

Mariana PALUMBO, PhD / Architect

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#### Current position

Lecturer in Architectural Technology in Univesitat Politècnica de Catalunya (UPC).

#### Education

PhD in Architectural Technology, FA, EPSEB, Univesitat Politècnica de Catalunya

Master in Advanced Architectural Projects, ETSAM, Universidad Politécnica de Madrid.

Graduate in Architecture, ETSAB, Univesitat Politècnica de Catalunya

#### Academic and Professional Experience

Lecturer at Vallès School of Architecture (ETSAV) of Univesitat Politècnica de Catalunya (UPC) since 2019.

Juan de la Cierva fellow (post-doctoral researcher) at Universitat Rovira I Virgili (URV) between 2018 and 2019

Post-doctoral researcher at Universidade Federal Fluminense (UFF) between 2016 and 2017

Since its creation, in the year 2015, member of the Network of Excellence LIGNOMAD "Network for the promotion of wood and other lignocellulose materials in the construction sector". At the moment, LIGNOMAD integrates 16 research groups of around Spain.

Since 2012 researcher of the Interdisciplinary research group in Building Science and Technology (GICITED).

Since 2013 founding associate of the architectural association Map13Barcelona

Subjects currently taught

Technology 1

Construction systems

Workshop of architecture and projects

#### Current Management positions and International representation

Member of the TC-DBH of the International Union of Laboratories and Experts in Construction Materials, Systems and Structures (RILEM)

Member of the group Architecture, Urbanism and Sustainability (AUS), of the Catalan Order of Architects (COAC).

#### Main research results

Number of publications in JCR journals: 9 (7 Q1)

Number of technical reports: 7

Contributions to Conferences: 29

Participation in competitive projects: 8

Awarded architectural works: 3

#### Selection of Recent Publications

M Palumbo, AM Lacasta, MP Giraldo, L Haurie, E Correal Bio-based insulation materials and their hygrothermal performance in a building envelope system (ETICS). *Energy and Buildings*, 174, 147-155 (2018).

A Torres, M Palumbo, A Haddad, LF Cabeza, L Jimenez, D Boer. Multi-objective optimisation of bio-based thermal insulation materials in building envelopes considering condensation risk, *Applied Energy*, 224, 602-614

M Najjar, K Figueiredo, M Palumbo, A Haddad Integration of BIM and LCA: Evaluating the environmental impacts of building materials at an early stage of designing a typical office building, *Journal of Building Engineering*, 14, 115-126

M Palumbo, AM Lacasta, N Holcroft, A Shea, P Walker Determination of hygrothermal parameters of experimental and commercial bio-based insulation materials, *Construction & Building materials*, 124, 269-275

M Palumbo, AM Lacasta, A Navarro, MP Giraldo, B Lesar Improvement of fire reaction and mould growth resistance of a new bio-based thermal insulation material, *Construction & Building materials*, 139, 531-539

M Palumbo, F McGregor, A Heath, P Walker The influence of two crop by-products on the hygrothermal properties of earth plasters, *Building and Environment*, 106, 245-262

M Palumbo, J Avellaneda, AM Lacasta Availability of crop by-products in Spain: new raw materials for natural thermal insulation, *Resources, conservation and recycling*, 99, 1-6

M Palumbo, J Formosa, AM Lacasta Thermal degradation and fire behaviour of thermal insulation materials based on food crop by-products, *Construction & Building materials*, 79, 34-39

#### Research Projects currently in progress

Title: Soluciones sostenibles para envolventes de edificios (SBES) Principal investigator: Ana M. Lacasta Funding body: Ministerio de Economía y Competitividad Reference: BIA2017-88401-R Start date: 2018-2020

Title: Knowledge Alliance for Sustainable Mid-Rise and Tall Wooden Buildings (KnoWood) Principal investigator: Laia Haurie Funding body: European Commission (Erasmus +) Reference: 600903-EPP-1-2018-1-DK-EPPKA2-KA Start date: 2018-2021