

Hearing American History

Richard Cullen Rath

I came to the history of sound and hearing by chance as an undergraduate. I was reading Keith Thomas's *Religion and the Decline of Magic* and David D. Hall's *Worlds of Wonder, Days of Judgment* for a class that covered folk beliefs in old and New England. When I started working with some of the primary sources Hall and Thomas used, I noticed that where the two historians usually referred to beliefs about lightning, the sources spoke of thunder. I asked what that inconsistency meant and decided to look some more.¹

I found more odd substitutions of the same sort that piqued my interest in the history of sound: A nineteenth-century pamphlet on thunderstorms in seventeenth-century New England changed thunder to lightning. The antiquarian Sidney Perley noted in his 1891 book about storms in colonial New England that "it was generally supposed that thunder and not lightning caused the damage," though he gave no explanation for the supposition or why it changed. With the exception of attention to "oral culture," which, as we shall see, is not historically well-grounded, after Perley's observations this older audible world slipped from historical consciousness.²

One problem that came up immediately when I set out to write sonic history was the belief that, unlike a document, sound is ephemeral, going out of existence even as it happens. Three factors mitigate this objection. The first is that this comparison is misleading, if not mistaken. Historians do not usually write the history of documents (discounting for the moment the important work on the history of the book as material culture); they interpret the past, all of which has gone out of existence as soon as it came into being, just like its sounds. And like any other experiences, sound and hearing can be partially recovered and interpreted from documents and material culture.

Second, sound is not as ephemeral as we might first think. Thunder presumably sounds much the same today as it did three or four centuries ago. Bells toll for the most part the same notes (where they have not been muffled or replaced with amplified recordings). Acoustic spaces designed to reverberate a particular way centuries ago still do so today. Or take, for example, the Puritan John Gyles's description of the sound of turtles copulating as like the sound of "a Woman washing her Linnen with a batting staff" heard from

Richard Cullen Rath is associate professor of history at the University of Hawai'i at Mānoa. He would like to thank Mark Smith, Ed Linenthal, Susan Armeny, Monisha Das Gupta, Robert McGlone, and the anonymous readers for their comments.

¹ Keith Thomas, *Religion and the Decline of Magic: Studies in Popular Beliefs in Sixteenth- and Seventeenth-Century England* (New York, 1971); David D. Hall, *Worlds of Wonder, Days of Judgment: Popular Religious Belief in Early New England* (Cambridge, Mass., 1990).

² Nathaniel Bradstreet Shurtleff, *Thunder and Lightning; and Deaths at Marshfield in 1658 and 1666* (Boston, 1850), i, 5–8, 10, 14, 37, 38, 51; Sidney Perley, *Historic Storms of New England* (Salem, 1891), 68.

half a mile away.³ Presumably the turtles still make the same sounds. Gyles wrote for an audience that he assumed knew the sound of batting staffs on laundry, a sound no longer common in the twenty-first century. The turtles let us listen in not only on their amorous adventures, but on a sound culled from seventeenth-century everyday life, one that would normally mark the hearer as being within half a mile or so of a familiar community.

The problem of ephemerality is often used to discount oral histories, with historians likening the degradation of knowledge transmitted orally to the children's game of telephone where a message is written down and then whispered from one person to the next, with the result of successive transmissions often differing greatly from the input. The analogy is flawed, however, in that it likens the privacy of reading silently to oneself to the reliance on community in the preservation of oral histories. Knowledge transmission in Native American oral cultures took place, not in an individualistic way, but communally. At eighteenth-century treaty negotiations, the Iroquois assigned each article proposed by the whites to a particular sachem and his people. When the whites had finished speaking, the Indian whom the Iroquois assigned as "orator" would repeat the speech, prompted at the right moments by the sachems responsible for particular points. When framing their own proposals, the Iroquois would give a stick corresponding to each point to a particular sachem. As the orator spoke, he would be prompted by the appropriate sachems. Each sachem, in turn, relied on all of the people under him to get his part right. The process had a built-in accountability and redundancy that made it robust through time.⁴

Interestingly, a couple of the supposed flaws of oral cultures have been reframed in the Internet age as features. Continuously updateable media are touted for their ability to incorporate corrections and new information: texts need never become obsolete. But that feature is just the "problem" of ephemerality given a positive spin. Proponents of the effects of print touted the fixity of knowledge as a wellspring of civilization itself. Similarly, wide-area computer networks, with the Internet as the prime example, are connected by many different routes, so that if any one node is knocked out, the network stays connected and no knowledge is lost. This massive redundancy is the measure of a robust network. Knowledge is distributed rather than centralized in the new media. But the distribution of knowledge across a human network was precisely the flaw that print and literacy corrected through the centralizing of knowledge in authoritative editions. In principle, massive redundancy is no different from Native American communal memorization. Perhaps the return of these characteristics of oral cultures indicates another shift in the wind for the senses, toward a new kind of audible world.

Catastrophic change, on a scale that would have disrupted the transmission of knowledge even in a literate society, did take its toll on Indian knowledge and memory. When the majority of a population dies young, the redundancy and robustness break down and knowledge is lost. In fact, the same broad process of catastrophic change wiped out the histories of one literate Native American people, the Aztecs, who lost, not just a huge pro-

³ John Gyles, *Memoirs of Odd Adventures and Strange Deliverances, etc. in the Captivity of John Gyles, Esq.: Commander of the Garrison on St. George's River* (Boston, 1736), 26; Richard Cullen Rath, *How Early America Sounded* (Ithaca, 2003), 43–119.

⁴ John Romeyn Brodhead, Berthold Fernow, and E. B. O'Callaghan, *Documents Relative to the Colonial History of the State of New-York* (15 vols., Albany, 1853–1887), XIII, 102–3; Cadwallader Colden, *The History of the Five Indian Nations Depending on the Province of New-York in America* (New York, 1727), 89; Rath, *How Early America Sounded*, 168–72; Philipp Waldeck, "Diary," typescript [1776], p. 42b, trans. Bruce E. Burgoyne, Hessian Manuscript 28 (1776–1781), Bancroft Collection (New York Public Library, New York, N.Y.); [Conrad Weiser], *The Treaty Held with the Indians of the Six Nations, at Lancaster, in Pennsylvania, June, 1744* (Williamsburg, 1744), viii–ix.

portion of their population, but their written records to the Spanish colonial onslaught. But we must not exaggerate such losses. Some wampum belts—and their meanings—remain with Indian nations, their stories intact to this day. The U.S. government still honors the treaty of Canandaigua, made and recorded in wampum in 1794, by distributing bolts of cloth to the Six Nations each year. The implications of this treaty for sovereignty and land ownership are being played out in the federal court system today, with initial findings in favor of the Iroquois based on knowledge maintained orally through time in this fashion.⁵

