



REHABEND 2014

Latin American Congress

CONSTRUCTION PATHOLOGY, REHABILITATION TECHNOLOGY AND HERITAGE MANAGEMENT

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Santander - Spain

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***CONSTRUCTION PATHOLOGY, REHABILITATION TECHNOLOGY AND
HERITAGE MANAGEMENT***

(Fifth REHABEND Congress)

Santander (Spain), April 1-4, 2014

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TOPICS

1.- PREVIOUS STUDIES

- 1.1.- Multidisciplinary studies (historical, archaeological, etc.).
- 1.2.- Heritage and territory.
- 1.3.- Urban regeneration.
- 1.4.- Economical and financial policies.
- 1.5.- Social participation processes and socio-cultural aspects in rehabilitation projects.
- 1.6.- Construction pathology.
- 1.7.- Diagnostic techniques and structural assessment (no destructive testing, monitoring and numerical modeling).
- 1.8.- Guides and regulations.

2.- PROJECT

- 2.1.- Theoretical criteria of the intervention project.
- 2.2.- Traditional materials and construction methods.
- 2.3.- Novelty products applicable and new technologies.
- 2.4.- Sustainable design and energy efficiency.

3.- BUILDING INTERVENTION

- 3.1.- Intervention plans.
- 3.2.- Rehabilitation and durability.
- 3.3.- Reinforcement technologies.
- 3.4.- Restoration of artworks.
- 3.5.- Conservation of industrial heritage.
- 3.6.- Examples of intervention.

4.- MAINTENANCE

- 4.1.- Construction maintenance.
- 4.2.- Preventive conservation of built heritage.

5.- DIFFUSION AND PROMOTION

- 5.1.- Heritage and cultural tourism.
- 5.2.- Teaching and training.
- 5.3.- New technologies applied to the heritage diffusion.
- 5.4.- Accessibility to cultural heritage.
- 5.5.- Working networks in the cultural heritage.
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2.- PROJECT
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CODE: 2.2.07**BIOCLIMATIC CONSTRUCTIVE SOLUTIONS EXISTING IN VERNACULAR ARCHITECTURE FROM THE NORTH PORTUGAL AND “CASTELA E LEÃO” (SPAIN) BORDER REGION****Vaz, Jorge¹, Ferreira, Débora¹, Luso, Eduarda¹, Fernandes, Silvia¹**

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KEYWORDS: preservation, bioclimatic rehabilitation, bioconstruction, sunspace.

ABSTRACT

The traditional architecture is founded as a defining element of the identity of a region, and its essence should be preserved and conserved by means of maintenance and recovery actions. Thus, the best solutions and proposals for intervention should be looked for but this doesn't imply a back to back innovation and at construction progress.

This work is part of the BIOURB project, a cross-border project between Portugal and Spain, which intended to contribute to the change of the current constructive model toward a more sustainable bioclimatic model, both environmentally and economically, reducing the energy consumption of buildings and raising the value of bioclimatic heritage along the border. In order to achieve the study a survey has previously been conducted on the bioclimatic solutions along the border, more specifically between the areas covered by the municipalities of Bragança, Miranda do Douro, Vimioso, Mogadouro, Salamanca, Zamora and, in particular, areas of the natural parks of "Los Arribes del Duero" and "El Sayago".

One of the BIOURB project objectives was to establish guidelines for the conservation and rehabilitation of the vernacular architecture so it includes the description of techniques for maintenance and conservation of bioclimatic solutions found and inventoried in the north of the Iberian Peninsula, with special focus on a unique bioclimatic solution known as Sunspace, whose main advantage is to contribute significantly to the improvement of the thermal performance of buildings. It is also important to recover the historical heritage in a sustainable manner, allowing it to become an engine of development for both urban and small rural centres that exist in the periphery of the bigger cities.

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