

Ear Training

Sonic Abundance

Episode 03: Ear Training

Hosted/ Authored by Steven Hammer

Duration: 24:34

[*Quiet outdoor ambience: road traffic, traffic signals, intermittent and passing human voice*]

STEVEN: The article we are celebrating in this series was published the same year I began my PhD program—I was very much a newcomer to the field of composition and rhetoric. I hadn’t given much thought to bridging my own composition practices in sound art with those of my new home discipline. I thought the creative and critical were mutually exclusive. As I began reading Cindy Selfe’s work, and as I met her that year at Computers and Writing, I began learning about the possibilities of sound in composition, the intersection of media studies and rhetoric, and the ways that instrument design and musical workflow were not all that different from issues in composition. “The Movement of Air, the Breath of Meaning: Aurality and Multimodal Composition” legitimized building bridges across media and re-extended the invitation of soundwriting in our field.

In other words, we were given the gift of possibility. We were invited to explore, to push boundaries. I’ll admit that her work made me feel almost naively bold—the next year at my first Computers and Writing conference I DJ’d my presentation. I don’t know if my set was any good, but I met so many trailblazing colleagues and mentors who were also doing creative-critical work and not apologizing for it: Jackie Rhodes and Jonathan Alexander and Bump Halbritter and so, so, so many more. I also met emerging scholars doing the kind of work inspired by Cindy’s work, many of whom contributed to this very series. In the years since, Cindy’s bold ideas and her generosity still echo in my work, in the field, and all the relationships that exist between us.

Although this series stems from our desire to celebrate “The Movement of Air...” and how it helped to pave the way for our work, Selfe’s work 15 years before, in 1994, has been even more influential to my work in soundwriting. “The Politics of the Interface: Power and Its Exercise in Electronic Contact Zones” resonated with and contextualized so much media theory within composition and rhetoric. Selfe and Selfe taught us that no matter the mode of composition, we are working with *extensions of ourselves* that have limitations, affordances, politics, histories. And even before that, in 1991 with Gail Hawisher, Selfe also warns of uncritical use of compositional technologies, effectively echoing and remixing McLuhan’s slogan “We shape our tools and thereafter our tools shape us.”

So most of my early scholarship was concerned with glitch, dirty new media, and noise, and much of what Selfe had been articulating in academic and pedagogical

contexts—that our tools are political and we must practice intentional use as teachers and composers—had also been developing in other disciplinary circles. In media art circles, artist-scholars like Rosa Menkman, Jon Cates, Shawne Michaelain Holloway, Nick Briz, and others were thinking about the role of errors, noise, and other interruptions of flow in technoculture. As these glitch and dirty new media artists explored and provoked technological interruptions as a way to uncover these politics, I likewise began writing about the ways that these interruptions help us see the same politics in traditional spaces of composition. Later, I wrote a piece with a title that directly pays homage to Selfe called “The Politics of the Audio Interface” in which I apply her critique of the word processor to the digital audio workstation. Recently, I have shifted away from traditional scholarship to focus on creative-critical work, but the influence of Selfe remains in my questions, provocations, and methods.

So in this episode, I want to spend some time talking about some other doors opened by Cindy’s work. Specifically, I will talk through my own creative-critical work in soundwriting, focusing on a recently-completed project called *Ear Training*. I first will suggest that aural composition is not only *legitimate* as a method, but it is often uniquely appropriate, particularly when we are asking questions about movement and liminality. Then, I will articulate some methodological guideposts for soundwriters who are interested in incorporating field recordings in their work.

[begin ongoing various sounds of subways: announcements, chimes, train engines]

I spend a lot of time in transit. My daily commute is about an hour each way by subway and bus, and my weekly commute is about 7 hours each way by subway, bus, train, plane, and car. Like any artist-scholar, I began to notice patterns and ask questions and think of ways to engage with public transit as a subject of my work. And like any artist-scholar influenced by Selfe’s work, I listen carefully to the materials in those spaces and think about how they shape all of the people that pass through. In Philadelphia, for instance, where I live and work, the subway lines are places of community in many ways. Each heavy rail line has a different sound, a different rhythm and feeling. What, I wondered, is the best method of inviting others into these observations and feelings? Surely, I could document these things in a written account, or in a collection of photographs, etc. So why sound?

