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THE SONIC TURN

TOM McENANEY

At the beginning of his book *Listening*, Jean-Luc Nancy asks: “Hasn’t philosophy superimposed upon listening . . . something else that might be more on the order of *understanding*?”¹ The short answer is no. At least not until recently, and only after more than a century of struggle against the Saussurean edict to ignore sound. In fact, the problem that Nancy poses for himself, a problem he ponders might be at “the limits of philosophy,” works in just the opposite direction. Philosophy, or, that catchall “theory,” largely has refused to take seriously the meaningfulness of listening and sound—a pair whose relation I explain below—until this century. Instead, theory has made of them the limits of meaning. Thus, Nancy’s seemingly transgressive gesture at the opening of *Listening* actually fits perfectly in line with a now conservative ideology of sound and listening from Jacques Attali, Maurice Blanchot, Gilles Deleuze and Félix Guattari, Jacques Derrida, Jacques Lacan, Michel Serres, and others from the middle of the twentieth century, as well as twenty-first-century supporters who continue to bang the drum of poststructuralism, from Nancy himself to Mladen Dolar, Adriana Cavarero, Rey Chow, and Shane Butler, to name only a few of the most agile and intriguing readers. To say that theory ignored sound is a polemical claim, one that I fine-tune throughout this essay, but it does not overstate the reception of sound outside of a small circle of critics.² Even when sound took center stage in theory, its readers studiously ignored its importance, converted sonic meaning back into the general structure of all meaning, or hailed or dismissed the sonic as a sensuous limit beyond signification.

Even Roland Barthes, in probably the most famous essay on sound from twentieth-century continental theory, typifies this fetishization of listening to sound as a mere material limit in “The Grain of the Voice.” Barthes, a listener more sensitive to sonic meaning than his contemporaries, neither fled from “phonocentrism” nor celebrated abstract “noise” or “silence,” nor turned the sounds of the voice into *l’objet petit a* rather than consider the ways their material differences carried semiotic meaning. Nevertheless, his “grain,” attentive at least to the material and embodied qualities of sound, still turns sound into chafe, or what Valentin Voloshinov, in another comment about vocal sound (“tone,” in his words) typical of literary theory, would call “the envelope” of the voice.³ If one wants to analyze sound and listening in printed texts, audiobooks, radio broadcast plays, tape-recorded poetry, or other objects, literary or not, simply calling those sounds the “grain,” “envelope,” and the other host of keywords doesn’t get one very far.

The sonic turn that I elaborate throughout this essay confronts this limitation of theory. It does so not only to make theory more inclusive of the people, regions, objects, and bodies to which it might listen, nor merely to point out weaknesses in earlier theories of writing, voice, and other phenomena. Rather, the sonic turn makes legible or audible how the focus on writing marginalized and often dehumanized auditory cultures misheard sophisticated sonic meaning as abstract “noise” (utopian or not), muted the intertwined relations between listening and writing—and the literary histories that worked this ground—and ignored vocal sound’s semiotic capacities through the figure of “the voice.” In doing so, the methods of the sonic turn—as varied as they might be—

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provide the most compelling means to connect the material and the symbolic: the still present challenge left in the wake of the linguistic turn.

So what might a sonic interpretation that responds to these limits look like? Dozens of examples exist in my own and others' work, some of which I elaborate in the following pages, and many of which resist a focus on the voice and music to consider sound as an object.⁴ However, to provide first a concrete sense of this change, it's useful to turn back to Roland Barthes's "grain." As is well known, Barthes elaborates a relationship between what he calls, following Julia Kristeva, the "pheno-song," or the cultural rules attached to music, and the "geno-song," which he describes variously as the place "where melody explores how the language works" and "the volume of the singing and speaking voice, . . . a signifying play having nothing to do with communication."⁵ Searching for the inextricability of material sound, the physiological aspects of the singer's voice, and conventional symbolic meaning, Barthes instead divides them, falling back into the binary logic typical of his moment. Even as he hears melody as a mode to consider "how the language works," he decides that physiological sounds have "nothing to do with communication." The "grain," ultimately, becomes "the body in the voice of the singer," and then, in an unmarked invocation of Saussure, "the image of the body (the figure)."⁶ Just as it seemed we were on the threshold of a theory of embodied practice and technique attuned to how sound carries meaning as a speaker's voice resides at the nexus of sedimented histories of cultural uptake (the "genres," as Barthes writes, of musics) and particularities of physiology, we step back into Saussure. More specifically, Barthes invokes the tradition that derives from Saussure's decision to emphasize what he called the "psychological" aspect of speech—which he defined as the relationship between "a concept and a sound-image [signified and signifier]"—and to cast aside the "physical (sound waves)" and the "physiological (phonation and audition)" for others to investigate. Yet another proof that Saussure's elevation of the "symbolic" aspects of speech muted literary theory and philosophy's attention to sound as anything other than a "surplus" or a boundary against which signification was defined.⁷

However, the promise of Barthes's essay has been picked up by later theorists of sound and voice who help identify what Nicholas Harkness, following Steven Feld, calls "the social life" of "the physical grain of the voice," that would understand "the bodily aspects of the voice in its thoroughly social, interactional role in communication."⁸ To trace such a social life in Barthes's text requires that one shift its emphasis from semiotic "free play" and aesthetic inutility that celebrates "a site where the language works on itself *for nothing*"⁹ (chiming with Auden's "poetry makes nothing happen"), and toward the particular co(n)texts Barthes engaged to understand a practice "where melody [*mélodie*] explores how the language works."¹⁰ In particular, a study of the entanglement of material sensation and linguistic representation in the French *mélodie*—the musical genre at the heart of Barthes's essay—and its contemporary cultures and techniques of listening, from the symbolist poetry that composers set to music, to Mallarmé's typographic experimentation in *Un coup de dès*, to the mechanical inventions linguists used to register the impact (*coup*) of spoken vibrations in visual inscriptions, would demonstrate how one

works on language to shape a sense of national identity founded on sound: the pronunciation and timbre of the *voix parlée*.

Precisely this work has been carried out by Katherine Bergeron, who demonstrates the consequences of such a sonic turn that replaces the “grain” with timbre for interpreting poetry as part of a network of audile techniques during the *Belle Époque*.¹¹ In comparing Mallarmé’s visualization of language to the acousticians’ visual patterns, and understanding both as projects that treat the page as a tympanum, as a taut parchment representing the blow (*coup*) of sonority, Bergeron positions science and art as entangled projects, each concerned with the etymological resonances between timbre and the Greek *tympanum*, or drum, and “the sensitive skin of the middle ear (also called the tympanum or eardrum) . . . [as] a site for both receiving and producing vibrations.”¹² When approached this way, Mallarmé’s poem, which generations of scholars have interpreted as a defining example of aesthetic autonomy, *l’art pour l’art*, or an idealized “pure sound,” appears instead as a part of a historical project of visualizing sound, a participant in the sciences of sound engaged in representing listening to alter how the French conceived how they heard and used their language.¹³

But what of sound in poetic language read, heard, and spoken, and not just seen? Attentive to the imbrications rather than oppositions between the visual and the aural, the material and the symbolic, Bergeron observes the visual puns in Mallarmé’s contemporary Rimbaud’s sonnet “Voyelles,” but also how the poem’s second line, “je dirai quelque jour vos naissances latentes” (which she translates as “Someday I will sing your secret births”), plays on the Old French meaning of “dirai,” which means both “singing” and “saying.”¹⁴ The resonance leads her to hear the sonic work in the poem, from the flies that “buzz” in the first stanza to the “strident tones” of the poem’s close, but also, to recognize that when read aloud

we can feel the more complex vibrations of the French *U*, which modifies the *I* with a visible puckering of the lips. To *tell* the poem, to say it aloud (*dire*), is to experience its “color” in a directly physical way. The act of speaking, filtering noise through the mouth’s chambers, yields not just words and images but distinct sonorities. And this colorful vocal nuance—the sound of vowels—is what acousticians and phoneticians like to call, more properly, *timbre*.¹⁵

