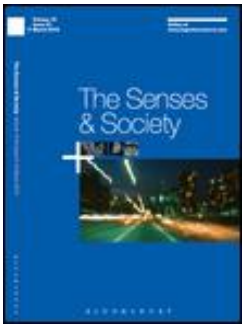

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Rethinking the Soundscape

A Critical Genealogy of a Key Term in Sound Studies

Ari Y. Kelman

ABSTRACT This article takes critical issue with the well-circulated but often misapplied term "soundscape." Coined by Canadian composer Murray Schafer in his book "The Soundscape," the term has become one of the keywords of sound studies, but in its wide circulation it has become disconnected from its original scholarly concept and used broadly to apply to nearly any sonic phenomenon. Scholars either misapply it or redefine it to suit their needs. This article is an attempt to trace an intellectual history or genealogy of the term, and to open a conversation about the term's use, application, and utility for scholars of sound. This article draws on Schafer's work in an attempt to ground the term in its own intellectual history, and then traces the use of the term in a variety of sound studies works. The term

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"soundscape" emerges as at once indispensable and elusive, provocative and limited. By calling attention to background sound, Schafer shaped the field in ways that exceeded his own contribution.

KEYWORDS: sound studies, soundscape, R. Murray Schafer, aural culture

The opening paragraph of Nathaniel Mackey's Bedouin Hornbook is one of the best accounts of a soundscape I've ever encountered. Written in epistolary style to the "Angel of Dust," the chapter opens with Mackey's narrator, "N," recounting a dream. "You should've heard me in the dream last night," he writes. "I found myself walking down a sidewalk and came upon an open manhole off to the right of which came (or strewn around lay) the disassembled parts of a bass clarinet" (Mackey1986: 1). The description continues as N explains that he intended to play one solo (borrowed from John Coltrane's "Naima") but that he actually played a different one (Archie Shepp's solo from "Cousin Mary") before coming to the realization that what he was playing "already existed on a record." But the episode concludes with an account of a different sound entirely. "I could hear scratches coming from somewhere in back and to the left of me. This realization turned out, of course, to be what woke me up." N did not dream his solo at all; he heard it as if it were a dream only to be awakened by the sound of the phonograph needle scraping repeatedly on the interior groove of the record.

N's subtle, sonorous shift from dreaming his own solo to hearing the background noise of the record offers a metaphor for the study of the social life of sound. Where does the exterior soundscape end and the interior narrative begin? What did he hear, what did he want to hear, and what did he dream? Did he hear, in that semi-somnolent encounter, new music or merely background noise? Mackey's description of the delicate balance between what we hear and what we mean succeeds because it captures the complicated and powerful relationships that bind the practice of listening to sound, noise, technology, context, and meaning. And while N poses a poetic account of those shifting relationships, scholars and students of sound take a more challenging (and perhaps less lyrical) approach to exploring that same constellation of relationships.

"Sound studies" is an emergent field of scholarly research that has coalesced around two critical questions. The first asks, what does sound mean? This question can be approached in any number of ways and can evoke any number of conclusions about how, where, and why sound is produced, reproduced, circulated, imagined, transmitted, and understood. The second question is methodological: How do we, as scholars and students of sound,

attend to its meanings? How do we gather data and collect information? What frameworks or theories guide us? What models exist for studying sound?[1]

The foundational text in this conversation is R. Murray Schafer's The Tuning of the World (1977), which was reprinted in 1993 under a new title, drawn from the book's central concept: The Soundscape. Schafer's contribution has informed the work of almost everyone who has written on the phenomena of sound since, and it has gained widespread popularity beyond the scholarly world, as well. It regularly appears in the titles of books, chapters, and articles, in the names of CDs, in the monikers of performance ensembles, in pieces by sound artists, depictions of field recordings and field recording techniques, in the vocabulary of sound design for theaters, museums or amusement parks, and even in descriptions of the work of companies that specialize in home theater installation.[2] People have come to use the term casually to refer both to the piped-in soundtracks that one can hear in most any public buildings and to the practice of using portable mp3 players to create one's own personal, mobile soundtrack. The url www.soundscape.com is (at present) owned by a Florida company that sells outdoor speakers with the promise that "our products will help you build a nice sound environment, wherever you are."[3] During the late 1970s, a loft/performance space in New York City operated under the name "soundscape," and avant-garde jazz musician Sun Ra recorded a live album there in 1979, abstractly entitled, Live from Soundscape. In its near-ubiquity, the term has come to refer to almost any experience of sound in almost any context.

Despite the term's general popularity, Schafer's original definition captures something far more specific. His notion of "the soundscape" is far from the broad, descriptive term that it has since become. Instead, his soundscape is lined with ideological and ecological messages about which sounds "matter" and which do not; it is suffused with instructions about how people ought to listen; and, it traces a long dystopian history that descends from harmonious sounds of nature to the cacophonies of modern life. Schafer's soundscape is not a neutral field of aural investigation at all; rather, it is deeply informed by Schafer's own preferences for certain sounds over others. The Sounsdscape is a prescriptive text that is often referred to as a descriptive one.[4] With these biases exposed, this article traces the legacies of the soundscape in order to understand its ongoing resonance in light of its original context. It asks: is "soundscape" still a useful and resonant term for scholars of sound? If so, how are scholars engaging with its provocative promise and problematic formulation? Grounded in a close reading of Schafer and other works that engage with him, this article will conclude by indicating new directions or frames for sound studies that honor the specific legacy of Schafer's "soundscape" while resisting the impulse to apply it ubiquitously to all studies of the social life of sound.

The Use and Abuse of the Soundscape

Insofar as sound is a social phenomenon (pace those falling trees in the forests of Zen koans), scholars of sound are interested in understanding how sound circulates and how it contributes to the ways in which we understand the world around us. In other words, we (and I count myself among those scholars) are interested in the relationship between sound and the social production of meaning. Studying sound offers a way into understanding social processes and relationships differently than, say, vision or textuality alone (see Ong 2002; Jay 1993). Yet, identifying a particular sound or set of meaningful sounds on which to focus one's scholarly attentions continues to trouble scholars in search of a way to frame or ground their explorations. Does one begin with a particular sound, like birds, wind, or traffic? Or, should one begin with a particular setting within which certain sounds shape the social construction of the place? What happens when sounds migrate from one place to another? What about "world music?" What is the relationship between sound and meaning, given that sound travels yet meaning is always contingent, local, connected to particular places and people?

