from Jonathan Sterne, The Audible Past (Chapel Hill: Duke UP, 2003)

Generally, when writers invoke a binary coupling between culture and nature, it is with the idea that culture is that which changes over time and that nature is that which is permanent, timeless, and unchanging. The nature/culture binary offers a thin view of nature, a convenient straw figure for "social construction" arguments.²⁵ In the case of sound, the appeal to something static is also a trick of the language. We treat sound as a natural phenomenon exterior to people, but its very definition is anthropocentric. The physiologist Johannes Müller wrote over 150 years ago that, "without the organ of hearing with its vital endowments, there would be no such a thing as sound in the world, but merely vibrations." ²⁶ As Müller pointed out, our other senses can also perceive vibration. Sound is a very particular perception of vibrations. You can take the sound out of the human, but you can take the human out of the sound only through an exercise in imagination. Sounds are defined as that class of vibrations perceived—and, in a more exact sense, sympathetically produced—by the functioning ear when they travel through a medium that can convey changes in pressure (such as air). The numbers for the range of human hearing (which absolutely do not matter for the purposes of this study) are twenty to twenty thousand cycles per second, although in practice most adults in industrial society cannot hear either end of that range. We are thus presented with a choice in our definition: we can say either that sound is a class of vibration that *might* be heard or that it is a class of vibration that is heard, but, in either case, the hearing of the sound is what makes it. My point is that human beings reside at the center of any meaningful definition of sound. When the hearing of other animals comes up, it is usually contrasted with human hearing (as in "sounds that only a dog could hear"). As part of a larger physical phenomenon of vibration, sound is a product of the human senses and not a thing in the world apart from humans. Sound is a little piece of the vibrating world.

Perhaps this reads like an argument that falling trees in the forest make no sounds if there are no people there to hear them. I am aware that the squirrels would offer another interpretation. Certainly, once we establish an operational definition of sound, there may be those aspects of it that can be identified by physicists and physiologists as universal and unchanging. By our definition of sound, the tree makes a noise whether or not anyone is there to hear it. But, even here, we are dealing in anthropocentric definitions. When a big tree falls, the vibrations extend outside the audible range. The boundary between vibration that is sound and vibration that is not-sound is not derived from any quality of the vibration in itself or the air that conveys the vibrations. Rather, the boundary between sound and not-sound is based on the understood possibilities of the faculty of hearing—whether we are talking about a person or a squirrel. Therefore, as people and squirrels change, so too will sound—by definition. Species have histories.

Sound history indexes changes in human nature and the human body—in life and in death. The very shape and functioning of technologies of sound reproduction reflected, in part, changing understandings of and relations to the nature and function of hearing. For instance, in the final chapter of this book, I discuss how Victorian writers' desire for permanence in sound recording was an extension of changing practices and understandings of preserving bodies and food following the Civil War. The connections among canning, embalming, and sound recording require that we consider practices of sound reproduction in relation to other bodily practices. In a phrase, the history of sound implies a history of the body.

Bodily experience is a product of the particular conditions of social life, not something that is given prior to it. Michel Foucault has shown that, in the eighteenth and nineteenth centuries, the body became "an object and target of power." The modern body is the body that is "is manipulated, shaped, trained," that "obeys, responds, becomes skillful and increases its forces." Like a machine, it is built and rebuilt, operationalized and modified.²⁷ Beyond and before Foucault, there are scores of authors who reach similar conclusions. Already in 1801, a Dr. Jean-Marc Gaspard Itard concluded, on the basis of his interactions with a young boy found living "wild" in the woods, that audition is learned. Itard named the boy Victor. Being a wild child, Victor did not speak—and his silence led to questions about his ability to hear. Itard slammed doors, jingled keys, and made other sounds to test Victor's hearing. The boy even failed to react when Itard shot off a gun near his head. But Victor was not deaf: the young doctor surmised that the boy's hearing was just fine. Victor simply showed no interest in the same sounds as "civilized" French people.²⁸

While the younger Marx argued that the history of the senses was a core component of human history, the older Marx argued that the physical con-

ditions under which laborers "reproduced" themselves would vary from society to society—that their bodies and needs were historically determined.²⁹ The French anthropologist Marcel Mauss, one of Foucault's many influences, offered that "man's first and most natural technical object, and at the same time technical means, is his body." What Mauss called *body techniques* were "one of the fundamental moments of history itself: education of the vision, education in walking—ascending, descending, running." To Mauss's list we could add the education and shaping of audition. Phenomenology always presupposes culture, power, practice, and epistemology. "Everything is knowledge, and this is the first reason why there is no 'savage experience': there is nothing beneath or prior to knowledge." ³¹

The history of sound provides some of the best evidence for a dynamic history of the body because it traverses the nature/culture divide: it demonstrates that the transformation of people's physical attributes is part of cultural history. For example, industrialization and urbanization decrease people's physical capacities to hear. One of the ways in which adults lose the upper range of their hearing is through encounters with loud machinery. A jackhammer here, a siren there, and the top edge of hearing begins to erode. Conflicts over what does and does not constitute environmental noise are themselves battles over what sounds are admissible in the modern landscape.³² As Nietzsche would have it, modernity is a time and place where it becomes possible for people to be measured.³³ It is also a place where the human-built environment modifies the living body.