Whereas Mallarmé experimented with the page’s layout to record the impact of sound, Rimbaud, the poet of *Illuminations*, works with timbre to produce an audiovisual experience through the semantic content of printed words that draw attention to the meaningful sonorities of spoken speech. It is not only that we can now hear meaning in Rimbaud’s poem at both the level of content and embodied performance. Deeply historical, although more than historicist, the theoretical move from grain to timbre, or from the merely material to the material-symbolic property of sound, identifies in poetry a purposive purposefulness (in a word, a purpose) that reveals its work on language through a plane of relations in which the listening and reading practices of literature, acoustic science, music, and daily speech shape and are shaped by sound’s meaning in the alteration of a national soundscape.¹⁶

Although focused on language and music in a way that some founding statements of the sonic turn resist, Bergeron's revision of Barthes provides one exemplary instance of how the insistence on sound's meaningful material differences helpfully transgress the limits of earlier methodologies. Although I will close this article with an analysis of another scene of listening in France drawn from my own work focused on sound from Latin America, I open with Bergeron's readings, and trace the readings of several other key critics across this investigation into the sonic turn to demonstrate how a broad disciplinary reach and deep multidisciplinary expertise of scholars in the twenty-first century can attune our ears to how practices of listening (audile techniques) bring together the material and the symbolic, not to hail an uncritical affective "vibrational ontology," but to hear how historical cultures have constructed ontologies by separating sound from language in order to maintain hierarchies of power between the human and the nonhuman, the abled and the disabled, the lettered and the listeners.

>> A NEW CENTURY OF SOUND

It might have been the result of a generation growing up amid the sonic transitions from vinyl LPs and 45s to cassette tapes, then CDs, and the end-of-the-century advent of the MP3. It could have been the feeling that one aural epoch had ended and another was beginning as people put down their Walkmans and reached for their new (now already quaint) iPods. Maybe it was the spectacular meltdown of Napster, and the simultaneous sense that the music industry would never be the same. It could have been readers' eyes growing tired and the meteoric rise of audiobooks and podcasts. Or maybe it was just the simple rebellion of a new set of scholars wanting to negate the negation: after decades of being warned away from the evils of "phonocentrism," maybe they wanted to hear what all the fuss was about. Whatever its origins, a sonic turn, formed by a broad interest in auditory culture and the more defined field of sound studies, entered the academic fray (for the fifth time, it seems)¹⁷ in the early twenty-first century with the publication of two major works about the history of sound reproduction and listening: Emily Thompson's *The Soundscape of Modernity* (2002) and Jonathan Sterne's *The Audible Past* (2003). Preceded and quickly followed by numbers of studies that would appear coherent as a field only in their wake,¹⁸ these texts have laid the groundwork for much of the research to come: an emphasis on the detail of sound as an isolated object of study, but also sound as a more general principle of selection (rather than "music" or "speech");¹⁹ a reorientation to denaturalize hearing and reconceive listening practices as historically contingent, material, and social techniques; the need for a media archaeology that links technology and technique without falling into "impact histories" or "media determinism."²⁰ The attention to practice, technique, and material culture with a historicist tilt that still avowed "social constructivism" has turned the study of sound into not just a new object of research, but a new method that acknowledges the performative character of culture without concealing the felt reality of material life.

The field of sound studies is far more diverse and complicated in its own practices than these modal shifts, but they are the differences that make a difference, the arguments that form a collectivity that defines conversations and distinguishes a sonic turn from the traditional work in adjacent fields of musicology, film studies, and media studies. The allergy to exclusivity and the desire to take a big-tent or open-air festival approach to sound studies sometimes has led its most audible practitioners to disavow its coherence, but the aforementioned methods and the modes in which they configure their objects allow one to hear how a sonic turn is changing scholarship across the humanities and social sciences. As scholars reconsider what they mean by voice, noise, listening, liveness, fidelity, and even personhood, mediation, and modernity, they renew and estrange assumptions within the disciplines in which they are trained. Indeed, while sound studies as a field wrestles with its own debates concerning the status of sound as such, its internal critiques also reflect broader concerns with the limits of historicism, the role of ontology, and the white, male, heterosexual, ableist, modernist, and European and US bias in research well beyond the study of sound.²¹

Although film scholar Rick Altman was already writing about “the fourth wave of sound studies” in 1999, we can date the sonic turn’s beginnings to the works of Sterne and Thompson because their research brought an expert familiarity with apparatuses that enabled them to write with specificity about their material objects and practices—phonographs, acoustic design, MP3s—which, in turn, provided the hinge to keywords and concepts that described how transformations in the manipulation of sound and the theories and practices of listening contributed to the rise of modernity without a grand subject at the helm, but with plenty of users, practitioners, and objects in the discourse network. Moreover, their necessary interdisciplinarity—they *needed* to work with engineering, cultural theory, history, sociology, philosophy, literary history, anthropology, and musicology to understand sound as an object—has made their writing relevant to several disciplines, without abandoning expertise. In fact, their work has provided a method for those in several disciplines across the humanities and social sciences frustrated with the abstractions of theories that claimed to celebrate differences while turning those differences into the figure of difference, and thus too often arriving at the same conclusions. After all, it’s hard to study sound when you’re told it’s just a text.

Indeed, the most likely reason for the sonic turn’s resonance in the humanities has been its coincidence with other “turns” (affective, materialist, speculative, etc.) in the effort to displace language as the central structuring model for understanding culture. Once again, this shift requires recognition of alternatives to the twentieth century’s bias

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in reading the nineteenth-century discourse network through Saussure. We can locate one of those alternatives in Sterne's observations regarding historical changes in physics, acoustics, phonology, and otology. Around the same time that Saussure argued for a separation of sound and "the sound image," Sterne notes that "the ear displaced the mouth in attempts to reproduce sound technologically because it was now possible to treat sound as any phenomenon that excites the sensation of hearing."²² In this formulation, tuning in to sound itself—an issue of much debate in contemporary sound studies—depended on new research into hearing, which moved studies away from speech (and music) as the privileged objects with which to conceive of sound. However, while such an observation displaces musicology and phonology as the primary disciplines to study sound, and thus opens new approaches to interpreting sound and new ways to construct it as an object, it also threatens to return us to the Saussurean bind between sound and meaning. But then history intervenes. Just two years after Sterne published this historical argument, the eminent linguist William Labov stated that in the early twenty-first century "most of the important changes in American speech are not happening at the level of grammar or language—which used to be the case—but at the level of sound itself."²³ Anticipated by new theories about historical ways of listening, even everyday speech has shifted its innovations from language to sound, or redefined which elements participate in linguistic transformation. The conjunction of Sterne's and Labov's work, in this case, helps us redirect attention to listening's role in constructing the object of sound at the same time that we can recognize how sound is not isolated from language but part of linguistic meaning.