Though stories of place and infrastructure can be told in many ways, an aural approach to studying public transit offers much both to the recordist (the in-time listener) as well as the audience (the out-of-time listener). Transportation is an inherently liminal and durational affair. In other words, though time and space might always exist as static entities, when we are in transit we are not necessarily *somewhere*, but rather we are *between somewheres*. Listening and sound are the same way—we can only engage with sound *in-time*, or synchronously. There is no way to pause sound so as to observe and study it independent of passing time. Sure, we can rewind a recording, but every replay must occur in-time.

Listening, like traveling, is a necessarily liminal and in-time activity.

While the word “acoustic” can refer to many things in relation to sound and material, I might summon McLuhan again in making a case for aural sound-writing methods. In an attempt to articulate an ontological consequence of an electronic media revolution, he argues that acoustic space “has no center and no margin, unlike strictly linear space, which is an extension and intensification of the eye. Acoustic space is organic and integral, perceived through the simultaneous interplay of all the senses; whereas ‘rational’ or pictorial space is uniform, sequential and continuous and creates a closed world.” That’s from page 59 of *The Medium is the Massage*. We might also look to Katherine Hayles’ work in attention as a way to think about the accessibility of aural and visual composition and reception. In her 2007 work “Deep and Hyper Attention: The Generational Divide in Cognitive Modes,” she argues that modes requiring deep attention (for instance, the novel), are relatively new for humans, and were developed by those with material privilege.

I don’t want to overstate the distinction between the aural and visual here—some will surely (and fairly) dispute this border-drawing work. But I think it is fair to follow McLuhan’s analysis here to say that, broadly speaking, while visual media have immense value, they are best perhaps best suited for telling stories that are sequential, contained, and asynchronous. They excel at inviting audiences into moments of reflection, to take *their* time, to examine details and composition in space, to imagine the sensorial information that is missing. Aural media, on the other hand, are perhaps best suited for telling stories of ambience, atmosphere, movement, change, liminality, and openness.

Again, I’ll admit here that there are many experimental methods that lead us to examples that run contrary to my advice here—one can just as easily imply movement photographically or create closed and granular aural compositions. But as a starting point, asking the initial question of why, or when, do I compose aurally, I think I’ve provided a couple of useful questions or considerations. Next, I will talk through some questions of how—the method-based questions of listening and attention in field recording-based compositions.

So after the admittedly predictable move to make *Ear Training* (and here I mean the recording project, not this article) to make that an aurally-composed project, my next questions related to form and method. So when I say form, I refer to genre, editing, distribution...all of the audience-facing attributes of a project. Should my piece be a podcast, an interview series, a sample-based musical work, a field recording composition? Because I wanted to give audiences a sense of ambience, atmosphere, and material, I initially decided to produce long-form field recording compositions. Then, we must again ask, “how?” How do I record in an intentional and attentional way so as to tell material stories? The rest of this piece is dedicated to methods of field recording with microphones.

Evidenced by booming scholarship in our field, there are many ways of *doing* soundwriting. From music and liner notes to interactive audio documentaries

to podcasts and everything imaginable in between, scholars since Selfe continue to explore the shapes this work can take. Most of those shapes come from existing aural practices, which we can learn from and apply toward questions in composition and rhetoric. I spend a lot of my time in this space working with field recording, a practice rich in both tradition and experimental variety.

Field recording as a practice might be best defined in opposition to studio recording. Studio recording offers us controlled conditions in which to perceive and capture sounds using recording technologies. Field recording is the perception and capture of sounds outside of the studio, in the wild, so to speak. On its face, field recording might seem like a pre-production or pre-composition affair. Often, a recordist will gather these sounds for specific outcomes: mixing into a podcast, or editing to film, sampling and manipulating for music, and so on. However, if we investigate the work of field recording artists more closely, we find that any act of recording is one of active and political composition.