If our goal is to describe the historical dynamism of sound or to consider sound from the vantage point of cultural theory, we must move just beyond its shifting borders—just outside sound into the vast world of things that we think of as not being about sound at all. The history of sound is at different moments strangely silent, strangely gory, strangely visual, and always contextual. This is because that elusive inside world of sound—the sonorous, the auditory, the heard, the very density of sonic experience emerges and becomes perceptible only through its exteriors. If there is no "mere" or innocent description of sound, then there is no "mere" or innocent description of sonic experience. This book turns away from attempts to recover and describe people's interior experience of listening—an auditory past—toward the social and cultural grounds of sonic experience. The "exteriority" of sound is this book's primary object of study. If sound in itself is a variable rather than a constant, then the history of sound is of necessity an externalist and contextualist endeavor. Sound is an artifact of the messy and political human sphere.

To borrow a phrase from Michel Chion, I aim to "disengage sound thinking . . . from its naturalistic rut." ³⁴ Many theorists and historians of sound have privileged the static and transhistorical, that is, the "natural," qualities of sound and hearing as a basis for sound history. A surprisingly large proportion of the books and articles written about sound begin with an argument that sound is in some way a "special case" for social or cultural analysis. The "special case" argument is accomplished through an appeal to the interior nature of sound: it is argued that sound's natural or phenomenological traits require a special sensibility and special vocabulary when we approach it as an object of study. To fully appreciate the strangeness of beginning a history with a transhistorical description of human listening experience, consider how rare it is for histories of newspapers or literature to begin with naturalistic descriptions of light and phenomenologies of reading.

Sound certainly has natural dimensions, but these have been widely misinterpreted. I want to spend the next few pages considering other writers' claims about the supposed natural characteristics of sound in order to explain how and why *The Audible Past* eschews transhistorical constructs of sound and hearing as a basis for a history of sound. Transhistorical explanations of sound's nature can certainly be compelling and powerful, but they tend to carry with them the unacknowledged weight of a two-thousand-year-old Christian theology of listening.

Even if it comes at the beginning of a history, an appeal to the "phenomenological" truth about sound sets up experience as somehow outside the purview of historical analysis. This need not be so—phenomenology and the study of experience are not by definition opposed to historicism. For instance, Maurice Merleau-Ponty's work has a rich sense of the historical dimensions of phenomenological experience.³⁵ But founding one's analysis on the supposed transhistorical phenomenological characteristics of hearing is an incredibly powerful move in constructing a cultural theory of sound. Certainly, it asserts a universal human subject, but we will see that the problem is less in the universality per se than in the universalization of a set of particular religious prejudices about the role of hearing in salvation. That these religious prejudices are embedded at the very center of Western intellectual history makes them all the more intuitive, obvious, or otherwise persuasive.

To offer a gross generalization, assertions about the difference between hearing and seeing usually appear together in the form of a list.³⁶ They begin at the level of the individual human being (both physically and psy-

chologically). They move out from there to construct a cultural theory of the senses. These differences between hearing and seeing are often considered as biological, psychological, and physical facts, the implication being that they are a necessary starting point for the cultural analysis of sound. This list strikes me as a litany—and I use that term deliberately because of its theological overtones—so I will present it as a litany here:

- —hearing is spherical, vision is directional;
- —hearing immerses its subject, vision offers a perspective;
- —sounds come to us, but vision travels to its object;
- —hearing is concerned with interiors, vision is concerned with surfaces;
- —hearing involves physical contact with the outside world, vision requires distance from it;
- hearing places us inside an event, seeing gives us a perspective on the event;
- —hearing tends toward subjectivity, vision tends toward objectivity;
- —hearing brings us into the living world, sight moves us toward atrophy and death;
- —hearing is about affect, vision is about intellect;
- —hearing is a primarily temporal sense, vision is a primarily spatial sense;
- —hearing is a sense that immerses us in the world, vision is a sense that removes us from it.³⁷

The audiovisual litany—as I will hereafter call it—idealizes hearing (and, by extension, speech) as manifesting a kind of pure interiority. It alternately denigrates and elevates vision: as a fallen sense, vision takes us out of the world. But it also bathes us in the clear light of reason. One can also see the same kind of thinking at work in Romantic conceptualizations of music. Caryl Flinn writes that nineteenth-century Romanticism promoted the belief that "music's immaterial nature lends it a transcendent, mystical quality, a point that then makes it quite difficult for music to speak to concrete realities. . . . Like all 'great art' so construed, it takes its place outside of history where it is considered timeless, universal, functionless, operating beyond the marketplace and the standard social relations of consumption and production." 38 Outlining the differences between sight and hearing begs the prior question of what we mean when we talk about their nature. Some authors refer back to physics; others refer back to transcendental phenomenology or even cognitive psychology. In each case, those citing the litany do so to demarcate the purportedly special capacities of

each sense as the starting point for historical analysis. Instead of offering us an entry into the history of the senses, the audiovisual litany posits history as something that happens between the senses. As a culture moves from the dominance of one sense to that of another, it changes. The audiovisual litany renders the history of the senses as a zero-sum game, where the dominance of one sense by necessity leads to the decline of another sense. But there is no scientific basis for asserting that the use of one sense atrophies another. In addition to its specious zero-sum reasoning, the audiovisual litany carries with it a good deal of ideological baggage. Even if that were not so, it would still not be a very good empirical account of sensation or perception.

