

W51 - Acoustics



The bi-annual meeting of Working Commission W51 Acoustics was held in Paris on 7th and 8th September 1998 and Joint Coordinators Gerrit Vermeir and Heiko Martin have kindly provided the following brief report of what transpire there.

The actual meeting place was in Marne-la-Vallée on the invitation of J. Roland, Director of the Acoustics Division of CSTB who in the same week inaugurated their new facilities for building acoustic testing. This was of course a splendid occasion for the members of the group to meet at the CSTB campus.

The meeting was attended by 30 participants among whom was CIB Secretary General W. Bakens. In his contribution he informed the audience about the goals of CIB and the strategy pursued at the General Secretariat.

Three themes

In accordance with the conclusions of the previous meeting in Antwerp in 1996, the joint Coordinators had organised the Paris meeting around three themes.

The first dealt with experiences and research work on high sound insulation. The second theme concerned approaches for quality labelling and interior sound environment. The third took the form of an informative session about actual research work and about the progress in local acoustics research.

The high sound insulation work was discussed by D. Pedersen (Denmark), R. Van Luxemburg (The Netherlands), A. Osipov (Belgium) and J. Mathijs (Belgium). D. Pedersen discussed several examples of high sound insulation. The other contributions focussed on the low frequency sound insulation (LF). This places the real limits on the higher global values and the LF results were shown to depend in a large amount on the geometry of walls and rooms. Also, several problems concerning interpretation, measurement and reference spectra remain.

Quality labelling was treated by E. Gerretsen (The Netherlands) for the Dutch approach and by C. Simmons (Sweden) concerning the Nordic approach.

Interior sound quality was discussed by K. Roy (USA) and vibration disturbance from the Warsaw underground by M. Niemas and J. Sadowski (Poland). The conclusion of this session was clear: there already exist clear quality labelling systems capable of being applied and which could be evaluated on a larger scale. It was also clear that any interior noise evaluation procedure should use the most recent advances in modern psych-acoustics.

J.P. Vian (France) presented the work of CSTB in the field of electro-acoustical improvement of room acoustics by the CARMEN system.



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The session on research contained several interesting contributions on parameter analysis in sound insulation (R. Craik, UK), and several contributions about junction damping analysis (I. Bosmans, G. Vermeir, Belgium, C. Hopkins, UK, H. Martin, The Netherlands, W. Beentjes, The Netherlands). M. Villot (CSTB, France) presented research results pertaining to the approach for standardised measuring of installation noise. The theoretical and practical research of CSTB on acoustics lining was described by Mrs. Guigou-Carter (France). The session concluded with a report on the new acoustics laboratory of LABEIN in Bilbao by Mrs. Cortes (Spain) and the presentation of the acoustical work being undertaken at the Building Research Institute in Warschau (A. Izewska and J. Sadowski, Poland).

Future Meetings

The meeting ended with a brief overview and general conclusions from the work presented. A decision was taken as regards the next meeting. The TU Eindhoven and TNO invited the group to organise this meeting in conjunction with the International Building Physics Conference in Eindhoven, September 2000 on the theme Tools for Design and Engineering of Buildings. This invitation was accepted. Mrs. Cortes, LABEIN, Spain, also invited the group to meet in Bilbao. The Coordinators recorded their thanks for both invitations. After Eindhoven, Bilbao will be the upcoming meeting place.

W51 expressed its particular gratitude to the CSTB team and its Director for the excellent facilities that had been provided. The technical visits to the new laboratory and to the Opéra de la Bastille had been very appropriate opportunities to experience the splendid acoustic realisations of the team. The delightful dinner which had been offered by the hosts, had proved to be a most pleasant occasion for informal exchanges between colleagues.

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