Chris Watson is well-regarded as a traditional field recordist. When I say traditional here, I imply that his recordings often seek realism and immersion; listening to his work is an experience of imagining places and times from familiar perspectives. And while his recording and editing methods are more traditional than others I will mention here, he has written and spoken extensively about various methods of realism. We can use recording and editing techniques that draw attention to (or away from) any aspect of a given time-space. In other words, calling on Selfe, just because a composition or interface *feels* natural, doesn't mean that it is natural or neutral. In fact, the opposite is often true: when media become a part of our environment, they are both less-perceivable and more pervasive (this comes from McLuhan).

Other field recordists, those we might classify as more experimental or anti-environmental, invite listeners into strange aural spaces in order to expose political aspects of media environments. Toshiya Tsonuda is famous for recording familiar time-spaces from (at least humanly) impossible perspectives. "Bottle in Park" is a favorite of mine, in which Tsounuda places a small microphone inside of a glass bottle at a park. We listen from this perspective, and suddenly a park sounds less familiar, more material. Tsonuda explores possibilities of listening through materials, and thus asks listeners to rethink sound, perspective, and materiality. Christina Kubisch is well-known for her recording work that also drifts from typical human listening perspectives in order to draw attention to material and infrastructure. She began working with devices that allow us to hear electromagnetic energy. From her recordings to her "electromagnetic sound walks," she confronts listeners with our vast and nearly inescapable electromagnetic infrastructure.

Field recording, then, no matter its intent or outcome, is a material and political act of composition. In the spirit of Selfe, I urge us to undertake this kind of field-recording-based soundwriting not only unapologetically, but also *with attention*.

First, we must pay attention to the signal chain of compositional tools. Their

histories, desires, politics, and assumptions.

I began using a recording technique often called binaural or pseudo-binaural. In this method, the recordists use a pair of omnidirectional lavalier microphones and mounts them on either side of what we call a “baffle.” A baffle is simply material that sits between the microphones and shapes sound, in much the same way that our ears are on either side of our head, our head being the baffle.

This method is popular for two reasons. First, it is effective at creating a highly immersive and realistic playback experience. In other words, it’s a good method for recording a space as it would sound to a human *with noiseless hearing ability*. I want to pause here to say that very few of us have *noiseless* ability, and I don’t use “noise” here to denote undesired or in-defecit. On the contrary, as I’ve written elsewhere, it’s really important that we realize that all bodies are at least only temporarily abled, and that noise exists in all bodies, nodes, and systems of communication. The noise here might be physically- or cognitively-based, it might be attentionally-based. But when we choose “immersive” methods of media capture and writing, we must ask ourselves which bodies experience such immersion. In this case, my initial method was rooted in the assumption that audiences’ bodies hear like an idealized body does. Even my body does not hear this way, for the record, I have some loss in my right ear, so stereo fields often sound a little lopsided.

Surely, all composition makes assumptions about and excludes bodies from creation-consumption. Our jobs as attentive composers, though, is to understand the material politics of the tools in our signal chain. Signal chain is a term we use in audio engineering to refer to all of the material between the sound source and the listener: so, microphones, cables, preamplifiers, digital audio converters, file formats, editing choices, publication format, playback equipment, and so on. As soundwriters, we must pay attention to each link in our signal chain. Where are our methods making assumptions with political consequences?

Here I might argue that our tools are more than just tools: they’re active and agential coauthors. Just as our bodies have preferences, desires, limitations, affordances, and political positionality, so too do our tools. I wouldn’t collaborate on a project with a person with exclusionary attitudes and approaches to our subject, why would I do the same with my equipment? Both decisions have the same net effect.

[screeching and abrasive static noises]

I’ve done a lot of work with electromagnetic frequencies, especially as inspired by the work of Christina Kubisch. In my travels recording all of these subway trains and stations, I began using a device that listens to these frequencies alongside my binaural technique. As you might imagine, the infrastructure of electric trains and stations was intensely legible to this tool, and in the same way that I expected each city’s subway infrastructure to be different using immersive techniques, they were also all tellingly unique in these *anti-immersive* techniques.