The third solution to the problem of ephemerality, and perhaps the most important for my own work, has been to delineate carefully what I am studying, namely something I call *soundways*: “the paths, trajectories, transformations, mediations, practices, and techniques—in short, the *ways*—that people employ to interpret and express their attitudes and beliefs about sound. I am not so much concerned with the underlying beliefs, historically inaccessible as they often are, or the concrete expressions themselves [where the problem of ephemerality does come up], so much as the ways between them.” Soundways can readily be found in many types of documents, textual and otherwise, and they are no more nor less ephemeral than any other human patterns in the past.⁶

A problem, not just of sonic history, but of sensory history in general has been the question of significance. Some scholars have made a compelling case that paying attention to senses other than vision can further our understanding of long-standing historical problems.⁷ Another argument is that the senses are causal themselves, though I remain a skeptic in this regard.⁸ A third justification for sensory history, which guides my research, is that if we are to understand people from the past on their own terms and if they perceived their worlds differently than we do, then we need to understand those differences in perception in order to understand the people at all.

For the century or so after Perley’s 1891 book, nearly all historical work that treated sound was concerned with music, the ethnography of speaking, or something called oral culture. The work of one musician holds a place as a forerunner to today’s sonic histories. In his 1977 book, *The Tuning of the World*, R. Murray Schafer coined the terms *soundscape* and *soundmark*. The first is the sonic analog to a landscape, with all the connotations of social constructedness that come with that term. Soundmarks are the sonic equivalent to landmarks. They are the keynote sounds that define a soundscape. Schafer’s founding contribution is invaluable, but his work is of limited value for historians. Notions of declension, loss, purity, and pollution imbue his work with nostalgia for a past that probably never existed.⁹

Much of the research on music and the ethnography of speaking has not been directly concerned with sound, but historians of hearing can claim it as an antecedent. For example, much of what we know of African Americans’ historical culture in centuries past

⁵ Irving Powless, G. Peter Jemison, and Anna M. Schein, *Treaty of Canandaigua 1794: Two Hundred Years of Treaty Relations between the Iroquois Confederacy and the United States* (Santa Fe, 2000); George C. Shattuck, *The Oneida Land Claims: A Legal History* (Syracuse, 1991).

⁶ Rath, *How Early America Sounded*, 2.

⁷ For the best examples of this approach, see Mark M. Smith, *How Race Is Made: Slavery, Segregation, and the Senses* (Chapel Hill, 2006); and Mark M. Smith, *Listening to Nineteenth-Century America* (Chapel Hill, 2001).

⁸ For this approach, see Peter Charles Hoffer, *Sensory Worlds in Early America* (Baltimore, 2003). For my reservations, see Richard Cullen Rath, review of *Sensory Worlds in Early America* by Peter Charles Hoffer, *William and Mary Quarterly*, 61 (April 2004), 381–83.

⁹ R. Murray Schafer, *The Tuning of the World: Toward a Theory of Soundscape Design* (New York, 1977); Simon Schama, *Landscape and Memory* (New York, 1995).

comes to us via descriptions of the sounds they made, their language and music in particular. Africans used drumming and horn music as expressions of an immanent state power. African griots used the sounds of their songs to record histories and provide legitimacy to rulers. Enslaved Africans successfully carried both of these practices—and many others—to the Americas in creolized forms, the stateliness of African practices replaced with musical languages used to organize revolts and to pass on knowledge under the duress of slavery. The role of music in strengthening African American life—and later, as it became a multibillion-dollar international industry, American life in general—has been widely and ably documented.¹⁰

Another fruitful field has been the study of African American dialect patterns as evidenced in documents from the eighteenth through the twentieth centuries. Until the 1950s, linguists and historians dismissed black speechways as corrupted and degraded forms of European language. Only when linguists began seriously to study creolization did it become apparent that complex social forces came into play in the formation of African American dialects. The sounds of the resulting speech patterns, though valued differently by insiders and outsiders, became important markers of race, and linguists have demonstrated that black English was systematically different from that of whites.¹¹

During the late 1980s and early 1990s, scholars such as Kathleen M. Brown, Jane Kamensky, Mary Beth Norton, and Robert Blair St. George did remarkable work on the ethnography of speaking in early American history. Attending to speech crimes, gossip networks, and prescriptive literature that attempted to “govern the tongue,” these historians have deepened our understanding of early Americans who are otherwise neglected. The study of speech patterns has gone a long way toward the gendering of early American history, as these scholars have determined that men’s and women’s speech differed in important ways. Of particular note is Brown’s nuanced and compelling explanation for the evolution of race, class, sex, and gender relations in seventeenth-century Virginia.¹²

During the late 1990s, acting independently, several scholars began thinking about the history of sound and hearing. Lisa Gitelman, Douglas Kahn, John M. Picker, Leigh Eric Schmidt, Bruce R. Smith, Mark M. Smith, Jonathan Sterne, Emily Ann Thompson, Shane White and Graham White, and I were all working then on projects dealing with the soundscape. It is unclear what precipitated that simultaneous interest, but it has produced a spate of books and articles in the past few years.¹³

¹⁰ Richard Cullen Rath, “Drums and Power: Ways of Creolizing Music in Coastal South Carolina and Georgia, 1730–1790,” in *Creolization in the Americas*, ed. Steven G. Reinhardt and David Buisseret (College Station, 2000); Richard Cullen Rath, “African Music in Seventeenth-Century Jamaica: Cultural Transit and Transition,” *William and Mary Quarterly*, 50 (Oct. 1993), 700–726. On the meanings of African American music and speech during the nineteenth century, see Shane White and Graham White, *The Sounds of Slavery: Discovering African American History through Songs, Sermons, and Speech* (Boston, 2005).

¹¹ Salikoko S. Mufwene, *African-American English: Structure, History, and Use* (London, 1998); John R. Rickford, *African American Vernacular English: Features, Evolution, Educational Implications* (Malden, 1999); White and White, *Sounds of Slavery*.

¹² Kathleen M. Brown, *Good Wives, Nasty Wenches, and Anxious Patriarchs: Gender, Race, and Power in Colonial Virginia* (Chapel Hill, 1996); Jane Kamensky, *Governing the Tongue: The Politics of Speech in Early New England* (Oxford, 1998); Mary Beth Norton, *Founding Mothers and Fathers: Gendered Power and the Forming of American Society* (New York, 1996), 203–80; Mary Beth Norton, “Gender and Defamation in Seventeenth-Century Maryland,” *William and Mary Quarterly*, 44 (Jan. 1987), 4–39; Robert Blair St. George, “‘Heated’ Speech and Literacy in Seventeenth-Century New England,” in *Seventeenth-Century New England: A Conference Held by the Colonial Society of Massachusetts, June 18 and 19, 1982*, ed. David D. Hall and David G. Allen (Boston, 1984).

