

Acoustical Designing in Architecture
Vern O. Knudsen and Cyril M. Harris
Originally published in 1950; Reprinted in 1980

Chapters

Properties of Sound	Reduction of Solid-Borne Noise
How We Hear	Control of Noise in Ventilating Systems
Speech and Music	Sound-Amplification Systems
Reflection and Diffraction of Sound in Rooms	Auditoriums
Open-Air Theaters	School Buildings
Sound-Absorptive Materials	Commercial and Public Buildings
Special Sound-Absorptive Constructions	Homes, Apartments, and Hotels
Principles of Room Acoustics	Church Buildings
Acoustical Design of Rooms	Radio broadcasting, Television, and Sound-Recording Studios
Noise Control	
Reduction of Air-Borne Noise	

Appendix

Coefficients of Sound Absorption
Tables of Sound-Insulation Data
Conversion Factors and Physical Constants

Preface to ASA Edition

It has been thirty years since publication of the original edition of *Acoustical Designing in Architecture* (and six years since the death of my coauthor, Vern Knudsen). During this period, students in my classes at Columbia University, as well as practicing architects, have continued to find the text a valuable tool in the study of the principles of architectural acoustics and their applications to the solutions of practical problems. This is because the primary emphasis of the book is on principles, which do not change with time since these are based on the laws of physics.

Of course there have been numerous changes in details of application. Therefore in the new paperback edition, such obsolete material from the original edition has been deleted and a number of illustrations have been replaced with more recent examples. Changes in terminology, as well as other changes, have been introduced by way of footnotes rather than by resetting the original text. This has made possible the production of the paperback edition at a small fraction of what it would otherwise cost, thereby greatly increasing its availability to students.

Through publication of the *Journal of the Acoustical Society of America*, through its semiannual technical meetings, and through its sponsorship of committees and on standardization, the Acoustical Society of America has done more for the field of architectural acoustics than any other organization. To further this activity, all royalties from the new paperback edition have been assigned to the Society.

Cyril M. Harris March 1980, Columbia University

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