Further, and more importantly, these sounds are much more democratic in their weirdness, more abstract in their noisy-ness, much more universal in their representation of space, time, and energy. This experiment led to a shift in the focus of *Ear Training*, from one of “what does it sound like to ride a subway in city x for a generic, typical listener?” to “what does it mean for audiences to hear infrastructure through its raw material of electromagnetic energy, and what do our reception and reactions to these sounds reveal about us?”

This leads me to my second guidepost: We must pay attention to (potential) listening persons.

When I said earlier that our tools are not passive objects, but active and political coauthors, I don’t mean to grant a kind of metaphorical agency to nonhumans. While various strains of Object-Oriented approaches are helpful in popularizing ideas of taking nonhumans seriously, I am sometimes left wanting an approach to thinking about materiality that is both more specific methodologically and reflective of my own listening practice, one that I hope is *full of care and attentiveness to relationships*. Drawing on works like *Research is Ceremony* by Shawn Wilson, I’ve written elsewhere about the value of adopting Ojibwe thought into my own research practice, but the story that best illustrates this methodology stems from an anthropologist’s attempt at understanding how a rock could be grammatically animate in the Ojibwe language. The answer was not mere animism or superstition, as many in the academy have believed as a way of dismissal. Instead, Hallowell writes: “it does not involve a consciously formulated theory about the nature of stones. It leaves a door open that our orientation on dogmatic grounds keeps shut tight...The Ojibwa recognize, *a priori*, potentialities for animation.” In other words, all persons, human and nonhuman alike, have *potentiality* for agency *in the right relationships, contexts, and experiences*.

So what does this mean for listening? For me, the attentive listener probes around for sounds, for potential relationships, for potential coauthors. Sometimes we must listen in different ways, as in a switch from traditional microphones and techniques and perspectives. We have many probes available as tools: contact microphones for solid objects, hydrophones for liquids, electromagnetic pickups, as well as many deviant treatments of traditional microphones.

Finally, we must pay attention to our own listening: our habits, preferences, and positionality.

As a point of departure, I want to suggest that this episode might actually be about listening. Peter Szendy teaches us in *Listen: A History of Our Ears*, field recordings aren’t just documentation or collection, but are instead subjective accounts of a *listener’s listening*. I teach my students to listen before they record, and then listen while they record, because the world sounds different as we are listening actively, and deeply, and through microphones. The listened-to world changes because of our observation, and the act of recording is active, selective, positional, and political.

Pauline Oliveros reminds us that “how we listen creates our life...we interpret what we hear according to the way that we listen.” Perhaps best known for her work in *Deep Listening*, rooted in her experiences playing music in unusual physical spaces, Oliveros’ work is essential to those wishing to better examine and understand their own listening and the way it shapes both their inward perspective and outward soundwriting practices. In her posthumous work *Quantum Listening*, Oliveros seems to suggest a kind of listening that echoes the possibility, openness, and care of Ojibwe relationships. Here’s a quote: “Quantum listening leads you to notice you are listening...It is listening to our listening. The field expands to embrace all kinds of listening, with openness to all possibilities...Quantum listening simultaneously creates and changes what is perceived.”

As my travels and listening shifted from familiar to unusual places, places I’d never visited and where I didn’t speak much of the local language, my listening changed. I could sense the shift not just in sounds, but in my practice. It became more vigilant, reaching out for something I could understand or recognize. Sometimes I listened for differences between spaces and places. Sometimes I listened to people’s conversations. Sometimes I listened to myself. I wrote a lot of notes to myself as I listened, points of reflection on both what things sounded like, and how they affected me. I wrote a lot of notes late in the project about listening fatigue, how riding trains and listening deeply for many hours per day affected my body and attention. My notes have become a kind of Quantum Listening journal, and as valuable as any recording I took during the trip.

Selfe taught me a lot, but among those things, Selfe taught me that the skillful composer is attentive in many ways, across time and space and material. I still reach back to her work for wisdom, for support, and sometimes for the naïve courage to try new things. My gratitude—*our gratitude* as a subfield of composition and rhetoric—is difficult to quantify in citation or reference, but is I hope evident in the existence of this series. What wonderful, noisy things lie ahead of us. Thank you.

[end of transcript]