

# **Dissemination Activity Report**

## ***Bioconstruction Workshop: Updating the Techniques of Traditional Asturian Architecture***

### ***Taller de bioconstrucción: Actualización de las técnicas de la arquitectura tradicional asturiana***

#### **1. Institutional and scientific framework**

The activity was conducted within the framework of the Es\_Art—Escenarios para el Arte—research group (Grants to Research Groups of Public R&D&i Bodies of the Principality of Asturias; IDE/2024/000731; SEK-25-GRU-GIC-24-052). The activity is also aligned with the research lines of the CULTURALITY project of the Horizon Europe 2030 Programme (HORIZON-CL2-2023-HERITAGE-0110113262; Pillar II: Global Challenges & European Industrial Competitiveness; Cluster: Culture, Creativity & Inclusive Society; Objective: Fostering socio-economic development and job creation in rural and remote areas through cultural tourism).

#### **2. Justification and objectives**

The recovery and updating of traditional construction techniques constitute a significant line of work for the conservation and sustainable use of vernacular architecture. These techniques, based on the use of locally sourced natural materials and low-complexity technological processes, offer clear environmental advantages — reduction of waste and emissions — and reinforce the symbiotic relationship between construction and the cultural and landscape context.

The objectives of the workshop were as follows:

- a) To disseminate knowledge related to traditional Asturian architecture and its reinterpretation in contemporary contexts.
- b) To introduce the principles of bioconstruction as a sustainable alternative in architectural and construction practice.
- c) To provide practical training on traditional materials and techniques and their adaptation to current standards.
- d) To contribute to the valorization of tangible and intangible heritage as a cultural and socio-economic resource.
- e) To present examples of good practice at the regional, national and international levels.

### 3. Organisational details

Date: 13 December 2025

Time: 10:00–14:00

Venue: Local Cambalache, Oviedo

Number of places: 20

Target audience: adults and children from the age of 10

Person in charge and instructor: The activity was delivered by Macario Iglesias, architect and bioconstruction craftsman. He has extensive experience in conducting workshops focused on the updating of traditional construction techniques at institutions and cultural venues such as the Muséu del Pueblu d'Asturies, Laboral Centro de Arte, La Ponte – Ecomuseum, La Benéfica Centru Cultural, and the Campa Torres Archaeological-Natural Park. He is a co-founder of the Escuela de Teitáu, dedicated to the transmission of traditional crafts associated with *cabañas de teito* in the mountainous areas of Asturias. (@bioconstruccion\_asturies / [www.escueladeteitau.com](http://www.escueladeteitau.com))

The activity was carried out under the coordination of Llara Fuente Corripio, who is affiliated with both of the research projects mentioned above and is currently a doctoral candidate. Her research focuses on crafts and their role in the management of rural landscapes, encompassing both cultural and natural dimensions.

### 4. Methodology and development of the activity

The activity was structured as a single session of a theoretical-practical nature, with a total duration of four hours (10:00–14:00). The methodology combined an introductory presentation and a set of practical exercises organised in groups.

#### 4.1. Theoretical phase

The session began with a theoretical intervention of approximately thirty minutes in which the principles of traditional Asturian construction were presented: constructive typologies, materials (clays, sands, vegetal fibres, lime, stones, timber...) and construction techniques. This introduction incorporated references to contemporary reinterpretations within the field of bioconstruction, with examples of good practice at the regional level. Likewise, examples of contemporary bioconstruction good practices at the national and regional levels were provided. All of this was supported by visual materials and documentation derived from fieldwork and from projects in which the workshop leader has participated.

#### 4.1. Practical phase

After the presentation, participants were organised into working groups and carried out a practical progression that comprised the following activities: identification and characterisation of materials (types of clay, sand fractions and vegetal fibres), mixture and

dosing tests, and execution of components and assemblies. The design of the practical exercises thus allowed progression from material trials to interventions, guaranteeing a comprehensive understanding of the construction process. The techniques practised were: wattle-and-daub wall with clay mortar (*cebatu*), straw-and-clay infill between studs, manufacture of mixed clay blocks with vegetal fibres for insulation (using recovered sawdust, long straw and short straw) and the forming and laying of lime-stabilised adobe units in a reduced-scale wall panel.

## **5. Results and conclusions**

The activity enabled the transfer of technical knowledge related to bioconstruction and the experimental verification of the technical feasibility of several vernacular solutions adapted to contemporary criteria. Among the conclusions emerging from the workshop, the following may be highlighted: the usefulness of preliminary material testing to adjust mix proportions; the potential of recovered materials such as sawdust to improve thermal and insulation performance; and the importance of integrating design and execution criteria that address both durability and compliance with current regulations. In addition, the session fostered the exchange of knowledge among participants and encouraged reflection on the cultural and environmental value of these techniques in rural regeneration processes.

The reception of the experience suggests its strong relevance: all available places were filled within a few hours, and a long waiting list was established in the event of cancellations. This response highlights the pertinence of articulating further training actions, as well as the need to develop formal and continuous training programmes in this field, which are currently lacking in the region.

Likewise, emphasis is placed on the importance of incorporating monitoring and evaluation processes for the constructed elements and material techniques, with the potential collaboration of other departments (including physical testing related to hygrothermal performance, structural stability, and related aspects). Such an approach would allow for the exploration of technical and regulatory validation mechanisms that facilitate the application of these solutions in rehabilitation interventions and in new construction projects.

## **6. Documentation of the process**

The entire process was documented through video recordings and photographic material. This documentation was carried out with the prior knowledge and informed consent of all participants, and it records both the theoretical explanations and the different phases of the practical work developed during the activity.



Fig. 1 Theoretical lecture – image showing the traditional construction typologies applicable to building. Author: Santiago Rodríguez.







Fig. 2. 3. and 4.: Group practices of the techniques. Author: Santiago Rodríguez.



Fig. 6. Illustrative examples of selected works. Author: Santiago Rodríguez.

TALLER DE CONSTRUCCIÓN TRADICIONAL

**13 diciembre (25) 10:00-14:00**

**Local Cambalache**  
Martínez Vigil 30, Oviedo

Actividad **GRATUITA**

Con: **MACARIO IGLESIAS** @bioconstruccion\_asturies

**Breve charla + práctica:** actualización de técnicas tradicionales: tabique de varas y argamasa de barro (cebatu), tabique de paja barro entre barretes, revocos de barro, etc.

**Plazas limitadas (20):** adultos y menores a partir de 10 años (acompañados)

**Inscripciones:** esartuniovi@gmail.com - asunto: inscripción taller + nombre completo





Universidad de Oviedo

**CULTURALITY**

CULTURAL HERITAGE  
IN RURAL REMOTE AREAS  
FOR CREATIVE TOURISM  
AND SUSTAINABILITY

ESART. ESCENARIOS PARA EL ARTE  
IDE/2024/000731  
Beneficiario por importe de 135.000,00 euros del Programa de Subvenciones para grupos de investigación de organismos del Principado de Asturias, para el ejercicio 2024, de la Agencia de Ciencia, Competitividad Empresarial e Innovación del Principado de Asturias (Gobierno) - Resolución de 29 de julio de 2024 (BOPA 154 del 7/III/2024).






Normas de Difusión y Publicación contenidas en el artículo 15 del Reglamento de Transparencia de 20 de junio de 2022 (BOPA 154 del 7/III/2022), según lo dispuesto en el artículo 22 de la Ley 19/2013.

Author of the Memory and Poster: Llara Fuente Corripio