

Researchers in Auditorium and enclosure design

Auditorium and enclosure design (see also 43.50.Gf, Jh)

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- Auditorium and enclosure design

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Abstract

2005: Arau Higinì

Renovating Teatro alla Scala Milano for the 21st century, Part II

J. Acoust. Soc. Am. 117, 2522 (2005)

The acoustic phase of La Scala renovation began in September 2002, after the main stalls and other sections of the theater were demolished. This assignment was twofold: (a) design of the auxiliary building with architect Mario Botta, and more importantly, (b) collaboration with architect Elisabetta Fabbri in restoration of the auditorium through acoustic analyses of proposed solutions. Only one set of acoustical measurements was known to be taken before demolition; and reliance had to be placed on hearsay from audience members. The author used his own computer program that included some of the salient features of other programs such as Odeon, Epidaure, Raynoise, etc. but avoided their pitfalls. This program was the only one that correctly predicted the known RT of the auditorium through the use of H. Arau Purchades formula [Arau, H., 1988. *Acustica*. Hirzel Verlag ;65(4), 163–180] and the authors dimension theory [Arau, H. 1997. Variation of the reverberation time of places of public assembly. *Building Acoustics* ;4(2).]. A new floor was designed to provide sufficient vibration transmission to the audience, actuating as a radiation box installed to direct sound vertically. Music Director Ricardo Muti pronounced the acoustical results as being excellent.;