As I explain in the following sections, and as was already demonstrated in Bergeron's work, the simple substitution of sound for language does not define the sonic turn's ambitions or core contributions. Indeed, the shift from speech to listening, or from

Indeed, the shift from speech to listening, or from language to sound, has actually meant the recognition of their relationality, and increasingly sophisticated and clearer descriptions of speech in a variety of forms (literature, music, everyday life).

language to sound, has actually meant the recognition of their relationality, and increasingly sophisticated and clearer descriptions of speech in a variety of forms (literature, music, everyday life). Moreover, while sound studies' attention to material practices in culture finds new avenues past the linguistic turn, the field's ongoing debates about the value or limitations of the social constructivism inherited from poststructuralist theories of textuality raise questions about how far interest in sound can address frustra-

tions with various theories' failure to think through the intersection of symbolic and material practices. Nevertheless, as I hope to make clear at the end of this essay, attention to sonic meaning has posited a connection between listening, language, and sound that locates a third way between materialism and constructivism, thereby situating

the sonic turn within a generational effort to enrich social constructivism, formalism, and historicism with an appreciation of material culture, nonhuman life, and technological change.²⁴

>> LISTENING PRACTICES, AUDILE TECHNIQUE, AND AURALITY

Much like literature scholars in the last decade have questioned the object of their discipline by turning to practices of reading (close, surface, distant, reparative, symptomatic, descriptive, etc.), or how media theorists following Bernhard Siegert have worried less about collecting the objects of media archaeologies to focus, instead, on “cultural techniques,” the sonic turn reveals the centrality of listening practices. This shift toward the *practices* and *techniques* of listening borrow from Marcel Mauss’s study of technique and Pierre Bourdieu’s notion of habitus in order to situate knowledge in the body and the senses.²⁵ What Sterne calls the “audile technique” of nineteenth-century European and US discourse networks describes

a set of practices of listening that were articulated to science, reason, and instrumentality and that encouraged the coding and rationalization of what was heard. By *articulation*, I mean the process by which different phenomena with no necessary relation to one another (such as hearing and reason) are connected in meaning and/or practice. For a time, hearing surpassed vision as a tool of examination, conception, and understanding in selected regions of medicine and telecommunications.²⁶

In this sensory regime, audile technique classified and organized sonic experience. It drew on the new technologies of sound reproduction, such as the phonograph, the telephone, and later, the radio, which produced “acousmatic” sounds, or sounds without a visible source, that could be analyzed in isolation. Under these conditions, certain sounds, such as voices or music, Sterne writes, became “worthy of attention or ‘interior’; and others (such as static or surface noise) as ‘exterior’ and therefore treated as if they did not exist.”²⁷ The particular practices, in other words, defined the object: listening made sound. As these practices coalesced they stabilized into an identifiable discourse: (1) the rationalization of listening, (2) the isolation of listening as a discrete activity, (3) the transformation of acoustic space, through listening practices, into a private, bourgeois, and commodified form, and (4) the emphasis on sound as a general phenomenon, tested through listening, and understood through “practical knowledge . . . rather than formal and abstract descriptions of sounds.”²⁸ From telegraph operators listening to their devices rather than looking at their written marks, to medical doctors ignoring their patients’ verbal descriptions of their illnesses to focus instead on the sounds of their body with the new technology of the stethoscope, and on through myriad other changes, the discourse network was reorganized to follow these cultural techniques of listening rather than symbolic writing or the inscription of noise alone. In other words, with this emphasis on listening techniques, we avoid returning to Friedrich Kittler’s contention that gramophonic noise is the material Real—a position that only reinscribes

the Saussurean division between signifier (sound image) and sound—and instead hear culture as a variety of bearings toward those sounds.

This turn toward listening, the turn to question the process of reception and the way it produces the meaning of sound, and the emphasis on sonic reproduction technologies as involved in the transformation of what it meant to listen, has broken with old models of listening as passive, immature, and irrational.²⁹ What Sterne named *audile* technique has provided the grounds for a turn toward listening evident in terms like Charles Hirschkind's "ethical listening" in his anthropology of Muslim cassette tape sermons, Jennifer Lynn Stoeber's "listening ear," which describes the racial policing function of listening in the United States, Ana María Ochoa Gautier's "ethnographic ear" and "acoustic assemblages" to describe the imbrication of persons and ecological elements in nineteenth-century Colombia, or Stefan Helmreich's "transductive ear" to reconceive ethnographic practice.³⁰ These thinkers, alongside Steven Connor's model of the open and immersive "auditory self," or Kate Lacey's challenge to a masculine assumption of listening as passivity, retune our ears to hear an alternative genealogy missed by the downcast eyes of aesthetic theory.³¹ As all of these thinkers explain, if we are to hear something other than immaturity in sound, we require a new orientation to listening.

Indeed, the sonic turn necessitates a turn against both some of the fundamentals behind aesthetic theory and a reconceptualization of the sensory economy. It's not only that so much aesthetic theory, from Kant forward, relies on visual emblems—pyramids, shipwrecks, flowers—and the positionality of a viewer, but that Kant himself described listening as irrational, immature, and passive. Against this tradition, Hirschkind's study of Egyptian Muslims' devout listening practices, their comportment to listen ethically amid the clamor of urban life to a new medium—cassette tapes—not only provides an alternative to biased reports of Muslim religious practices but to that very Kantian notion of auditory "immaturity." With Hirschkind, and a new reading of Walter Benjamin's study of listening in "The Storyteller," the Benjaminian notion of "effective audition," the ability to listen properly in order to access the speaker's meaning, establishes an ethics of reception, a specific bearing that reorients listening as an act that challenges the simplified division between "orality and literacy."³²

And while such new understandings of listening unsettle the accepted ground of the critical and aesthetic subject, listening likewise destabilizes the familiar subject of Marxism. Sterne's study of the MP3 format, for instance, borrows from Marxist critique but also troubles new media theories of labor. With the aid of research from Mara Mills, Sterne explains how digital compression derives from early twentieth-century experiments at AT&T's Bell Labs to determine that a normative listener required only a small portion of the total sonic information of a speaker's voice in order to clearly hear and identify that speaker over the telephone.³³ Sterne calls the corporation's monetization of the "surplus definition," or sonic information in speech deemed redundant in telephone communication, "perceptual capital."³⁴ "The quantifiable parts (audible and inaudible frequencies)," he explains, "are economically relevant; the unquantifiable parts

(the content of speech, the meaning of what is said) are not.”³⁵ This economic formalism involves the encounter between the listening subject and the assistive technology of the telephone. Thus, Sterne coins the term “*perceptual technics*” to describe the process of creating surplus definition and transforming it into perceptual capital. Through perceptual technics, a company can economize a channel or storage medium in relation to perception.”³⁶ This theory of AT&T’s conceptual and economic model of listening helps us understand listening as neither passive nor active, but somewhere in the middle: a medium, a node, an interface between the symbolic and the real. These early listeners anticipate the familiar digital subject of the “user,” who Anna Watkins Fisher, repurposing a concept from Michel Serres’s thoughts about “noise,” calls “the parasite.”³⁷ Yet Sterne goes still further to define the interaction between sensation and economy. “Perceptual technics,” as Sterne explains, does not need to render labor meaningless by stretching it to include such listening as “free” or “immaterial” labor.³⁸ Rather, he identifies how corporations can cash in on user perception, to use bodies for capital, without involving labor. Such a vocabulary, built, as Sterne makes clear, from the lessons of Marxism, should help scholars keen to theorize the cultural politics of new media technologies that don’t always fit into the economic theory of industry. Attention to listening, in this case, not only makes us aware of a different history of our contemporary technologies, but broadly theorizes the economic exploitation of the human sensorium.

Sterne’s attention to listening introduces a post-Marxist understanding of compression—contemporary digital culture’s key to the rapidly efficient circulation of content. However, this same story repositions disability, rather than military development, at the center of media history. Once again, attention to sound history overturns fundamental assumptions, in this case those of supposed antihumanist media theorists from Kittler to Paul Virilio to Steve Goodman. Mara Mills, whose work drives some of the research in Sterne’s *MP3*, has shown that Bell Labs arrived at the model discussed above through tests with deaf and hard-of-hearing subjects who were asked to read visual representations of speech—“sound spectrographs”—in order to (1) identify the acoustically redundant information that sound engineers could remove from the telephone line, thereby allowing them to fit more voices (with less acoustic information) across the same line, and (2) regulate their own voices by following normative pronunciation standards.³⁹ Joining an “oralist” pedagogy to train deaf students to regulate their own speech (rather than learn sign language), and an economic model meant to maximize the use of available bandwidth in telephone infrastructure, Bell Labs engineers and corporate officers at AT&T worked with hard-of-hearing users to lay the groundwork for modern-day compression. Not only does Mills rewrite the history of media to position listening and disabil-

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ity, rather than military development, as the fulcrum of our contemporary technologies, but her work undermines the ableist subject ensconced within the humanist project writ large. Deafness, in this case, drives the most innovative work in sound studies and a larger rewriting of media theory's narratives of innovation. Thus, from Hirschkind to Sterne to Mills, we can trace the sonic turn's dismantling of the accepted subjects behind traditional aesthetics, Marxism, and media studies, and, in Mills's work, even a challenge to what constitutes sound itself.

