographies of related sources. Regarding popular music, see Pedelty, *Ecomusicology*; idem., “Ecomusicology, Music Studies, and IASPM: Beyond ‘Epistemic Inertia,’” *IASPM@Journal* 3, no. 2 (February 3, 2013): 33–47. Regarding American music, see Von Glahn, *The Sounds of Place*; idem, *Music and the Skillful Listener*. Regarding music theory, see Clark and Rehding, *Music Theory and Natural Order*.

17. Allen, “New Directions.”

Overall, when considering the modest past and current literature of ecomusicology, the field is dominated by approaches from sound studies, ethnomusicology, and musicological studies of the nineteenth, twentieth, and twenty-first centuries.¹⁸ Indeed, even this special issue of *JMHP* reflects this lack of pre-nineteenth-century material: all of the contributions deal more with current centuries rather than with centuries past. Part of the issue here may have to do with shifting terminology. Music historians might discuss relevant ecomusicological issues in the repertoire of earlier periods using topoi such as the pastoral or the exotic, so we should be attentive to such diversity and changes in language use.¹⁹ Or the issue may be simply the relative lack of maturity of the field of ecomusicology. Consider a parallel situation in environmental history, which began in the 1960s and 1970s as a subdiscipline focusing on the United States but soon expanded. By the early twentieth century, environmental histories were being written about much longer time frames and farther flung places.²⁰ With so little music historical scholarship on ecomusicological subjects from prior to the nineteenth century, there exists what I will call a “short music history” in ecomusicology—which is in turn reflected in the teaching of music history. If there is a greening of musicology and, by extension, the broader expanse of the Western music history curriculum, then it is a rather light shade of green.

This short music history is bound up with the fact that contemporary ecomusicology is in many ways a response to our current environmental crisis—itsself a manifestation of cultural activities exploiting nature (e.g. the industrial revolution) that began in earnest in the nineteenth century.²¹ That crisis precipitated the late-twentieth century rise of environmentalism and academic environmental studies, which have informed many disciplines and attuned students, scholars, bureaucrats, and the public alike to sustainability challenges. Those challenges in turn have resulted in increased eco-cultural products (music,

18. For further resources on scholarly and popular literature in or relevant to ecomusicology, see Aaron S. Allen and Miranda S. Freeman, “The Ecomusicology Bibliography via Zotero: A Dynamic and Emerging Scholarly Resource,” *Ecomusicology Newsletter* 1, no. 1 (2012): 6-9.

19. As one recent big data research project has shown, there are hundreds of terms and phrases associated with “sustainability” as a follow up to “environmentalism” in the early decades of the twenty-first century. See Malcolm L. McCallum, et al., “Changes in United States’ Citizens’ Interest in Sustainability (2004 – 2014),” *Life: The Excitement of Biology* 4, no. 3 (2016): 138–164.

20. J. Donald Hughes, *What Is Environmental History?* (Cambridge: Polity, 2006). A brief selection of recent environmental histories of the medieval and Renaissance / early modern periods includes: John Aberth, *An Environmental History of the Middle Ages: The Crucible of Nature* (New York: Routledge, 2013); Richard C. Hoffmann, *An Environmental History of Medieval Europe* (New York: Cambridge University Press, 2014); James H. McGregor, *Back to the Garden: Nature and the Mediterranean World from Prehistory to the Present* (New Haven: Yale University Press, 2015).

21. See Orr, *Hope is an Imperative*; and Paul J. Crutzen, “Geology of Mankind,” *Nature* 415, no. 6867 (January 3, 2002): 23–23.

literature, film, art, etc.) and the inevitable criticism via fields such as ecocriticism and ecomusicology. The development of ecomusicology simply represents one aspect of contemporaneous cultural shifts regarding the environmental crisis. The orientation of ecomusicology, in this sense, is towards the present and the future rather than the past. Although understandable, this orientation does a disservice to the lessons of history that can be brought to bear on the multifarious connections of music/sound, culture/society, and nature/environment. As I have argued elsewhere, ecomusicology matters because it helps us both to understand the crisis of culture that has precipitated the environmental crisis and to address those crises through integrative, creative critical thinking.²² Historical dimensions in general and of ecomusicology in particular are therefore crucial. Refining the challenge that I laid out in 2011, I would elaborate it by saying that work is needed on ecomusicology pedagogy that moves beyond the short music history in ecomusicology. In order to begin addressing this challenge in more detail, I turn to my own experience in the classroom—first presenting and critiquing a class I offered and then outlining ideas for greening the music history survey—before concluding with some broader reflections on ecomusicology in the liberal arts.

An Ecomusicology Class Critiqued

The syllabus for my spring 2015 “Music and Environment” course (see Appendix) is illustrative of the short music history in ecomusicology: the majority of the readings and activities emphasize late-twentieth and twenty-first century ideas, sounds, and musics. The course is also indicative of the problem I imagine many of us face: finding a place in already full curricula to include yet another approach to the study of music history, particularly as textbooks get longer, more material is available, and curricular allocations for music history get ever shorter. Because most of the degree programs in my institution’s School of Music are pre-professional (rather than liberal arts) and have completely full curricula with virtually no room for electives, I had to apply to teach my course as a seminar for first and second year students in the honors program. As such, I was required to meet general education requirements and to provide a setting that introduced a relatively small class (seventeen) of non-majors to challenging, seminar-style discourse. I would have structured the class differently for a larger, non-major, non-honors course (by doing fewer readings/discussions and more lectures with frameworks and discussions), I would have changed it

22. Allen in Allen et al. “Colloquy: Ecomusicology,” 391-393 and 414-419, especially at 414; Aaron S. Allen, “Ecomusicology: Bridging the Sciences, Arts, and Humanities,” in *Environmental Leadership: A Reference Handbook*, ed. Deborah Rigling Gallagher, vol. 2 (Thousand Oaks, CA: Sage Publications, 2012), 373–381.

for a class of music majors (by incorporating more technical readings, sound recordings, and/or performance exercises). And as is common in looking over a class retrospectively, I see its problems more clearly—especially in regard to this short music history in ecomusicology. I do not claim this course as a model for teaching ecomusicology, for I believe that there are many ways to teach ecomusicology, just as there are many ecomusicologies; such diversity is a strength.²³ With this particular class, I taught advanced undergraduates in a seminar rather than a class on foundational knowledge in ecomusicology; thus, I emphasized civil discourse, critical thinking, writing, and the place of ecomusicology in a liberal arts education for non-majors who were not required to have any previous musical experience.

I structured the semester to begin with a two-week introduction during which I led discussions, followed by units on soundscapes and ecocriticism during which the students (mostly) led discussions. After an interlude and spring break, we returned for a unit on ecomusicology, during which the students again led discussions. The final unit was dedicated to a single composer, Philip Glass, who happened to be visiting our institution for a performance of his opera *Kepler* as part of a campus-wide event. The trajectory after the introduction from soundscapes through ecocriticism to ecomusicology followed by an in-depth case study was, I felt, generally productive. At the same time, if I were to offer the class again, I would likely elect to spend the final unit on a variety of ecomusicological articles (e.g. from *Current Directions in Ecomusicology*) and/or to spend more time on each of the previous units (rather than spend a unit on a single composer). In addition, I would want to incorporate throughout more historical case studies.

The introductory unit did include two historically-oriented topics (the liberal arts and materiality) in addition to covering definitions and doing a case study of a contemporary singer-songwriter (Bruce Cockburn).²⁴ I included a number of my own writings at the outset, in part to break-down the student-professor barrier (because I encourage the students to critique the readings, a practice I model for them) and in part to create a more relaxed atmosphere for their writing later in the semester (as I say to them: “If I get to read and critique your writing, then you should get to read and critique my writing too!”). My article on ecomusicology and education provides a brief history of the liberal arts and a series of case studies—but only a few references were to issues or musics prior to the twentieth century.²⁵ I framed the course in terms of a liberal arts education in part because the students were from all different

23. Allen and Dawe, “Ecomusicologies,” 6-8.

24. Aaron S. Allen, “Bruce Cockburn: Canadian, Christian, Conservationist,” in *Political Rock*, ed. Mark Pedelty and Kristine Weglarz (Burlington, VT: Ashgate, 2013), 65-90.

