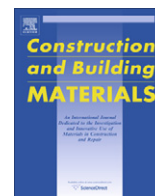




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# Construction and Building Materials

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## Editorial

Masonry is a building material that has been used for more than ten thousand years. In many countries, masonry structures still amount to 30–50% of the new housing developments. Also, most structures built before the 19th century and still surviving are built with masonry. Masonry is usually described as a composite material formed by units and joint, with or without mortar, and different bond arrangements. As a consequence of the multiplicity of materials and arrangements, masonry can behave very differently and have very different characteristics. Research in the structural field is essential to understand masonry behaviour, to develop new products, to define reliable approaches to assess the safety level or to design potential retrofitting measures.

But several others aspects need also to be addressed in a framework where sustainability, energy, quality of life and life cycle assessment (*Cradle-to-grave*) have becoming unavoidable. A holistic perspective for construction, together with innovation in masonry products and building technologies, can certainly allow masonry structures to regain more attention.

This special issue tackles several different aspects, from conservation of cultural heritage buildings to new masonry, from repair and strengthening to new design, from materials to structural elements and full structures, from walls and columns to arches and vaults, or from testing to computer simulation. The issue considers 15 contributions from different authors invited as a recognisance of their experience and contribution. This issue provides an excellent image of the complexity and interest of current research, being of interest to researchers and practitioners, and can, hopefully, contribute to further motivate young researchers in the field.

Special thanks are due to the 43 reviewers who kindly read each of the articles submitted for publication and whose comments have been a great help both to the authors and the guest editors. We wish to express our appreciation for the collaboration of: T. Aoki, M. Betti, A. Brencich, J. de Brito, C. Calderini, P.A. Calderón, J.R. Casas, G. Castori, D. Castro, M. Corradi, J.J. del Coz, G. Cultrone, B. Ferrer, A. Gabor, E. Garbin, L. Garmendía, S. Invernizzi, S. Ivorra, K. Kabbenhoft, P. Komodromos, J. Lemos, V. Lopes, C. Maierhofer, G. Marcari, G. Milani, N. Mojsilovic, F.J. Pallarés, F. Parisi, O. Rabinovitch, P. Roca, D. Sabia, S. Sánchez-Beitia, A.E. Schultz, M. Sejnoha, I. Stefanou, G. Stavroulakis, J. Tanner, V. Valek, G. Vasconcelos, R. Veiga, E. Vintzileou, C. Vogt and T. Zimmermann.

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