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Book review

Spaces Speak, Are You Listening? Experiencing Aural Architecture, Barry Blesser, Linda-Ruth Salter. The MIT Press, Cambridge, MA, UK (2007). 436pp., US\$39.95, ISBN: 0-262-02605-8

Barry Blesser, a pioneer of digital audio, served on the MIT faculty from 1969 to 1978 as an Associate Professor of Electrical Engineering and Computer Science. Subsequently he has worked as a technical and management consultant.

Linda-Ruth Salter has a Ph.D. in Interdisciplinary Studies from Boston University. Her doctoral dissertation examined the nature of sacred space in secular societies. Currently she is Assistant Professor in the Humanities and Social Sciences at New England Institute of Technology, where she contributes to the fine and performing arts curriculum in a technology context.

Founded on a lifetime of assiduous research and practice, *Spaces Speak*, *Are You Listening?* is a timely and welcome addition to the rapidly evolving discourse on aural culture in relation to the built environment. It is an uncontroversial assessment to claim that at the current stage of development, *Spaces Speak* is the definitive study on what the authors have named *aural architecture*:

The composite of numerous surfaces, objects, and geometries in a complicated environment... (Blesser & Salter, 2007, p. 2)

From this definition one might assume that this demarcates the already well-established territory of the architectural acoustician; however, what makes this book invaluable at this moment in time is its inter/pandisciplinary, even, dare I say, holistic approach. Rather than concentrating on, "the way that the space changes the physical properties of sound waves" (p. 5), aspects which are adequately covered in extant literature, "aural architects focus on the way that listeners experience the space" (p. 5):

An aural architect, acting as both an artist and a social engineer, is therefore someone who selects aural attributes of a space based on what is desirable in a particular cultural framework (p. 6).

Such a role is not the exclusive domain of professionals; however, as we select a seat in a concert hall or arrange loudspeakers in our living room, we too become aural architects.

Aural architecture provides us with "acoustic cues that can be interpreted as objects and surfaces," "influence our moods and associations" (p. 2) and can be imbued with "social meaning" (p. 3). This approach is a subtle but vital elaboration on Murray Schafer's definition of soundscape, as explained by the authors in one of their culinary metaphors:

...sonic events are the raw ingredients, aural architecture is the cooking style, and, as an inseparable blend, a soundscape is the resulting dish (p. 15).

Encompassing such a wide scope calls into play a multitude of disciplines bringing concomitant challenges for the authors, i.e. competing jargon and concepts, differing foundations and goals, conflict of interests, etc. In this regard, from the outset Blesser humbly asks for our pardon, in the case of errors and "speculative foolishness" (p. xi). Agreed, it is not possible to provide expert knowledge and pertinent insight on all the disciplines that are referred to in the text. From my own core discipline, as a sonic arts practitioner, I find I have to question a number of assertions concerning arts practice interleaved throughout *Spaces Speak*. I disagree with the following statements:

- "Composers of acousmatic music expect reduced listening [i.e. focusing on the intrinsic qualities of sound] because there is no visual or event anchors to connect sounds to musical instruments" (p. 183). Acousmatic music can engage, and composer of acousmatic music can seek to engage, the whole gamut of cognition that listening has to offer.
- A more general statement—"accuracy is unnecessary, and even irrelevant" (p. 238), when an artist considers the "relationship between acoustic parameters and spatial perception" (p. 238)—should also be taken with a "gain of salt" in my opinion.

Nevertheless, the intellectual prowess wins over, and we are provided with a rich bibliography to follow-up any of the concepts posited, most of which are funded on peer reviewed academic practice. When concepts are not corroborated by citation, the authors are referring to reflection on their own experience and opinions, which I must say, on the whole are strongly persuasive.

I found that Chapter 7, "Spatial Innovators and Their Private Agendas" encompassed the broadest range of discourses, including chunks on tribalism of academic culture. Interesting as this is, it is primarily derived from literature review, and I did not find that it added much to expounding the intricacies of aural architecture. On the contrary, the section exploring the "the inner world of signal-processing architecture" (p. 261) in Chapter 6, "Scientific Perspectives on Spatial Acoustics", may lose some readers due to its specialization. Having said that, the language throughout is very clear and precise, and allows the general reader access to many sophisticated theories. Concepts (e.g. Hass Effect) are never introduced for their own sake nor in isolation—they are always woven into the fabric of the discussion and employed as working concepts. The most speculative section is Chapter 8, "Auditory Spatial Awareness as Evolutionary Artifact". Here the broad literature review and general combined erudition of the authors provides a fascinating and innovative account.