25. Allen, “Ecomusicology: Bridging the Sciences, Arts, and Humanities.”

majors receiving such an education (in contrast to being music majors, most of whom at my institution receive a pre-professional, non-liberal arts degree). This framing is also a part of my larger idea for ecomusicology in a liberal arts education, which I will discuss further below.

The second historical topic of the introductory unit is materiality, by which I mean the natural resources—animals, plants, minerals, energy, etc.—necessary to provide physical objects (especially those useful for musical instruments or playback). For this section, I used my article “Fatto di Fiemme,” in which I consider the medieval history of the Italian Val di Fiemme and the ecology of the area, the history and (literal physical) foundations of Venice and shipbuilding there, the seventeenth- and eighteenth-century rise of the violin, and the colonial history of Brazil. These ideas are connected with contemporary issues of habitat loss, forest stewardship, natural resource management, cultural preservation, and the roles and aesthetics of violins in musical and material cultural. In addition to the reading, I provide a lecture that integrates substantial visual material from historical sources and my own travels. I also pair this essay with the film *Musicwood* (2013), a documentary about contemporary guitar makers and the tonewoods they need and players want.²⁶ The film focuses on woods from the Tongas National Forest in southeast Alaska, which is logged in destructive ways, raising a complex set of questions concerning ethics and aesthetics as well as economics, equity, and the environment (elements of sustainability that I present in a lecture). My article brings up similar issues with regard to the manufacture of violins and their bows—although, in my experience in this and other classes, the film elicits much more ire, passion, and engagement from students. All periods and all places that rely on material for music—from accordions to zurnas, rosewood to ivory, parchment to iPods—can be considered from such a material ecomusicological perspective.²⁷ (I discuss materiality and the liberal arts further below when I expand my consideration to the general music history curriculum and the broader role of ecomusicology in education, respectively.)

While the soundscape unit also offered some general historical material, the class otherwise engaged entirely with twentieth and twenty-first century

26. Maxine Trump, *Musicwood* (2013), <http://musicwoodthefilm.com>. See also the review by Jeannette Catsoulis, “‘Musicwood’ Looks at a Threat to Instrument Makers,” *The New York Times*, October 31, 2013.

27. See also Kevin Dawe, “Materials Matter: Towards a Political Ecology of Musical Instrument Making,” in *Current Directions in Ecomusicology*, 109–121; Kyle Devine, “Decomposed: A Political Ecology of Music,” *Popular Music* 34, no. 3 (2015): 367–389; Robin Ann Ryan, “‘Didgeri-Doos’ and ‘Didgeri-Don’ts’: Confronting Sustainability Issues,” *Journal of Music Research Online* 6 (August 29, 2015), <http://www.jmro.org.au/index.php/mca2/article/view/121>; and Alex Smith, “New Musical Contexts for More Sustainably-Made Marimbas,” *Percussive Notes Online Research Edition* 1 (December 2016): 32–42.

musics. Schafer's *Soundscapes* book touches on history throughout, usually to help inform sonic awareness in the present (which we activated through listening exercises such as soundwalks).²⁸ Ingram's *Jukebox in the Garden* focused on twentieth-century America (although this post-1960s popular music was, for the students, "historical"). In his guest lecture, Torvinen discussed environmental themes in contemporary Nordic heavy metal.²⁹ The great majority of the students' first program notes assignments included twenty-first century popular music (all of which they chose). Afterwards, we worked through Pedelty's engaging exploration of twentieth and twenty-first century folk and pop music (and Pedelty joined us via video conference for a discussion).³⁰ The students then did their second program notes for the public screenings of operas and films with music by Philip Glass. Their final research papers also engaged with Glass's concert, operatic, or film music.

The class overwhelmingly focused on contemporary musics, sounds, and issues. Yet as a historian, I cannot help but want to do more with even deeper historical materials to broaden the students' purview of human-nature relationships as manifested in music and to diversify the musical material, ideas, and cultures under consideration. I would like, in other words, not only to move beyond the short music history of ecomusicology but also to move beyond the relatively narrow focus on musics of Europe and North America. While we moved from classic rock to Disney and from minimalism to hip-hop with relative ease, there was an absence of global and historical materials that could have been brought into the discussion. I am aware of and confident about including the many global, non-Western, and non-elite musics, as well as more general concepts of sound, all of which are increasingly discussed in eco-ethno-musicology / environmental ethnomusicology / ecomusicology. But it is the pre-nineteenth-century historical materials—be they Western, elite, subaltern, obscure, common, non-Western, canonical, or otherwise—that are being left out of the discussion and classroom. Of course, I am referring to my own classroom, but I find that to be the result of the dearth of relevant materials in the broader literature.

28. R. Murray Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World* (Rochester, VT: Destiny Books, 1994). One potentially interesting avenue for expanding this section would be to incorporate elements of Järviluoma, *Acoustic Environments in Change*.

29. While most of his relevant publications are in Finnish, see Torvinen's research project website (<http://www.utu.fi/mnec>) and the following interview with him: Sini Mononen, "Experiencing Environmental Crises Through Music," *Ecomusicology Review* 4 (2016), <http://www.ecomusicology.info/experiencing-environmental-crises-through-music/>.

30. Pedelty, *Ecomusicology*. Given its greater diversity of musical examples and an inclusion of "applied ecomusicology," I would substitute the *Ecomusicology* monograph with his more recent *A Song to Save the Salish Sea*.

Ecomusicology and the Music History Survey

An individual ecomusicology class, such as my “Music and Environment” seminar discussed and critiqued above, is one way to green the music curriculum. Another avenue would be to incorporate ecomusicological issues or modules into the general music history survey. Doing so presents at least three challenges.

First, the music history survey is already overflowing with material, so how could we add yet more? Textbooks only seem to get longer. Moreover, I have already crafted a set of materials (topics, lectures, readings, assignments) that I enjoy and employ in my music history survey. At the same time, the history sequence at my institution has been truncated from three to two semesters. I imagine others are in similar situations in regard to feeling overwhelmed by the volume of material, to having already developed well-prepared materials, and to struggling for curricular space. However, I am not suggesting we add new materials or new classes; rather, I suggest that we build on or contextualize further the existing materials.

A second challenge is regarding the apparent objectivity of music history. If we were to “ecomusicologize” the survey, would that be an inappropriate use of our power as teachers, a sort of political activism? Perhaps, but humans write and teach history, and it is not an objective science. (Even the so-called objective sciences are informed by human ideology.³¹) We have been down this road before with the continual efforts to improve the representation of gender, sexuality, race, and difference in the music history survey. Scholarship is inherently activist in that it seeks to support a claim or argument; we do it with the facts available and do our best to reflect the reality as we understand it—but even avoiding something is itself a political act.³² As human societies have dealt with issues of gender, sexuality, race, and difference, so too have they dealt with complex relationships with nature and the environment. Music history is one lens to examine and experience such issues.

The third challenge involves the status of “the music itself.” Music history contextualizes musical works; it does not present them as New Critical abstractions subject only to analysis as disconnected from everything else. But does connecting our musical “canon” to nature, environment, and the pastoral—in short, to the real, dirty, base world—somehow threaten the status of these works? In other words, would ecomusicological interpretations serve to

31. For a classic example in environmental studies, see Lynn White, “The Historical Roots of Our Ecologic Crisis,” *Science* 155, no. 3767, New Series (March 10, 1967): 1203–1207. White’s seminal article has been widely discussed and debated; see, for example, Timothy C. Weiskel’s selected bibliography (through 1997), “The Environmental Crisis and Western Civilization: The Lynn White Controversy,” <http://ecoethics.net/bib/1997/enca-001.htm>.

32. Philip V. Bohlman, “Musicology as a Political Act,” *The Journal of Musicology* 11, no. 4 (Fall 1993): 411–436; see also Allen et al., “Sustainability and Sound.”

destabilize the pedestals on which these monuments are placed? For some in a university setting, ecomusicological focus on these broad concepts might be understood to detract from the focus on “the music itself”: doing so might undermine teaching, threaten beliefs about the autonomy of art, de-emphasize the importance of performance repertoire, and/or chip away at the music school business model. In all honesty, the activist in me would welcome such a shake up, but I am not so convinced that ecomusicology has the power to break down—or even cause cracks in—the established order (I would be glad to be shown otherwise). Nevertheless, greening music history could also provide a relevant outlet for making the world better via studying and creating meaningful art, connecting human social worlds, encouraging environmental responsibility and sustainability, and understanding humanity’s fundamental connections to nature.