One of the most useful and vexing terms offered to date has been Schafer's "soundscape." Like "landscape," to which it alludes, a "soundscape" seems to offer a way of describing the relationship between sound and place. It evokes the sonic counterpart of a landscape in which one sees trees or buildings, but hears wind, birds, or traffic. But what is a soundscape? Where is it? How is it bound or defined? Schafer offered the first definition in a pamphlet called "The New Soundscape: A Handbook for the Modern Music Teacher" (1969). The pamphlet was something of a benchmark and, in the years that followed, Schafer and a small group of colleagues and students at Simon Fraser University established the World Soundscape Project (WSP), which committed itself to documenting and studying sound in situ, a project which eventually produced a number of recordings and publications, including "The Vancouver Soundscape" (World Soundscape Project 1974a), a CBC radio series called "Soundscapes of Canada" (World Soundscape Project 1974b), and a sound analysis of five European towns called "Five Village Soundscapes" (World Soundscape Project 1977). This phase of the WSP's work concluded in the late 1970s with the publication of two books: Barry Truax's glossary-like Handbook for Acoustic Ecology (1978) and Murray Schafer's The Tuning of the World (1977).

Schafer's book is the first to give a full treatment to the idea of the soundscape and is cited most often as the key reference for other works that employ the term. Most scholars who employ the term use Schafer's broad definition of soundscape as "any aural area of study" (1993: 7), but do not engage with Schafer more deeply. Those who do engage with his ideas often end up totally reworking Schafer's term from the inside out to suit their own needs. The discrepancy between its popularity and its rigorous application

invites two investigations: one into Schafer's original framing of the notion, and another into the books that have followed him. Ironically, and despite the popularity of the term, most of what has come to occupy the attention of scholars of sound have been precisely those elements of Schafer's soundscape that he preferred not to hear.

The difference between what Schafer actually heard in Vancouver in the late 1960s and early1970s and what he wanted to hear provides the pivot point of The Soundscape. Schafer heard increasing urban traffic and wanted to hear a massive environmental symphony. He heard noise and wanted to hear silence. The distinction between the city's external sounds and his interior narrative both foreclosed directions for scholarly analysis and opened up a rich vein of questions about the relationships between listeners, sound, place, and meaning. To dispense with Schafer's notion of the soundscape would be to neglect both its popularity and its deeply resonant potential. Yet, to employ it willy-nilly because of what it evokes would be to disregard Schafer's own intentions. Somewhere between its broad circulation and Schafer's narrow definition lies a rich vein of scholarship on sound. But to explore this vein, what we need first is to attend to the invention of Schafer's idea in order to wrestle with its redefinition.

Listening to the Soundscape

For Schafer, most of human history has been a sonic descent from the natural and harmonious into the mechanical and dissonant. The speed of the descent has accelerated dramatically over the past 100 years, and what begins with the harmony of the spheres ends in confusion, anxiety, and cacophony. Borrowing heavily from the language of the environmental movement, Schafer targets "noise pollution," "sound sewers," "overpopulation," and the encroachment of modern, mechanized life on the more pastoral sounds of countryside, sea, and forest. As a response to this situation, Schafer's book advocates for a new way of organizing, containing, mapping, and preserving sounds that will pull them back into proper, well-tempered balance.

Schafer describes the movement from quiet to cacophony as the shift from "hi-fi" to "lo-fi," distinguishing between the two in terms of their respective signal-to-noise ratios. He explains that the higher the differentiation between signal and noise, the easier it is to distinguish between what is "information" and what is not. "The hi-fi soundscape is one in which discrete sounds can be heard clearly because of the low ambient noise level" (1993: 43). Thus, he concludes that urban soundscapes are lo-fi, owing to the greater density of sound-producing activities and, by contrast, he claims, "the original soundscape was quiet." Despite the fact that he doesn't explain what, where, or when this "original soundscape" existed, he reveals his preference for it over the noisy circumstances in which he wrote the book over and over again. "Today, the world suffers from

an overpopulation of sounds … In the ultimate lo-fi soundscape the signal-to-noise ratio is one-to-one and it is no longer possible to know what, if anything, is to be listened to" (1993: 52, 72).

One of the problems with such a narrative is that it offers very little room for agency for those people who populate the "lo-fi soundscape." The devolution of Schafer's soundscape is so totalizing, so deterministic, that it provides little hope for the ears of humanity against the din of his historiography. In Schafer's description of modern life, few opportunities exist to produce new meanings out of old sounds, or to hone one's hearing amidst all of the noise ("Is that a bus I hear passing by, or is it a garbage truck? Is that a Telecaster or a Les Paul?"). It is all just noise. Sound artist Sophie Arkette critiques Schafer for his "urban prejudice." She explains, "to say that the urban supervenes upon the natural soundscape, and that urban sounds can be cleaned up to resemble natural sounds is to misread the dynamics of city spaces. A city wouldn't exist if it mirrored agrarian sonic space" (Arkette 2004: 161–2; see also Toop 1995: 253f). For Arkette, Schafer fails to recognize that sound is one of the characteristics that makes a city a city; it cannot sound any other way. Arkette is no simple fan of urban noise, however; she wants to account for the ways in which urban residents develop techniques for listening to the sounds of cities and differentiating certain sounds from others ("that is a bus I hear, and I'd better run if I'm going to catch it"). Schafer's analysis cannot allow for the development of such skills amidst the din of modern urban life because in his formulation, all signals have been reduced to noise.

For Schafer, the encroachment of noise is so severe that the only way to fight it is, ironically, to stop listening to it. The path toward restoring balance emphasizes listening and learning to distinguish between sound and noise. He explains, "Ultimately, this book is about sounds that matter. In order to reveal them it may be necessary to rage against those which don't" (1993: 12). Raging against the latter type of sound means learning to listen quite selectively, by approaching "the soundscape of the world as a huge musical composition, unfolding around us ceaselessly … Only a total appreciation of the acoustic environment can give us the resources for improving the orchestration of the soundscape" (1993: 205–6). Here, although Schafer seems to be writing about sound, he is actually talking about listening.

Paradoxically, the only hope Schafer offers those of us living amidst the noise is the possibility of becoming better listeners. For Schafer, urban listeners are trapped by the sound of the city until, that is, they follow his prescriptions for "ear cleaning" and "acoustic design," so that they can hear their cities like symphonies instead of like the cities they are. With proper discipline, Schafer argues, people can learn to tune out certain sounds, and, as a result, save themselves and their communities from the encroachment of noise.

Without his aural tonics, the sonic world will continue to amplify and endanger, confuse, frustrate, and alienate.