¹³ Veit Erlmann, ed., *Hearing Cultures: Essays on Sound, Listening, and Modernity* (Oxford, 2004); Lisa Gitelman, *Scripts, Grooves, and Writing Machines: Representing Technology in the Edison Era* (Stanford, 1999); Douglas Kahn, *Noise, Water, Meat: A History of Sound in the Arts* (Cambridge, Mass., 1999); Douglas Kahn and Gregory

A theme common to all is the relation of sound to modernity. My *How Early America Sounded* is concerned with sonic worlds that antedated and attended the early modern transformation. Schmidt's work proposes a counter-Enlightenment religious tradition running from the late eighteenth century through the present that is suspicious of the visible world and by extension modernity and much more attuned to sound than the Enlightenment tradition. Mark Smith, writing about the nineteenth century, showed how the North and the South had their own keynote sounds, the modernizing hum of industry in the former and the antimodern sounds—and silences—of slavery and the plantation in the latter. In the years leading up to the Civil War, each side became more disturbed with the other's keynote sounds. Attitudes and beliefs about sound, argued Smith, both reflected and fostered sectional differences. Gitelman, Kahn, and Sterne examined the relationship between the introduction of new sonic media in the late nineteenth and early twentieth centuries and modernity, while Thompson found that modernity developed a defining sound of its own in the first half of the twentieth century.

In my own work, the more I sought out aural beliefs in the seventeenth and early eighteenth centuries, the more I found: thunder given priority over lightning, bells over steeples, oaths over signatures, hearsay over eyewitnessing, and saying over writing. But like Thomas's English folk magic, this rich audible world was in a slow decline. By the late eighteenth century, a gradual but radical shift toward the visual terminology favored today had occurred. Lightning did the damage; visual considerations overrode acoustical design in places of worship; to make an agreement tangible, signatures replaced oaths; cursing ceased to be a crime. I wondered what the older, audible world was like, and what it and its subsequent visualization meant.

Mid-twentieth-century debates about orality provided a key to explaining both the earlier audibly richer world and the shift toward the visual that I found. In 1962 Marshall McLuhan, drawing on the work of the historians Harold Adams Innis and Lucien Paul Victor Febvre, argued that Europeans and European Americans traded an ear for an eye with the rise of print in the sixteenth century. In a less provocative moment, McLuhan said what he meant more exactly and more defensibly, namely, that print led to a shift in "the ratio [of the] senses" away from sound and hearing and toward the visually observable world, culminating in the aptly named Enlightenment.¹⁴

Understanding that shift is crucial to the history of hearing, but a few caveats are in order. First, when discussing the history of the senses, the production and reception of sensory stimuli need to be treated together. Integral as they are to each other, pulling them apart to treat one without considering the other will always distort the results. Second, we

Whitehead, eds., *Wireless Imagination: Sound, Radio, and the Avant-Garde* (Cambridge, Mass., 1992); John M. Picker, *Victorian Soundscapes* (New York, 2003); Leigh Eric Schmidt, *Hearing Things: Religion, Illusion, and the American Enlightenment* (Cambridge, Mass., 2000); Bruce R. Smith, *The Acoustic World of Early Modern England: Attending to the O-Factor* (Chicago, 1999); Smith, *Listening to Nineteenth-Century America*; Jonathan Sterne, *The Audible Past: Cultural Origins of Sound Reproduction* (Durham, 2003); Emily Ann Thompson, *The Soundscape of Modernity: Architectural Acoustics and the Culture of Listening in America, 1900–1933* (Cambridge, Mass., 2002); White and White, *Sounds of Slavery*; Rath, *How Early America Sounded*; Elena Razlogova, *The Listener's Voice: A Story of Radio, Reciprocity, and Greed in America* (Philadelphia, forthcoming).

¹⁴ Lucien Paul Victor Febvre, *The Problem of Unbelief in the Sixteenth Century: The Religion of Rabelais*, trans. Beatrice Gottlieb (Cambridge, Mass., 1982); Lucien Paul Victor Febvre and Henri Jean Martin, *The Coming of the Book: The Impact of Printing, 1450–1800* (London, 1976); Harold Adams Innis, *The Bias of Communication* (Toronto, 1951); Marshall McLuhan, *The Gutenberg Galaxy: The Making of Typographic Man* (1962; Toronto, 1965), 26, 28, 125, esp. 24. For an account of the "ocularcentricism" of the Enlightenment that is not concerned with orality, literacy, or a shift in the senses, see Martin Jay, *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought* (Berkeley, 1993).

in the present are implicated in the historical process of sensory shift. There is no place of sensorial neutrality, outside of history. We need to ask: How do our present habits of perception shape the ways we perceive the past? Awareness of such biases—denaturalizing our own perception and placing it in its historical time and place—is a necessary first step in any attempt at a history of the senses.

Third, we never went deaf and we never were blind, at least collectively. Sound, vision, and the other senses all remained in play, so thinking in absolutes is misleading. The rises and falls were relative and perhaps not quantifiable (though, as discussed below, there is value in counting). The reason it makes sense to speak of a *ratio* of the senses is because of the role of attention, which acts as a filter on sensory data, letting some through to consciousness but not others. Cognitive scientists have established beyond a doubt that a person's attention is limited to one or two things at a time at most. What we attend to can of course be multisensory, but when we attend more to sight, with reading being the obvious example, we tune out sounds and other sensory impressions not related to the task at hand, as anyone who has ever been startled by a sudden sound or a touch while reading deeply can verify. According to McLuhan, the case for a shift in the ratio of the senses rests on the habitual and constant increase in taking information in through the eyes via reading that occurs in a culture inundated with print.¹⁵