These challenges (whether real or perceived) add to the existing challenges of a music history curriculum already burdened with too much material to cover meaningfully, with the need to incorporate issues of identity, and with the necessity of important diachronic subjects of technology, aesthetics, and the mechanics of musical style. Nevertheless, we can begin to green the music history curriculum by starting with a few moments in the survey. Greening the survey from Romanticism to the present should be relatively straight forward, so in the following I focus on a few materials relevant to pre-1800 music history. Broadly, I propose considering two general ideas: materiality and the idea of nature.³³

By materiality, I am not referencing emerging trends in the philosophy of materialism, but referring (as I did above) to studies that consider the actual natural resources needed to create artifacts. Surveys of Western art music often begin with Ancient Greece in part because we can associate musical ideas with surviving artifacts, such as books, papyri, vases, architecture, stones, etc. These artifacts are an ideal beginning point to introduce the idea of materiality that can provide a basis for ecomusicological modules in later periods. Medieval manuscripts are another opportunity: parchment and vellum come from

33. Another approach might be animals, which would be an interesting way to begin a de-centering of the human in a traditionally human-focused discipline, thus furthering efforts of posthumanism in the environmental humanities; see especially part two of Ursula K. Heise, Jon Christensen, and Michelle Niemann, eds., *The Routledge Companion to the Environmental Humanities* (New York: Routledge, 2017). For more specific (eco)musicological ideas for such an approach, see especially section three of Doolittle, “Crickets in the Concert Hall.” Zoomusicology is explored further in that volume of *TRANS* as well as in Dario Martinelli, *Of Birds, Whales, and Other Musicians: An Introduction to Zoomusicology* (Scranton, PA: University of Scranton Press, 2009). See also Rachel Mundy, “Birdsong and the Image of Evolution,” *Society and Animals* 17, no. 3 (2009): 206–223.

animals, and paper comes from plants and trees.³⁴ The human voice is part of the body that is a product of nature, but instruments are perhaps a better opportunity to bring in materiality regarding the plants (reeds, trees), metals, and animal parts necessary to make (and recreate) them.³⁵ In the music history survey, instruments are discussed with regard to Ancient Greek and Roman music and again in medieval and Renaissance units, but instruments receive particular attention in the Baroque, especially with regard to the development of violins (and keyboards). In this context, then, it is worth considering both the negative and, remarkably, the positive impacts on forests resulting from the aesthetic powers and cultural positions of the violin, particularly Antonio Stradivari's instruments.³⁶ (Although a later phenomenon, the democratization of the piano, often seen in such positive light for Occidental music culture, had profoundly negative impacts on elephants.³⁷)

The idea of nature often comes up in relation to texts/lyrics, but broader philosophical ideas are also relevant. Late Medieval musicians and theorists discussed the validity of birds as models and of singing like birds.³⁸ Italian Renaissance poets and musicians used the pastoral to represent their elite patrons as important members of society.³⁹ Nature was an important source for secular music in sixteenth- and-seventeenth-century England.⁴⁰ For centuries,

34. In my experience, most musicological examinations of manuscripts begin with the copying or writing down of staves, music, and text; compositional processes is also of interest, as with Jessie Ann Owens, *Composers at Work: The Craft of Musical Composition 1450-1600* (New York: Oxford University Press, 1997). However, the first stage of understanding a manuscript should be to consider the materials. Rather than beginning with writing, we should be beginning with slaughtering animals and preparing their hides as parchment; gathering minerals, plants, and animal extracts to make ink and paint; crafting writing implements from bird feathers, wood, metal, or other natural materials; and using recycled materials and wood to bind the books. The Fitzwilliam Museum of the University of Cambridge provides an animated illustration of the process of creating a book, beginning with the slaughter of animals (http://www.fitzmuseum.cam.ac.uk/pharos/sections/making_art/manuscript.html). See also the illustrated lecture (in video and transcript) by Sally Dormer, "The Making of Medieval Illuminated Manuscripts," Museum of London, 2012, <http://www.gresham.ac.uk/lectures-and-events/the-making-of-medieval-illuminated-manuscripts>.

35. See Aaron S. Allen and Laurence Libin, "Sustainability," *Grove Dictionary of Musical Instruments* (New York: Oxford University Press, 2014).

36. Allen, "Fatto di Fiemme."

37. Christopher Joyce, "Elephant Slaughter, African Slavery and America's Pianos," National Public Radio, August 18, 2014, <http://www.npr.org/2014/08/18/338989248/elephant-slaughter-african-slavery-and-americas-pianos>. Continuing into the twentieth and twenty-first centuries, consider also Daniel J. Wakin, "For More Pianos, Last Note Is Thud in the Dump," *The New York Times*, July 29, 2012.

38. Leach, *Sung Birds*.

39. Giuseppe Gerbino, *Music and the Myth of Arcadia in Renaissance Italy* (New York: Cambridge University Press, 2009).

40. Linda Phyllis Austern, "Nature, Culture, Myth, and the Musician in Early Modern England," *Journal of the American Musicological Society* 51, no. 1 (1998): 1-47.

music theorists appealed to nature to justify their ideas.⁴¹ Opera topoi in the eighteenth and nineteenth centuries often represented exotic locales and symbolic landscapes.⁴² And the seemingly abstract genre of the symphony engaged with the pastoral beginning in the eighteenth century.⁴³

While these and other subjects do have secondary sources available, they are still ripe for further ecomusicological considerations. The quantity of the existing scholarly literature may be relatively small compared to post-nineteenth-century subjects, but the limited character of this material is no reason to assume that there is no “there there”—i.e., that there is nothing ecomusicological about pre-nineteenth-century music history. Scholars in ecocriticism (literary studies) and environmental history, fields closely related to music history, have recently been producing increasing numbers of pre-nineteenth-century subjects.⁴⁴ The areas outlined above are starting points for greening the music history survey—and for lengthening that short music history in ecomusicology.

Ecomusicology and the Liberal Arts

In considering the development of a stand-alone ecomusicology course or the addition of ecomusicology to the music history survey, we are still left with the question, why ecomusicology? I am of the opinion that, as with the idea of “ecomusicologies,” there are a variety of responses to that question. Of course, one can ask “why?” as a fundamental query of relevance for any subject. In this case, we might re-phrase the inquiry as follows: Why is it important to green the music history curriculum? And as a corollary: Why do we need a longer music history in ecomusicology?

The rise of environmentalism in the twentieth century (in response to centuries of known and unknown missteps), the subsequent greening of a plethora of academic disciplines, the concomitant increase in relevant cultural products regarding questions of environment and of justice, and the contemporary and ecomusicologically prominent field-based methods of ethnomusicology—all

41. Clark and Rehding, *Music Theory and Natural Order*.

42. Consider, e.g., Jean-Philippe Rameau’s ballet héroïque *Les Indes galantes* (1735). See also Senici, *Landscape and Gender in Italian Opera*.

43. Aaron S. Allen, “Symphonic Pastorals Redux,” in *Extending Ecocriticism: Collaborative and Cross-Disciplinary Approaches*, ed. Peter Barry and William Welstead (forthcoming from University of Manchester Press; rev. rpr. of “Symphonic Pastorals,” *Green Letters* 15 (2011): 22–42).

44. A selection includes Aberth, *An Environmental History of the Middle Ages*; Lynne Dickson Bruckner, *Ecocritical Shakespeare* (Burlington, Vt.: Ashgate, 2011); Hoffmann, *An Environmental History of Medieval Europe*; Tom MacFaul, *Shakespeare and the Natural World* (Cambridge: Cambridge University Press, 2015); McGregor, *Back to the Garden*; Gillian Rudd, *Greenery: Ecocritical Readings of Late Medieval English Literature* (Manchester: Manchester University Press, 2007).

these seem to imply an insignificant role for music history in ecomusicology. However, there is ample relevance to and opportunity for the coordinated efforts of historical study, environmental studies, and music and sound studies. I believe it is important to green the music history curriculum, and by extension to lengthen the short music history in ecomusicology, for at least three reasons.