>> FROM THE VOICE TO SONIC ONTOLOGY

While much of the sonic turn has directed attention to listening practices, and away from music and the voice as privileged objects of analysis, it has also been accompanied by a newly invigorated study of the voice's sonic meaningfulness. This attention to sound within the voice also has the potential to respond to a looseness in literary theory and narratology's own concepts of "voice" or "tone." The linguistic anthropologist Asif Agha has suggested that the Bakhtinian notion of "voice," for instance, is better understood as "register," as Bakhtin's

voices have very little to say about sonic speech and more to do with social positionality.⁴⁰ Likewise, approaches to "tone" from Voloshinov to Sianne Ngai and Michael Lucey present it as an "affective-aesthetic idea" and the artful arrangement of discourse to carry or convey particular affects, a bearing or attitude that

exists without any necessary relation to sonic pitches.⁴¹ "Voice," "register," and "tone" seem to fold into one another within the available discourse of narratology. So what is one to do when confronted with the spoken voice of a poet in performance, an actor in a radio play, a speaker in an audiobook, or even those printed voices that try to establish a relation to sound, as when John Dos Passos writes of the tones of FDR's radio voice, or when the Cuban ethnographer and author Miguel Barnet says that his printed rendering of his taped recordings with the former slave Esteban Montejo brought to the page the "intonation, the rise and fall of pitch, the nuances of [Montejo's] language"?⁴² Are we caught again between sound as material and language as the sound image of these voices on the page?

Strangely, anthropology, a discipline closely associated with affirming the linguistic turn's reach beyond literature departments, offers a way out of this bind. Beginning as early as Steven Feld's groundbreaking work on "sound and sentiment" in the 1980s, linguistic anthropology has elaborated the social meaning of sound in vocal production from a variety of standpoints. Yet like the other disciplines I've mentioned above, since 2000, linguistic anthropologists have developed keen ears for how sound and sign work together. Among the diversity of topics in which sound has changed the field

Deafness, in this case, drives the most innovative work in sound studies and a larger rewriting of media theory's narratives of innovation.

are questions of gender in Japan (Miyako Inoue) and South Asian dubbing practices (Amanda Weidman), religious discourse among Mauritian Muslims (Patrick Eisenlohr), Indigenous interfaces between music and language in Mexico (Paja Faudree), and Aboriginal uses of radio in Australia (Daniel Fisher). One significant difference from Steven Feld's early studies in what he has sometimes called, along with a larger group of scholars, "sound symbolism," is the later insistence on the indexical and context-dependent or "pragmatic" (in Michael Silverstein's meaning of the term) Peircean use of sound to create social meaning.⁴³ While the repeated, ritualized use of a sound yoked to a particular context might lead us to think that such a sound *symbolizes* a particular thing, concept, or identity, the emphasis on the pragmatic and *indexical* functions of sonic meaning reassert the social maintenance required to sustain the fragile association between a given sound and its meaning, while not letting go of the link between material sound and cultural uptake.

I invoke this pragmatic mode here because it offers us a method to recognize the intersectionality of sound and sound image, the material and the symbolic in vocal sound's sociocultural life. We can find the means to move past the Saussurean division through Nicholas Harkness's "phonosonic nexus." This concept describes the dynamic, processual meaning-making at the intersection of the physiological production of vocal sound, what Harkness calls "the voice voice," and the tropological cultural associations with voice ("the people's voice," "the inner voice," "the writer's voice") that he calls "voicing."⁴⁴ In this model, what Barthes called "the grain of the voice," and what I've suggested, after Bergeron, we might now call the voice's sonic timbre, becomes indicative of certain social positions: sound makes meaning. To take one of Harkness's examples, a common twentieth-century social ritual in Korea has been for workers to drink *soju* with their boss at the (technical) end of the workday. The pleasurable exhalation after drinking a shot of *soju*, what Harkness calls a "fricative voice gesture" (FVG) becomes associated or indexed, in this context, with (usually male) authority.⁴⁵ Harkness shows how this sound is then taken up in other situations to index authority. In a marvelous example of this sound's narratological meaning, Harkness observes how a Presbyterian preacher employs this "fricative voice gesture" in a sermon to distinguish the voice of Jesus and to indicate the powerful authority of that voice. Thus, the repeated use of a sound in one social context grants that sound a particular meaning, which can then be taken up in another context to carry forward that general meaning. However, as Harkness's work, here and elsewhere, has demonstrated, the meaning of this sound changes depending on context. He observes that in more quotidian situations, this particular FVG is deemed rude and vulgar if used by someone of a perceived lower social class than another listener. And as the gender norms of the Korean workplace shift, so too has the sound associated with *soju*, as new commercials extol a softer, higher pitched exhalation identified with normative female vocal physiology. All of these sonic demarcations of shifting social boundaries point to the processual and dynamic notion of "the phonosonic nexus," a pragmatic approach that helps us describe, and, in some ways, hear, sound's distinctive meaning.

The pragmatic approach provides a meaningful alternative to studies of sound and voice in a poststructuralist mold. Critics eager to carry on the lessons of Derrida, Lacan, and others have turned to sound and the voice over the last two decades to ask what that tradition's antagonism to "phonocentrism" might have missed. Among the group I mentioned at the outset of this essay, perhaps Mladen Dolar's Lacanian-inflected *A Voice and Nothing More* (2006) best exemplifies how poststructuralist scholars think of sound and the voice. In his book, Dolar investigates "the object voice," which he defines as the residual voice, "the nonsignifying remainder,"⁴⁶ the object left over after phonology divided vocal sounds into phonemes. Such an approach seems promising, as it departs from the tendency in earlier literary approaches to understand voice as a metaphor or trope (as with Bakhtin), and to perceive it instead in its material *and* social complexity. However, despite this group's invocation of texts such as Pierre Schaeffer's study of *musique concrète*, or Michel Chion's elaboration of Schaeffer's "acousmatic" concept of the sound without an identifiable source, the voice and sound continually escape them, or, rather, these objects, once isolated, become equivalent to any other kind of difference. Each of their arguments ultimately relies on the structure of poststructuralist thought, a method that converts sound, voices, listening practices, and so on, into the same repetitive logic of difference. For these scholars, the "phonosonic nexus" cannot exist because physiology and sonic materiality are no more than "nonsignifying objects," supplements and residues that might "disrupt" any referential signification, but only to reassure us that their own system and logic will not be challenged.

While some scholars invoke sound and the voice only to enfold it into the logic of the linguistic turn yet insist they are doing nothing of the sort, a contrary group pushes for a similar extreme, the reflexive twin of the linguistic turn. This materialist and ontological team unfolds the Deleuzian banner to similarly separate sound from language, and perhaps even from sound itself. Indeed, "sound itself" is precisely what this ontological cohort claims sound studies fails to take into account. While Brian Kane has written that this ontological turn presents "sound studies without auditory culture," writers such as Steve Goodman, Marcus Boon, Greg Hainge, and Christoph Cox borrow from Deleuze's vocabulary of energy and forces to argue that sound has not yet been studied by sound studies because scholars fail to account for sound as *vibration*.⁴⁷ Especially in Goodman's and Boon's work, vibration emerges as a felt sense of collectivity in dance clubs where monumental speaker systems pump heavy bass to immerse listeners in a vibratory field that physically passes through individual bodies. Although there are negative uses of such vibration—Goodman identifies a variety of techniques he names "sonic warfare"—this cohort holds up the physical reality of vibration as an affective and materialist counter to linguistic division, celebrating what they argue is a phenomenological collectivity unequalled or unfound in linguistic models, and unexplained in those situated and historicist works that speak of listening, technologies, or the voice, but never quite grasp the ontology of sound. Overstating the material side of sound in hopes of a utopian bond felt both physically and affectively, they ignore that sonic meaning remains a semiotic event, one in which sound is, but is also more than,

the shaking force of vibration. The available ontological models of sound seem to run aground, so to speak, in their ultimate replacement of sound with vibration, a reduction of sonic experience that ignores the process of transduction—the transformation of that vibratory energy through the cilia in abled ears into the electrical impulses neurologically processed into the phenomenological and cultural event commonly understood as sound. Hence, Kane’s article: “Sound Studies without Auditory Culture.” It matters that an earthquake would bring down Berghain.

