

Hillel Schwartz. 2011. *Making Noise: From Babel to the Big Bang and Beyond*. Brooklyn: Zone Books.

Reviewed by Shannon Mattern

Hillel Schwartz's *Making Noise: From Babel to the Big Bang and Beyond* is not merely a text to be read; it's also an object to be grappled with. One must create space for it, adopt a proper reading posture to accommodate it, and listen to it—both to the words on the pages and to those pages themselves. At 9 ¼ in. x 6 ¼ in. x 2 3/8 in., *Making Noise* is not the kind of book one can easily tuck into a bag for subway reading. In fact, in the two months I spent working through the text, not once did I manage to find sufficient spare space in my bag to lug it to school or to a coffee shop; consequently, I read the book entirely in my apartment—in a familiar and relatively quiet acoustic environment, which may have set Schwartz's babble and bang into acoustic relief. In addition, *Making Noise* is not the kind of book one can easily read while lying on the couch; its 2.5 pounds tired my wrists far too quickly. As a result, I read the entire book sitting or standing up, or while lying on my stomach on the living room carpet. I never experienced Schwartz with my head cocooned in a pillow, down and cloth providing acoustic insulation. Consequently, as I read, I became more conscious of the symphony of white noises—humming refrigerators and whirring hard drives—filling my seemingly quiet Brooklyn apartment.

The main text alone is 859 pages; with the index, it's 912. Yet even that number doesn't include all bibliographic components. Because of the book's length, the publisher decided to make the 349 pages of endnotes, along with a 51-page bibliography of "noisy" children's books (including a panoply of intriguing titles, such as *Don't Wake the Baby* and *Croak! Hoot! Squeak! Buzz!*), downloadable from the Zones Books website. I regard the endnotes, when they're more than mere citations, as an integral part of any text; when I read I typically maintain two bookmarks—one in the main text, one in the end matter—so that I can continually reference relevant notes and citations. With Schwartz's book, I often found myself so intrigued by a particular tale or provoked by a specific claim that I sought to follow his trail of inquiry by consulting his source material. Alas, the printed text itself required such a physical commitment that I simply couldn't manage simultaneous consultation of the endnotes. I couldn't keep running back and forth from reading chair to computer, or juggling the physical book and an iPad full of notes.

Current Musicology

As a result, in the moment of reading, I missed the fecund end matter and lost an opportunity to hear the myriad voices informing and foretelling the arrival of Schultz's noisy tale.

Yet a subsequent perusal of the endnotes revealed the astounding range of resources that the author consulted over the course of two decades. According to the book's distributor, MIT Press, Schwartz drew upon

such diverse sources as the archives of antinoise activists and radio advertisers, catalogs of fireworks and dental drills, letters and daybooks of physicists and physicians, military manuals and training films, travel diaries and civil defense pamphlets, as well as museum collections of bells, ear trumpets, megaphones, sirens, stethoscopes, and street organs. (n.d.)

Published resources include scholarly texts from, among countless fields, anthropology, architecture, art history, biology, literature, material culture, musicology, otology, physics, sensory history, soundscape studies, urban history, and, my own field, media studies – and scholars and practitioners from all of these fields constitute the book's potential audience. We can hear the work of Emily Thompson, Jonathan Sterne, Jacques Attali, Mark M. Smith, Alain Corbin and countless others echoing throughout *Making Noise*, and perhaps placed in conversation with one another for the first time. Given the breadth and eclecticism of his resources, Schwartz's work represents a monumental convergence of often disparate voices on sound and noise.

These voices lived not only on the book's pages, but also in its form. With so many sheets bound into such a large volume—and these aren't your typical Norton Anthology onion skins; these pages rival the weight of a nicely published mass-market fiction hard-cover—there's a distinctive depth to its flutter as I flip through its pages . . . And when I drop it to the floor, what a nice round thud it makes—not the strident crack of less substantial volumes! *Making Noise* is a tenor. Yet it's a discordant tenor, with its somewhere-between-mint-green-and-robin's-egg-blue cover featuring, in fluorescent orange (which imparts the effect of being printed in negative), a blown-up print of J.J. Grandville's "Katzemusik" ("rough music"), and type in an elegant brick-red serif font. Quite a noisy contrast of graphic elements.

Inside the cover, past the black endpapers; past an image of Michael Barton Miller's "aroundsound #2 (elpasoyodel)," sculptures resembling the ear canal; past the copyright information and dedication, we encounter Schwartz's "Note to Reader": "This book is meant to be read aloud." There is indeed a lyricism to the writing that Schwartz manages to sustain throughout all 800+ pages. Even if my lips weren't moving as I read, I heard Schwartz's

words resonate in my inner ear—something that rarely happens when one reads tone-deaf academic prose.

