

Book of Abstracts

Title ICOHTEC 2016 — Book of Abstracts

Publisher

Centro Interuniversitário de História das Ciências e da Tecnologia (CIUHCT)

Editors

João Machado and Ivo Louro (Local Organising Committee)

Design

João Machado

Printing

Gráfica Digital, LDA.

Number of copies

250

Date

July 2016

Websites

http://icohtec2016.ciuhct.org (Official) http://www.ciuhct.org (Local Organiser) http://www.icohtec.org (Main Organisation)



International Committee for the History of Technology

Global forum for historians of technology since 1968

www.icohtec.org @icohtec



26-30 July 2016

Technology, Innovation, and Sustainability:

Historical and Contemporary Narratives

Abstract: The 'birth' of concrete prefabrication in Portugal: Pioneer examples in Lisbon and Porto

Construction industry is a major economic sector in contemporary society, as recent crises prove it beyond doubt. However, if its importance is recognized, a set of consistent studies on its history and development is still missing, not so in a worldwide view but mostly with regional perspectives that can relate technology to local characteristics and conditions.

Mainly after World War II building prefabrications had a major increase all over Europe as it could help rebuilding large devastated areas in less time then conventional construction and also because it allowed new uses for the 'out of business' war industries. As Portugal didn't participate in WWII, it remained apart from this industrialization implementation. Nevertheless architects and engineers aimed the construction rationalization that such a fabrication method could bring. From foreign references mentioned in national publication to architects and engineers communications in professional and scientific meetings, desire of prefabrication implementation in Portugal is evident. This paper aims to contribute to the history of construction industry in Portugal, focusing in concrete prefabrication sector, and in its pioneer examples - in the late 60 and early 70, prior to 25 April revolution. Based on archival sources (first examples building permits), interviews with people related with those experiences (architects, engineers and foreman) and the papers presented in 1948 First Architects' National Congress and in 1968 First National Conference on Prefabrication we intend to trace concrete prefabrication roots in Portugal, from first low tech and experimental examples to the birth of a new industry.

Clara Pimenta do Vale. Architect by Faculty of Architecture, University of Porto (FAUP 1991) MSc in Building Construction by Faculty of Engineering, University of Porto (FEUP 1999) with Master Thesis on "Numerical simulation of moisture transfer in building materials", PhD in Architecture (FAUP 2012) with dissertation "An urban alignment in the construction of Porto – Boavista Axis (1927-1999) – Contribution to Portuguese Construction History in the Twentieth Century".

Since 1999 she has been teaching in FAUP the following subjects: 'Building Construction', 'Building Physics and Facilities', 'Construction Pathology', 'Building Rehabilitation', 'Materials and Techniques of Ancient Coatings' and 'Materials and Traditional Construction Techniques'.

Architect in private practice between 1991 and 2004. Participated and coordinated several architectural projects, urban planning and building site management. Photographer with several photo exhibitions.

Member of the Board of 'Architects without Borders – Portugal' (ASF-P); Member of the 'Construction History Society' (CHS); Member of 'Portuguese Society for Studies on Construction History' (SPEHC); Member of the Portuguese Association for the Urban Rehabilitation and Heritage Protection (APRUPP).

Integrated member of the Research 'Center for Studies In Architecture and Urbanism' (CEAU), in the following groups: 'Architecture, City and Territory Heritage' (PACT), 'Centre of Communications and Spatial Representation' (CCRE) and 'Digital Fabrication Laboratory' (DFL).

Research focus: Building Physics; Heat and moisture transfer in building materials; Building Rehabilitation and reuse; Sustainability; 20th Century Construction History; The rehabilitation of 20th century architectural heritage; Vernacular architecture; The social role of architecture; Legislation applied to building construction; New technologies, building construction and rehabilitation; E- learning and ICT.

Relevant Publications:

FIGUEIREDO, Ricardo, Clara Pimenta do VALE, e Rui TAVARES. (2013). "Aliados Avenue and Centre of Porto : Memory, Reality and Permanence." In, ed PORTO VIVO SRU. Porto. http://www.portovivosru.pt/1avenida/fileManager/pdf/ebook_1Avenida_UK.pdf.

TAVARES, Rui, e Clara Pimenta do VALE. (2010). "Urban and Architectural Reconfiguration In The Opening To Modernity - The Construction Of The City Of Oporto (Portugal) Between The Influence Of Beaux-Arts And The Modern Movement." IPHS 2010 - "Urban Transformation: Controversies, Contrasts and Challenges", Istambul, Turquia, 12-15 July 2010

VALE, Clara P., e Vítor ABRANTES. (2014). "An earlier example of Portuguese concrete prefabrication, the 'Torre da Boavista' condominium in Porto." Sustainable Housing Construction - 40th IAHS World Congress on Housing, Funchal, Madeira

VALE, Clara Pimenta do, e Vitor Abrantes ALMEIDA. (2012). "Urban Dynamics and Horizontal Property: Case Study of the Boavista Axis, Porto, Portugal." Nuts & Bolts of Construction History, Paris, 3-7 Julho 2012, 265-272.

VALE, Clara Pimenta do. (2011). "Um alinhamento urbano na construção edificada do Porto. O eixo da Boavista (1927-1999). Contributo para a História da Construção em Portugal no século XX." Tese de Doutoramento, Faculdade de Arquitectura da U. do Porto.

VALE, Clara Pimenta do. (2013). "Códigos de Posturas da Cidade do Porto entre o Liberalismo e a República. Influências e reflexos na forma de construir corrente." I Congresso Internacional de História da Construção Luso-Brasileira, Vitória do Espírito Santo, Brasil, 4 a 6 de Setembro de 2013

VALE, Clara Pimenta do. (2015). "«Biblioteca de Instrução Profissional» como fuente para la Historia de la Construcción del siglo XX." IX Congreso Nacional y I Congreso Internacional Hispanoamericano de Historia de la Construcción, Segovia, 13-17 de Outubro, 1727-1737.