By focusing on listening, Schafer's notion of the "soundscape" recedes into the background, while his "acoustic designers" emerge more prominently. Although there can't be listeners without sound, Schafer advocates a kind of audition the organizing principle of which is not total sonorous engagement, but orchestration. In this way, Shafer's listeners listen but they do not hear, because they listen with the intention of orchestration and not, for example, engagement, interrogation or curiosity. In this formulation, the soundscape becomes mere background noise for a cadre of well-disciplined listeners to practice "acoustic design" and orchestrate the world rather than encounter it as it is. The soundscape becomes something to be overcome, not even something to be heard. Given Schafer's preference for training listeners over providing an analysis of sound, scholars of sound must question whether the soundscape is too ideologically freighted to be useful.

This questioning is particularly urgent in the case of recorded or broadcast sound for those who follow Schafer, because instead of engaging the ways in which technology complicates the relationship between social and sonic life, Schafer dismisses it. "It is basically unnatural to be intimate at a distance" (1993: 89). He continues, "we have split the sound from the matter of the sound. Sounds have been torn from their natural sockets and given an amplified and independent existence" (1993: 91). The distances that broadcasting and recording media have opened up between the source of a sound and its reception represent, for Schafer, a fundamental rift in the sonic dimension of culture. Again, confusing sound and listening, Schafer called this splitting **schizophonia**, a term he coined to refer to "the split between an original sound and its electroacoustical transmission or reproduction." This, for Schafer, is a "nervous word," which he invented to "convey [a] sense of aberration and drama." For Schafer, schizophonia leads inexorably toward meaninglessness and dislocation, creating a "synthetic soundscape in which natural sounds are becoming increasingly unnatural while machine-made substitutes are providing the operative signals directing modern life" (1993: 91).

The schizophonic splitting of sounds from their sources raises a problem for Schafer because it creates "unnatural" distances between the makers of sounds and their listeners.[5] The most obvious critique of Schafer's formulation begins by asking where one draws the line between "natural" and "unnatural" sound, or between one context and another. Is recorded music played in a club or a coffee shop "natural?" What about the near-ubiquity of piped-in music or Muzak in shopping centers and department stores? Schafer would argue that hearing one's favorite symphony in the lobby of a movie theater is, itself, jarring and is, therefore, a glaring example of schizophonia: What is that melody **doing** there, so far from its

"natural socket?" For Schafer, those are sounds schizophonically out-of-place, which therefore ought to be either wedged back into their "natural sockets" or tuned out by disciplined listeners.

The anxiety that Schafer intends to provoke, however, once more confuses sound and listeners. Sounds cannot be "anxious," as such, although they can provoke anxiety in their listeners. Though neologized to describe sounds, schizophonia actually refers to Schafer's sense of what happens to listeners when they encounter sounds far from their "natural sockets." Schafer's notion of schizophonia circularly suggests that all sounds encountered "out of place" become troubling, anxious, and noisy by virtue of their being heard out of place. Eclectic audition, he warns, will lead to social confusion.

In this way, Schafer reinforces his emphasis on listening and evaluation in order to project anxiety about the mobility of sound onto the act of listening. This weakness in Schafer's argument encouraged ethnomusicologist Steven Feld to offer a corrective to Schafer's original idea, suggesting a movement from "schizophonia to schismogenesis." Feld's corrective stems from his observation that schizophonia "needs to be imagined processually, not as a monolithic move in the history of technology, but as varied practices" located in particular contexts (Feld 1994: 260). Schismogenesis, a term Feld borrows from Gregory Bateson, suggests that the "splitting" does not represent an historical rupture as much as one element of an ongoing process. In this light, Feld shifts the discussion of the splitting of sound from something to repair to something to investigate.

Whereas Schafer confuses the relationship between sound and listening, Feld's corrective focuses specifically on the production and circulation of sound, especially that of the musical genre known as World Music. By turning his attention to a particular set of sounds, Feld recuperates Schafer's idea in order to replace it by reasserting schismogenesis as a quality of sound, not a characteristic of the experience of listening. Refocusing his attention to sound rather than listening, Feld ultimately replaces Schafer's idea with Bateson's, opening up an avenue of inquiry that Schafer could not quite manage.

To sum up, in his desire to populate his soundscape with acoustic designers and "ear cleaned" listeners, Schafer confuses the relationship between sound and listening throughout his discussion. Differentiating sounds that matter from sounds that don't means that the soundscape only matters as a kind of background for a listener's adjudication of sonic experiences. In some instances, his soundscape is a problem to be overcome, while in others he relegates it to the sonic background to social life. He objects to certain qualities of modern sounds and privileges sounds in their "natural sockets" over anything recorded, broadcast or amplified. These preferences all echo the central confusion between sound and listening, and the murkiness of this relationship raises further

questions about the use and application of the term "soundscape" for scholars of sound.

Soundscape Scholarship I: Sounds Like Schafer

Despite these critiques, Schafer's term resonates powerfully with scholars of sound. Attracted by its evocation of a relationship between sound and place, a number of recent books employ "soundscape" in their title, without, however, engaging deeply with Schafer. These include Fiona Richards' edited volume The Soundscapes of Australia (2007), Charles Hirschkind's The Ethical Soundscape (2006), and John Picker's Victorian Soundscapes (2003). Each of these three books uses Schafer's term in its title, but none of them critique or complicate our understanding of "soundscape." Instead, they simply reiterate one or another aspect of Schafer's argument. This kind of uncritical engagement with the term is precisely what makes it so interesting and so vexing: its resonance is undeniable, but what, specifically, the term means is never explored, defined, or adequately framed in any of the three works. In other words, "soundscape" sounds good but means little.

Richards' book is a collection of articles that, she argues, provides a "look at some of the ways in which composers and performers have attempted to convey a sense of the place that is Australia through musical means" (Richards 2007: 2). Richards asks how composers and sound artists have rendered the idea of "Australia" sonically. However, by focusing on composers' articulations of their own ideas of how Australia sounds, she moves the "soundscape" out of the environmental realm and into the purely artistic. Focusing on composition and art amplifies the ways in which particular artists conceive of the sound of Australia, but tells us little about the sonic life of the country, broadly considered.

In this way, Richards adheres to Schafer's original usage – a usage which only ventures into the artistic in its author's dreamier visions of composing how the world ought to sound. Although a composer himself, Schafer is not interested in the "soundscape" as a strictly artistic venture, as Richards is. Instead, his idea of the "soundscape" is tied explicitly to environmental dangers on the one hand and, on the other, the social order which, if acoustically designed, can become a symphony of sorts. Richards uses his term in her title in order to evoke a correspondence between space and sound, but by turning purely to the arts, she performs Schafer's notion of "ear training" in extremis, amplifying the ways in which artists imagine or desire Australia to sound, rather than attending to the complexities embedded in the sonic dimensions of the country. There's no sound here outside that which the artists imagine, and (to revert to the parable with which this article opened) Mackey's dream solo is the only one that exists.

