

### **Acoustical Design of Music Education Facilities**

Edward R. McCue and Richard H. Talaske, Editors,  
Acoustical Society of America, Melville, NY, (1990),  
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The material in this book is in part a result of the compilation of various papers presented at an Acoustical Society of America (ASA) meeting special session, organized by its Technical Committee on Architectural Acoustics. It is uncommon for a book to provide this level of acoustical engineering in combination with the required steps of taking a music facility from design concept to the final stage of construction, inclusive of construction cost analysis. As with most books that are a collection of papers from the ASA, this book is well organized in a format intended to convey the content to a multitude of professions. In this case, the book is intended for those whose goal is to have the design and construction of a dedicated music facility succeed. Thus, this book's appeal includes architects, music educators, administrators, designers, contractors and acousticians. Even the index makes it easy to find information in the book on related topics, audio equipment and construction material, etc.

The book begins with 11 essays that describe the basic considerations which should be applied in the planning and design stages, from defining the design team roles, cost control guidelines, as well as the acoustical requirements from acoustical separation to acoustical environment. With the process defined, case studies are then presented. The case studies, or projects, are from around the world and are presented by numerous notable acousticians. The subtle differences of the various design and acoustic outcomes, from reverberation time to noise criteria, are an interesting and easy read. The projects are

organized to show not only the architectural drawings but also the acoustical values that were included in, or resulted from, the design of the music facility. This detailed perspective on the flow of design to build, along with the budget, is a good guideline that will hopefully prevent the reduction or alteration of the specified acoustical material. This can occur if the budget begins to exceed the original planned funds, which often is the demise of any beautifully engineered space.

As music students overcome the purely technical limitations of their instruments, they begin to develop an awareness of their acoustical environment. Unfortunately, an incorrect acoustical environment can distort the musical notes and thus the intended meaning of the music tone and phrase. Thus, the understanding of the acoustical outcomes of the space is critical for a better understanding of the design and construction goals even to those that do not have an acoustical background. The acoustical limitations of a music education facility can seriously detract from the educational process. Instructors may love a room for one musical activity but possibly not for another. Although a recent trend is to design "tunable rooms" to deal with this dilemma, without a strong foundation of the basics, it is not possible to know the range that the design should consider. Although the essays are from 1989, the acoustical concepts are timeless and set the foundation of this book.

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