>> ACOUSTIC ASSEMBLAGES, MULTINATURALISM, AND PERSPECTIVIST ONTOLOGY

However overstated, the emphasis on the vibratory material of sound waves serves as a corrective against not just historicist or constructivist models, but also biases against deaf and hard-of-hearing listeners who might primarily experience sound through such physical experience. Indeed, those listeners can also draw attention to a larger culture produced in concert with sound—music videos, album covers, texts, etc.—that once again troubles what counts as an object of sound study.

The aforementioned work of Mara Mills brings deafness to the forefront of sound studies to interrogate the movement from inscription to information, from the grooves on an LP to the 0s and 1s transmitting voices to your cell phone, and thus, toward something like a cybernetic ontology of sound—sound as binary electricity rather than vibration.⁴⁸ However, it is the work of Ana María Ochoa Gautier that best connects the different strands and internal critiques of sound studies I’ve outlined above, as well as the field’s response to the current and ongoing attempt to bring together the material and the symbolic in the wake of the linguistic turn and the weakening force of social constructivism. In particular, Ochoa’s book *Aurality: Listening and Knowledge in Nineteenth-Century Colombia*, which studies sound in speech, song, poetry, fiction, and grammar in Colombia before the advent of electrical sound recording, proposes a paradoxical cultural-ontological model that draws on audile technique, the ecological soundscape, and postcolonial and critical race studies from Latin America to develop a theory of the “acoustic assemblage” at the intersection of materialism and symbolic culture.

Ochoa’s work does not stand alone. Although sound studies critics—internal and external—have criticized the field’s bias toward white male Europeans, such criticism tunes out an entire field of scholars and scholarship, from the earlier work of Alejo Carpentier, W. E. B. Du Bois, and Frantz Fanon to twenty-first century writings from Anke Birkenmaier, Alejandra Bronfman, Luis Cárcamo-Huechante, Christine Ehrick, Rubén Gallo, Joy Hayes, Alejandro Madrid, Sarah J. Townsend, Alexandra Vasquez, and others who have written influential books on sound technologies in the Caribbean and Latin America; Tsitsi Jaji’s and Brian Larkin’s careful studies of stereo and media throughout Africa; Andrea Bachner, Richard Jean So, and Andrew Jones’s ongoing elaboration of the sonic cultures of China; Harkness’s redefinition of how we hear and think of voice through studies in Korea; Inoue’s nuanced work on sound in everyday gender performance in Japan; Patrick Eisenlohr’s, Kim Haines-Eitzen’s, Charles Hirschkind’s, Flagg

Miller's, and Bissera V. Pentcheva's analyses of the intersection of religious belief, sound technologies (including built and natural space), and listening practices in Egypt, Turkey, Palestine, and Mauritius; and, in the United States, Stephen Best's, Ashon Crawley's, Brent Hayes Edwards's, Nina Sun Eidsheim's, Fred Moten's, Jennifer Lynn Stoevler's, and Alexander Weheliye's deep knowledge and study of the interrelation between African American culture, listening, sound, law, and literature. This is by no means an exhaustive list, but a corrective to those who claim not to hear a diversity of voices, topics, and regions with which sound studies is in dialogue. Such work, of course, is only a starting point, but it should not be tuned out.

Ochoa's research resounds with these other voices and many of their projects, and I take her theory of "acoustic assemblages" as exemplary of the sonic turn's ability to orient the humanities as scholars seek to retain the lessons of language without merely reiterating constructivism in the face of pressing questions about that method's limitations. Central to her work is a term I have already mentioned: transduction. Whereas in engineering and media theory, transduction names the transformation of one energy source into another—rushing water transformed into electricity through the spinning turbines at a hydroelectric dam, or sound waves changed through the ear's cilia into the cognitive-sensory pulses experienced as sound in normative human physiology—in linguistic anthropology and anthropology more broadly, transduction describes the social or pragmatic, the nonreferential, aspects of cultural meaning that linguistic translation, or at least its common semantic theory, does not include. Ochoa writes that "the acoustic dimensions of the colonial and early postcolonial archive" across nineteenth-century Colombia are "dispersed into different types of written inscriptions that *transduce* different audile techniques into specific legible sound objects of expressive culture."⁴⁹ Writings as diverse as grammatical treatises, songbooks, novels, orthographic manuals, and travel memoirs serve as a sonic archive, one whose inscriptions are not the grooves on a shellac disc, but that nevertheless register different modes of listening associated with song, quotidian speech, ambient noise, and so forth. The specific genres, in this case, help categorize the sounds (as song, speech, etc.) based on how the listeners approach them. These various "anthropotechnologies"⁵⁰—orthography, grammar, musical transcription—participate in what Ochoa calls a "zoopolitics of the acoustic that is obsessed with separating the human from the nonhuman."⁵¹ Thus, the intersection of listening and categorization has massive social consequences. For instance, if colonizing ears heard the voice of an enslaved person as "nature," like an animal "song," then such ears dehumanized this subject and deprived the speaker of his or her personhood. Whereas, if one heard speech (i.e., "culture") instead, then one granted the subject personhood. In these unequal circumstances of power, how one listened raised epistemological questions—What am I hearing? How do I classify that sound?—with ontological meaning: that sound is or is not human. Such an example of knowledge-power, however, continues to position the colonizing ear as capable of granting or depriving another of their being.⁵²

Ochoa does not mistake this problem for a response. Rather, when she locates such uneven listening in the travel writing of Alexander von Humboldt, for instance, she

approaches these particular transductions of sounds through a more dialogic sense of meaning, or what she calls, following Eduardo Viveiros de Castro, “a method of controlled equivocation.”⁵³ In a complex passage, Ochoa asserts that understanding sound as the product of such diverse relationality requires a theory of “acoustic assemblages”:

By acoustic assemblages I mean the mutually constitutive and transformative relation between the given and the made that is generated in the interrelationship between a listening entity that theorizes about the process of hearing producing notions of the listening entity or entities that hear, notions of the sonorous producing entities, and notions of the type of relationship between them. Such an assemblage circulates between different listening entities through different practices of inscription of sound: rituals, writing, acoustic events, and so forth that, in turn, are also heard. These assemblages then imply a mutually constitutive transduction (in two directions, let us say) of notions of sound as well as notions of who listens, as well as potentially transformative processes of inscription of sound that interrelate listenings and sounding “objects.”⁵⁴