To be sure, composers and sound artists engage with sound in ways that do reveal aspects of particular places or particular

moments. One can listen to Mozart or Jay-Z and gather insights about the larger cultures in which they lived and worked, but, abstracted from larger sonic circumstances, music's ability to share those insights remains rather limited. Music is always but one sonic phenomenon among many, and, no matter how much music one hears, it cannot approach the complex meanings attached to sound as it is made by non-artists, and as it is heard beyond the gallery, the headphones, or the concert hall. Richard's use of the term extracts it from these broader conversations which were precisely the ones that so occupied Schafer in the first place.

Charles Hirschkind's The Ethical Soundscape attempts to engage with sound in a more holistic manner, offering an ethnographic study of the circulation of sermon cassettes in Cairo. Hirschkind argues that the sermon cassettes foster the sense of an Islamic counter-public. However, the author fails to interrogate Cairo's sonic dimensions in any great depth. He spends the most of the book examining the content of the sermons rather than tracing the variety of ways in which people attend to the sermons or analyzing how listening impacts one's identification with this Islamic counter-public. In one of the more illuminating passages in this regard, Hirschkind offers the following explanation of the relationship between cassettes, sound, listening, and ethics:

> Played in public transport, in shops, garages, and cafes, sermon tapes reconfigure the urban soundscape, imbuing it with an aural unconscious from which ethical reasoning and action draw sustenance. In other words, beyond their utility as a distraction from toil, such media create the intensifying sensory background for the forms of social and political life that the Islamic Revival has sought to extend. Sermon tapes enable their listeners to orient themselves within the modern city as a space of moral action, with its characteristic challenges, threats and daily problems. (Hirschkind 2006: 22; italics in original)

Despite his attempt to locate sermon tapes within Cairo's sonic environment, Hirschkind poses them against the din of urban life. In his analysis, sermon cassettes offer an opportunity for "ethical listening" that promises to raise a listener out of his (and it generally is his) "toil." Arguing that the tapes offer more than a "distraction" – though they offer that, too – Hirschkind interprets them as an alternative venue for moral and political action. Although the cassettes circulate within Cairo's sonic environment, ultimately, their value and meaning rest on their ability to offer a way out of it, not on their amplification of life within that sonic terrain.

Hirschkind's use of the term "soundscape" aligns closely with Schafer's but does little to critique or develop the idea. Both men express their preference for a kind of disciplined listening that can

lift a listener out of the noise of modern life, and both posit recorded sound as being at odds with the soundscape more generally: Schafer holds that recorded sound disrupts the organic order of the soundscape, while Hirschkind offers cassettes as a kind of ethical antidote to noisy urban life. In this way, both men position recorded sound against broader sonic environments, instead of examining them as constitutive of them. In order to make this argument, Hirschkind has to tune out much of the sound of Cairo in favor of listening primarily to the specific content of the tapes themselves. Hirschkind's ethical soundscape ends up sounding congruent to the cassettes, as he focuses on their ethical content rather than the sonic contexts in which they are recorded, traded, sold, and heard. By focusing on content instead of context – **what** is heard rather than **how** or **where** it is heard – Hirschkind reinforces some of the limitations of Schafer's idea and confuses his own descriptive project with Schafer's prescriptive one. By turning to the idea of the "soundscape" to frame his own work, Hirschkind actually turns a deaf ear to Cairo's broader sonic environment and uncritically reiterates Schafer's narrowly prescriptive sense that the "soundscape" is really just a setting for disciplined listening, and not something one is supposed to hear.

While Hirschkind perhaps inadvertently illustrates some of Schafer's shortcomings, John Picker's **Victorian Soundscapes** inverts them, focusing on Victorians as opposed to their soundscapes. In his book, Picker offers a rich account of the meaning of sound in Victorian literary culture. Ultimately, though, he focuses more on Victorian subjects than Victorian sounds. He writes, "the development of Victorian self-awareness was contingent on awareness of sonic environments," and goes on to claim that "in turn, to understand how Victorians saw themselves, we ought to understand how they heard themselves as well" (Picker 2003: 11). Although Picker addresses the work of Hermann von Helmholtz and the invention of telephone and recording technologies, he focuses primarily on their deployment as literary tropes in Victorian fiction. They are important metaphors for understanding changes in self-perception and relationships. But they rarely move beyond metaphor.

Picker's analysis of representations of sound in literature evidences a keen ear and a sense of subtlety, and he introduces a novel approach to sonic phenomena. However, by reducing sound to a rhetorical construction – as opposed to a larger, social one – Picker fails to critically engage with the notion of the soundscape. Rather than falling prey to Schafer's notion of soundscape as pretense, Picker pushes it further into the background, focusing on conceptions of sound rather than sound itself. To be sure, Picker is a scholar of literature, so his focus on texts makes sense. However, his recognition of Schafer (ibid.: 13) and his titular use of Schafer's term indicate an unfulfilled promise about the focus of the book. It is not really about Victorian soundscapes at all – though it does provide

thoughtful readings of the metaphor of sound in British fiction of the period.

Picker both departs from and adheres to Schafer's notion of the soundscape. While foregrounding the "soundscape" as a key term in his analysis, Picker ultimately employs it in only the most general terms: to evoke a connection between sound and place. By using "soundscape" as a kind of backdrop for a larger study of literature, Picker follows Schafer and ends up neglecting what the Victorian era sounded like in favor of how authors thought or wished it sounded. Favoring the ideal over the actual, and the interior over the exterior, Picker echoes Schafer, Richards, and Hirschkind in his privileging of sound as something to be orchestrated, arranged, and choreographed within an artistic or ethical framework. Like Schafer, each of the above authors neglect sound in order to focus their attention on listeners, and how those listeners become artistic, literary or ethical subjects.

I am not certain if Richards, Hirschkind or Picker would locate themselves within the field of sound studies, nor am I convinced that any of the three intended to make an intervention into the conversation that Schafer initiated. However, despite the promises of their titular uses of "soundscape," the books fail to engage critically with Schafer, and thus might have been better suited by different titles that captured or evoked the ways in which they understood sound in their particular contexts. While the titles capitalize on the resonance of Schafer's idea, the books fail to engage the idea of the "soundscape" beyond its most superficial reading. Picker, Richards, and Hirschkind promise engagements with Schafer, but ultimately enjoy the term for its resonance – how it ought to sound – rather than attending to its internal contradictions and complexities.

