

Aural Architecture

Spaces Speak, Are you Listening: Experiencing Aural Architecture, by Barry Blesser and Linda-Ruth Salter. *MIT Press, 55 Hayward Street, Cambridge MA 02142-1315, 2006. 544 pp., index. Price: \$US 39.95.*

Blesser is a former professor at MIT and a founder of digital audio. He has worked for the last forty years at the junction of audio, acoustics, perception, and psychology. His wife, who is the co-author, has spent a quarter of a century on post-doctoral studies focusing on the inter-disciplinary relationship of art, space, culture and technology.

This book is not entirely the result of the computer age, but a very large part of the discussion is concerned with creating a virtual aural space for a recording, for a film, or for a radio transmission in place a physical recording in an auditorium. The author explains in an introductory note that this book relates his adventure story about transforming a narrow topic that had engaged his professional interest for thirty years into a set of broader issues. In the 1970s, he developed and commercialised the first digital signal-processing products for the recording industry: an audio delay and an artificial reverberator. A quarter of a century later, this has expanded into a multi-billion dollar industry permeating our culture and supporting thousands of innovators making incremental contributions. Looking backwards it is now clear to Professor Blesser that his initial goal of electronically reproducing the auditory experience of a concert hall had a much broader meaning. Therefore, in this book he has expanded that limited engineering goal into an interdisciplinary research project: the experience of space by attentive listening, because the aural architecture of spaces requires a consideration of the artistic, the social, the historical, and the philosophical context.

Blesser notes that auditory spatial awareness can be traced back to pre-history. Many blind people, and some with good eyesight, can sense in the dark the existence of walls and other obstacles, and this must have been a factor in the prehistoric tribes who made their homes in these caves. He then reviews this history of aural space from this prehistoric era to the present day, including the Greek and Roman theatres, the highly reverberant Gothic cathedrals, and the acoustic geography of traditional European villages.

Thereafter he discusses the use of musical spaces for the aural arts, including the use of sound absorption and reverberation; if the time interval between the original and the reverberant sound is small, the two merge, but a greater interval produces a distinctive separate sound, and a still greater interval an echo; the invention of virtual spaces for the presentation of music is then considered. Later in the book, he discusses the recreation of much larger Greek-style theatres, such as the Hollywood Bowl with the aid of modern sound reinforcing devices. This takes up the first half of the book, and it should present no problems for architects or musicologists with some knowledge of acoustics.

The second half is concerned with modern music presentation, and with the creation of virtual spaces for music reproduction. A good knowledge of computer technology will make the reading of this part more rewarding.