First, ecomusicology in the music history classroom could lead to meaningful experiences for instructors and students. Instructors may find an outlet for connecting multiple interests, such as the outdoors and sound, environmentalism and music, or animal rights and instruments. Students may find tangible examples of the power of music to do good and/or bad in the world, to ground in materiality something that is otherwise so ethereal, and to give relevance and meaning to what they are studying. Together, both students and instructors may forge relationships over shared passions, synthetic insights, the excitement of discovery, and the capacity to make a difference. Music history is not unique in this regard, but the music history classroom can be an unusual point of contact for such engagement.

Second, ecomusicology helps in examining and experiencing human entanglements with nature, and thus it helps in understanding the crisis of culture that is at the root of the environmental crisis. Major environmental problems are the result of human actions arising from disconnects between culture and nature; these are manifest especially in social, economic, technological, and scientific realms, but the solutions are not unique to those same realms. Rather, they are to be found in the connections and conflicts between culture and nature.⁴⁵ Music straddles these realms and can productively blur them; ecomusicology can make such relationships explicit and relevant, thus offering a context for and practice in the creative critical thinking necessary to recognize, analyze, and confront the greater challenges facing humanity and the planet. Thus, lengthening music history in ecomusicology parallels other historical disciplinary approaches that aim to open our minds and ears to the past and to inform understandings of human entanglements with nature and the crisis of culture.⁴⁶

Third, the inherent interdisciplinarity and creative critical thinking that ecomusicology provides means that it can find a place both in the specifics of

45. Many contributors to *Current Directions in Ecomusicology* engage with the problem of the nature-culture binary (see the index, page 309), which is a common focus in ecocriticism, environmental history, and environmental studies. See also Allen et al., "Colloquy: Ecomusicology"; Jill K. Conway, Kenneth Keniston, and Leo Marx, *Earth, Air, Fire, Water: Humanistic Studies of the Environment* (Amherst: University of Massachusetts Press, 1999); and Donald Worster, *The Wealth of Nature: Environmental History and the Ecological Imagination* (New York: Oxford University Press, 1993).

46. Hughes, *What Is Environmental History?*; Mark Smith, *Sensing the Past: Seeing, Hearing, Smelling, Tasting, and Touching in History* (Berkeley: University of California Press, 2007).

the music history curriculum and beyond in the more general liberal arts. I believe that this connection between ecomusicology and the liberal arts makes the most compelling case for the importance of ecomusicology in general and for the lengthening of its short music history in particular. From ancient Greek learning, the liberal arts were the basis of the medieval university, where they were organized into two multi-fold paths to wisdom: the trivium (grammar, logic, and rhetoric) and the quadrivium (arithmetic, geometry, astronomy, and music). As speculative inquiry, music was philosophical and mathematical, not practical or performative. Music was important because it engaged mind, spirit, and body through intellectual stimulation, religious worship, and earthly pleasures. Music was part of the scientific quadrivium rather than the literary trivium, lending some logic to the origin of musicology as “music science”—*Musikwissenschaft*. Ecomusicology makes this origin more pronounced by bridging the arts and humanities and the natural, physical and social sciences through the cultural study of music and sound in relation to the study of nature and the environment.⁴⁷

That bridging makes ecomusicology an ideal component of the liberal arts. Yet ecomusicology is no panacea: it cannot provide ultimate solutions to the major ecological problems and planetary crises we face. Ecomusicology is but one component among many in the diverse ecosystem of thought, learning, and action needed to address those crises from cultural, political, technological, and scientific perspectives. More than ever, those perspectives need to be connected in a rigorous liberal arts context with historical depth.⁴⁸

A liberal education involves the “development of the whole person.”⁴⁹ Such an education is not vocational or pre-professional. Moreover, it is not a “great books” curriculum, which itself is a vestige of an old approach that “was shaped around the goal of extending the human dominion over the earth to its fullest extent”—a dominion that resulted in the nature-culture divide that is at the root of modern environmental problems.⁵⁰ Since the last few decades of the

47. Allen, “Ecomusicology: Bridging the Sciences, Arts, and Humanities.”

48. Scholars and public forums from both the humanities and sciences are making such arguments. See Ursula K. Heise, “The Environmental Humanities and the Futures of the Human,” *New German Critique* 43, no. 2 128 (August 1, 2016): 21–31; Sverker Sörlin, “Environmental Humanities: Why Should Biologists Interested in the Environment Take the Humanities Seriously?,” *BioScience* 62, no. 9 (September 2012): 788–789; and The Editors, “STEM Education Is Vital—but Not at the Expense of the Humanities,” *Scientific American* (October 2016).

49. David Orr, “The Liberal Arts, the Campus, & the Biosphere,” in *Hope is an Imperative*, 273.

50. David W. Orr, “Reinventing Higher Education,” in *Greening the College Curriculum: A Guide to Environmental Teaching in the Liberal Arts*, ed. Jonathan Collett and Stephen Karakashian (Washington D.C.: Island Press, 1996), 19. See also White, “The Historical Roots of Our Ecologic Crisis.”

twentieth century, scholars have worked to green various disciplines, resulting in a new, more ecologically holistic approach to the liberal arts. David Orr has been one of the most passionate advocates of this new liberal arts curriculum, which, he argues, “must be organized around the need to develop the analytic abilities, ecological wisdom, and practical wherewithal essential to making things that fit in a world of microbes, plants, animals, and entropy: what can be called the ‘ecological design arts.’”⁵¹ Ecomusicology can offer the type of sensitive, creative, connected analysis and thinking that this new liberal arts approach requires. Orr outlines four components of a liberal arts education that aid in confronting environmental challenges. First, we must connect “the analytic mind with feelings” (that is, facts with emotions, the objective with the subjective). Second, we must connect otherwise disparate subjects. Third, we need to “provide a sober view of the world, but without inducing despair.” And fourth, we must “equip a person to live well in a place.”⁵²

Studies of music and sound, particularly when connected with environmental studies, are well positioned to contribute to this effort by 1) engaging simultaneously emotion with rationality, 2) connecting disparate subjects, 3) providing hope and excitement together with that sober view, and 3) relating music and sound to place. These contributions could indeed be made with only a short music history in ecomusicology. However, with a longer music history, ecomusicology is poised to make more diverse and substantial contributions to the broader greening of the liberal arts curriculum.

51. Orr, “Reinventing Higher Education,” 19.

52. Orr, “The Liberal Arts, the Campus, & the Biosphere,” 274-6.

Appendix

“Music and Environment” (Spring 2015)

Dr. Aaron S. Allen

UNIT ONE: Introductions

Week 1:

Tue. Allen, “Ecomusicology,” in *Grove*.

Allen, “Ecomusicology: Bridging the Sciences, Arts, and Humanities.”

Thur. Trump, *Musicwood*.

Week 2:

Tue. Allen, “Fatto di Fiemme.”

Thur. Allen, “Bruce Cockburn: Canadian, Christian, Conservationist.”

UNIT TWO: Soundscapes

Week 3:

Tue. Schafer, *The Soundscape*, introduction and chapters 1-4.

Thur. Schafer, chapters 5-7.

Week 4:

Tue. Schafer, chapters 8-13 (students sign-up to present individual chapters).

Thur. Schafer, chapters 14-19 and epilogue (students sign-up to present individual chapters).

UNIT THREE: Ecocriticism

Week 5:

Tue. Ingram, *Jukebox in the Garden*, introduction and chapters 1-2.

Thur. Ingram, chapters 3-4.

Week 6:

Tue. Ingram, chapters 5-12 (students sign-up to present individual chapters).

Thur. Ingram, continued.

INTERLUDE

Week 7:

Tue. Conclude Ingram discussion.

Thur. Guest, Dr. Juha Torvinen.

Week 8:

Tue. Informal class presentations on first program notes assignment.

Thur. Submit first program notes assignment.

Week 9: SPRING BREAK

UNIT FOUR: Ecomusicology

Week 10:

Tue. Pedelty, *Ecomusicology*, chapters 1-2.

Thur. Pedelty, chapter 3.(? at ASEH)

Week 11:

- Tue. Pedelty, chapter 4.
- Thur. Pedelty, conclusion.

Week 12:

- Tue. Guest, Dr. Mark Pedelty, via Skype.
- Thur. Conclude Pedelty discussion.
Strickland and Alburger, "Glass, Philip," in *Grove*.
Discuss second program notes assignment, organize groups.

UNIT FIVE: Philip Glass

Week 13:

- Tue. *Anima Mundi* (1992); *A Crude Awakening* (2006); *Kepler* (2009); and *Koyaanisqatsi* (1983), *Powaqqatsi* (1988), & *Naqoyqatsi* (2002).
- Thur. Submit second program notes assignment (to review and discuss in class).

