

Building Acoustics

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CRC Press, Boca Raton, FL, (2015),

248 pp., softbound, 46.76 USD, eBook, 34.97 USD,

ISBN: 978-1-4665-8244-6

This is an interesting book but I am not sure if I should pan it or praise it.

The first chapter, "Introduction," states that the book is "*devoted to the field of building acoustics*" and as such one would expect something that is very focused. However as soon as we get into the second chapter, "Acoustics", the author starts to move in many directions including history, levels, weighting, dB operations, propagation over a wide range of surfaces, source directivity, indoor and outdoor sound propagation, barriers, insulation (both airborne and structural), reverberation time, intelligibility, annoyance and disturbance, standards, law, and let us not forget active noise control. All of which happens in only 32 pages with two extra pages dedicated to listing 79 references. Let us not forget that this "primer section" includes a total of 43 (forty-three!) examples (short case studies) that cover all of the aforementioned topics and range from "*HVAC Large Building*" to "*The Longest Propagation*" to "*The Noise from a Cock*" (Watch it! He means "rooster") as well as another case study titled "Barking Noise and Other Animal Noise" (the rooster does not qualify as an animal?). There are some equations (neither properly formatted nor numbered) as well as some figures, which are numbered but which could be greatly improved in terms of content.

After reading the first two chapters, the questions that popped in my mind were "*Did this book ever get edited? Who is it written for?*" Do not misunderstand me: all of the topics are of relevance to the field of building acoustics but there is no focus as to who the intended audience is, nor to the direction that the book is following. As an example of the lack of editing, in the third chapter, "Building Acoustics," Figure 3.1 showing "*Direct and flanking transmission between rooms*" is a simplified version of Figure 2.2 "*Acoustic transmission paths*

between spaces." Similarly, Figure 2.7 "*Spatial sound level decay*" re-appears exactly as Figure 3.3 (same title). And if the book is called *Building Acoustics*, why is there a need for a chapter with the same name?

Here is another example of the lack of editing in this book: Chapter 9, "Other Spaces used by the Public," starts with the following sentence "*As implied by their denomination, other spaces used by the public are public spaces that do not have the glamour of performance halls or the functionality of offices*". Thus any logical-thinking reader will question the fact that "Theatres and Cinemas" or "Music and Concert Facilities" appear as chapters 12 and 13, respectively, i.e. after the chapter dedicated to "the other spaces"!

This is disappointing as the author tried to structure almost all of the chapters into simple and organized sections that always follow the same order 1) Introduction, 2) Requirements, 3) Acoustic targets, 4) A few basic rules, then one or two specific sections (if needed), and finally examples/case studies. Furthermore, almost all of the information presented in the chapters ranges from useful to very useful, so it is a disappointment to see how it was arranged.

My suggestion to the publisher for a future edition would be to allow for some major "cut-and-paste" by someone who knows the topic and who can focus the direction toward a specific audience. Start by shortening the "Acoustics" chapter and transfer the materials as introduction to more dedicated chapters. Just re-arrange the materials (no need to delete much) and then follow the simple organized structure for the sections (maybe highlight the examples/case studies to make them easy to locate). Finally, order the chapters in a logical fashion.

All of the components for a great book are in place.

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