Ochoa has carefully excluded “the subject,” “a person,” “the human,” “the self,” “the other,” and even “the listener” from her theory in order to draw attention to other ontological orders of listening, including entities that may not be recognized as human in one context—Indigenous peoples under colonial rule, slaves, women, as well as birds, tigers, and other “voices of the forest”—but might be classified as human or as subjects based on how they are heard in another context.⁵⁵ “The relationship between the human and the nonhuman,” she writes, “is not necessarily understood in the same way by different ontologies of the acoustic.”⁵⁶ Such a thought does not imply “including” the human in the environment or “dissolving the human into the natural through a transhuman extension of music or sound”⁵⁷ but following an “acoustic multinaturalism”⁵⁸ and a “perspectivist ontology [where] whether a sound is produced by humans or animals depends on the ear that hears it.”⁵⁹ While this assertion might seem to echo the colonial prescription of human sounds, now no ear is granted privilege, such that while “Humboldt hears animal noise, the Indians, by contrast, recognize not only that there are animals that sound like peccaries, macaws, and monkeys, but also that they hear their own sound as human, since humanity, not animality, is the common condition that is shared.”⁶⁰ Inverting Aristotle’s distinction of the human animal as one whose voice carries *logos* to distinguish human vocal sound from the general *phone* of all animals—a distinction I have been tracing throughout this essay as the hegemonic principle in literary theory’s discourse after Saussure—Ochoa’s “perspectivist ontology,” like Lévi-Strauss’s before her, reveals how “the agentive acoustic dimensions of nonhuman entities in the affairs of humans, hinges on an understanding of the relations between humans and nonhumans that unsettle the historically constructed boundaries between nature and culture, the human and the nonhuman in Western modernity.”⁶¹ It is in the mutual constitution of the relations between “given” and “made,” their entanglement, where sound gets produced, and aurality helps make and divide those entities in a dynamic process that allows for reversibility in “an ontology of *relationships*.”⁶²

In her theory of acoustic assemblages, Ochoa uncovers a model of sonic attention, an audile technique that neither abandons texts nor allows texts to substitute for the sensuous materials they engage. Writing about the transition from coloniality to post-coloniality in nineteenth-century Colombia, she understands the ramifications of her historical period on the particular modes of listening, sonic registers, and textual production she studies, but that historical context also allows her to develop a theory that does not reduce cultural events to their context alone. Decoupling sound from an electrified modernity, Ochoa's work opens the archives of the past to resonate in new ways that should continue to unsettle sonic boundaries and sound's impact on the status of the humanities.

>> LISTENING IN PARIS (A SLIGHT REPRISE)

In closing this essay, I want to return to France, where one hundred years after Rimbaud penned "Voyelles," a powerful set of acoustic assemblages came together to register a new voice with the 1983 production of the printed text *Me llamo Rigoberta Menchú, y así me nació la conciencia* (consequentially translated in the English edition as *I, Rigoberta Menchú: An Indian Woman in Guatemala*).⁶³ Made from a series of tape-recorded interviews with Menchú conducted by the anthropologist and activist Elisabeth Burgos-Debray over a couple of days in Paris in January 1982—conversations Burgos-Debray then transcribed, edited, and reordered into a printed book—the text has since become exemplary of the *testimonio* genre. Identifying herself in the book's prologue as "Rigoberta's listener," Burgos-Debray implicitly invokes but also mutes the book's sonic process, as she urges readers "to be guided by [Menchú's] singular voice, which transmits its inner cadence in such an enchanting way that at times one imagines hearing her tone or feeling her breath."⁶⁴ That one should have to imagine the timbre of such a voice rather than hear it owes to a familiar ideology of writing and reading that marginalized sonic stories and made the printed text into an object endowed with cultural and commercial capital.⁶⁵ Nevertheless, outspoken supporters of the genre's capability to render "the voice of the other" have insisted that *testimonio* exists "in book or pamphlet (that is, printed as opposed to acoustic) form."⁶⁶ At this point it should come as no surprise that readers miss much sonic meaning with these assertions. As I have written elsewhere about the Menchú–Burgos-Debray interaction and other testimonial works, when we attend to the circuits of listening involved in the entextualization of these books and then, when possible, listen to the tapes themselves, we can hear how *testimonio* secured its claim to a subaltern "truth effect" and how print's built-in limitations, its negative affordances, can conceal sounds key to issues of identity and authenticity that readers have taken at face value.⁶⁷

Testimonio's value, especially early in its history, has depended on its capacity to bring to print and, perhaps more importantly, into the hallowed category of literature, stories from marginalized communities in their own words. Since the speakers' subject-positions as marginal or "subaltern" were central to the genre's meaning, the printed

words needed to be connected, to exist as practically inalienable from the speakers themselves.⁶⁸ Listeners like Burgos-Debray, the books' "compilers," could not be understood to fictionalize or overly manipulate those words without undermining the genre's very purpose. It was for this reason that the genre's most famous early practitioners turned to the tape recorder, another "listening entity," in Ochoa's words, just as that medium secured its status as both an archive of political evidence and a faithful, physical reproduction of sound. The latter idea emerged from the culture of high-fidelity in the 1950s and 1960s, which introduced magnetic tape alongside stereo and multi-track recording to isolate sound in greater detail, increasing the definition and precision of reproduced sound to the point that hi-fi enthusiasts, and the marketers that sold products to them, trusted that taped sound could be equivalent to an original source. And while experimental artists challenged these beliefs by cutting, splicing, overdubbing, and erasing recorded sounds, they were largely ignored by the mainstream public, and by courts and politicians who heard evidentiary value in tape, enough to take down a US president. This apparent combination of legal evidence and sonic fidelity made the tape recorder, in the words of the Cuban testimonial compiler Miguel Barnet, "the impartial ear *par excellence*."⁶⁹

Attention to this history reveals how a printed genre has depended on sound to establish and define its meaning. However, listening in detail to the Menchú tapes can also open our ears to the representational possibilities of sound and the issue of authenticity. In a separate article I have shown, among other things, that listening to the tapes reveals that the book's style seems a product of Burgos-Debray's ear more than of Menchú's voice.⁷⁰ Menchú's famous opening statement in the book—"My name is Rigoberta Menchú. I'm twenty-three years old. I want to give this living testimony, which I didn't learn in a book and I didn't learn alone. And I want to underscore that I've learned everything with my *pueblo*"⁷¹—a statement that gives the book its title, does not emerge spontaneously, but is produced from two separate interviews, with Menchú engaged in various moments of sonic resistance in which she lowers her voice to a barely audible whisper, laughs, asks her interviewer for clarification, and yet also speaks fluent Spanish. These sounds, and the patchwork editing required to produce the paratactic declaration of collective identity that grants the book its exemplary status, tell a different story about Menchú and her voice. In particular, they undermine her portrayal and the portrayal of her speech, in the words of Burgos-Debray and the book's English-language translator, as "simple" and "spontaneous." Those descriptions are thrown into even greater relief when one tape begins accidentally with Burgos-Debray recording her young daughter joyously declaiming French poetry and children's songs in an at first shy and then confidently shouting rendition just before the tape cuts abruptly to Burgos-Debray asking Menchú to tell her story and produce a version of that opening sentence. Listening to these scenes, and then returning to the text, a listening reader hears more of the anthropologist on the page.

However, the most meaningful sound in these exchanges is a stutter. As Menchú explains in Spanish that she finds it difficult to speak Spanish, her voice hitches on the

phrase “it’s difficult” (*me cuesta*), when she says, “I still find it difficult to speak Spanish.”⁷² That she stutters at this moment performs important political and cultural work. As an Indigenous woman speaking on behalf of a Quiché-speaking community, Menchú’s ability to speak Spanish threatens to separate her from that community in the ears of her primary listener, Burgos-Debray, as well as a broader public, and perhaps even her local community. Indeed, right-wing pundits angered by the inclusion of *I, Rigoberta Menchú* on college syllabi questioned her role as an authentic spokesperson because she spoke Spanish.⁷³ To speak Spanish, in other words, would undermine her political project and the genre-defining statement of a collective voice that is both “I, Rigoberta Menchú,” and the voice of an entire people. And yet her message could not reach the broader world if she did not tell it in Spanish, and her activist project, for which she was eventually awarded the Nobel Peace Prize, would have been thwarted. Thus the sound of Menchú’s stumbling over her words serves as an authenticating nonreferential social index that allows her to manage her footing, in Erving Goffman’s terms, as an Indigenous Quiché woman while speaking the language of the colonizer.⁷⁴ Expanding the limits of Bakhtinian “voice” criticized by Agha, Menchú’s voice can be heard at Harkness’s “phonosonic nexus,” the sounds of its “social life” connecting acoustic energy with social position. Her stutter, in other words, does not merely “deterritorialize” Spanish, as Deleuze might have argued, but makes sound work meaningfully to create a strategic figure of authentic identity in and against the language of power.⁷⁵