Week 14:

No class meetings. Participate in events related to campus visit of Philip Glass.

Week 15:

DUE: Research paper (last day of class) and reflective essay (scheduled exam date).

A-R Online Music Anthology

<http://www.armusicanthology.com/anthology/Default.aspx>
free instructor access; \$60 for six-month subscription for students

ALICE V. CLARK, LOYOLA UNIVERSITY NEW ORLEANS

The essential starting point in planning the undergraduate music history survey for me, conjoined with my own set of learning outcomes, is not the textbook, but rather the anthology. Does the selection of pieces included tell the story I want to tell? A-R Editions has taken a leap forward by moving its anthology off paper into the internet, allowing faculty more than ever before to “choose your own adventure,” like the popular series of children’s books. The options are far from limitless—indeed, in many ways that selection remains as traditional as any existing anthology—but that move away from hard copy both gives more options and opens the door to further innovations, so it is worth celebrating.

I have used this electronic anthology for my classes for the past couple of years, and, while it’s not perfect, I expect to continue to do so. I should acknowledge up front that I also plan to contribute to its growing collection of associated essays, an expansion of the anthology that may allow me and others to move away from a traditional textbook entirely. (More on that below.) This review will therefore in some respects be a reflection on how I have used, and plan to use, the anthology in my classes.

It’s worth providing a brief description of that class, then. We have a two-semester survey, and my portion covers the traditional first half (antiquity through the baroque); we currently use Burkholder’s text throughout the year, and the second half (which I do not currently teach) uses the Norton Anthology. I have worked in recent years to “flip” my part of the course, which has required being much more selective about the styles and genres I take time for: two-part organum but not the conductus, Machaut’s ballades but not the *Messe de Nostre Dame*, Lully but not Rameau, and so on. Class activities, mostly in pairs or small groups, may allow encounters with some additional genres, but the general trend is toward deeper coverage of less material—though I still start with the Orpheus story and end with Handel responding to market forces in the creation of the English oratorio.

The A-R Anthology contains the same types of pieces, and in many cases exactly the same pieces, as the traditional anthologies. The main difference is a relative lack of 20th-century coverage, presumably because A-R has not been able to get rights to distribute recent music in this format. While the anthology includes a number of pieces by Debussy, other 20th-century holdings are limited to a piano sonata by Prokofiev, two *Saudades do Brasil* by Milhaud, a Gershwin prelude, Shostakovich's Eighth String Quartet, and Penderecki's *Threnody*, along with pieces by Duke Ellington, Cole Porter, "Fats" Waller, W. C. Handy, and Earl Scruggs. This, obviously, is insufficient for the last unit of most music history surveys. If I were teaching the second half of our survey, I would surely have to turn to a traditional printed anthology for this material—probably either the third volume of the Norton Anthology or a twentieth-century anthology such as that by Joseph Auner (also by Norton). I don't know whether there are plans to fix this lacuna soon—it's admittedly not an easy problem to fix—but for now, at least, it's a serious gap.

It's hard not to be concerned about the ever-increasing cost of textbooks and related materials, and I have expressed my own dissatisfaction with Norton's move to a three-volume anthology, which may be great for a three- or four-semester survey but is simply more weight and expense for students such as mine, who won't use much of that material in their one-year survey. (This disjunction will probably be even more acute as more institutions scale back or even eliminate a traditional survey in order to provide a different balance of breadth and depth.) A six-month student subscription to the A-R Anthology (instructor access is free) currently runs \$60, with unlimited access (including printing), only slightly more than the retail price of volume 1 of the Norton Anthology (currently \$53.75). Six months, unfortunately, won't get students through the academic year, or even quite far enough for Norton's third volume to pick up—remember that instructors will need to find an alternative for twentieth-century material—so students would either have to renew the subscription or turn to the hard-copy anthology for the whole of the second semester. In either case, the costs are basically comparable to those for the Norton materials. Site licenses are also available, but while my own institution's library might be willing to negotiate that if we used the anthology through the year, it's not cost-effective for them as long as I'm the only one who uses it. A-R might compete better by extending its subscription term to eight months, or even ten, with minimal (or no) increase in cost. I'll return to the question of cost, however, when considering the textbook angle below.

Aside from the problem of more recent music, in general the coverage is pretty good, even generous in some ways. Moreover, the anthology administration willingly accepts suggestions for additions, so if a particular item isn't there, it might be possible to get it. I haven't taken full advantage of this option,

because I had already dealt with the major lacunae of the standard anthologies that most affect me, but it is my intention to turn those personal additions into suggestions for the anthology.

The ability to tailor the selection of pieces is one of the biggest advantages of this format. No more does one have to lament the lack of a good trope while bemoaning the presence of multiple Italian madrigals! There is more here than one can possibly use, but here it is clear that the “anthology” is simply a body of music from which an individual instructor can make personal selections. They have marketed a set of “pre-set courses,” basically one for each style period (except the twentieth century) plus five for form and analysis classes. It is also possible to make class-specific lists (which is what I do), though the interface is terribly clunky: adding a piece puts it at the end of the list, and it is possible to move an item only one place at a time, so it can take considerable time and frustration to add a new piece to an early part of an existing class list. I also find awkward the fact that, even while working from a class list, a master list (or search result list) remains visible on the top of the screen, requiring constant scrolling down. While I’m noting technical obstacles, I’ll point out that only ten items are visible at a time in the course list. Finally, when editing a course list, doing a search for an item on that list yields no results—not in the general pool because anything on the list is apparently removed from the general pool, and not in the list, because there is no way to search within the list. It is necessary to browse—again, ten pieces at a time. All of this makes the anthology more difficult to use than it should be. To some degree this may be a necessary result of entering the electronic anthology age early, but it’s an annoyance, and that may prevent some people from choosing the anthology.

The editions are generally decent or better—sometimes new, sometimes borrowing from existing editions, and about as good as can be found in the other standard anthologies. Chant is rendered in modern stemless noteheads (not my preference). Unfortunately, texts and especially translations are not always given; this is something that I hope is high on the list of improvements to be made for future editions. Similarly, I would in some cases like more guidance for the student—for instance, for the chants for Christmas, each item is titled simply by its text incipit, with no indication of the type of chant. The fact that there are no commentaries—as can be found in the Norton Anthology and some others—may turn off some instructors, but I find it easy enough to make up for that with pre-class videos and other materials and in-class activities. Indeed, sometimes what I want to do in class is essentially covered by the commentary in other anthologies, so in a way I find their absence in the A-R materials to be liberating. There are no commentaries here to steal my thunder (or rather, to pre-empt what I hope will be my students’ insights).

I find the way the music is placed on the screen to be awkward: the index frames remain on the left, while the music is added to the right, which requires scrolling to get to what I want to see. I expect this is even more problematic if using the anthology on a tablet or phone, as many students tend to do. Moreover, only one page is visible at a time. I almost always use this stage simply as a vehicle to “print” the piece as a PDF file, or even a hard copy, either of which is much easier to use.

I first set up a class list, then ask students to bring hard copies of specific pieces to class, so that they can make notes, etc. I’ll admit this works imperfectly, but it is no worse than requiring them to bring the anthology to class in book form. I also use anthology content for special projects: for instance, I have had groups report on examples of sixteenth-century sacred (or secular) music, using five or six pieces I wouldn’t have time to cover otherwise. Traditional anthologies can often be used for this as well, but I find that sometimes they are not quite up to the job; this is a place where the extra material becomes very useful indeed.

The cost of the anthology subscription recently rose from \$50 to \$60, because it now includes a series of “textbook” essays: one general overview per style period is available now, and period surveys of genres and forms and music theory are planned, as well as specific essays on major composers and significant works. This area, like the anthology itself, is likely to continue to grow according to the interests and needs of its users. The period overviews range from 19 to 33 pages. Given the obvious constraints, opinions of the value of these are likely to vary, but I’m pleased to say I find much to like in the ones I would use in my own class, and here I’ll focus on my own native ground of the middle ages. James Maiello, who wrote the medieval essay, is not the only one to acknowledge that complete coverage is impossible within the space available, choosing instead to focus on four broad themes: “organizing sound” (modes, etc.), the birth of polyphony, intersections of sacred and secular, and intertextuality. These four themes cover many of the basic issues of the period, though of course they leave much to be done in the context of the class, through supplemental readings, lectures (in class or video), class activities, etc.

