



IABSE SYMPOSIUM

VENICE 2010

*Large Structures and Infrastructures for
Environmentally Constrained and Urbanised Areas*

REPORT

RAPPORT

BERICHT

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Large Structures and Infrastructures for Environmentally Constrained and Urbanised Areas

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Preface

The IABSE 2010 World Symposium was organized by the IUAV University of Venice jointly with the Universities of Milan, Naples, Rome, Turin and Trento.

The city of Venice, that hosts the event, with its incommensurable artistic legacy, being the stage for numerous renewed infrastructural facilities, suggested the title as: “Large Structures and Infrastructures for Environmentally Constrained and Urbanized Areas”.

Considering that modern design & construction activities are part of a complex, holistic, trans-multi and inter-disciplinary process that must achieve a required reliability level, the Scientific Committee calls – in order to expand the knowledge related to particular current subjects and themes – for contributions to extend our focus from the “know-how” to the “know-why”, in designing and constructing the “what” or – better – the “what for”.

Consequently, special emphasis was given to Ethics in Infrastructure design (topic 5); still the outdated search for “Largeness” and the new Free Form Design constitute challenges for architects and engineers alike. The ethic and aesthetic repercussions of the construction’s appeal on the social context must be carefully considered based on the principle of responsibility. Furthermore, the current financial and energy crisis establishes progressively narrower limits in times of Sustainability Ethics.

Moreover, several special design aspects arise from the statistical results of the – in-service-observed behaviour of unusual morphology & typologies, new materials and the “scale effect” of super-long span bridges, wide enclosures and high rise buildings, highlighting the need for advanced methods of analysis for unconventional sensitive structural systems with uncertainties (topic 3).

The call for papers resulted in more than 400 papers received. The activity of the Scientific Committee resulted in 210 papers selected for oral presentations and roughly 150 poster presentations.

Three keynote presentations will be provided by eminent engineers during the Opening Ceremony. During the Symposium, the presentations will be arranged in plenary sessions and 4 parallel sessions.

Several papers were submitted by young engineers, confirming the strong appeal IABSE has for new generations of researchers and practitioners.

Special acknowledgements are due to the members of the Organizing and Scientific Committee for the great effort put into the organisation of the Symposium and for the high scientific level of the papers selected for the publication in this book.

The proceedings of the 2010 IABSE Symposium, held in Venice, Italy, with the contribution of authors from several Countries, represent a worldwide record on the “State of Art” from research to practice and a permanent record of some of the most interesting ongoing work in the field of Civil and Structural Engineering.

Massimo Majowiecki

Chair, Scientific Committee
Venice, September 2010



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