>> SONIC FUTURES

The radio documentarian Tony Schwartz once said, “There’s no party so noisy as the one you’re not invited to.”⁷⁶ Schwartz’s quip draws attention to the distinctions made between “noise,” “song,” “speech,” and other acoustic events as eminently relational. Ochoa argues that such relationality is not only social, but ontological. As sound studies, auditory culture, or whatever name “the sonic turn” might take in the future continues to influence scholars, it will continue to ponder the intersection and entanglement of physical properties and their social uptake. With such concepts as Harkness’s “phonosonic nexus,” Stoever’s “sonic color-line,” Sterne’s “perceptual technics,” Ochoa’s “acoustic assemblages,” and others, sound studies will likewise continue to call on theorists to involve themselves in the technological, material, and physiological. As Ochoa or Helmreich reconsider “eco-musicology” or “eco-ethnography” through challenges to the previous eco-sonic approaches of Steven Feld and (implicitly) R. Murray Schafer, or Mills revises the militaristic narratives of media development as projects dependent on disabled subjects and their work, or a host of scholars from Stephen Best to Andrew Jones to Jennifer Lynn Stoever to Ashon Crawley reveals juridical, cultural, and theological understandings of racial identity, sound will remain key to the most pressing questions of racial justice and survival. As sound studies recognizes its diversity, carries through its internal critiques, and presses on with its investigation into what constitutes sound, it will be forced to engage the challenges of its own scholars.

Those scholars know that sounds are physically real, that acoustic events enter into complex networks of sociality and uptake in affective responses and representational systems, and that whatever constructed character a sound's meaning might carry in context, sounds also impact—determine and are determined by—the ontology, the “well-being” of others throughout the global ecosystem. What Mills, Ochoa, Sterne, and others help us hear is not only how sound and listening drive many of our contemporary technologies, not only the histories of hearing embedded within a format's engineering, not just alternative models for encountering the climate crisis (and how that crisis changes how we hear). Their methods reside at the intersection of the ontological and the epistemological, the material and the symbolic, the given and the made in scenes of listening to sound that expand rather than delimit where meaning can happen and what or who can be involved in its production.”

Notes

- 1 Nancy, *Listening*, 1; emphasis in original.
- 2 Rick Altman, Don Ihde, Mary Ann Doane, Barry Truax, Pierre Schaeffer, Alain Corbin, and R. Murray Schafer began the work associated with what is now known as “sound studies.” This group was followed by works published in English (including English translations) in the 1990s by Lisa Gitelman, John Durham Peters, Susan Douglas, James H. Johnson, Amy Lawrence, Stephen Connor, Pauline Oliveros, Friedrich Kittler, Kaja Silverman, Michel Chion, Michelle Hilmes, and others.
- 3 Voloshinov, *Marxism and the Philosophy of Language*, 132, 138.
- 4 See McEnaney, *Acoustic Properties*, “Rigoberta’s Listener,” “Forgotten Histories of the Audiobook,” “This American Voice,” “Real-to-Reel,” “No Transmitter,” “Hello Americans,” and “Diane . . . The Personal Voice Recorder in *Twin Peaks*.”
- 5 Barthes, “The Grain of the Voice,” 182.
- 6 Barthes, 188, 189.
- 7 Here I am following Mara Mills’s major intervention into Saussurean-influenced semiotics. See Mills, “On Disability and Cybernetics,” 79.
- 8 Harkness, *Songs of Seoul*, 14.
- 9 Barthes, 187; emphasis in original. Heath’s translation omits the reflexive “works on itself” (*se travaille* in the French text) in favor of “works.”
- 10 Barthes’s French text does not distinguish between “melody” (*mélodie*) and the musical genre of French *mélodie*. Heath’s English translation italicizes only the latter.
- 11 Bergeron, *Voice Lessons*.
- 12 Bergeron, 136. Bergeron cites Derrida’s reference to the tympanum in the opening essay of his 1972 collection *Margins of Philosophy* where it stands as a figure for philosophy to “think its ‘other’ or, as Derrida puts it, ‘that which limits it, and from which it derives its essence, its definition, its production’” (Bergeron, 136). It’s hard not to hear Nancy’s opening to *Listening* echoing this sentiment.
- 13 For a different approach to the idea of “pure sound” in Mallarmé’s “Sonnet en x,” see Butler, “Principles of Sound Reading,” 239.
- 14 Bergeron, *Voice Lessons*, 134.
- 15 Bergeron, 135; emphasis in original.
- 16 Those familiar with writings associated with the sonic turn and the emphasis on the objectification of sound through recording and transmission technologies in the late nineteenth century should not be surprised that Bergeron’s work focuses on this period, when projects in linguistic nationalism (in France, but also in Argentina, Brazil, Cuba, Germany, and the United States) sought to objectively define and then police sounds deemed “foreign” as they actively manipulated, through pedagogy and prostheses, how the populace sounded. See Robbins, *Audible Geographies in Latin America*; Carter, “Circuits of Argentinidad”; and Kittler, *Discourse Networks*.
- 17 Although I am dating the current wave of interest in sound studies to the publication of Sterne’s and Thompson’s books, Hilmes’s review of *The Audible Past and the Soundscape of Modernity*, “Is There a Field of Sound Culture Studies?,” cites film scholar Rick Altman as “the godfather of sound studies” and notes that Altman’s 1999 essay “Sound Studies: A Field Whose Time Has Come” already spoke of itself as “the fourth wave of sound studies” (Hilmes, “Is There a Field Called Sound Culture Studies?,” 250).
- 18 I am thinking here of Picker, *Victorian Soundscapes*; Weheliye, *Phonographies*; Hirschkind, *The Ethical Soundscape*; Pinch and Trocco, *Analog Days*; Gallo, “Radio,” in *Mexican Modernity*; Katz, *Capturing Sound*; and Erlmann, *Reason and Resonance*.

19 Sterne writes: “In this new regime, hearing was understood and modeled as operating uniformly on sounds, regardless of their source. Sound itself, irrespective of its source, became the general category or object for acoustics and the study of hearing. Thus, the ear displaced the mouth in attempts to reproduce sound technologically because it was now possible to treat sound as any phenomenon that excites the sensation of hearing” (Sterne, *The Audible Past*, 33). For a different idea about “the detail” in sound, see Vazquez, *Listening in Detail*.

20 Sterne explains that “technologies had to be articulated to institutions and practices to become media. The sound media thus emerged in the tumultuous context of turn-of-the-century capitalism and colonialism” (Sterne, *The Audible Past*, 25). He adds, “The objectification and abstraction of hearing and sound . . . was a prior condition for the construction of sound-reproduction technologies; the objectification of sound was not a simple ‘effect’ or result of sound-reproduction technology” (23). In considering the field, it is worth following Sterne’s observation in his introduction to *The Sound Studies Reader* that the field is “critical”—it is not art, science, or technical training—and it is “conscious of its own historicity” (5).

21 For a critique of sound studies’ apparent provincialism from the perspective of sound-oriented musicologists, see Radano and Olaniyan, *Audible Empire*. Similarly, in “Remapping Sound Studies,” Gavin Steingo and Jim Sykes cite Sterne on sound studies’ continuing “Eurocentrism” (Steingo and Sykes, “Remapping Sound Studies”).