Soundscape Scholarship II: Reshaping the Soundscape

Conversely, three works that use "soundscape" critically and that engage Schafer while also struggling with his legacy are Kay Kaufman Shelemay's Soundscapes (2006), Barry Truax's Acoustic Communication, (1984) and Emily Thompson's The Soundscape of Modernity (2002). Though each book uses the term, each also ups the ante on Schafer's original definition and forces its readers to reconsider the term and its general usage. Each book capitalizes on the resonance of the term, but ultimately has to redefine or reframe it for its own purposes. In this way, they each benefit from the evocative term, but they also reveal the distance between its resonance and its application

In order for Kay Kaufman Shelemay to borrow the term as the title for her 2001 ethnomusicology textbook, she has to completely redefine it:

> While Schafer compared his soundscapes to specific landscapes, likening them to the geographic terrains that typify

> a place or region, here we will more often compare a soundscape to a seascape, which provides a more flexible analogy to music's ability to both stay in place and to move in the world today, to absorb changes in its content and performance styles, and to continue to accrue new layers of meanings. (Shelemay 2006: xxxiv)

Swapping Schafer's rigid analogue of the "landscape" for the more fluid "seascape," she opts for a more flexible definition of the relationship between sound and context that can account for sound wherever it is encountered while also accounting for the routes by which it got there.

Yet, for her, the idea of the soundscape functions as a metaphor for understanding the relationship – any relationship between sound, its meaning, and its context. "To better understand a soundscape," she writes, "we need to attend repeated [sonic] events and to gather a range of additional information about their sound, setting and significance" (2006: xxxv; italics in original). As a metaphor for framing the teaching of ethnomusicology, the idea of the soundscape is helpful, but the book focuses primarily on music as it travels and how students ought to approach listening to and understanding that music in context. By focusing on music, Shelemay effectively avoids the very aspect of Schafer's soundscape that scholars have found so provocative and enticing: the possibility that we might take a broader approach in our study of sound to incorporate non-musical elements in it. Unlike Schafer, who aspires to hear all of sound as music, Shelemay deploys the idea of the soundscape in such a way as to limit the study of sound to music.

Similarly, Barry Truax, Schafer's colleague and partner in the World Soundscape Project and his co-author on a handful of publications, has to redefine the term in order to use it and, in doing so, limits the breadth of the term. For Truax, the idea of the soundscape is not primarily musical but "communicational." In a departure from "black box" theories that imagine an input–output model of communication, Truax outlines an idea of communication that balances sound, listener, and environment in equal measure. Yet, in trying to account for context, Truax limits sound to communication, and his most elaborately detailed example is that of an "acoustic community" which he describes as "any soundscape in which acoustic information plays a pervasive role in the lives of the inhabitants (no matter how the commonality of such people is understood)" (Truax 1984: 58). By making the soundscape into a context of communication, Truax has to shrink the term to suit his desire to understand how sound "functions" (ibid.: xiv, xv).

As a frame for communication, the soundscape becomes a kind of imaginary public commons in which people can converse, listen, develop a sense of their communities, and reach some kind of civic agreement. It is a sonic context for social interaction. Echoing

Jurgen Habermas's notion of the bourgeois public sphere, Truax's communicational soundscape imagines an ideal sphere of human interaction, in which noise, incoherence, chatter, and feedback can threaten the balance that competence promises. Despite his scrupulous avoidance of the prescriptions of his mentor, Truax's version of the soundscape is still beholden to a notion of a listener who can attend to sound in order to discern signal from noise. In so doing, Truax shrinks the broad possibilities of sound to fit a smaller frame in which the most valuable sounds are those that facilitate the transmission of information intelligibly from person to person instead of allowing sound to speak for itself.

Emphasizing the relationship between social relations and sonic ones, Truax and Shelemay provide two alternative definitions of soundscape that depart significantly from Schafer's original, but both limit the potential breadth of the term and its applicability. By approaching its application more narrowly, Shelemay and Truax create opportunities for understanding social relationships that are as complicated as the sonic environments within which they are heard. Yet they do so at the expense of the expanse of Schafer's sense of the soundscape, and in their efforts to engage Schafer, they end up silencing him. By trying to heighten attention to sound, both authors engage Schafer in order to depart from and draw attention to the relationship between sound and context, between music and meaning, between aural culture and communication. Truax and Shelemay turn away from Schafer in order to borrow his language and they both attempt to reconfigure his soundscape for use within contexts where sound matters far more than silence.

The relationship between sound and silence has found yet another reconceptualization in Emily Thompson's book, The Soundscape of Modernity, in which she uses the term to frame the ways in which aesthetic and scientific concerns informed how builders and scientists approached sound and silence as both problems to overcome and ideals to pursue. Thompson's book is a dense and rigorous analysis of the aesthetic and scientific developments that shaped how people approached, understood, and tried to control sound during the first third of the twentieth century. Driven by the sonic challenges of modern life – noisy streets, echoic lecture halls, radio broadcast booths – a whole cast of characters devoted themselves to cultivating spaces in which the natural acoustic properties of the space could be diminished or, better yet, controlled entirely. Beneath these attempts to control sound, Thompson found an underlying commitment to an idea of sound that "had little to say about the places in which it was produced or consumed" (Thompson 2002: 3). The protagonists of her story sought to create sound that could be isolated or abstracted from its context. They tried to manufacture "pure sound."

The conception of sound as something utterly disconnected from the specific places of its production or consumption, she argues,

became the dominant understanding of sound during this period. During the 1920s and 1930s, design became sleeker and more streamlined, music, art and literature grew more abstract, so the very notion of sound followed suit. Ironically, Thompson argues, the abstraction of sound from context, combined with technological advances in acoustics, informed the construction of new urban landscapes. The paradox at the center of her argument revolves around the notion that the desire for "pure sound" that could be treated abstractly demanded the development of particular technologies and the construction of new buildings. By highlighting the tension between the idea of perfect, abstract sound and the technological apparatuses (buildings, acoustic tiles, microphones, and so on) necessary to create that phenomenon, Thompson offers a new interpretation of the relationship between sound and its context during the first part of the twentieth century. For Thompson, the sound of modernity shapes the landscape of modernity, which alters the book's focus slightly; ultimately, the book is more about the impact of sound on space than the impact of space on sound.

In this way, Thompson focuses more on the **sound** of modernity than on its sound**scape**. By so doing, her use of Schafer's term outdoes Schafer himself, whose own use of the term is caught in a similar tension but cannot seem to rise to her level of analysis. For both authors, modern life is characterized by sound run rampant, yet each examines a dramatically different strategy for facing that circumstance. In both cases, too much noise presents a problem, and in both cases, the solution lies in the mitigation or diminution of background noise. For the subjects of Thompson's book, the solution lay in abstracting sound completely from its context and developing technologies to control it. For Schafer, the solution is only accessible not by attending to sounds as they define or characterize a particular place, but by learning to listen selectively, tuning out the noise and leaving only music.[6]

Even for the writers who critically engage with Schafer's term, the term itself proves elusive. Shelemay limits her redefinition to music, Truax focuses on communication, and Thompson emphasizes sound over soundscapes. In each case, Schafer's notion of the soundscape recedes in favor of each author's reassessment of its use, meaning, and context. Each one of these authors takes Schafer seriously, but in order to make his term work analytically, they have to reformulate it almost entirely.