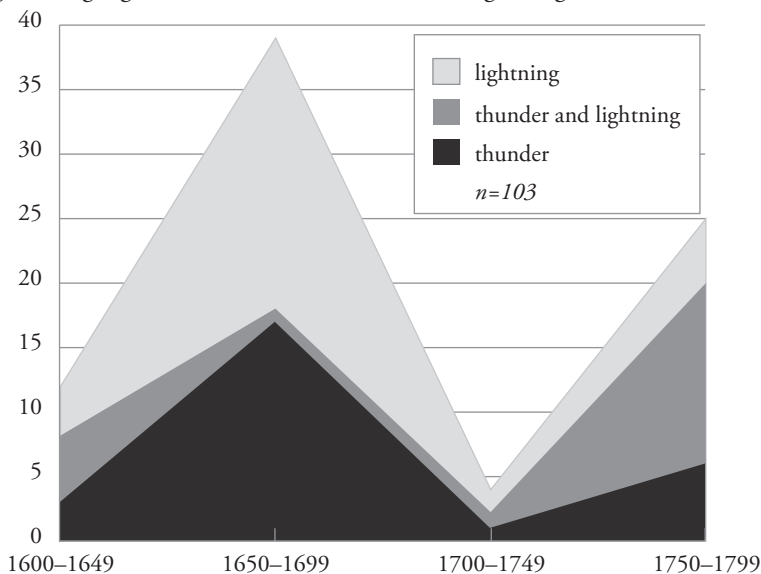
That leads to a final caveat, against the assumption that we can just add on more sensory data in an unlimited fashion. Attention is a zero-sum game when it comes to sensory impressions. The tendency to ignore this limitation comes up most often in relation to new technologies or media. To prevent sensory overload, while attending to the extensions of the self that new media and technologies allow, something else must be sacrificed. Although there may be infinite variability of individual sense ratios in a society, two factors create an overall trend at the societal level. First, the zero-sum nature of the senses in the individual means that a shift in many individuals adds up to a societal shift. Second, if many people adopted new sense ratios and others wanted to understand them, the latter would have to comprehend and accommodate the new ways of perceiving, as happened at the onset of mass print culture, when even the illiterate partook via discussions of newspaper articles in taverns and listening to and talking about broadsides that were read out loud.¹⁶ The fact that more attention to one thing leads to less to another salvages the notion of a ratio of the senses being quantifiable in some way, but how? The senses are qualitatively different from each other. Perhaps they can be conceived of as being like complex numbers, which combine real with so-called imaginary numbers. Although equations cannot be solved for either a real or an imaginary number when both are involved, complex numbers still produce useful results.

One possibility for measuring sensory shift is through analysis of large corpora of data. Terms that reference one sense or another could be tagged and counted, looking for shifts through time. To take a small example, the 103 English-language books published between 1600 and 1799 that I found in the WorldCat database in 2000 that had “thunder” and/or “lightning” in their titles show “thunder” in the earlier titles giving

¹⁵ McLuhan, *Gutenberg Galaxy*, 24; Marshall McLuhan, *Understanding Media: The Extensions of Man* (New York, 1964), 54. For limits on visual attention, see Marvin M. Chun and Jeremy M. Wolfe, “Visual Attention,” in *Blackwell Handbook of Perception*, by E. Bruce Goldstein et al. (Oxford, 2001), 273–99.

¹⁶ For print in eighteenth-century tavern culture, see David W. Conroy, *In Public Houses: Drink and the Revolution in Authority in Colonial Massachusetts* (Chapel Hill, 1995), 177–81. Much the same phenomenon that I call mass print culture is described as “print-capitalism” in Benedict Anderson, *Imagined Communities* (London, 1991), 37–46.

Figure 1
English-language books with “thunder” and/or “lightning” in the title, 1600–1800



SOURCE: WorldCat database, cited in Richard Cullen Rath, “Worlds Chanted into Being: Soundways in Early America” (Ph.D. diss., Brandeis University, 2001), appendix 1.

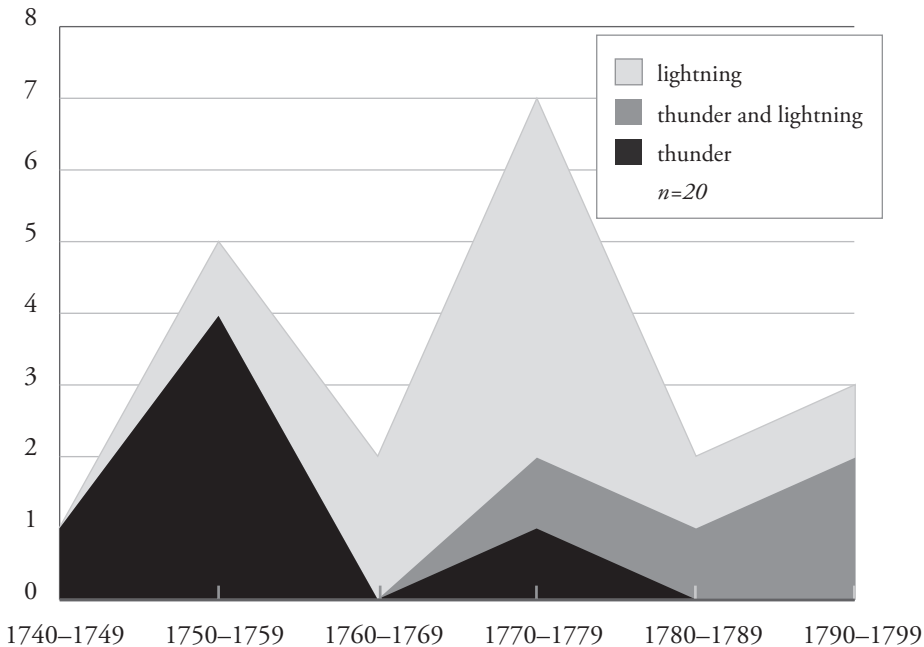
way to “lightning” in the later ones. (See figure 1.) Of course, the dataset is too small to prove anything, but the results line up well with the qualitative observations made about thunder and lightning and suggest that larger datasets could produce useful results. One might object that the spike in lightning titles is solely attributable to Benjamin Franklin’s electrical discoveries, published in the early 1750s, but a closer look at the data does not bear out that argument. For one thing, the discussion of electricity shifted its terms from thunder to lightning between the 1740s and the end of the century. (See figure 2.) For another, even with the titles that mention electricity removed, the pattern still shows up clearly. (See figure 3.) A second objection, firmly ensconced in a visual mind-set, might assert that to refer to lightning was to recognize what electricity really is. But what makes electricity reducible to its visual, to the exclusion of its audible, manifestations? Especially when scientists from the Royal Society continued to explain electricity by thunder throughout the eighteenth century?¹⁷ Thunder and lightning are the audible and visible manifestations of the real force at work, in this case, electricity.

Assuming that shifts in both the senses and cognitive skills arise from literacy, the literary critic Walter J. Ong and the anthropologist Jack Goody have framed a highly influential but problematic theory about the effects of literacy or the lack thereof. They argued that the ability to read causes cognitive and perceptual shifts in readers and deemed those who have not undergone this shift “preliterate” members of “oral cultures” and under-

¹⁷ Henry Eeles, *A Letter from Mr. Henry Eeles, to the Royal Society, Concerning the Cause of Thunder* (London, 1753); Henry Eeles, *Philosophical Essays, in Several Letters to the Royal Society, Containing a Discovery of the Cause of Thunder* (London, 1771); John Read, *A Summary View of the Spontaneous Electricity of the Earth and Atmosphere wherein the Causes of Lightning and Thunder, as well as the Constant Electrification of the Clouds and Vapours, Suspended in the Air, are Explained* (London, 1793); William Watson, *A Letter of Mr. W. Watson, F.R.S. to the Royal Society, Concerning the Electrical Experiment in England upon Thunder-Clouds* (London, 1753).

