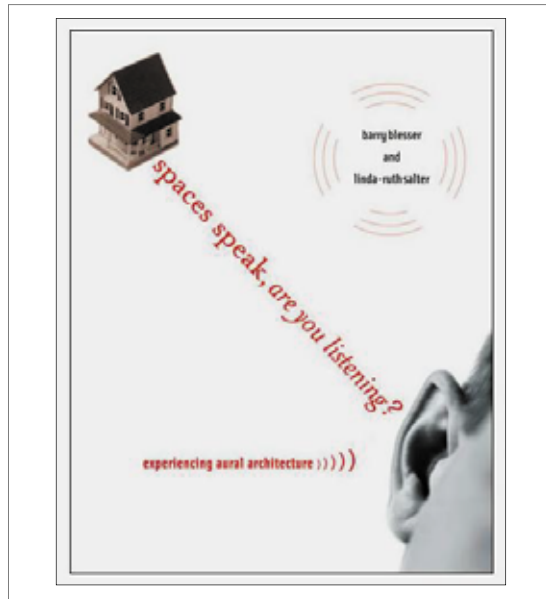


## SPACES SPEAK, ARE YOU LISTENING?: EXPERIENCING AURAL ARCHITECTURE

By: *Barry Blesser and Linda-Ruth Salter*

(MIT Press, Cambridge, MA, USA. 2007) ISBN 0262026058

**Abeer A. Hasenin**



Intrigued by the arguments introduced in “Spaces Speak,” as an environmental graphic designer and a visual artist I find myself need a moment of reflection about the responsive arguments and the knowledge qualities

offered by Dr. Blesser and Dr. Salter. They are discussing some of the missing components that continued to receive little or no attention from those who are working in built environment related fields. Thus, soon when I knew about the book I decided to do this review for ArchNet-IJAR. However, because am not an architect or spatial designer, I also decided to rely on what was written about the book. In this sense, this review should be regarded as a collection of reviews.

“Spaces Speak, Are you Listening” is constituted in nine chapters that address critical issues of concern to the design community. The first chapter introduces issues that pertain to aural architecture and how it can contribute to a better experience of spaces. The second chapter introduces a number of issues under the heading of the auditory spatial awareness including hearing spaces, navigating spaces by listening, and the social components of aural architecture. In the third chapter a number of social and cultural issues are explored by reflecting on some evolutionary aspects of aural space from antiquity to modern times. It discusses how social forces influence the aural

experience of space while critically analyzing how emerging trends such as industrialization has a dramatic impact in terms of the way in which it can create new aural attitudes.

Chapters four, five and six introduce aural arts and musical spaces and inventing new virtual spaces for music while at the introducing some scientific perspectives on spatial acoustics. These three chapters can be seen in trans-disciplinary terms as while discussing spatial issues the cross the boundaries of different art and engineering disciplines. While chapter seven critically analyzes how social values may contribute to careers in the field of aural architecture, under the heading of spatial awareness as evolutionary artifact chapter eight argues for the notion of hearing as a means of navigating and communicating. Again, it can be seen in trans-disciplinary terms as it covers issues that pertain to the interdependence of biology, nature, and culture. Chapter nine offers highlights and concluding comments on how aural architecture can contribute to a better understanding of space. In fact, crossing the boundaries of disciplines is one the important qualities of "Spaces Speak ..."

I tend to see the book in terms of corresponding to the complexity that characterizes our current thinking and research when discussing, analyzing, or designing spaces. Now, we are witnessing a shift in the grounds of research in both the sciences and the arts from a concentration on disciplinary needs and history of things/issues, to an emphasis on how needs of one discipline are connected to knowledge goals and aspirations of other disciplines. In other words, it can be argued that no one theory will have the upper hand

is solving spatial problems and no discipline can make strong claims anymore about its own direction, value, and output in isolation from what is happening in other areas of research. In essence, the book does not take aural architectural in technical terms, but involves a trans-disciplinary thinking, where the study of auditory spatial awareness of aural architecture is introduced in a manner that covers concepts stemming from music, acoustics, perception, psychology, anthropology, engineering, theology, archeology, biology, neuroscience, history, and architecture. This is not all; a number of concepts are introduced to cover issues derived from the accumulated cultural traditions over the years.