Ironically, one of the most successful studies of sound avoids the term entirely. Alain Corbin's **Village Bells** (1998) traces the rise and fall of church bells in the cultural and political life of French country villages. It is an exceptional piece of scholarship in which Corbin uncovers a whole semiotic system in regard to the size, meaning, style, and length of a bell-peal during the nineteenth century. The book traces the rise and fall of bells and their meanings and provides a sensitive case study of the social life of sound. To describe the

relationship between the sound of the bells and their context, Corbin uses the term "auditory landscape" rather than soundscape (Corbin 1998: 307). Moreover, the book does not reference Schafer and, despite both authors' appreciation of bells, Corbin, who writes in the tradition of the Annales School of historiography, does not appear to have been influenced by Schafer or his terminology in any way. The lack of a connection to Schafer is precisely what makes Corbin's work so interesting and important in this context: it throws Schafer's assumptions into stark relief.

Corbin's close reading of French village bells both situates their sounds firmly in their social and cultural environment, and traces an historical narrative that, significantly, runs precisely counter to Schafer's. For Schafer, the rise in industrial noise led to the decline of the significance of the bells. However, Corbin found something far more interesting, as he refuses to lay responsibility for the decline of the bells at the doorstep of industrial noise. Instead, he concludes that "many different factors [that] account for this decline," including a decrease in the relative power of the church, and an increase in the prominence of printed material. He writes, "In the nineteenth century, posters, printed summonses, the dials of private clocks, and calendars gradually ensured the predominance of the visual" (Corbin 1998: 307). For Corbin, the rise of modern machines did not mute the symbolic and sonic power of the bells. Instead, he credits the rise of competing systems of communication – including the relatively quiet act of reading.

When Corbin does turn his attention to the popularization and spread of the steam engine and the siren, a further significant corrective to Schafer's argument emerges. These inventions "gradually deprived the bell of the seal of modernity that had initially been its own. In the twentieth century, amplifiers have wrested from the peal of bells its monopoly of solemnity" (Corbin 1998: 307). Again, the reason for the diminution of the bells' stature was not necessarily the increase in noise, but the fact that the increase in noise-making technologies leveled the sonic playing field. For Corbin, modernity did not intrude on the pastoral countryside; the technologies of the countryside finally caught up to the bell. Corbin's close analysis of French village bells dismisses Schafer's dystopian historiography and instead amplifies the complicated reverberations between sonic phenomena and social anxieties.

Corbin's work provides a model of scholarship on sound because it grounds its account of village bells in the social and cultural relationships of the French countryside. What he describes, then, is not a soundscape at all, in Schafer's terms, but is something more complex, more rigorous, more sophisticated and detailed. Corbin does not describe a soundscape at all, but rather he documents and amplifies the social and cultural relationships that accrue around a particular sound and the material of its media. Corbin attends to the sounds of his setting and avoids soundscapes entirely but in so

doing, he poignantly captures what many authors mean when they use the term in the first place. So why, then, does the term continue to resonate and circulate, and what does its popularity have to tell us about the future of sound studies?

Background Noise

”Soundscape” seems, at first listen, to provide precisely that theoretical richness and rhetorical brevity that we are seeking. There is, embedded in it, an echo of the relationships between space, sound, and social life that occupies the center of much of sound studies. However, upon closer inspection (sic!), the term is fraught and inconsistent, and even the most cautious and careful uses of it seem to employ it obliquely, at best. Yet, that ought not diminish either the power of the term’s appeal nor the strength of the works in question. Thompson, Shelemay, Hirschkind, Truax, Picker, and Richards all use the term to describe a particular set of relationships that involve sound and social phenomena. Yet, none of their usages resonates with Schafer’s original definition of the term.

Is this a problem with the word or with the field that the term helped cultivate? What is it about sound studies that this term is so widely cited but so inaccurately used? The issue here, I am arguing, is that this emerging field of scholarly and artistic interest is selling itself short by continuing to employ the term willy-nilly, without accounting for its original definition. And by so doing, we are muffling the internal nuances and contradictions that prove so engaging and encouraging, in the work that we do. I am not yet prepared to dispense with the term altogether because, despite this critique, I believe the term makes a important contribution to the work of scholars of sound.

Schafer’s vast and slippery explanation of the soundscape offers little or no workable model for studying the social life of sound. The eponymous book is at times polemical, at times broadly historiographic, and at times dreamily theoretical. It confuses sound and listening, it is rife with odd contradictions, and it bears a strong bias against recorded music of all kinds, even though Schafer himself was involved in and urged others to pursue the recording and cataloguing of sound. Yet, the term still resonates, and it does so well beyond the bounds of the book.

The term’s popularity rests precisely in its ability to evoke a whole complex set of ideas, preferences, practices, scientific properties, legal frameworks, social orders, and sounds that the emerging field of sound studies is – in truth – having a difficult time getting its collective minds around (anecdotally, have you ever tried telling someone at a party that you “study sound?”). With the field very much in its early stages, the terms of this conversation are still up for grabs, such that Michelle Hilmes could subtitle an article about the field “does it matter?” (it does, she concludes) (Hilmes 2005). Are we studying sound art? Are we advocating for more thoughtful flight

paths for airlines? Tighter noise regulations? More sophisticated legal frameworks for understanding the reproduction of digital sound? The vicissitudes of live musical performance? Acoustics? Are we studying how people speak to one another? Accents? The sound of saxophone solos in dreams? All of the above? These questions do not necessarily pose problems for the field. In fact, the vibrancy of these manifold questions and the variety of ways in which scholars of sound approach these questions are some of the reasons the field is so active and rich. But the indeterminacy of the field remains unsettling in some ways. In a strange but appropriate metaphor for the field in general, Nate Mackey's narrator captured the slippage between dreaming and waking in the grooves of a record, in which background noise became the medium for describing the relationship between sound and social life.

Schafer's notion of the soundscape refers to background noise, but background noise no longer exists solely in the background. It has become the focus of so much scholarship on sound. When Schafer relegates his own idea to background noise for "acoustic designers," he predicts the direction that much scholarship on sound has followed. Although Schafer ultimately wants to silence background noise, much of contemporary scholarship on sound has endeavored to turn the volume up, in order to hear it better. The soundscape may only be background noise, but background noise both attracts our attention and helps us make meaning out of particular sounds and ways of listening.