Figure 2

“Thunder” and/or “lightning” in titles of English-language books about electricity, 1600–1800



NOTE: All the English-language books about electricity with “thunder” and/or “lightning” in the title that were published from 1600 to 1800 appeared after 1739. SOURCE: WorldCat database, cited in Richard Cullen Rath, “Worlds Chanted into Being: Soundways in Early America” (Ph.D. diss., Brandeis University, 2001), appendix 1.

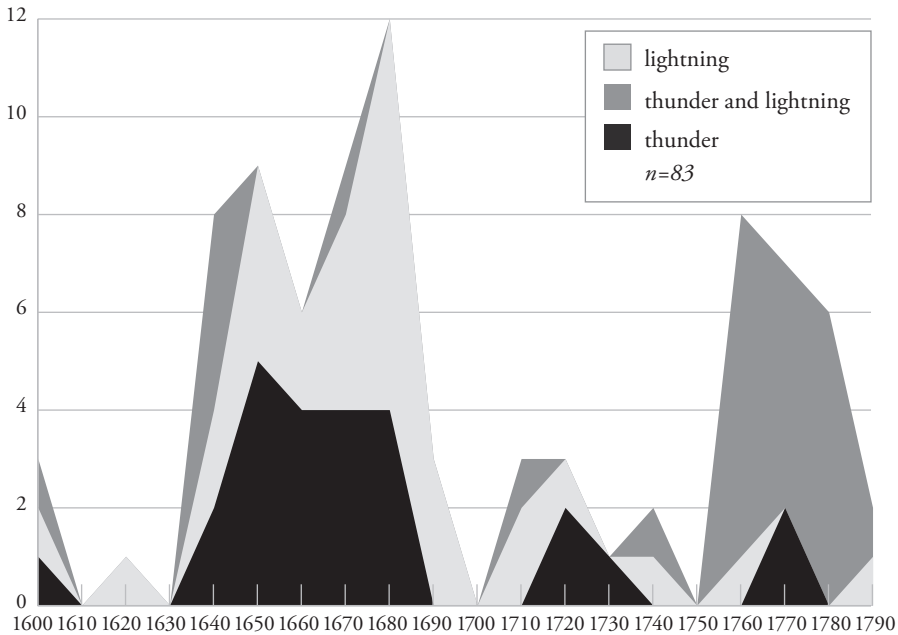
stood them to be in a state of nature. Historians have relied on the literacy hypothesis extensively, sometimes without knowing it. In it, orality serves as the background from which the edifice of print and mass literacy arose in post-Reformation Western culture. According to Ong and Goody, if we want to know what oral culture was like, we need only find pristine oral cultures in the present that have not been influenced by print culture.¹⁸ According to proponents of the literacy hypothesis, modern (here synonymous with “literate”) forms of thought with their visual, textual base are inevitable because they are what actually happened.

Adopting Ong and Goody’s position means that historians conceive of orality as an initial, natural, and primitive state of mind. Being in a state of nature, it is unchanging, ahistorical. Thus, once we know the intrinsic properties of orality, we know how people labeled oral are, without needing to document anything. Ong suggested that *orality* is the more accurate term for what Lucien Lévy-Bruhl and Claude Lévi-Strauss have called the “savage” or “primitive” mind. He cataloged traits he believes arise from intrinsic properties of sound in oral cultures and of vision in literate cultures. Goody has also focused on the different cognitive sets available to literate and preliterate peoples, aiming his anthro-

¹⁸ In its present incarnation, the literacy hypothesis can be traced largely to McLuhan, *Gutenberg Galaxy*. Jack Goody, *The Domestication of the Savage Mind* (Cambridge, Eng., 1977); Jack Goody and Ian Watt, “The Consequences of Literacy,” *Comparative Studies in Society and History*, 5 (April 1963), 304–45; Walter J. Ong, *Orality and Literacy: The Technologizing of the Word* (London, 1982). On the problems of the term *preliterate*, see Sam D. Gill, *Beyond the Primitive: The Religions of Nonliterate Peoples* (Englewood Cliffs, 1982). Gill’s alternative, *nonliterate*, still defines the people only in reference to literacy. *Traditional* as an alternative has its own set of problems.

Figure 3

“Thunder” and/or “lightning” in titles of English-language books about topics other than electricity, by decades, 1600–1800



SOURCE: WorldCat database, cited in Richard Cullen Rath, “Worlds Chanted into Being: Soundways in Early America” (Ph.D. diss., Brandeis University, 2001), appendix 1.

pological gaze specifically at twentieth-century residents of northern Ghana. According to McLuhan, Ong, Goody, and their adherents, oral cultures perceive sound as ephemeral, face-to-face, and having a tangible, efficacious presence. In contrast, vision and the mind-set that goes along with literacy and print is associated with objectivity, list making, repeatability, mass distribution, archiving, and the manipulation of information without reference to its original context. These scholars argue that oral or preliterate people are not cognitively equipped for abstract thought; they always think in concrete terms.¹⁹

Scholars have relied on the theory of orality, not documentary sources, to say much about societies where print and literacy were rare. Those variously deemed oral and thus premodern include Native Americans, seventeenth-century Puritan women, seventeenth-century Puritans in general (though they were the most literate population in the world in their time), seventeenth-century New Yorkers along with their Dutch predecessors, eighteenth-century Virginians, women of the early republic who could not read, and African Americans. All of these claims take Ong as their source, though some do so indirectly and perhaps unintentionally. For example, Michael Warner explicitly rejected Ongian readings of oral culture, instead embracing Rhys Isaac’s interpretation of early Virginians’

¹⁹ Lucien Lévy-Bruhl, *Primitive Mentality*, trans. Lilian A. Clare (London, 1923); Claude Lévi-Strauss, *The Savage Mind*, trans. Doreen Weightman ([Chicago], 1966). Walter J. Ong, *The Presence of the Word: Some Prolegomena for Cultural and Religious History* (New York, 1970). For a rebuttal of the concrete/oral formulation, see Carol Fleischer Feldman, “Oral Metalanguage,” in *Literacy and Orality*, ed. David R. Olson and Nancy Torrance (Cambridge, Eng., 1991), 47–65. For a critique of the notion of the oral/primitive/savage mind and its contrastive association with literacy and “civilization,” see Francis Jennings, *The Invasion of America: Indians, Colonialism, and the Cant of Conquest* (New York, 1975), 6–12, 15–16.

orality as more nuanced. Yet Isaac based his construction of Chesapeake orality on Ong rather than documentary sources.²⁰

A broader conception of sonic history, one that takes in more than just the portions of speech that can be reduced to print, provides a corrective to this ahistoricism. For someone new to sonic history, perhaps the biggest obstacle to implementing such a historically grounded approach to orality is the difficulty of decentering and denaturalizing one's own sensory world. The modern soundscape is shaped extensively by literacy, so speech—or at least the portion of speech reducible to text—holds a privileged position for us. If we dispense with orality for a moment, historians of sound can move away from defining orality only as a lack of what it is held up against, namely print literacy. A historically grounded orality needs to be more than simply a foil for literacy and print culture.

