

## THE ACOUSTICS OF THE NEW MASSEY HALL

Report of the II Technical Meeting of the CAA  
Toronto Chapter, September 29, 1980



By Courtesy of  
Arthur Erikson, Architects  
Toronto

We are sincerely pleased to report that this meeting was again a success because of the quality of the speakers as well as of the number of attendants.

The meeting was again held in the Ontario Hydro Auditorium, where over 60 members and guests (among them Lenn Blizzard with a bunch of enthusiastic George Brown students), assembled to hear the presentations and to ask questions.

Our first speaker was Mr. Keith Loffler, Director of Operations, Arthur Erikson and Ass., Architects. He presented in a very lively manner some background of the Massey Hall project. Then he concentrated on the design of the hall itself and how it had changed from early "imitations" of the Boston Hall and the actual Massey Hall to its final shape. Impressive slides of different models used during the study showed how the hall was then "enclosed" into the building and how it is related to the projected development.

The question and answer session that followed Mr. Loffler's presentation was lively and helped everyone get a more comprehensive idea of the whole project.

The highlight of the coffee break following was the pastries prepared by Mrs. Oetlinger which were much better accepted than the traditional donuts.

The second part of the meeting was the presentation by Dr. Theodore Shultz. He started with an overview of some of the existing concert halls and the underlying characteristics that are considered as fundamental for their musical quality. After reviewing the importance of reverberation time, he concentrated on early acoustic reflections and how to obtain and control them. He then explained how these concepts are applied in the New Massey Hall.

Specific acoustical details discussed were as follows: Sound absorbing banners hanging from the center of the ceiling will change the reverberation time from 1.5s to 2.5s in steps of 0.25 by raising or lowering parts or all of them. Another highlight is reflecting surfaces over the podium that reflect the sound toward the audience. Other details discussed were the very low background noise (NC = 15) and the particular arrangement of some of the seats behind the podium.

Dr. Shultz's well known skill as a speaker enabled him to present in an easy manner some of the fundamentals behind the design of the acoustics of the hall.

The question and answer period following complemented well the whole presentation.

We all enjoyed very much the excellent presentations as well as the fact of having such an enthusiastic audience.

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## NOISE AND VIBRATION CONTROL ENGINEERS

An experienced senior engineer is required as a consultant/engineer. Also, recent engineering graduates at Bachelors, Masters and Doctorate level with applicable academic background need as project engineers. For both positions competence in several of the following fields is desirable :

- environmental noise studies
- architectural acoustics
- in-plant noise control--analysis, design & implementation
- noise and vibration control product design
- vibration analysis/structural dynamics--analysis & design

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