Schwartz has divided the book into three main sections, or “Rounds”:

- (1) Everywhere: On apprehensions of noise on all sides. How this comes to be, and from which directions
- (2) Everywhen, Everyone: On ears of all sorts. On who is hearing noise, under what conditions and at what time of day or year of life
- (3) Everyhow: On hearing what had not been heard, could not be heard, should not be heard. Calibrating and recalibrating noise. Toward what end?

While working my way through the book, the Rounds resonated only very faintly for me; they felt more like cryptic titles of symphonic movements. But after completing the book and allowing it to echo for a while, the rhetorical functions of these titles did eventually make some sense: the focus on where, when, who, and how suggests that Schwartz regards his work as that of a storyteller. And the regular use of the “every-” prefix prepares us to accept the broad, encompassing breadth of these stories; Schwartz’s story of noise has multiple protagonists and antagonists, widely distributed agency (implicating a variety of inanimate objects and bio-–technical systems), and is inflected by the place, time, and identity of his characters and informants. The story’s telling also depends upon the methods those various culturally and historically situated subjects use to define, measure, and represent noise. Structuring the book in “Rounds” seems fitting for a story that cycles through time, continually revisits subjects (some, perhaps a bit too frequently), and appreciates their echoes. Even the book’s polychronic subtitle—which starts with Babel, then listens back for echoes of the Big Bang, then listens forward to the beyond—suggests that this is not a linear, teleological story.

The three Rounds are preceded by “Consonances,” Schwartz’s acknowledgments of resonant minds and voices; and “Bang (A Beginning),” his introduction on “hearing out noise,” “origins auricular and oracular, mythic and metaphoric,” and “hardness of hearing.” This Bang isn’t the “big” one, however; it refers instead to the booms, breaths, brouhaha, and babble in various Vedic and Judeo-Christian genesis stories. It is here that Schwartz establishes the “every-”ness and, at the same time, the contingency of noise:

Noise is never so much a question of the intensity of sound as of the intensity of relationships: between deep past, past, and present, imagined or experienced; between one generation and the next, gods or mortals; between country and city, urb and suburb; between one class and another; between the sexes; between Neanderthals and other humans. (20–1)

Noise, Schwartz proposes, has a fourfold history:

First, the chronicle of changing soundscapes: how each era and culture lives within its own ambience of sounds. Next, the annals of sounds earmarked as pleasant or obnoxious: how each era, culture, and rank hears (or does not hear) and welcomes or disdains the sounds around it. Next, the career of noise itself as variously apprehended: how each era, culture, occupation or discipline reconstitutes the notion and nature of noise. Contingent upon these, finally, are narratives of noisemaking and noise-breaking: how noise in each era, culture, and class has been denounced or defended, defiantly produced or determinedly deadened. (21)

In a book this large, in which readers are likely seeking orientation and a guide to navigation, this four-part model might seem to promise a map or score of the text—but no; these are simply four refrains to listen for throughout the three Rounds. There's much to be heard in the silences, too. In the “sound-shadow,” Schwartz says, we can discern “four reciprocal histories”: “the history of elected or commanded silence; the history of the deaf and deafness; the history of Arcadian idylls and millennial kingdoms; the history of stillness—of portraiture and death, sedation and paralysis, inner reserve and outward desolation” (21). This set of reciprocal histories can in turn be contextualized within (and is often unfortunately “masked” by) the “ostensibly larger stories of civilization, urbanization, industrialization, mass distribution, and mass communications” (21). These eight reciprocal histories—as well as others not named here, like the histories of medicine, fashion, children's literature, and war—and the five larger historical contexts are intertwined, together composing the multivocal history of noise. I'll highlight just a sampling of the connections drawn in the introduction and each of the three main sections; to offer a full listing of the topics Schwartz addresses would require far more space than we have here.

In “Bang,” we hear about epidemic diseases with ototoxic side-effects, “low noise” cassette tapes, the evolving role of the encore in the performing arts, and the many challenges of being a sonarman on a submarine, where a mishearing can have devastating consequences. The sonarman reminds us that “the meanings we assign to noise are no less consequential than the meanings we assign to other sounds. Noise may be unwanted or incomprehensible sound; it is never insignificant sound” (28). Schwartz also mentions humans' vain search for an Ur-language, “root of all other tongues spoken by humanity,” and the cultural biases inherent in anthropologists' early studies, among ancient or isolated communities, of what it means to “hear well” (30). Recognizing the futility of these endeavors, and “abandoning... any claim to imperturbable sanctuary or impeccable hearing, we are free to move on to what is left: the history of noise” (36).

