Halls for Music Performance: Another Two Decades of Experience 1982–2002
Ian Hoffman, Christopher Storch and
Timothy Foulkes, Editors
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The book belongs to a series of poster books published by the Acoustical Society of America (ASA) and covers a legacy of a whole collective effort, mainly compiled from two sources: the earlier book, *Halls for Music Performance Two Decades of Experience 1962–1982* written about the same matter and the experiences provided by the consultants that participated directly in the design of the music halls.

The volume is published by ASA as the result of the poster sessions sponsored by the Technical Committee on Architectural Acoustics (TCAA) and presented at the 141st ASA Meeting in Chicago, June 2001, and 143rd Meeting in Pittsburgh, June 2002.

The organization of *Halls for Music Performance* is logical and comprehensive. The essence of the book is chapters detailing the halls with subsequent sections giving halls indexed by location and by acoustical consultant, and a list of (some) halls not included.

The book, reflecting more than two decades of experience, constitutes the celebration and chronicle of the evolution of the acoustical design of music halls over 20 years, a book that any professional working in the acoustics field must read and have as a part of his or her library.

This interdisciplinary approach and highly collaborative effort starts with William Cavanaugh from the ASA encouraging poster sessions, followed by the acknowledgement of the contributors, the number of projects, the meetings organized by ASA, and the huge and personal effort of the authors.

The editors, Ian Hoffman, Christopher Storch and Timothy Foulkes, continue, complement and honor the preceding works of Richard Talaske in *Halls for Music Performance Two Decades of Experience 1962–1982*, Michael Barron in *Auditorium Acoustics and Architectural Design*, David Bradley in *Acoustical Design of Theaters for Drama Performance: 1985–2010*, and certainly, Leo Beranek in Concert and Opera Halls, *How They Sound*.

The technical and architectural information contained in the book is by several contributors and includes drawings, color photographs and technical and physical data about 142 halls for music performance, located in 16 different countries, encompassing the work of 15 acoustic consultants.

Scrolling through the pages of the book is a journey crossing worlds among acoustics, architecture and music hall design. A wonderful trip thru four continents that is full of colors and depicted with high quality photographs, drawings and relevant acoustical data. The variety of music halls: 80 from USA; 32 from Japan; 8 from UK; 3 from Canada and Peru; 2 from Australia, Denmark, Singapore, Spain and South Korea; and finally, 1 from Brazil, Finland, France, Malaysia, Russia and Switzerland, offers a sensation of vertigo due to the multiplicity of hall shapes, geometries, dimensions, uses, seating capacities, stage location, side wall materials, ceiling, balconies, drapery, etc.

It is very interesting to realize how acoustical design quality has been progressing in recent years and to discover the fundamental elements of such a transformation. I definitely agree with the editor's remarks that traditional well founded methods have not been substituted but have been complemented, streamlined, refined, and augmented with new technological tools, and measurement and instrumentation methods. This is especially true in a transition from hand to computer drawings; physical scale modeling to prototype laser studies, 3D computer modeling for acoustic simulations or visualization, sightline and seat layout and size optimization, boundary and finite element analysis of walls and materials, and auralization; and from large analog equipment to small, fast, and multifunctional digital instruments.

It is refreshing to read and rediscover the richness of tools used in highly customized acoustic enhancement systems and acoustic adjustability, such as movable ceilings, coupled volumes, variable apertures, acoustic controlled moving banners, curtains and panels.

It should be stressed that, including 142 music hall projects, with a such widespread characteristics, implies an extraordinary effort to organize the acoustical data in a contrastable way, particularly considering that they come from different information sources, so the objective and subjective tests are precisely designed to evaluate and compare different acoustical spaces, and is still a field that requires a tremendous work. Perhaps that is why the acoustic information included into the book has been presented with a very conservative approach, almost reduced to the very basic magnitudes of reverberation time and background noise; and going further to Early Decay Time, Clarity C_{80} or C_{50}, Sound Strength G, Lateral Fraction, LEV_{calc}, or Interaural Cross-Correlation $IACC$ in a few cases.

Taking for granted that one of the primary purposes of the book is to serve as a reference for acoustical designers, consultants and students of architectural acoustics, the goal is successfully achieved thanks to the quality, quantity and how authors systematized the information presented.

I deeply enjoyed reading this book, the pictures starting with the cover image, are just fantastic, the vast amount of information presented by the contributors and synthesized by the editors has no waste at all; by reading this book, definitively is an invitation to continue traveling along the Poster Collections Series of the ASA books.

The book is a must-referent for both students and acoustics professional consultants involved in the design of concert halls.

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