Employing the soundscape as a meaningful term in itself is less productive than Schafer intended. Scholars of sound have adopted the term as shorthand, often for the more complex set of relationships that constitute the social life of sound. Without attending to Schafer's idiosyncratic explication of the term, it seems both relevant and productive for its evocation of a "sonic landscape," but, in truth, it remains too vague to be particularly useful. However, approaching it again through the works that it has inspired (and one that it has not), reveals both how prescient and problematic both the book and the term remain. By calling our attention to the soundscape as background noise, Schafer amplifies its importance even though he fails to acknowledge it.

New Directions in Sound Studies

As studies of sound continue to proliferate, Schafer's notion of the soundscape grows both more and less significant. Its sustained popularity indicates that it still resonates for scholars of sound, yet its problematic and uneven use suggests that its resonance alone cannot sustain its usage among scholars of sound. Seeking a way out of his own dystopian narrative, Schafer turned to "acoustic designers" whom he imagined could design the future by listening more attentively, and turning cacophony into choirs. For Schafer, the soundscape becomes mere background noise for the acoustic

design of the social world and for the ultimate orchestration of modern life.

Yet, for most recent scholars of sound, background noise has become the headlining act. For Alain Corbin, background noise included all of the ways in which French village bells signified elements of the social order, not just the sound of the bell, no matter how pure. Brandon LaBelle took background noise as the title of his history of sound art (2006), and Emily Thompson never would have written her book were it not for background noise in the first place. Background noise is not background at all.

What makes noise and sound meaningful in the first place is precisely the sonic and cultural context against or alongside of which it emerges. In terms of sound, this includes the delicate balance of signal-to-noise, or the scraping sound of the needle in the groove. When listening to music, one hears more than just the timbres of instruments, the pitches of notes, the resonance of harmonies, the pulse of the beat, or the grain of the voice. When one listens to music recorded in one place and taken somewhere else (which is, incidentally how most residents of North America experience most of their music), people hear more than just the music – they hear the jarring interplay of contexts. They hear cultural conflict. Metaphorically, we can speak of these in terms of the background noise in the traces of cultural context that are transmitted in/on/alongside/through sound. Similarly, sounds that penetrate windows and cross transoms, echo or otherwise refuses to stay in their "natural sockets" create productive tensions between the sound, the context and the listener that are inherent to the negotiation of meaning. In other words, even when people try to listen to sound, they hear the background noise.

To study sound means to attend to background noise not as something to be tuned out or silenced, but as a critical component of acoustic phenomena, and making informed distinctions about sound is a social process in which context plays a crucial role. Schafer's term, then, continues to resonate because it suggests that the relationship between sound and context truly **does** matter to scholars of sound. His notion of the soundscape calls attention to the background of sound and suggests that attending to sound can amplify critical aspects of social and cultural life that otherwise fall on deaf ears.

Yet, for all its promise, Schafer's discussion sells his own theory short. Limited by his own prejudices and preferences, Schafer's notion of the soundscape ends up sounding hermeneutically hollow – much more hollow than many of the studies that have followed him. Indeed, Schafer's original intention – to silence background noise – seems at odds with his own legacy in which background noise does not prevent the production of meaning, but becomes intrinsic to it.

Perhaps, then, Schafer appreciated sound too much, and wanted, like Thompson's protagonists, an opportunity to hear sound without noise. In his urgency to silence the noise of contemporary life and train his ears and those of his students to tune out sounds that don't matter, Schafer forgot that mattering happens in conversation with the soundscape. By working so hard to silence it so as not to intrude on his idealistic "soniferous garden," Schafer neglected the sounds that first gave him pause, and spurred him into writing in the first place.

In other words, Schafer, like Mackey's protagonist, woke thinking he was playing music, but was in fact, hearing background noise. Nate Mackey's first-person protagonist only wakes from his dreamy solo once the background noise becomes more important than the notes. The incidental scrape of the needle on the groove turns the story from a dreamy recollection into an engagement in the complex relationship of sound and meaning. This relationship – between the sound N thought he heard and the sounds he actually did hear, between Schafer's noisy soundscape and his acoustically designed listening experience – lies at the heart of sound studies. Schafer's notion of the soundscape promises to frame that debate, but ultimately raises more questions than it answers. And isn't that what we want to hear from one of the field's foundational texts?

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Notes

1. The past decade has seen an explosion in books on sound from a variety of disciplines. For examples from Art History, see Kahn (1999); Licht (2007); LaBelle (2006); Drobnick (2004). For examples that focus on technology and commerce, see Suisman (2009); Milner (2009); For an intervention from Architecture, see Blesser and Salter (2004). From Anthropology, see Ingold (2008). For examples from history see Rath (2003) and Smith (2001). From film studies, see Altman (2004).
2. Any internet search of the term "soundscape" pulls up thousands of uses, from arts organizations to audio technicians, to record labels to music promotion companies. A search will also generate hundreds of examples of "soundscape" documentary-type projects.

3. www.soundscape.com (accessed November 13, 2009).
4. I am not the first to critique Schafer, but this is the first article-length address of his foundational text's shortcomings. For other critiques, please see Toop (1995); see also Arkette (2004); Gasior (2005); LaBelle (2006)
5. Of course, this aspect of acoustic phenomena has attracted the most scholarly attention. For just a few recent examples, see Gelatt (1977); Sterne (2003); Katz (2004); Anderson (2006); Erlmann (2004).
6. He explains that if people learned to listen with greater precision, the "problem of noise pollution would disappear" either through these interventions or through "a worldwide energy crisis" (Schafer 1993: 181).

References

Altman, Rick. 2004. **Silent Film Sound, Film and Culture**. New York: Columbia University Press.

Anderson, Tim J. 2006. **Making Easy Listening: Material Culture and Postwar American Recording, Commerce and Mass Culture Series**. Minneapolis: University of Minnesota Press.

Arkette, Sophie. 2004. "Sounds Like City." **Theory, Culture and Society** 21: 159.

Blesser, Barry and Salter, Linda-Ruth. 2004. **Spaces Speak, Are You Listening? Experiencing Aural Architecture**. Cambridge, MA: MIT Press.

Bull, Michael. 2000. **Sounding Out the City: Personal Stereos and the Management of Everyday Life (Materializing Culture)**. Oxford: Berg.

Cage, John. 1973 (1961). **Silence: Lectures and Writings**. Middletown, CT: Wesleyan University Press.

Corbin, Alain. 1998. **Village Bells : Sound and Meaning in the 19th-century French Countryside** (**European Perspectives**). New York: Columbia University Press.