And move on we do, into Round One: Everywhere. Here we hear about the history of reading aloud and the textual conventions—spaces between words, punctuation, capitalization—that thwarted or facilitated this practice. We hear town criers in the street; conversations in the Medici-era court; echoes represented visually in cliff paintings and cave walls; and echoes reverberating around Mayan pyramids and Greek amphitheaters. We learn of the integration of zones of publicity and privacy, of sound and silence, into the Renaissance domestic sphere, where various architectural solutions were designed to keep noise out, and often failed. In the Old World,

[Echo] was active in the stone corridors of narrow city streets, in the hallways of country houses, in the lyrics and staging of songs and operas, in artificial grottoes hollowed out for aristocratic gardens and public amusement, in the echo-organs of cathedrals whose vaulted domes sometimes (as at St. Paul's) had whispering galleries. (65)

Echo echoed in Baroque music, and in the sounds of war and the cacophony of the underworld. The righteous had to “listen through noise . . . for the Lord’s guidance” (90–1)—but what, precisely, constituted the medium through which they listened was a matter or debate: was it *pneuma*, or ether—either or neither? We also consider in this Round how flatulence, laughter, and weeping were received in various contexts, and wonder what it means to speak with angels or through machines. We map a new geography, and a new soundscape, shaped by iron furnaces and steam engines. We think about practices of “educating the senses”—particularly in the penitentiary, where, as the prevailing penal theories had it, “it was solitude [and silence] that conduced toward repentance” (182). We hear the noises of slavery and freedom, and consider how they sounded differently to one another. We imagine doctors pressing ears and stethoscopes to ailing patients, and telegraphers making sense of the “dit-da of Morse Code” (227). We consider how the rise of these new technologies—telephones, radios, radar—installed “a new mode of listening that entailed a heightened sensitivity to the ubiquity of noise,” and we watch Victorian architects work toward isolating interior life from the cacophony outside (230).

Early in Round Two: “Everywhen, Everyone,” Schwartz presents a concise “lesson”:

Each generation inhabits a different acoustic universe, constituted by different musics and memories of sound, by different thicknesses of walls and densities of traffic, by different means of manufacture and broadcast, by different diets and ear-damaging diseases, by different proportions and preponderances of metal rattling in kitchens, clanging on the streets, or ringing in the (differently polluted) air above. (314)

Current Musicology

We begin this Round with the “loud dress” of the dandies, then we later address the onomatopoeia of the Futurists and acknowledge that others were composing with silence long before John Cage. We’re stumped by acoustic shadow (topographical obstructions to the propagation of sound) on Civil War battlefields, and made to wonder if the “acoustic density” of our industrializing cities—a function of demographics, traffic, and urban heat, which “[sped] sound along”—is an inevitability. To some, the only recourse seemed to be a search for sonic retreats in cemeteries and parks, or “rest cures” in Japan and other foreign lands (274). Meanwhile, officials experimented with new street-paving materials to cut down on traffic noise. Florence Nightingale reminded us of the healing powers of quiet, and various anti-noise parties set out to enforce it, in part by encouraging the establishment of acoustic zones. Later in the Round, we hear about new scientific studies of sound (by Bell, Doppler, Edison, Faraday, Maxwell, Sabine, and others), and about architects who learned from these scientific discoveries as they strove to soundproof homes and hospitals. Meanwhile, urbanites watched overhead wires overtake their cities.

We consider hearing loss and tinnitus, particularly among factory workers. We think also of the significance assigned to ears—how they were once used for the “typing of personality”—and how, nevertheless, they’ve been subject to all sorts of abuse (355):

Add it all up – the endemic diseases, epidemics, and childhood “fevers” with their ontological after-effects, often permanent; the ototoxic drugs used to treat those afflictions; the boxing of schoolchildren’s ears and the familial tugging or cuffing at home; the injury done by industrial noise to the inner and middle ears of working adults, year after year, and more swiftly by the cannonade of battle to the ears of soldiers and sailors; the tinnitus and earache from impacted wisdom teeth, dental decay, and gum disease; the cigar and cigarette smoke, sulfuric ash and coal dust, lead-laced paint and arsenical wallpapers in the most genteel of homes, and the soot and smog outside in the thick city air...—add it all up and the heard world was widely compromised. (383)

While concert halls and upper- and middle-class homes were more insulated from the din, working-class ears were not.