As well as setting out the research field through reflection on extant research and their own experiences and evaluations, there is an underlying mission. Prior to reading *Spaces Speak*, I was under the impression that an acute knowledge of architectural acoustics learnt and employed by different cultures throughout history had simply been lost in time, be that Neolithic tombs or Gothic cathedrals. However, Blesser convincingly argues that, "aural architecture is the incidental consequence of unrelated sociocultural forces" (p. 5). And this is a point that he returns to:

Thus we may conclude that indifference toward aural architecture is only a reflection of cultural values (p. 235).

[If] there is little encouragement or opportunity to acquire, let alone develop, auditory spatial awareness, our society will surely have an impoverished aural architecture (pp. 331–332).

To spell out this predicament the authors play off aural aspects with the ocular. In this regard aural phenomena assumes the default position as a poor cousin to the visual in the contemporary context. This is a well-rehearsed debate: McLuhan (1966), Ong (1967, 1999), Schafer (1994), etc. A linage that Jonathan Sterne in *The Audible Past* (2003) has referred to as "the audiovisual litany" (Sterne, 2003, p. 5):

idealiz[ing] hearing[...] as manifesting a kind of pure interiority. It alternately denigrates and elevates vision: as a fallen sense, vision takes is out of the world. But it also bathes us in the clear light of reason (p. 15).

Sterne asserts that this is a cultural orientation derived from the vestiges of "religious dogma" (p. 16), as it "is essentially a restatement of the long standing spirit/letter distinction in Christian spiritualism" (p. 16). Blesser and Salter attempt a balancing act between sight and sound,

which includes and goes beyond the biological, psychological and physical, acknowledging the social and cultural. However, it is manifest that at times this becomes overtly combative at the cost of critical distance, resulting in such provocative yet arguable statements as: "sound is actually more complex than light" (Blesser & Salter, 2007, p. 215). This approach, however, does not weaken a pressing concern raised for generations of children being brought up in front of the TV, aural architecture that the authors regard as abject:

Our children are acquiring their aural attitudes from the spatial and sensory legacy of now several generations of aurally impoverished listeners (p. 332).

The authors clearly see a pivotal role here for digital audio to "enrich that legacy" (p. 332).

The overall mission in *Space Speak* then, is general education and development of disciplinary links and discourse. Moreover, thanks to technological developments through *virtual architecture* the authors begin to envisage a world where such concerns need no longer be subservient to *other* "sociocultural forces":

With advances in technology, and a corresponding interest in virtual spaces, aural architecture may now begin to lead the culture, as the visual arts have for so long (p. 363).

Spaces Speak is a worthy addition to a sparse lineage of existing literature on sound culture and environment, i.e. Murray Schafer's The Tuning of the World (1977); Barry Truax's Acoustic Communication (2001); the proceedings of Sound Practice: the 1st UKISC conference on sound, culture and environments (2001); Emily Thompson's The Soundscape of Modernity: Architectural Acoustics and the Culture of Listening in America, 1900–1933 (2004); "Time and Visibility: Essays on Sound and Architecture", Issues #3 (2002) and #4 (2004) of Earshot, the UK and Ireland Soundscape Community's journal. An ideal accompaniment to Spaces Speak is Jean-François Augoyard and Henry Torgue's Sonic Experience: A Guide to everyday Sounds (2005): a book that also practices an interdisciplinary agenda, in this case comprised of an annotated glossary.

In regard to current debates, *Spaces Speak* will be a valuable guide to soundscape studies in regard to the built environment, as this emergent field begins to make more of an impact with urban design, e.g. 'Sounder City', the Mayor's Ambient Noise Strategy (Greater London Authority, 2004) and the Engineering and Physical Sciences Research Council (EPSRC) *Noise Futures Network*, and *Positive Soundscapes Project: a Re-evaluation of Environmental Sound* developments, which aims to have meaningful "artistic, qualitative, scientific and practical outputs" (Positive Soundscapes Project, 2008).

In conclusion, from reading and imbibing the trajectory of the argument and the multitude of concepts encountered on the way, this reader, who has been working with environmental sound issues for more than a decade, finds himself unwittingly listening to the environment in a more nuanced manner. Moreover, peppered throughout the text we encounter some inspiring gems of creative ideas such as aural wallpaper:

a wall that had a pattern of conch shells embedded in it, thus creating a pattern of resonances at different frequencies-like variations in aural color (Blesser & Salter, 2007, p. 59).

There are inevitably gaps and oversights, e.g. the omission of Iannis Xenakis in relation to Philips Pavilion or Pierre Schaeffer *vis-à-vis* reduced listening. However, on almost every page there is erudite wisdom to ponder and take forward into practice. In particular, the discussion on reverberation, "that is a result of "millions of sonic reflections [...] or millions of resonances" (p. 250), has helped me to comprehend and read space more closely, offering a cognitive, psychoacoustic and perhaps evolutionary background to my interpretation. Sound events have been transformed into "hundreds and millions" (p. 247) of "bells of space" (p. 247).

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