In introducing aural architecture, the authors argue that "We experience spaces not only by seeing but also by listening." This means that there is a possibility to navigate a room in the dark, and "hear" the emptiness of a house without furniture. Our experience of music in a concert hall depends on whether we sit in the front row or under the balcony. The unique acoustics of religious spaces acquire symbolic meaning. This is evident in most religious buildings of various faith traditions including churches and mosques. Strikingly, the argument of the authors goes beyond the physical experiences of human beings in space but introduce the social component. They argue, and rightly so, that social relationships are strongly influenced by the way the sound is changing in space.

"The audible attributes of physical space have always contributed to the fabric of human culture, as demonstrated by prehistoric multimedia cave paintings, classical Greek

open-air theaters, Gothic cathedrals, acoustic geography of French villages, modern music reproduction, and virtual spaces in home theaters. Auditory spatial awareness is a prism that reveals a culture's attitudes toward hearing and space. Some listeners can learn to "see" objects with their ears, but even without training, we can all hear spatial geometry such as an open door or low ceiling. (Blesser and Salter, 2007)"

Based on the trans-disciplinary quality of the arguments of the book, it establishes the concepts and language of aural architecture. These concepts provide an interdisciplinary guide for anyone interested in gaining a better understanding of how space enhances our well-being. Aural architecture is not the exclusive domain of specialists.

Unlike pure psychological studies on hearing which are focusing only on the perceptual qualities of intensity, frequency, temporal effects, tonal attributes, this book places aural architecture in context. It critically views the components of aural architecture to include many types of spatiality. However, five of these are emphasized: social, musical, navigations, aesthetic, and symbolic, all of which enhance our understanding of how human hearing and the power of sound contribute to the experiential quality of space.

Discussing the ideas and concepts presented in this book with many academic and professional spatial designers I come into contact with, I would like to add my voice to those who have endorsed the book, and call for a rethinking of the introductory courses in schools of architecture and environmental

design. Beginning design students are typically introduced to the visual paradigm of space and only the visual, and this is apparent in design fundamentals or basic design courses. These courses are to develop students' abilities of articulating abstract visual principles, and comprehend design elements based on these principles, but the aural component is dramatically missing. As aural architecture should be seen as an indispensable component when discussing design fundamentals, these courses should benefit from such the book and the way in which sound and hearing influence the qualities of space design. As well, environment-behavior courses that are introduced in both undergraduate and graduate programs are focusing only on the human experience in visual, functional, and behavioral terms. Still, the aural component is missing. Therefore, I would suggest this book to all design educators who are either teaching basic design courses or environment-behavior courses. It is a must read as it covers one of the ignored or oversimplified issues in space design.

### What Was Said about "Spaces Speak,..."

Endorsements of *Spaces Speak*:  
Retrieved from *Spaces Speak Website*  
(<http://www.blesser.net/index.html>)

"Blesser and Salter have thoughtfully synthesized a wide range of technical, aesthetic, and humanistic considerations of aural architecture to create a valuable interdisciplinary resource for anyone interested in thinking about sound, space, and society." **Emily Thompson**, Professor of History, Princeton University, and author of *The Soundscape*

*of Modernity: Architectural Acoustics and the Culture of Listening in America, 1900-1933*

"This wide-ranging, articulate, and probing investigation of how humans listen helps us to appreciate the value of natural and constructed acoustics. It also shows that our sense of the space of sound has largely been lost in the vast library of recorded music. This book will change how you listen. Well done!" **Floyd Toole**, Vice President of Acoustical Engineering, Harman International Industries.