Davis, Bruce, Barry Truax, and R. Murray Schafer. 2009. "Five Village Soundscapes." in H. Järviluoma, **et al**. (eds), **Acoustic Environments in Change**. Tampere: TAMK University of Applied Sciences.

Drobnick, Jim. 2004. **Aural Cultures**. Toronto, Ont. and Banff, Alta.: YYZ Books; Walter Phillips Gallery Editions.

Erlmann, Veit. 2004. **Hearing Cultures: Essays on Sound, Listening, and Modernity**. Oxford: Berg.

Feld, Steven. 1982. **Sound and Sentiment: Birds, Weeping, Poetics, and Song in Kaluli Expression**. Philadelphia: University of Pennsylvania Press.

Feld, Steven. 1994. "From Schizophonia to Schismogenesis: On the Discourses and Commodification Practices of 'World Music' and 'World Beat'." In S. Feld and C. Keil. (eds), **Chicago Music Grooves**. Chicago: University of Chicago Press.

Gasior, Lisa. 2005. "The History of Soundscape: Soundscape as History." A paper presented at the Canadian Communication Association Conference, Western University, London, Ontario, Canada. In possession of the author.

Gelatt, Roland. 1977. **The Fabulous Phonograph, 1877–1977**, 2nd rev. edn. New York: Macmillan.

Gomery, Douglas. 2005. **The Coming of Sound : A History**. New York: Routledge.

Helmholtz, Hermann L.F. 1912 (1854). **On the Perception of Tone as a Physiological Basis for the Theory of Music**. A. Ellis (trans). New York, NY: Longmans, Green and Company.

Hilmes, Michelle. 2005. "Is There a Field Called Sound Culture Studies? And Does It Matter?" **American Quarterly** 57 (1): 249–59.

Hirschkind, Charles. 2006. **The Ethical Soundscape: Cassette Sermons and Islamic Counterpublics** (**Cultures of History**). New York: Columbia University Press.

Ingold, Tim. 2008. "Against Soundscape." In A. Carlyle (ed.), **Autumn Leaves: Sound and the Environment in Artistic Practice**. Paris: Double Entendre.

Järviluoma, H., et al. (eds). 2009. **Acoustic Environments in Change**. Tampere: TAMK University of Applied Sciences.

Jay, Martin. 1993. **Downcast Eyes: The Denigration Of Vision In Twentieth-Century French Thought**. Berkeley: University of California Press.

Kahn, Douglas. 1999. **Noise, Water, Meat: A History of Sound in the Arts**. Cambridge, MA: MIT Press.

Katz, Mark. 2004. **Capturing Sound: How Technology Has Changed Music**. Berkeley: University of California Press.

LaBelle, Brandon. 2006. **Background Noise : Perspectives on Sound Art**. New York: Continuum International.

Licht, Alan. 2007. **Sound Art: Beyond Music, Between Categories**. New York: Rizzoli International Publications.

Mackey, Nathaniel. 1986. **Bedouin Hornbook**, 1st edn. Lexington: University of Kentucky.

Milner, Greg. 2009. **Perfecting Sound Forever: The History of Recorded Music**. London: Granta Books.

Ong, Walter J. 2002. **Orality and LIteracy : The Technologizing of the Word**. London /New York: Routledge.

Picker, John M. 2003. **Victorian Soundscapes**. New York: Oxford University Press.

Rath, Richard Cullen. 2003. **How Early America Sounded**. Ithaca, NY: Cornell University Press.

Richards, Fiona. 2007. **The Soundscapes of Australia: Music, Place and Spirituality**. Aldershot, UK/Burlington, VT: Ashgate.

Schafer, R. Murray. 1969. **The New Soundscape; A Handbook for the Modern Music Teacher**. Don Mills, Ont.: BMI Canada.

Schafer, R. Murray. 1970. **The Book of Noise**. Wellington, N.Z.: Price Milburn.

Schafer, R. Murray. 1973. **The Music of the Environment**. Wien: Universal Edition.

Schafer, R. Murray. 1993. **The Soundscape: Our Sonic Environment and the Tuning of the World**. Rochester, VT: Destiny Books.

Schafer, R. Murray, Howard Broomfield, Bruce Davis, Peter Huse, Colin Miles, and World Soundscape Project. 1973. **The Vancouver Soundscape**. Burnaby, B.C.: World Soundscape Project Sonic Research Studio Dept. of Communication Simon Fraser University (sound recording).

Schwartz, Hillel. 2004. "The Indefensible Ear: A History." In M. Bull and L. Back (eds), **The Auditory Culture Reader**. Oxford: Berg.

Shelemay, Kay Kaufman. 2006. **Soundscapes : Exploring Music in a Changing World**, 2nd edn. New York: W.W. Norton.

Smith, Mark M. 2001. **Listening to Nineteenth-Century America**. Chapel Hill: University of North Carolina Press.

Sterne, Jonathan. 2003. **The Audible Past: Cultural Origins of Sound Reproduction**. Durham: Duke University Press.

Suisman, David. 2009. **Selling Sounds: The Commercial Revolution in American Music**. Cambridge, MA: Harvard University Press.

Sun Ra Arkestra, Verna Gillis, and Ra Sun. 1994. **Live : Soundscape**. New York, N.Y.: Soundscape : Disk Union (sound recording).

Thompson, Emily Ann. 2002. **The Soundscape of Modernity: Architectural Acoustics and the Culture of Listening in America, 1900–1933**. Cambridge, MA: MIT Press.

Toop, David. 1995. **Ocean of Sound: Aether Talk, Ambient Sound and Imaginary Worlds**. London/New York: Serpent's Tail.

Truax, Barry. 1984. **Acoustic Communication**. Norwood, N.J.: Ablex Publ. Corp.

Truax, Barry (ed.). 1978. **Handbook for Acoustic Ecology**. Vancouver, British Columbia: World Soundscape Project, Simon Fraser University, and ARC Publications.

Truax, Barry. 2001. **Acoustic Communication**, 2nd edn. Santa Barbara, CA: Greenwood Press.

World Soundscape Project. 1974a. **The Vancouver Soundscape**. R. Murray Schafer (ed.). No. 2 in "The Music of the Environment Series." Vancouver: ARC Publications.

World Soundscape Project. 1974b. **Soundscapes of Canada**. World Soundscape Project, Sonic Research Studio, Department of Communication Studies, Simon Fraser University. Canadian Broadcast Corporation (audiorecording).

World Soundscape Project. 1977. **Five Village Soundscapes**, R. Murray Schafer (ed.). No. 4 in "The Music of the Environment Series." Vancouver: ARC Publications.