

The history of the Built Environment largely merges with the construction of masonry. It is estimated that the first man made constructions were the stack of small units (stone upon stone) to form a shelter about 12 thousand years ago.

The first person recognized as a construction professional, the Egyptian Imhotep, held his great achievements through a detailed design of masonry. His walls were made with standardized blocks designed to allow different arrangements. It is the first example of standardization, industrialization and modular coordination and recognition of an Architect-Engineer.

From that time until the middle of the last century it was seen a slow but steady development in materials and concepts of formal masonry constructions. Millions of remarkable buildings were produced along this period, including houses, buildings, churches, bridges and others.

After the development of steel and concrete around the mid-19th century, there was growing disinterest for the masonry “material” as an option for buildings, especially those of more responsibility.

Only after the Second World War, with the perception that the structural masonry building could be an excellent option to meet the great demand for new residential construction, there was renewed interest for the system. This was followed by the resurgence of various studies to develop the masonry field. Researches developed from that time include models of buildings, behavior of materials and components, design criteria, rules for standardization and rationalization. Gradually, research centers devoted to the subject have been created around the world.

The consolidation of several researches led to the creation of the 1st International Brick and Block Masonry Conference, held in 1967 in the United States. From that event we can say that was created a mixed Engineering / Architecture course denominated Structural masonry.

Something similar occurred in Brazil in recent decades, also from the challenge of meeting the high demand for domestic dwellings. It is striking to note the development of the area in the country since the first buildings erected in the 60's until today. Research groups, undergraduate and graduate disciplines exist now in several national regions. But what really draws attention is to see the degree of application of the building process by the construction sector. The amount of structural masonry buildings in Brazil today is quite large, and perhaps this is today the main construction process for residential buildings.

The 15th edition of the International Congress of Masonry (15th International Brick and Block Masonry Conference - IB2MaC) occurred in Brazil in Florianopolis between 3 and 6 June 2012, organized by the Federal Universities of São Carlos and Santa Catarina. More than 230 people from 39 different countries attended the event.



Guest speakers presented an overview of the current status and history of masonry construction in Brazil and worldwide, covering topics such as Viewpoint Builder, Tall Buildings, Pre-Production, Life Cycle Analysis, Sustainability, Historic Buildings and others. Four mini-courses focused on topics such as Slender Walls, Masonry prestressed, MEF, Accidental Damage and Progressive Collapse. Over a hundred other papers were presented covering various areas of scientific and technological research.

The Conference Proceedings can be downloaded in <http://www.15ibmac.com>.

Seven of the keynote speakers were asked to write their papers for this edition of the Technology and Management Journal. The first five articles bring an overview of the historical development and current design and construction of masonry in Brazil, United States, United Kingdom, Australia and Canada. The authors of these papers have featured prominently in the development of technical standards in their countries.

The sixth article brings a warning about the need for preservation of historical masonry in Canada. As stated, unanimously, during the conference in Brazil, the conclusions in this text are valid for several other countries, including our own.

The last article discusses masonry industry challenges in different regions of the world, with a focus on sustainability.

After having the privilege of chairing the event, we now have the honor to organize this edition of the Journal. We invite you to learn more about the history of the scientific development in masonry, check what are the needs of future research, weigh considerations about the sustainability of this type of construction and also realize the need to education for the preservation of an important part of the history the built environment, at an international level.

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