"The authors present a groundbreaking synthesis of auditory spatial awareness as it has developed from cave acoustics through the modern concert hall to digital simulations of virtual spaces. Drawing on numerous disciplines, they summarize the scientific and cultural knowledge of the subtleties of acoustic spaces in a clear and readable manner, while challenging our social values about the optimal design of those spaces. A must-read for every student of architecture and aural culture." **Barry Truax**, Professor and Composer, Simon Fraser University.

"At last, a book that reveals that spaces are meaningful beyond their acoustics! I was captivated by this impressively well-documented book, and recommend it to anyone with an interest in acoustics or architecture." **Jean-Dominique Polack**, Professor of Acoustics at the Université Pierre et Marie Curie, Paris.

"This book is a serious overview of aural architecture and its growing importance in our world. Its comprehensive range—from historical essay to technical and social aspects of the field—makes it an important addition to the existing literature on this subject." **Karen Van Lengen**, Dean and Edward E. Elson Professor, School of Architecture, University of Virginia.

## Selected Resources

A lecture by Dr. Barry Blesser in Belmont library, Belmont, Massachusetts  
[http://www.blesser.net/downloads/Lecture\\_edited\\_64.mp3](http://www.blesser.net/downloads/Lecture_edited_64.mp3)

Association of Integrative Studies – Newsletter (May 2007)  
<http://www.blesser.net/downloads/AIS%20May07.pdf>

Research Design Connections (Winter 2007)  
<http://www.blesser.net/downloads/RDC%20Review.pdf>

List of Published and Unpublished Articles  
<http://www.blesser.net/Articles.html>

Glossary of Terms for Aural Architecture  
<http://www.blesser.net/downloads/Glossary.pdf>

## Who are the Authors of "Spaces Speak,..."

Biography of the authors as retrieved from Spaces Speak Website  
<http://www.blesser.net/index.html>

**Dr. Barry Blesser** has spent the last 40 years exploring the influence of cognitive and perceptual psychology on the design and implementation of technology. His doctoral thesis, the perception of spectrally rotated speech, conclusively demonstrated the existence of a variety of cognitive strategies that are available for decoding speech. As one of the pioneers of digital audio technology during the 1970s, he transformed his fantasy of a portable concert hall into the first commercial

artificial reverberation system, which was used extensively in the creation of recorded and broadcast music. He demonstrated the relevance of perceptual strategies in his study of the diagnostic accuracy of medical radiologists. In the early 1980s, his research on how humans read handprint resulted in the creation of a startup company that developed an automated recognition system. While Dr. Blesser has focused on creating and implementing technology as a technical and management consultant, he also integrates the arts and social sciences into the design process. As an independent scholar, he has spent the last 5 years researching the new concept of aural architecture, which led to his current passion: the social consequences of functional deafness when in corrosive acoustic environments. Acoustics is an inseparable combination of the hard and soft sciences. See also his extended [biography](#) for more information.

**Dr. Linda-Ruth Salter** was a pioneer in crossing discipline boundaries when she obtained a Ph.D. degree in Interdisciplinary Studies from Boston University in 1984. Her doctoral dissertation examined the nature of sacred space in secular societies. Additional research showed the significance of place and spatial memory in maintaining group identity. Dr. Salter has consulted in the area of research and planning for a successful built environment in public housing, educational and business spaces, and has taught urban studies at Boston University. As a consequence of living in Asia, studying Sumi-ink painting, and her interest in the symbolic meaning of material culture, Dr. Salter created a specialty in promoting historic indigenous crafts by founding an international

Asian fine arts business. Recently, Dr. Salter co-authored the first scholarly article on Qing Dynasty belt ornaments, which emphasized their symbolic and social role in Chinese society. Presently she is Asst. 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. Fusing and integrating the fine arts, technology, and social science is her specialty.

**Dr. Blesser and Salter**, a husband and wife team of 35 years, fused their collective knowledge and experience of the physical and social sciences to create the concepts of auditory spatial awareness and its manifestation as aural architecture. *Spaces Speak* embodies their shared philosophic bias: technology changes the social and artistic aspects of culture, while at the same time, culture influences the properties.