A full consideration of the soundscape would include silence, nonhuman sounds, human instrumental sounds, vocal but nonverbal sounds, as well as orality. Silence is obviously differentiated from sound. Mark Smith in particular has demonstrated the importance of African American silences in the antebellum South, which planters read uncertainly, with a sense of foreboding. Silences gave enslaved African Americans something of their own, out of reach of the master class.

Once in the realm of the audible, we now tend to divide sounds into animate and inanimate. The latter category includes the sounds of thunder, wind, waves, or running water. While few people today, particularly those educated in the Western intellectual tradition, ascribe agency to such sounds, in the seventeenth century both Native Americans and Europeans associated sound with living, intentional forces. Our category of inanimate sounds would have seemed oxymoronic to most people. For most if not all seventeenth-century Europeans and Euro-Americans, many natural sounds had an intelligent, willful source. That made sense in a world with few mechanical sounds that were not produced by the continual application of human or animal power (one notable exception was water-driven mills). If no earthly source was attributable, then the sounds were usually considered supernatural messages. For example, the sounds of thunder and storms were understood as efforts to communicate with humans. In thunder, either God or devils could be at work. As early as 1686, Harvard College students heard Charles Morton lecture on thunder as simply a natural phenomenon, but Morton was fighting a lonely battle. While Morton's lectures did not see publication until 1940, Increase Mather's book of remarkable providences, which interpreted thunder as the loud-speaking voice of God, went through many editions as a perennial best seller. The belief in the animacy and intentionality of thunder was pervasive in the seventeenth century.²¹

²⁰ James Axtell cites the work of Walter J. Ong and Jack Goody; Daniel K. Richter cites Axtell. See James Axtell, *The Invasion Within: The Contest of Cultures in Colonial North America* (New York, 1985), 14–15, 338n27; and Daniel K. Richter, *The Ordeal of the Longhouse: The Peoples of the Iroquois League in the Era of European Colonization* (Chapel Hill, 1992), 46–47, 307–8n36. Richard D. Brown and Michael Warner both rely on Rhys Isaac, who builds his notion of orality on that of Ong and Goody. See Richard D. Brown, *Knowledge Is Power: The Diffusion of Information in Early America, 1700–1865* (New York, 1989); Michael Warner, *The Letters of the Republic: Publication and the Public Sphere in Eighteenth-Century America* (Cambridge, Mass., 1990), 11–12, 27–28; and Rhys Isaac, *The Transformation of Virginia, 1740–1790* (Chapel Hill, 1983), 98, 121–31, 373n12, 377n8. Michael G. Kammen, *Colonial New York: A History* (New York, 1975), 96–97, 121–22; Linda K. Kerber, *Women of the Republic: Intellect and Ideology in Revolutionary America* (Chapel Hill, 1980), 190; Carol F. Karslen, *The Devil in the Shape of a Woman: Witchcraft in Colonial New England* (New York, 1987), 268–69n10.

²¹ Charles Morton's "Compendium Physicae" (Boston, 1940); Charles Morton, "Compendium Physicae," c. 1700, octavo vols. "M," Manuscript Department (American Antiquarian Society, Worcester, Mass.). On those and other examples of natural soundways in New England, see Rath, *How Early America Sounded*, 10–26, 195n32. Increase Mather, *An Essay for the Recording of Illustrious Providences* (Boston, 1684), [7r–8v in preface], 72–74, 76, 78,

A slightly different pattern held for Native Americans. Like Euro-Americans, they tied sound and intelligent life to each other. But where Europeans heard messages directed to themselves, Native Americans interpreted natural sounds as intentional acts of intelligent beings not necessarily intended for humans. People were not the center of the attention of the supernatural world, so whereas in thunder Puritans might have heard the voice of God telling them to repent, Native Americans might have heard a ball game that had little to do with them. The thunder might have been just a poorly aimed shot.²²

Setting aside orality has already yielded historically documented ways of hearing that subvert the literacy hypothesis. If New England Puritans were the most literate society in the world at the time, how is it they held those—and many other—powerful sonic beliefs that seem strange to us today? And limiting Native American beliefs to orality deafens us to rich, historically documented soundways other than speech.

Adding in animacy (setting aside animal sounds), we come to human-made sounds. Animate sounds can be divided into vocal and nonvocal sounds. Perhaps a better term for the latter would be instrumental sounds. These would be sounds made by shaping the environment, and there are two types of human-made devices involved: those actively producing a sound, such as musical instruments or bells, and instruments for shaping the sounds within them, such as the interiors of buildings. The latter constitutes much of the field of acoustics. In colonial America much care was given to the obtaining and upkeep of bells and to the mapping out of proper acoustic spaces in churches and meetinghouses. People rang in the birthdays of royalty; soldiers were drummed out of the corps. Bells and other nonvocal sounds belie the claim that sound-based cultures are by definition face-to-face. Protestant church acoustics avoided grave sounds like excessive reverberation in favor of short echoes that amplified and reinforced the clarity of the minister's voice. Seating patterns in Puritan churches that make no sense when considered visually clearly show the rank and status of the churchgoers when we factor in acoustics.²³

Vocal sounds can in turn be considered in two different ways: verbal and nonverbal vocalizations. Nonverbal vocalizations—or the nonverbal portions of a verbal vocalization (the latter are called paralinguistic sounds)—include grunting, groaning, ranting, railing, murmuring, whispering, moaning, or the timbre, pitch, and rhythm of a vocalization. The seventeenth century reveals this category to be present for Euro-Americans, but valued in different ways than it now is. A continuum from nonverbal to verbal vocalizations located a person's utterances outside, on the edges, or within one's community, with such space constituted aurally, a public hearing rather than a public sphere. To Puritans, Native Americans and the wilderness howled from outside, a threat to the social order within. Quakers ranted, the latter an interesting term, as it meant, besides its present meaning of an incoherent speech that vents the passions, the half-wild, half-domesticated edge of a cultivated field, a place to be watched carefully, for if left untended, the wild would take over. This construction of aural space had another dimension as well. Nonverbal groans and moans were heard in the spiritual world. Prayers were groaned. A woman's groaning time—childbirth—was considered auspicious, and anything she said during the time a new soul was coming into the world was considered beyond doubt to be true. Questions

80–84, 91, 109–10, 124–26, 130. The book became popularly known as “Remarkable Providences.”