22 Sterne, *The Audible Past*, 33.

23 Labov quoted in Seabrook, “Talking the Tawk.”

24 In editing this essay, I decided to remove a section devoted to the keyword “soundscape.” However, it is worth noting the significant role of R. Murray Schafer’s 1977 book *The Tuning of the World* (*The Soundscape*), which was republished in 1993 as simply *The*

Soundscape, and which drew on more than a decade’s worth of research into listening, beginning with his first book *Ezra Pound and Music* (1961; republished in 1977). Schafer’s work, anticipating not just sound studies but also ecocriticism, stages a polemic against the industrial noise he hears overwhelming the sounds of the natural world that necessitates what he calls a counter practice of “ear cleaning” (as in the title of his 1967 book). However, the term “soundscape” was taken up by Thompson’s *The Soundscape of Modernity* (2002), Picker’s *Victorian Soundscapes* (2003), and Hirschkind’s *The Ethical Soundscape* (2006) in studies of electrified sound to study what Steven Feld has called “acoustemology,” the new knowledge formations produced in relation to technologies like gramophones, microphones, and cassette tapes. The soundscape, or soundscapes, for Hirschkind, Picker, and Thompson, not only names the auditory imagination, but helps us understand how mediated experiences of listening meant new modes of controlling, activating, and accessing the world. These twinned concerns—the mediated manipulation of sound and the changing understandings of listening—mark these thinkers’ renovation or repurposing of “the soundscape.”

25 Sterne, *The Audible Past*, 92.

26 Sterne, 23–24.

27 Sterne, 25.

28 Sterne, 93–94.

29 Kate Lacey argues that “it is the association of listening with passivity and with the private sphere that has surely hindered it being properly attended to either as a critical public disposition or as a political action” (Lacey, *Listening Publics*, 4).

30 Hirschkind, *The Ethical Soundscape*; Stoeber, “Splicing the Sonic Color-Line”; Ochoa Gautier, *Aurality*; Helmreich, *Sounding the Limits of Life*.

31 Connor, “The Modern Auditory I”; Lacey, *Listening Publics*.

- 32 Hirschkind, *The Ethical Soundscape*, 27.
- 33 “The goal of this research was to transmit and reproduce speech in the most cost-effective manner, all the while convincing the human ear that it heard ‘live,’ unmodified talk” (Mills, “Deaf Jam,” 37).
- 34 Sterne, *MP3*, 46–51.
- 35 Sterne, 51.
- 36 Sterne, 51.
- 37 Fisher, “User Be Used.”
- 38 Sterne, *MP3*, 51.
- 39 Mills, “Deaf Jam,” 37–38.
- 40 Agha, “Voice, Footing, Enregistrement.”
- 41 Ngai, *Ugly Feelings*, 41; Lucey, “Simone de Beauvoir and Sexuality in the Third Person.” Ngai takes as her starting point “the affective-aesthetic idea of tone . . . reducible neither to the emotional response a text solicits from its reader nor to representations of feeling within the world of its story” (41). In a reading of the French writer Robert Pinget, Lucey notes that “part of what circulates through language is a set of tones, perhaps we could say registers” (Lucey, *Someone*, 235).
- 42 “I myself, when I listened to the recordings on my old Tesla tape recorder, I felt that that character, that voice, had a resonance, and that it transformed itself into a tremendous chorus with itself, as well as with the one who made that voice speak (*e incluso con quien la ponía a hablar*), that is to say, with the author. . . . I tried to imitate Montejó’s language, to bring to the page his intonation, the rise and fall of his pitch, the nuances of his language” (Barnet, *Biografía de un cimarrón*, Kindle loc. 2926).
- 43 Feld, *Sound and Sentiment*, 81–82.
- 44 Harkness writes, “I treat the voice as an ongoing intersection between the phonic production, shaping, and organization of sound, on the one hand, and the sonic uptake and categorization of sound in the world, on the other. I give this practical, processual intersection the name *phonosonic nexus* . . . [T]his concept clarifies the relationship between literal understandings of ‘voice’ (e.g., a laryngeal setting involving vocal cord adduction, a material locus of human sound production, an instantiation of a speaking or singing individual, etc.) and more tropic understandings of ‘voicing’ (e.g., a metonym of political position and power, a metaphor for the uniqueness of an authentic self or collective identity, an expression of a typifiable persona, etc.). These two related views consider voice as a ubiquitous medium of communicative interaction and channel of social contact and as the positioning of a perspective within a culturally meaningful framework of semiotic alignments” (Harkness, *Songs of Seoul*, 12).
- 45 Harkness, “Softer Soju in South Korea,” 12–30.
- 46 Dolar, *A Voice and Nothing More*, 10.
- 47 Kane, “Sound Studies without Auditory Culture”; Boon, “One Nation under a Groove?”; Goodman, *Sonic Warfare*; Cox, “Beyond Representation and Signification”; Hainge, *Noise Matters*.
- 48 Mills, “Deaf Jam.”
- 49 Ochoa Gautier, *Aurality*, 3; my emphasis.
- 50 Ochoa Gautier, 17.
- 51 Ochoa Gautier, “Acoustic Multinaturalism,” 131.
- 52 In a slightly different context, Ochoa comments, “As such, a mode of knowing or an epistemology (the subject’s scientific understanding of the nature of an object) is confused with an ontology—one that supposedly counts for all cultures” (Ochoa Gautier, 121).
- 53 Ochoa Gautier, *Aurality*, 23.
- 54 Ochoa Gautier, 22–23.

- 55 Steven Feld titles the second chapter of his groundbreaking ethnography after a quote from his Kaluli friend Jubi: “To you they are birds, to me they are voices in the forest” (Feld, *Sound and Sentiment*, 45).
- 56 Ochoa Gautier, “Acoustic Multinaturalism,” 131.
- 57 Ochoa Gautier, 131.
- 58 Ochoa Gautier, 136.
- 59 Ochoa Gautier, 138.
- 60 Ochoa Gautier, 138.
- 61 Ochoa Gautier, 139.
- 62 Ochoa Gautier, *Aurality*, 22; emphasis in original.
- 63 Menchú, *Me llamo Rigoberta Menchú*; Menchú, *I, Rigoberta Menchú*. Some of what I have written here appears in another form in McEnaney, “Rigoberta’s Listener.”
- 64 Menchú, *Me llamo Rigoberta Menchú*, 20 and 9. All translations are my own unless otherwise stated.
- 65 On this subject see not only Ochoa Gautier, *Aurality*, but also Rama, *La ciudad letrada*; Ramos, *Desencuentros de la modernidad*; and Polar, *Escribir en el aire*.
- 66 Beverley, “The Margin at the Center,” 24. For more on *testimonio* as “the voice of the other” see González-Echevarría “*Biografía de un cimarrón*”; and Skłodowska, *Testimonio hispanoamericano*.
- 67 McEnaney, “Rigoberta’s Listener”; McEnaney, “Forgotten Histories.”
- 68 Beverley explains that the use of tape recording in *testimonio* is necessary because the narrator is either functionally illiterate or not a professional writer and because the assumed lack of writing ability produces a truth effect (Beverley, “The Margin at the Center,” 26–27).
- 69 Barnett, “La Novela-Testimonio,” in *Biografía de un cimarrón*, Kindle loc. 3453.
- 70 McEnaney, “Rigoberta’s Listener.”
- 71 Menchú, *Me llamo Rigoberta Menchú*, 30.
- 72 Menchú, *Me llamo Rigoberta Menchú*, 9. Menchú, *I, Rigoberta Menchú*, vii.
- 73 Rigoberta Menchú, in an interview conducted by Elisabeth Burgos-Debray.
- 74 See comments from David Stoll and others quoted in Arias, *The Rigoberta Menchú Controversy*.
- 75 For another example of the difficult social and political positioning of Indigenous language spokespeople, see Graham, “How Should an Indian Speak?”
- 76 Deleuze, “He Stuttered.”
- 77 Quoted in Stoeber, “Splicing the Sonic Color-Line,” 66–67.

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Cai Guo-Qiang
LIGHT CYCLE: EXPLOSION PROJECT FOR CENTRAL
PARK, 2003

Realized at Central Park, New York, September 15, 2003, 7:45
p.m., 4 minutes

Tiger tails, titanium solutes fitted with computer chips, and
shells with descending stars, Explosion dimensions variable

Commissioned by Creative Time in conjunction with the City
of New York and the Central Park Conservancy for the 150th
anniversary of the creation of Central Park [Ephemeral]

Photo by Hiro Ihara, courtesy Cai Studio