



In co-operation with: *Collegio degli Ingegneri della Toscana - ICOMOS Italy - Romualdo Del Bianco Foundation, Florence*
Dipartimento di Restauro e Conservazione dei Beni Architettonici, University of Florence
Accademia delle Arti del Disegno

16th IWC International Conference and Symposium
Florence – Venice - Vicenza 11th -16th November 2007

“From Material to Structure” MECHANICAL BEHAVIOUR AND FAILURES OF THE TIMBER STRUCTURES



The attention of the Scholars and of the Practitioners dealing with ancient timber architectural structures has been, up to a decade ago or so, put more on the wood as building material and less on the structural systems. The action of the biologic factors and the influence of moisture, by instance, have been deeply investigated in the laboratory and on the construction but very little has been made to study the structural systems, their behaviour in the short and long term, the typical failures when they are solicited by the "actions", i.e. own weight, snow, wind, earthquake, thermal fluctuations, settlements of the supports etc.

The previous approach led to negative judgements on the members the material of which was affected by the said factors and automatically to their replacement.

The timber structural systems behave, react and fail in a peculiar way due the characteristics of the wood. The knowledge on these topics is essential both by a theoretical and technical point of view as well by a practical one, specially when planning the strengthening of the ancient structures of the monumental buildings or of the ancient timber architectures, which require a quite conservative approach and , with a few exceptions, refuse – need: do not need - deep alterations or replacements.

The Symposium of the 16th ICOMOS Wood International Committee, toned to 40th ICOMOS Anniversary celebrated with the Exhibition in Milan, February 2007, on the theme "From Restoration to Conservation", is planned to mark the passage from the studies on the materials to the more general ones on the structural systems; the aim is to convey experiences and studies on this topic, improve the methodologies on the appraisal of the ancient timber structures and to document, in the Countries of the Members, single case studies. This can lead to an international paradigmatic knowledge on the matter to be used to recognise, in the practice, the different kinds of failure also allowing to start a first hypothetical assessment of the causes. this way encouraging the elaboration of methodologies on the appraisal of the structures.

Organizing Committee: Gennaro Tampone, David Michelmore, Paolo Del Soldato, Pier Paolo Derinaldis, Paolo Lavisca, Andrea Margaritelli, Claudio Mastrodicasa, Claudio Menichelli, Beatrice Messeri, Michela Semplici, Antonello Usai

Scientific Committee: Gennaro Tampone, Nobuo Ito, David Michelmore, Giedré Filipaviciene, Hans Sandstrom, Ario Ceccotti, Giuseppe Cruciani Fabozzi, Paolo Del Soldato, Antonio Frattari, Francesco Guerrieri ,Paolo Spinelli, Luca Uzielli, Luigi Zangheri

PROGRAMME of the first part of the event: FLORENCE

International Conference, Symposium and Technical Visits

Sunday 11th November 2007 – Wednesday 14th November 2007

11th November, Sunday

Arrivals in Florence of the Participants

From 6.00 pm Welcome cocktail at the *Collegio degli Ingegneri della Toscana, via della Scala 93, Florence (very close to the Central Railway Station) (tel.+39 055 282362)*

8.30 pm Dinner in the Restaurant Otello, *via Orti Oricellari 28/r (tel.+39 055 215819) (Not included in the participation fee)*



12th November, Monday

8.30 am Venue: *Palazzo Vecchio, Florence.*
Registrations of the Participants
Official speeches and Auspices

9.00 am *Palazzo Vecchio, Florence:*
Lecture on the Florence Patrimony

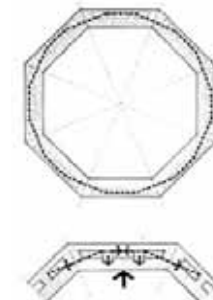
10.00 am *Palazzo Vecchio, Florence:*
Visit of the roof and ceiling by Giorgio Vasari and strengthening works made by Domenico Giraldi

11.30 am Lathing ceiling (XVIII c.) of the Church in the *Istituto degli Innocenti, piazza S.S. Annunziata*

1.00 pm Lunch in the historic centre of Florence

2.30 pm Visit of other Timber Structures of the City of Florence:

- *Catena de' Castagni* (Filippo Brunelleschi, 1425), the wooden collar tie at the base of the dome of the Cathedral
- Lathing vault (XIX c.) of the *Salone of Palazzo Serristori*



13th November, Tuesday

From
9.00 am

Full day of
International Conference and Symposium
Eger-Xi'an Principles

***From Material to Structure:
Mechanical Behaviour and Failures of the
Timber Structures***

*(Two coffee breaks and the light lunch included in the
participation fee)*



14th November, Wednesday

9.00 am

“IIBC Board Meeting” or free morning in Florence

From
2.00 pm

Visits to:

- Michelangelo’s House (Maquette of the façade designed for *San Lorenzo*)
Meeting point: *Via Ghibellina 70*, Florence

5.00 pm

Exhibition

*“Le strutture architettoniche di legno
nella World Heritage List of UNESCO e altre”*

G. Tampone and M. Semplici Scientific Editors

8.30 pm

Dinner in the historic centre of Florence
(Included in the participation fee)



PROGRAMME of the second part of the event: VENICE - VICENZA

Thursday 15th November 2007 – Friday 16th November 2007

15th November, Thursday

- Early morning Departure by bus to Venice
- Arrival in Venice and Cruise on the *Laguna*:
- Island of Torcello
 - Island of Mazzorbo
 - Island of Murano
- 1.00 pm Lunch in the the *sestiere* of Dorsoduro near the bridge of *Accademia* (Included in the participation fee)
- Afternoon Visit of some wooden carpentries in Venice:
- Church of *Santo Stefano*
 - *Palazzo dei Dogi*: the wooden ceiling of the Council Hall and the hall of Piovego
 - Church of *Santa Maria Gloriosa dei Frari*
 - Church of *San Giacomo dall'Orto*
 - Church of *San Zan Degolà*
- 8.30 pm Dinner in *Campo San Tomà* (Included in the participation fee)



16th November, Friday

- Morning Visit of the *Corderie* and the *Gaggiandre* Hall at the Arsenal
- Travel by bus from Venice to Vicenza
- 1.00 pm Light lunch during the transfer (Included in the participation fee)
- Afternoon Visits dedicated to Palladio: *Teatro Olimpico* and the nearby *Palazzo Chiericati*
- Free tour in the historic centre of Vicenza
- Departure to Florence
- 8.30 pm Dinner in *piazza della Signoria* (Included in the participation fee)



ICOMOS International Wood Committee - SECRETARIAT

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