²² Rath, *How Early America Sounded*, 26–38.

²³ *Ibid.*, 43–119.

of paternity were often held for just that moment. Early Americans paid close attention to the groans of the dying to interpret their passage into the next world.²⁴

Finally comes speech, which the modern soundscape places at the highest position, more or less in a class by itself. Considering vocal yet nonverbal sound also makes it clear that orality is constructed of that part of speech that can be reduced to print. But the preceding analysis makes it obvious that there is much more to the soundscape than is comprised by orality. Armed with the tools that permit the historicization of the rest of the soundscape, we can return to orality as a legitimate, documented historical phenomenon that has a history of change and continuity over time. I am not calling for the dismissal of orality; rather, I would like to see it historicized so that it no longer serves as a palliative, or bland euphemism, for the primitive or savage.

This construction of the soundscape is not meant to be ironclad. It is intended as a rubric, recognizable to most people once elucidated. Many of the sounds people encounter fall under more than one category. Singing for example, gives an instrumental quality to the use of the voice, and although words are sung, the nonverbal aspects of song are at least as important as the verbal. Acoustic spaces are not merely instrumental, as most often they are shaped to control the sound of the voice, whether acoustical tiling to keep modern workplaces quiet, or the carefully designed reverberation qualities of an opera house. The rubric is useful as a starting point for efforts to unearth historically constructed assumptions about how we hear. It gives us a frame for comparisons with other times and places and thus helps us denaturalize and historicize our sense of hearing.

The literate yet oral Puritans seem to throw a wrench in the McLuhanite theory. If sonic beliefs were still strong among them in the late seventeenth century, long after the invention of print, what caused the shift in the eighteenth century? But McLuhan was not so far off. Rather than the printing press itself or movable type or individual acquisitions of literacy, the chief cause of the shift was probably mass print culture, a socially driven saturation in which the whole society was so imbued with print that even the illiterate were affected, so much so that it led to complex shifts in habits of perception. That happened in New England in the eighteenth century, with the increased output of the presses, the circulation of broadsides, and the arrival of newspapers, centuries after the invention of movable type. Newspapers and broadsides were often read aloud at meetinghouses, taverns, and other public spaces to give them a public hearing, a fact that underscores the complexity of the shift. The diffusion of new perceptual habits was uneven, with a thousand local variants, inflected differently by race, region, religion, social position, gender roles, and a plethora of other social variables, and the shift was never total. So McLuhan might have a point, but the effects of the printing press took centuries, rather than decades, to unfold.

The shift away from the audible world and toward the visual was intertwined with the rise of mass print culture, the early modern transformation, and the onset of the Enlightenment. That complex has generated a set of recurring questions concerning the roles of media, technology, and society. Was the shift away from the audible world socially driven? Driven by innovations in media and technology? Or some middle path between the two? The implications go far beyond the early modern transformation, and they are a chief concern of many of the authors now working on the history of sound and hearing.

²⁴ *Ibid.*, 120–44.

A long-running debate has ensued between those arguing that all media have biases that shape how they are used (a particularly important point for sensory historians) and those emphasizing the precedence of human agency and social forces in making new media and technologies possible. The latter, calling themselves social constructionists, often misleadingly label the former technological determinists. Neither side denies that new technologies and new media open up new possibilities or that social and other factors have been crucial in bringing about change, intended or otherwise. Straw arguments aside, the debate rests on two differences. The first, particularly important to the social constructionists, is the temporal order of events: Did social change create the conditions in which new media and technologies could emerge? Or did the new media and technologies create the conditions that made possible such social changes as the early modern transformation? The second, more important to those emphasizing the role of new media and technology, concerns unintended consequences, with McLuhan uncharacteristically providing the voice of common sense. A proper understanding of the effects of media—which McLuhan claimed to be providing—could lead to better control of their intended and unintended effects, which in the past had caused major societal rifts, largely as a result of ignorance and incomprehension. Never one to think small, McLuhan gave the rise of nationalism as an example, quoting Harold Innis to argue that “the effect of the discovery of printing was evident in the savage religious wars of the sixteenth and seventeenth centuries. Application of power to communication industries hastened the consolidation of vernaculars, the rise of nationalism, revolution, and new outbreaks of savagery in the twentieth century.” The corrective was a proper understanding of the effects of new media. “Unconsciousness of *any* force is a disaster,” concluded McLuhan, “especially a force that we have made ourselves.”²⁵

A middle way makes the most sense for sensory historians. We see new human-led techniques and technologies emerging in tandem with social change. The two are co-articulated in a sort of feedback loop, each driving the other. Media have sensory biases, but people, not technologies, make the changes that lead to new sensory practices. Yet without the new media, the explorations would be impossible, especially if no one originally intended the uses to which a medium is put. As the historian of science Donna Haraway framed this middle way, “the machine is us, our processes, an aspect of our embodiment.” “Why should our bodies end at the skin,” she asked, proposing instead that we are all cyborgs, the “theorized and fabricated hybrids of machine and organism.”²⁶

Media that have possibilities beyond what their creators imagined or intended, what I call generative media, tend to have the greatest impact and, I think, the greatest potential for shifting how we go about sensing our worlds. Print is the *prima facie* example from early America, but study of it has led to explorations of vision rather than hearing.²⁷ A spate of sonic inventions at the end of the nineteenth century and the beginning of the twentieth opened up new possibilities for sound, some intended, some not foreseen. The telegraph—a sonic code—disembodied communication, accelerating a process begun by writing and print that R. Murray Schafer pejoratively called *schizophonia*. Many celebrat-

²⁵ Innis, *Bias of Communication*, 29, cited in McLuhan, *Gutenberg Galaxy*, 216. *Ibid.*, 248. On the debates between social constructionism and technological determinism, see Daniel Chandler, “Technological or Media Determinism,” 1996, *Prifysgol Aberystwyth University*, <http://www.aber.ac.uk/media/Documents/tccdet/>.

²⁶ Donna Haraway, *Simians, Cyborgs, and Women: The Reinvention of Nature* (New York, 1991), 149–81.