I find such overviews awkward even in a traditional textbook: at the beginning of the unit, students aren’t ready for much of what is here, and at the end of this unit, it’s too late. This is not by any means a criticism of Maiello’s work (or of the other essays), but an inherent difficulty of this sort of essay, which moves in about 15 pages of text (plus bibliography, related material, and musical examples) from 476 to 1417. Actually, Maiello’s four themes align closely enough to my own thinking, and to some degree take up distinct enough chunks of the period, that I’m less worried about his essay than some others. I’m even more nervous about a single essay dealing with genres and forms, or with theory, of

the entire period. To summarize over a thousand years of material, covering both monophonic and polyphonic developments, seems to me to be an impossible task—if not for the writer, then certainly for the student reader. I'd much rather see these essays, especially the ones covering genres and forms, cover smaller units: chant, say, or the medieval motet. Some of this material may well be better covered in the more focused composers and works sections, which I am likely to use much more. Still, it can be difficult to speculate about the usefulness of essays that don't yet exist.

I am looking forward, however, to seeing these additional essays, and I'm already toying with the question of whether they, in combination with Grove and other reference resources, scholarly articles, documents, and other materials, could allow me to move away from a textbook entirely. This brings back the issue of student cost, because the \$60 subscription could replace both textbook and anthology, which would generate real savings for the student—though in my own case, that savings would still be limited, because students would still have to buy the traditional textbook for the part of the course I don't teach, as well as the related anthology volumes.

The A-R Anthology, then, is at the same time both traditional and revolutionary. Its content and approach echo printed antecedents, but it also opens up potential new ways of thinking about how we teach the basic music history survey. (I haven't spoken here about non-survey courses, because I don't use anthologies for those classes, nor would this or any other anthology easily serve those courses, at least the ones that I teach.) Its technical clunkiness may well seem insurmountable, or not worth dealing with, for those who are happy with current materials and current techniques, but for those looking for something new, it provides interesting opportunities, and in its openness to continued adaptation, it can allow a committed instructor to shape the future.

Rebecca M. Rinsema, *Listening In Action: Teaching Music in the Digital Age*. New York: Routledge, 2017. xv + 172 pages. \$121.60. ISBN 978-1-472-44351-9. Ebook (\$38.47) ISBN 978-1-315-59255-8.

CHRISTOPHER J. WITULSKI, BOWLING GREEN STATE UNIVERSITY

According to Rebecca M. Rinsema, the ways in which instructors use listening with their students are disconnected from what they actually do in their own lives. This failure to recognize “just listening” as an authentic form of musical engagement marginalizes what could be an important classroom tool. In *Listening in Action: Teaching Music in the Digital Age*, she examines student listening practices and challenges teachers to meet students where they are. The book is a part of a series for Routledge Press from SEMPRE, the Society for Education, Music, and Psychology Research (<http://www.sempre.org.uk>) titled “Studies in the Psychology of Music,” which focuses on musical learning.¹ It is guided by the author’s own experience teaching popular music to undergraduate liberal studies students, who will likely sound familiar to most college-level teachers.

Rinsema orients her book around a pair of questions. With regard to the “new era” of listening since the introduction of Apple’s iPod in 2001, she asks “What do music listening practices and experiences consist of in the age of digital technologies?” Her second question is “What should music educators do, in terms of music listening, to facilitate music learning in the digital age?”² In addressing these two large questions, *Listening in Action* brings a wide range of literature into conversation. While she writes primarily for music education researchers and teachers of appreciation or popular music-type high school and college-level classes, she provides a real service by integrating knowledge from a wealth of tangential fields (especially musicology, philosophy, and ethnomusicology). Rinsema illuminates the ways in which these perspectives—especially

1. Other reviewed works in this series include Reeves Shulstad, Review of *Creative Teaching for Creative Learning in Higher Music Education*, Elizabeth Haddon and Pamela Burnard, eds., this *Journal* 7, no. 2 (2017): 136–39.

2. Rebecca M. Rinsema, *Listening in Action: Teaching Music in the Digital Age* (New York: Routledge, 2017), 2.

their history of bias toward composer intention and decontextualized musical texts—have shaped music education’s focus on “structural listening” to the exclusion of “everyday music listening experiences.” This leads to a tripartite central thesis:

Everyday music listening is meaningful.
Everyday music listening can lead to musical understanding
Everyday music listening is creative.³

Listening in Action is organized into three sections. The first, “Philosophy,” presents a history of thinking about listening, with special attention given to music education’s various approaches. The second, “Observation,” details Rinsema’s own study of music education models and the listening practices of students. The third, “Practice,” outlines broad principles for music teachers and researchers based on insights gained from her study.

The first section, “Philosophy,” articulates the “gap that exists between the in-school and out-of-school musical experiences of children and adolescents.”⁴ Rinsema critiques various models of learning that inform much music education pedagogy. She especially engages concepts such as Madsen and Geringer’s “passive hearing” and active listening⁵ and David Elliot’s praxialism.⁶ Using recent studies, she problematizes the “focus model” of active listening. One of the book’s many insights concerns Rose Subotnik’s study of the early twentieth-century philosophers Theodor Adorno and Arnold Schoenberg and the idea of the concentration of musical meaning within the music itself, with respect to the composer’s intent.⁷ This concept of musical meaning, Rinsema argues, resulted in the notion of the “ideal listener,” a fictional persona frequently referenced in music education who is able to discern innate meaning from music through listening.

Building on previous scholarship, Rinsema shows how this concept of the ideal listener is linked to classroom bias toward listening for learned musical terms, concepts, and structures (“phrase, tonality, or form,” for example) and away from everyday listening experiences.⁸ She responds by arguing that all listening is a meaningful activity constitutive of personal and social identity,

3. Rinsema, 5.

4. Rinsema, 15.

5. Clifford Madsen and John Geringer, “A Focus of Attention Model for Meaningful Listening,” *Bulletin of the Council for Research in Music Education* 147 (Winter 2000/2001).

6. David Elliot, *Music Matters: A New Philosophy of Music Education* (New York: Oxford University Press, 1995 and 2014).

7. Rose Subotnik, *Deconstructive Variations: Music and Reason in Western Society* (Minneapolis: University of Minnesota Press, 1996).

8. She is primarily following Rose Subotnik’s work, cited above, and Ola Stockfelt, *Musik Som Lyssnandets Konst: En Analys av WA Mozarts Symfoni no. 40, g moll K. 550 [Music as the Art*

and she calls for researchers to attend to this bias, claiming that “music education researchers have investigated everyday listening practices and investigated ways in which such practices could inform music listening pedagogies on a very limited basis.”⁹ Her well-researched review of recent scholarship shows that this is hardly an innovative claim, but the continued disjuncture between some pedagogical approaches and the lived realities of many students necessitates her intervention.

The second part of the book, “Observation,” recounts the study itself. Rinsema’s extended interviews with ten undergraduate liberal arts college students focused on music listening technologies and the participants’ listening preferences before moving beyond questions of aesthetics to examine ideas of identity, influence, and personal development. Broadly, these interviews seek to discover how, when, and why these students listen to music. (Short biographical narratives and the thematic material that she covers in her interviews appear in the appendices, allowing us to see a range of musical training and family histories.) The five chapters of Part II proceed to relate the participants’ responses—which variously support and contradict the scholarship—to pedagogical and theoretical concepts (like passive listening and praxialism). This juxtaposition extends these tools in a way that more accurately reflects students’ experiences.

Chapter 5, “Organizing the Experience,” is particularly insightful in demonstrating the organizational power of digital technology and the resulting opportunity for creativity. For example, she highlights the ubiquity of “title” and “artist” as organizing structures and further observes that “[a]ll of the participants said that they do not regularly use the categories of album and genre when searching for songs” (85). This points toward a listener-centric organization that ignores, or at least minimizes, the artist’s intentions (by discarding an album’s order) and the music industry’s efforts at categorization (through structures like genre). The album, she notes, is a playlist made by someone else and genre is, as described by one of the participants, largely a marketing tool:

Yeah, people say they play music like acoustic-indie-grunge-funk and I’m like whatever. I’m not even sure what that means, just random words put together for, like, a certain kind of image for their band, I think.¹⁰

Despite the attention Rinsema gives to listener agency in organizing musical experiences, the speed at which these technologies change creates lacunae. For example, Spotify’s platform, which is frequently mentioned in the book, offers a wealth of pre-created playlists targeted for specific moods or activities.

of Listening: An Analysis of WA Mozart’s Symphony No. 40 in G minor (K. 550)] (Gothenburg, Germany: University of Gothenburg, 1988).

