



# Masonry International

Journal of the International Masonry Society

[www.masonry.org.uk](http://www.masonry.org.uk)

Summer 2008

## FEATURED IN THIS ISSUE:

- Monitoring of Carbon Fibre Reinforced Polymer (CFRP) Prestressed Masonry Diaphragm Retaining Walls
- Statistical Analysis and Spatial Correlation of Flexural Bond Strength for Masonry Walls
- Mortar Volume in Relation to the Volume of its Sand
- The Influence of Self-Compacting Steel Fibre Reinforced Concrete Infill on the Flexural Strength and Ductility of Masonry Walls

# The International Masonry Society

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## THE INTERNATIONAL MASONRY SOCIETY

IMS is an international Society with Members throughout the world. It provides a focus for all those involved in or interested in the manufacture of masonry materials, the design of masonry structures and their economical construction. All masonry units are included: calcium silicate, clay, concrete and stone together with mortar and the ancillary components, dpc's and straps, ties and fixings.

The Society's journal, *Masonry International*, is normally published three times each year. Each issue consists of original papers in two sections: the Bulletin with reviews and more practical papers, including case studies, and the Journal with the latest research findings, both experimental and analytical. Each Member receives *Masonry International* free of charge. Corporate Members receive two copies. Members may purchase other publications, including the Proceedings, and attend meetings and conferences at preferential Members' rates. *Masonry International* is available to libraries and others on subscription.

There are two technical meetings each year at which original papers are presented and discussed and subsequently published after peer review. Some of these meetings are major conferences, including the quadrennial International Masonry Conference.

Everyone with an interest in masonry should keep themselves up to date as a Member with the opportunity for discussion with one's peers. Membership is of special value to: architects, engineers, surveyors, builders, developers, manufacturers, teachers and research workers, users of masonry products and all those interested in the appearance and performance of the built environment.

### Enquiries

Enquiries concerning membership, subscriptions to the journal and information concerning meetings should be addressed to the Honorary Secretary: Dr K Fisher at the postal address at the head of this page.

### Payment

Cheques in sterling or bankers' drafts on a UK bank should be made payable to **THE INTERNATIONAL MASONRY SOCIETY**. The Society also has the facility to accept the following credit cards, EUROCARD / MASTERCARD / VISA / AMERICAN EXPRESS. Persons wishing to pay in this way should send their card number, date of expiry, the name as it appears on the card and the address together with a note authorising the sum to be debited and signed with the recognised signature.

## NOTES FOR AUTHORS

### Subject matter

Papers on any aspect of design, construction, maintenance, or research relating to masonry and masonry materials are invited for publication in *Masonry International*.

### Format

Contributions should be formatted with double spacing on one side of A4 paper with 25mm margins on each side. The full text should not normally exceed 5000 words and should be produced using 'MS Word'. The font should be 12pt. Arial. The text may be submitted either on a 3½" floppy disc or a CD ROM. It should, however, be accompanied by a printed version as symbols and other imported objects do not always transfer consistently in Windows and Word. Figures may either be submitted in electronic form or as hard copy on A4 paper.

### Heading and abstracts

The title should be as short as possible and include the key words a researcher might use in searching for the information contained in the paper. The authors should give their full family name but with initials only for their first names. They should state their affiliation (University, College or employer). There should be an 'Abstract' not exceeding 150 words in length.

### Notation and units of measurement

Mathematical papers should have a 'Notation' section immediately following the 'Abstract'. All dimensional units and their abbreviations should conform to SI standards. Please note, however, that the Society uses N/mm<sup>2</sup>, not MPa, for units of strength and stress. Pa should be used for hydraulic pressures.