²⁷ On the possibilities opened up by print that developed into a major factor in the early modern transformation, see Elizabeth L. Eisenstein, *The Printing Press as an Agent of Change: Communications and Cultural Transformations in Early Modern Europe* (2 vols., Cambridge, Eng., 1979).

ed the invention, however. Henry David Thoreau heard “a universal harmony, a music of the spheres through telegraph posts and wires.” For the first time, information could travel long distances faster than a human could, namely at the speed of light. This marvel was multiplied with the telephone, which disembodied the voice itself. Almost simultaneously, the phonograph synesthetically transformed grooves felt by a stylus into sound, releasing the sound and voice from their ephemerality, at least potentially. As Jonathan Sterne pointed out, the idea of permanent sound preceded the media, which remained frail concoctions of wax or tinfoil. Nonetheless, the potential seemed infinite. Voices could come back long after the speakers had died. New forms of intimacy traveled over the wires, along with new social conventions to frame conversations, such as today’s ubiquitous “hello,” which took on its present meaning and status only with the popularization of the telephone. Race had to be reconfigured without its visual referents. Whites might pass as black or vice versa.²⁸

The electro-acoustic worlds of amplification and broadcasting added other new dimensions to sound. Public address systems could convey a person’s voice farther than ever before, making possible huge gatherings of people all of whom could hear the same thing. The radio made that distance potentially infinite and changed the nature of the relationship between performer and audience, removing the feedback of attention and approval. The new sounds were distinctively modern and called for a new acoustics in which to be heard. Without a live audience, radio performers could create different kinds of spaces, more intimate or sometimes more distant. Modernity began to have its own sound, a neutral, echoless acoustics in which sounds could be amplified and carefully controlled. By removing reverberation, Emily Ann Thompson noted, architects broke the age-old connection between sound and space. In the 1920s one scholar went so far as to compare the modern, Protestant, clear, scientific acoustics with the old, Catholic, reverberant “acoustics of the cave.” By the 1950s, reverberation had become a sound effect associated with, depending on whom one read, masculinity or femininity. As a sort of postmodern coda, Thompson noted that reverberation, often electronically reconstructed, is making its way back into the acoustics of the Western world as ambience.²⁹ With advances in digital audio processing, acoustically dead recordings can be manipulated to sound like any space imaginable. Sound and space are being reconnected, but with new possibilities.

The invention of recording was meant to copy sound, to reproduce and preserve an original. To some extent, as Sterne pointed out, the original was artificial too, a performance pulled out of context that existed only to be reproduced. Nonetheless, the goal in recording Enrico Caruso’s voice was to make a copy faithful to the original, however constructed. Indeed one strain of audiophile has pursued this goal, with high-quality, realistic stereo, and surround sound the result.³⁰

²⁸ R. Murray Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World* (Rochester, Vt., 1993), 88–91. The idea, though not the word, appeared in McLuhan, *Gutenberg Galaxy*, 22–23. Gitelman, *Scripts, Grooves, and Writing Machines*; Schmidt, *Hearing Things*, 244; Sterne, *Audible Past*. See *OED* online edition, s.v. “hello.”

²⁹ Hope Bagenal, “Musical Taste and Concert Hall Design,” in *Proceedings of the Royal Musical Association, Seventy-eighth Session, 1951–52* (London, 1952), 11–29, esp. 14; Peter Doyle, *Echo and Reverb: Fabricating Space in Popular Music, 1900–1960* (Middletown, 2005), 195–96; Michael Forsyth, *Buildings for Music: The Architect, the Musician, and the Listener from the Seventeenth Century to the Present Day* (Cambridge, Mass., 1985), 4–13; Rebecca Leydon, “The Soft-Focus Sound,” *Perspectives of New Music*, 39 (no. 2, 2002), 96–107; Thompson, *Soundscape of Modernity*, 172, 321–24.

³⁰ Sterne, *Audible Past*, 215–86. For an approach that somewhat exaggerates the importance of realism, see Lars Nyre, *Fidelity Matters: A Historical Theory of Sound Media* (London, forthcoming).

Along the way, however, people discovered possibilities in the medium that had nothing to do with fidelity to an original performance. Early in the history of talkies, movie makers began to add sound effects and music to go along with voices on the sound track. The guitarist Les Paul picked up on this and modified a tape recorder so that he could play back one track while recording a new one, thereby accompanying himself. Performers and engineers have developed this innovation, called multitracking, so that performance and recording have often swapped roles, with live performance aiming to sound as good as the recording. There is no longer an “original” performance in most of today’s popular music. This ability to manipulate sound in time has changed our conception of time itself. Now we have the “real time” of the performance or the playback juxtaposed with the “asynchronous time” of the recording. These reformulations of time have bled into other domains, particularly in cyberspace, where real-time chats are distinguished from asynchronous threaded (a textual equivalent of multitracking) discussions or e-mail exchanges.

The use of distortion, particularly on electric guitars, is another unintended option opened up by technology. The aesthetic preference for fuzzy, buzzing sounds can be found in African and African American music. Not coincidentally, the pioneering uses of distortion come from African American electric blues guitarists such as T-Bone Walker, who began recording in 1929. Without that aesthetic, it was—and is—treated as a problem, distortion from overdriven vacuum tubes, but pioneering musicians took the flaw and made it a feature. Young people have reconfigured their relationships to sound with Walkmans, iPods, bass-heavy car stereos, and boom boxes, sometimes dissociating from and sometimes claiming public space with them.³¹ In short, modernization is full of unintended sonic consequences of generative media.

We have to come to grips with the fact that the senses are historically situated and subject to change over time. Understanding how people heard their worlds in the seventeenth century opens up new possibilities for understanding people in the past on their own terms. The sociology of speech and hearing in the eighteenth century sheds light on the role of print culture and the emergence of American identity. Understanding the sound and hearing of the nineteenth century helps us make sense of evangelical religion, sectionalism, industrialization, plantation slavery, and the coming of the Civil War. The sound of modernity was integral to the phenomenon of modernity itself, and even today, new ways of using sound are changing what and how we hear. Hearing the past even helps us navigate a *via media* in the old debates between social constructionists and so-called technological determinists, finding roles both for people and generative media in explaining social change. As McLuhan predicted half a century ago, sound might be entering a new era, which perhaps explains the sudden interest in the subject in the past decade. I think the importance of a history of hearing speaks for itself.

³¹ Michael Bull, “Thinking about Sound, Proximity, and Distance in Western Experience: The Case of Odysseus’s Walkman,” in *Hearing Cultures*, ed. Erlmann, 173–90; Robin D. G. Kelley, *Yo Mama’s Disfunktional: Fighting the Culture Wars in Urban America* (Boston, 1997), 1; Mark Anthony Neal, *What the Music Said: Black Popular Music and Black Public Culture* (New York, 1998), 159–72.