9. Rinsema, 29.

10. Rinsema, 86.

Many participants create lists for purposes of study, exercise, sleep, and joy. She does not, however, address how often those lists are discarded or adapted once Spotify puts new proprietary ones like “Beast Mode,” “Deep House Relax,” or “Acoustic Summer” on a user’s home screen. Rinsema does relate nuanced reflections from the study participants however, who articulate how accurate statistical records (like play counts) influence them, how they will skip within and across songs to see what is “working” for them, and why some use services like Pandora or functions like the shuffle button to “choose chance.”¹¹

Highlights from other chapters in this section include discussions of how participants use these technologies to navigate both physical and a variety of imagined virtual spaces, leading toward further implications about how listening can create musical understanding (Chapter 6). Digital technologies also consistently granted a degree of self-control over listening practices that served adolescent development for each participant, showing that these experiences are both meaningful and creative (Chapter 7).

The third section, “Practice,” contains pedagogical recommendations that recognize how musical experiences are creative products that do not require formal training. Rinsema counters the idea, put forward by Robert Dunn, that musical experiences are a means an end. Instead she contends that the very act, not any “mental representations” arising from it, is a creative product.¹² Her goal is for everyday listening to be valued more directly, consistently, and intentionally within the classroom. To this end, she provides a set of principles and practices that “mirror and extend” student experiences. These include encouraging students’ exploration of their own listening practices; exploring (and teaching) resources for listening; providing language to talk about listening and its role within other activities, including teaching the terminology that Rinsema uses in this book; mirroring everyday listening practices like creating playlists, sharing music, and incorporating movement into listening within the classroom; experimenting with different speakers and headphones to engage space; and invoking reflection on choices, comparisons, and broader questions about what one chooses to listen to and why. Overall, her approach stresses that teachers should not assume that students completely understand and know how to maximize listening technologies. On the contrary, music educators can contribute to meaningful and relevant everyday listening practices by teaching critical skills with, and about, digital technologies.

There is one fundamental gap in the discussion of how this “new era” differs from that of the past: there is no engagement with the pre- and post-streaming

11. Rinsema, 89-90.

12. Robert Dunn, “Contemporary Research on Music Listening: A Holistic View,” in *MENC Handbook of Research on Music Learning: Volume 2: Applications*, ed. Richard Colwell and Peter Webster (New York: Oxford University Press, 2011), 3–60.

reality of access to new music. What happens to listening, when so much of the world's recorded music is immediately available? How does that level of access transform consumer behavior from that of earlier times, when one might need to save up for a particular new single or release at the expense of choosing a different one? How are communities of listening today different from those of the past, when one might have had to go to a friend's house to hear the latest album from a favorite artist? These questions, admittedly, are not strictly speaking a part of the effort to better understand contemporary university students' individual listening practices. But addressing them would have helped Rinsema to speak more directly those teachers who may read her pedagogical recommendations. Her thoughts on these questions might have helped teachers who struggle with what they may themselves see as a gap between their listening practice and those of their students. To this end, she does emphasize the opportunity that collaboration provides for exploring musical communities within the classroom, and some participants reflected on family members or friends who influenced their own listening histories, yet there remains an opening for further work to see how these observations relate to communities of listeners outside the classroom.

Listening in Action concludes with a call for "musical hermeneutics" at all levels of the music education curriculum. Rinsema observes that finding meaning in musical content often sits within the domain of higher education and argues instead for activities that engage meaning and meaning creation relationally, by bringing in other multimedia forms, for example. She cites these activities as personal and creative while noting the importance of meaning creation for her participants' adolescent development. Using Lawrence Kramer's work on hermeneutic windows as a model, she redirects agency from the music-as-object model to listeners by focusing on media integrations (the relationship between music and video, album art, or other imagery, for example), allusions (music that relates to other music), and actions (the relationship between music and other activities or contexts).¹³ Rinsema demonstrates the practicality of her listener-centric methodology through a welcome case study of her own teaching in which she uses popular music videos to explore how artists and listeners alike create meaning in music. Her examples also serve to problematize pedagogical examples drawn from other music education texts. This leads to an impassioned plea in the final chapter:

The problem is that there is such a rush to get students to create something (anything!) tangible that hermeneutic explorations are truncated and, even more often, completely skipped over. What many music educators miss is

13. Lawrence Kramer, *Music as Cultural Practice, 1800-1900* (Berkeley: University of California Press, 1990).

that the construction of possible meanings of the music is a creative process in and of itself.¹⁴

While the book is not particularly long, its various literature reviews and contemporary approach to student listening practices could prove useful in music education classrooms and as a component of pedagogy courses in musicology and ethnomusicology. I do wonder if using pedagogical models as a foil obscures excellent teaching practices that are “in the wild”—case studies of teachers and teaching would have provided both a more accurate picture of what teaching looks like in the “digital age” and also more specific ideas for the educators who are the intended audience of the book.

Listening in Action opens the potential for new approaches in the classroom, especially as services like Spotify and Apple Music make playlist curation and other listening-oriented activities both accessible and affordable for students and increasingly replace the need for expensive licensed CD sets. While I question whether the bias toward “structural listening” is overstated, Rinsema’s challenge to assess teaching practices and reconsider how to approach listening in the classroom is worthwhile and may lead to course revisions and stronger student engagement as educators strive to meet students where they are, making classes—especially those for non-music majors—increasingly relevant.

14. Rinsema, 149.

James Leve, *American Musical Theater*. New York: Oxford University Press, 2015. 448 pages. \$59.95. ISBN: 9780195379600. E-book available through Redshelf.com. \$29.95. eISBN: 9780190643461.

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James Leve's *American Musical Theater* addresses a considerable gap in musical theater texts and provides an excellent foundational survey for music and theater students alike. Intended for use in a one-semester introduction to musical theater, Leve's text is suitable for teaching at both the undergraduate and graduate levels. The task of choosing a representative sampling from the American musical theater repertory is certainly a daunting one and forces an author to favor some works at the risk of neglecting others, but Leve has skillfully chosen works that exemplify the many generic and stylistic innovations of the American musical from the late nineteenth to the early twenty-first centuries. In so doing, he also introduces students to several forgotten gems by figures whose works are integral to the American musical including Jerome Kern and Otto Harbach, whose works are rarely performed today.

The text begins with two introductory chapters that first present an overview of Rodgers and Hammerstein's *Oklahoma!* (1943) and a discussion of two important genres that developed in the late nineteenth century, namely, the story-oriented genre of early operetta and the variety-like formats that later developed into Vaudeville. The text then proceeds chronologically through a survey of each decade, before exploring several other integral concepts such as the development of Black musical theater. In his preface, Leve notes that his decision to start with *Oklahoma!* stems firstly from a desire to focus on the integrated book musical as a defining point in the development of musical theater. Secondly, he argues that *Oklahoma!* is a useful case study for students that aids in the introduction of cultural concepts that recur throughout the book, including the importance of Jewish composers and the important role that theater plays in the representation of race relations in the United States (xvii).

The layout of the text is clear and easy to follow, organized firstly by decade and with subsequent chapters focusing on specific concepts. Chapters 2–13 each highlight the major developments of a given decade and then turn to a careful analysis of a particular work, followed by questions for discussion and classroom engagement. The remaining chapters 14–17 focus on such diverse topics as the Off-Broadway theater, the Black musical, the phenomenon of the star performer, and the genre of the rock musical—bringing to the fore specific examples for students to consider. Because these final chapters span the entire chronology of musical theater, Leve suggests that they can be taught in any order and inserted into classroom study where needed.

Each chapter closes with a work that presents a counter example to its main concepts, introduced in a brief section titled “And Bear in Mind.” These examples offer a differing perspective on the concepts introduced in the preceding section. In the first chapter, for instance, the “And Bear in Mind” section presents Cole Porter’s *Kiss Me Kate* (1948), Porter’s most significant book musical, as a counterpoint to his analysis of *Oklahoma!*. This allows Leve to demonstrate the ways in which Porter responded to the overwhelming influence of Rodgers and Hammerstein, thereby connecting the discussion of the integrated book musical with reception history.