### Tables and Figures

Tables and figures should be placed at the end of the paper and NOT be incorporated in the text. Authors may indicate where they

should best be inserted. All text and data in figures and tables MUST be sized appropriately for legibility when reduced to fit the normal format of the publication. All such tables and figures including photographs MUST be in black and white as colour will not be reproduced in the printed version. A minimum resolution of 300 dpi is required for photographs and scanned objects. All illustrations (tables and figures) must be clearly identified and include a descriptive caption. A list of such captions should be supplied as a supplement to the text. Information adequately presented in graphical form should not be repeated in tables, and vice versa.

### References

References should be indicated in the text by consecutive numerals in square brackets, e.g. [2], and should be listed in the same order at the end of the paper in the following form:

2. SMITH, T.J., BROWN, R.W. and WHITE, A. The strength of masonry. *J. Brit. Mas. Soc., Masonry International*, 3, (2), 90, 1989.

Note that: the authors are in capitals, surname first, then initials; no first names are used; the title of the paper is in lower case; the title of a book should be in *italics* and followed by the publisher and place of publication. If the correct abbreviation of the name of a journal is not known, it should be quoted in full. The volume number is in **bold** and the issue number in parenthesis () followed by the page number and date of publication. Private communications, unpublished work and restricted publications should not be quoted but may be mentioned in the text.

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## CITATION

*Masonry International* is an archival publication for original papers on research and practice in masonry materials, design and construction. All submissions to the Journal are refereed and edited. The Bulletin contains more practical papers and review articles. Material appearing in this publication, and in the separate Proceedings of the Society, has been subjected to peer review and, as such, may be cited and accepted as significant in relation to professional advancement.

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### Cover picture

*Project: Bryanston Science School  
Location: Blandford, Dorset  
Architect: Hopkins Architects  
Brickwork Contractor: Dean & Dyball Construction  
Brick: Charnwood Forest Brick Farnham Red*

### POSTAL ADDRESSES OF THE SOCIETY

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## BOOK REVIEW

The History of the Theory of Structures  
From Arch Analysis to  
Computational Mechanics

Karl-Eugen Kurrer

Publisher – Ernst & Sohn, Berlin, April 2008

ISBN: 978-3-433-01838-5

848 pages, 667 Figures, Hardback

Price approx 119 (incl taxes and shipping)

What do today's structural engineers know about the origins of structural theory? When and how did structural calculations start to be used in the design process?

This is the first book to present a holistic history of structural theory aimed at international professional circles. It is an updated and significantly expanded version of the successful German 1st edition, which was published in 2002.

Starting with a description of the strength studies carried out by Leonardo and Galileo, the book examines the development of individual structural techniques and the formation of structural theory as a discipline. Based on classical mechanics and the theory of geometry developed during the Renaissance, modern structural analysis and the theory of material strength emerged as fundamental techno-scientific disciplines. The book is the first to offer an overview of the development from conventional structural theory to structural mechanics and computational mechanics during the last century.

Brief summaries of the development of common calculation methods, supported by historic sketches, provide insights into the history of structural mechanics and present-day calculation techniques. The book explains terms such as structural theory, engineering science and the theory of material strength. It examines the aims and objectives of structural theory and the history of structural calculation techniques, iron and steel construction and reinforced concrete construction. To complement the text there are 175 profiles of significant figures from the fields of structural engineering and structural mechanics and an extensive bibliography.

Further information available:

[www.ernst-und-sohn.de/presse](http://www.ernst-und-sohn.de/presse) or contact Birgit Rüdiger, Marketing,  
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## OBITUARY

Dr Fouad Khalaf sadly passed away on the 26 June 2008. Dr. Khalaf has over 30 years experience in civil engineering and built environment teaching, research and practice. He joined Napier University in 1992, following posts at the University of Technology, Iraq, the University of Manitoba, Canada and the University of Edinburgh, before which he worked in construction in Iraq. Dr Khalaf was always involved with his students both at under and post graduate levels, and contributed to all strands of University life. He received a number of scholarships and won research funding from a variety of sources over many years. But it is his optimism, enthusiasm and willingness which most people will remember him by.