In Round 3, “Everyhow,” we begin with anthropologists studying the hearing of “savages and semi-civilized races,” and learn that some Western researchers came to understand that their own hearing was neither superior nor inferior to that of the Other; rather, “[the savages] senses,” like their own city-tuned hears, “were honed by minds that grasped the ecology of their milieu” (556). We hear again about the sounds of war—about shellshock and terrifying silences—and about assaulting sounds emerging from new

loudspeakers, even in peaceful territories. We overhear politically charged deliberations on the cause of deafness. We talk of sound therapies: Freud's "talking cure" and hearing aids.

Again, we consider how architecture and construction devise new strategies—"electrically amplified sound-transmitting infrastructure[s]" and "sound-absorbent wall and floor coverings" like Celotex—to seal out the noise (635; 638). Sometimes, as before, those solutions "redoubled the problem" (632). We again consider urban zoning and the spread of litigation against noise—even in the depths of the ocean. In one particularly fascinating segment, Schwartz addresses the audition of fish and sound-making of whales and recounts activists' efforts to prevent their disruption by deleterious naval activities. We heard inside other aquatic environments, too; ultrasound transformed how parents listened to their children—both in utero and throughout their development. Meanwhile, we also began to listen to the universe, to hear static in cosmic rays and to search for radio transmitted from afar.

We started to think of noise in terms of wave patterns, and we classified those patterns by color: white, "patternless sound," perhaps the most familiar; black; brown; orange; and pink (along with blue, violet, grey, and green, which aren't mentioned here) (834). Pink, perhaps the most trivial-sounding of all, is "moderately correlated over *all* time scales and so, on the average, it should display 'interesting structure' over all time intervals" (839). We eventually recognized the power of pink: "1/f noise was suddenly found to be flickering almost everywhere that things or beings were in motion. It was in fact intrinsic to perception and judgment" (840).

[Pink noise] seems to be the optimal noise for catalyzing phase transitions and rescuing systems out of whack. When added to a weak signal, pink noise can nudge it over a threshold crucial to awareness or stability; when introduced to a system in turmoil, pink noise can shepherd it back to homeostasis... [P]ink noise allows organisms to "hear" and respond more aptly to their environs; in physical and otological terms, it restores balance. (843)

The ubiquity and utility of pink noise explodes the commonplace notion that noise is simply "unwanted sound." Schwartz writes: "Not only was the world literally shaped by noise; our brains required noise. Pink noise. Measured at the peripheries, the noise of the nervous system is white; in the brain, electrical fluctuations approach 1/f" (845). This noise is very much wanted and necessary sound. "The intentional making of noise was an ontological statement: I substantiate my historical being through the noise I can make" (846). In other words, "without noise, we would not be in the world" (859). Encountering such incontrovertible evidence near the end of the book,

Current Musicology

for the “every-”ness and crucial importance of noise, we might be led to reconsider the constructive, and perhaps even essential, roles played by the other noises echoing throughout the book: babble and static, gunfire and steam whistles, street music and sirens.

We might say that something like rhetorical “pink noise” also plays an integral role in the maintenance of balance in Schwartz’s book. As my recounting of the variety of topics visited in each of the Rounds might suggest, the logic by which particular topics or tales are sorted into each of the three Rounds (and the coherence of those Rounds) is often elusive, and occasionally it seems that Schwartz’s fluid prose smooths over odd leaps in logic and strained connections. (For example, how, exactly, did we move from the primal scream to SETI to the D.C. post-hardcore band Rites of Spring to sonocytology within the space of five pages?). But every once in a while we’ll hear one of Schwartz’s refrains—the fourfold histories and their “silent” reciprocal counterparts—which allows us to reconnect with the book’s underlying rhythm. The “flicker noise” of these refrains “nudge[s] [Schwartz’s looping lyric tale] over a threshold crucial to awareness or stability” (843). Perhaps even the unwieldy physicality of the book—object itself cultivates a particular reading experience, with particular sonic character, that contributes to this awareness and stability.

We require a certain stability of attention to follow Schwartz through his 859 pages in order to appreciate, ultimately, that among the few stable qualities of noise are its everywhere-, everywhen-, an everypow-ness. The rest is vibrational, conditional, provisional, historical; the rest is noise.

Bound up with bone and tissue, with solids, liquids, gases, and plasmas, with the tactile and cortical, with the chthonic and the cosmic, all those vibrations that are soundmusicnoise have been historically re-cognized, from era to era, within a cultural logic as nonlinear as the coils of the hairs of our inner ears. Distinctions between sound and noise, or noise and music, or music and sound, can only be provisional—not because they are matters of taste but because they are matters of history and histrionics: of what becomes audible through time and how the acoustics are staged, in auditoria, or bedrooms, in laboratories or courtrooms... (858).

...or in beautifully typeset tomes with noisy covers, like *Making Noise*.

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