Arguably, the most innovative pedagogical feature of his text is the idea of a case study in which students can explore key concepts while becoming acquainted with a canonical musical theater work. This approach eschews the traditional organization of musical theater texts, for example, Ethan Mordden’s multiple volumes on the musical, which are organized by decade and in which a survey of works is presented in chronological fashion with musical analysis scattered throughout. Instead, Leve first presents the historical background of each decade, then biographical information for a given composer, followed by an in-depth examination of a single show. He also explicates specific formal and musical developments of a given show, along with a discussion of staging, choreography or orchestrations.

The strength of the text in terms of teaching in the musical theater classroom lies in its ability to be taught as a stand-alone text or alongside complementary scholarly texts. Leve’s text is both straightforward and easy to use in either a musical theater or music history classroom, and it can easily be supplemented with or taught alongside other musical theater texts. Some supplementary texts include Raymond Knapp’s *The American Musical and the Formation of National Identity*, Sheldon Patinkin’s “No Legs, No Jokes, No Chance”: *A History of the American Musical Theater*, Scott McMillin’s *The Musical as Drama*, or Bruce Kirlé’s *Unfinished Show Business: Broadway Musicals As Works-in-Process*—each of which provides detailed discussions of form, generic development, historical background, social issues, and the collaborative process of the American

musical. Leve introduces students to the work of key scholars in the field, including Stacy Wolf, Elizabeth Wollman, and Jessica Sternfeld, while the extensive bibliography provides a useful starting point for student research projects and papers. The one drawback to the text is the lack of a score and recording anthology that would be typical of most music history textbooks. However, as Leve remarks in his introduction, the expense of reproducing musical materials that are currently under copyright makes such an anthology impossible (xix).

Central to his pedagogical approach, which combines historical and cultural analysis with production and reception history, Leve's textbook provides detailed musical history that explicates style elements of musical theater through formal, melodic, motivic and harmonic analysis. A good example of this appears in Chapter 9, where he skillfully connects the musical sound of "Willkommen" from *Cabaret* (1967) to the "decadent pleasure" of the German cabaret (184). The harmonic analysis might prove to be slightly too detailed for students with little previous exposure to musical notation, necessitating explanation on the part of the instructor. However, Leve's straightforward method of analysis encourages students to engage with the salient points of a given musical number.

Because of the wide range of repertory presented, the author is able to integrate analysis of several key songwriters' musical styles, enabling the student to recognize specific works. In Chapter 10 he focuses on Stephen Sondheim, outlining aspects of Sondheim's musical style. These musical markers include the dark, brooding waltz style heard in "The Last Midnight," the "motive-oriented" melodies in "The Little Things You Do Together," and the accompanimental "vamp" style heard in "Send in the Clowns" (195). Further, Leve contextualizes points of musical analysis within the genre or historical moment of the chapter. In his discussion of the megamusical in Chapter 11 he draws a parallel between musicals such as *Evita* (1978) and *Phantom of the Opera* (1986) and opera. He explores the integration of recitative and aria forms that Andrew Lloyd Webber employs as formal linking material throughout his works. He also outlines the connections between the show's main characters that are created by the underlying harmonic progressions and provide a sense of musical unity, much like a Puccini opera (229). These analyses encourage students to connect musical styles to genres beyond the musical and to situate these styles within the larger context of musical and cultural history.

Using the same analytical lens, Leve discusses the ways in which social change influences the reception of musical theater. Whether he is focusing on Cole Porter's lyrics as a reflection of Porter's personal identity (Chapter 6), the United States government's support of the musical as a means of defeating communism in the 1950s (Chapter 8), or the rise of the rock musical as a statement of social protest beginning in the 1960s (Chapter 16), the text aims to

connect the historical development of the musical with broader cultural shifts. Leve's discussion of the Black musical is particularly poignant, as he argues that this sub-genre of musical theater developed because of the segregation of the Broadway stage (318). He traces the Black musical's evolution from minstrelsy through *The Wiz* (1978). In other chapters he also confronts the perceived racism and exoticism of musical theater works that feature blatant stereotypes of Asian culture, including the multiple versions of *The Mikado* in the 1930s that featured different racial casts and later Rodgers and Hammerstein's *The King and I* (1951).

In addition to the discussions of social issues throughout his text, Leve emphasizes the collaborative process of musical theater, which involves not only the composer but also the lyricist, producer, director, and performer. He does so by incorporating significant figures spanning several generations of musical theater history, including choreographers such as George Balanchine, Bob Fosse, and Agnes de Mille, producers such as Florenz Ziegfeld and Cameron Mackintosh, set designers such as Oliver Smith, orchestrators such as Ted Royal and Robert Russell Bennett, and figures who worked in multiple areas such as director and choreographer Jerome Robbins. Leve further highlights the significant contributions of less-known songwriters in the Rodgers and Hammerstein generation such as Harold Arlen, and the work of contemporary composers such as Jason Robert Brown and Stephen Flaherty.

Incorporated in his analysis of individual shows, Leve also introduces students to the commercial mechanics of Broadway productions, including the trajectory of early Broadway as American theater moved from a primarily touring institution to works that were conceived for staging in a specific New York house during the time of George M. Cohan. By focusing on the shifts in commercialism brought about in the late twentieth century by producers like Cameron Mackintosh, Leve is able to sketch the history of Broadway theater effectively and to speculate as to the causes of the commercial decline of the musical that began in the 1970s.

Although he confronts the prevalent notion of the commercial decline of Broadway that began in the 1970s, and posits several valid reasons for this decline, such as the effects of outside political influences on theater and the rise in performance costs (190), there may be other factors, including shifts in performance styles and trends. Further, Leve does not mention other performance venues that frequently stage canonical American musicals, including light opera companies throughout the country that stage classic musicals such as *Show Boat* (1927) or *Annie Get Your Gun* (1946) or the vibrant community theater scene that comprises both amateurs and professionals. A brief section summarizing these performance trends might provide a good counterpoint to the prevailing narrative of theatrical "decline." It should also be noted that

Leve devotes a considerable portion of Chapter 13 to recent developments in musical theater brought about by composers such as Tony Kushner (*Caroline, or Change*) and Adam Guettel (*The Light in the Piazza*), which have aided in the revitalization of the art musical.

In order for students to understand better the widespread issues involved in musical theater production and dissemination as a cultural product, historical narratives in future texts will likely challenge the idea of Broadway as the only significant forum for professional musical theater in the United States. Nevertheless, Leve does provide an concise overview of the challenges of mounting musical theater in the era of the juke box musicals and Disney on Broadway, and presents several significant examples of contemporary musical theater aside from the jukebox musical, including *Wicked*, *Spring Awakening*, and *Fun Home*.

Although Leve provides an otherwise detailed history of the commercial theater in the United States, the text would benefit from more discussion of the crossover between the British and American stages. Leve does briefly mention significant British contributions to the musical beginning in the 1960s with shows such as *The Roar of the Greasepaint—The Smell of the Crowd* (1964), although there are numerous examples before this that point to the extensive crossover that led to formal developments in both countries. This omission might be somewhat problematic for students, because it suggests that the only significant works of musical theater before the advent of the large-scale British musical in the 1960s, beginning with *Oliver!* (1968) were the works of Gilbert and Sullivan, with no mention of works by Noël Coward and others that were performed on Broadway before World War II. While the focus of the book is the “American” musical, the concept of musical theater is so much a product of both England and the States that it might be beneficial to include a more detailed narrative of the interactions between the two.

Rather than replacing previous textbooks, Leve’s is an excellent addition to the burgeoning field of scholarship on musical theater. Because of the eclectic and ever-evolving world of musical theater, it is impossible to provide a single definitive text for the classroom. As scholars inevitably continue to confront social, political, and historical shifts onstage, more texts will be written that address these issues. Nevertheless, Leve’s text addresses a vast lacuna in the field of musical theater pedagogy, and it is therefore a welcome addition to the classroom. In his innovative approach, which incorporates a chronological overview with in-depth musical analyses and a strong conceptual focus, Leve succeeds in providing a substantial foundation for musical theater students at the undergraduate and graduate levels alike.