Fortified Towns & Popular Architecture in the Álava Mountains Region: A Multipolar Model for Cultural Heritage Revitalization

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“Each community, by means of its collective memory and consciousness of its past, is responsible for the identification as well as the management of its heritage. Individual elements of this heritage are bearers of many values, which may change in time. The various values in the elements characterise the specificity of each heritage. From this process of change, each community develops an awareness and consciousness of a need to look after their own common heritage values.”

Summary

The Álava Mountains Region contains a group of historic towns that represent a precious heritage of stone walls and popular architecture located in a natural environment with agricultural and cultural landscapes. The place confers strong identity and a deep sense of belonging to its inhabitants.

In this context we propose to strengthen synergies in order to coordinate and strategically improve different cultural heritage initiatives. An innovative global vision was created to improve citizens’ quality of life, supported by public-private support.

Historic towns and villages, in their rustic terrain, represent an essential part of our universal heritage. They should therefore be seen as a whole, with the structures, spaces, and human factors in the process of continuous evolution and change. This involves all sectors of the population and requires an integrated planning process, encompassing a range of different activities.

Cultural heritage management has the potential to integrate networks of small and medium-sized heritage towns, stimulating social, environmental, and economic interaction and also improving diversity and unity.

In this context, our intervention considers the towns’ morphological, functional, and structural whole, operating as part of their territory, citizens, economy, environment, and surrounding landscape.

Fig 1. Alava Mountains Region
The study area comprises six Head Towns – Constrasta, San Vicente, Orbiso, Antoñana, Corres and Maeztu; some smaller Complementary Towns; and their Natural, Agricultural and Cultural Landscapes Network.

Fig. 2 Development Strategy

A. Strategic Position

Our challenge was to develop a multipolar model to revitalize the preservation of heritage and the territory more broadly, integrating natural and cultural heritage as an active agent of development; understanding the region as the physical framework for an inclusive society; and enhancing people’s capacity to transmit knowledge from generation to generation.

B. Contextual Analysis

Previous studies had been carried out to identify some crucial strengths and opportunities in the following areas:

**Environmental**: High environmental quality of the whole territory; high quality of natural resources; high quality of landscapes; strong local identity reinforced through landscape elements; perception of the territory as a bridge between towns and rural environments; dynamic local stakeholders in the preservation of natural and cultural heritage.

**Regional**: existing network of head and complementary urban settings; good transport infrastructures; multiple roads with historic interest; proximity between different urban settings; agricultural activities; industrial parks; medium size cities that could cooperate in territorial regeneration.

**Urban**: an important heritage of stone walls and popular architecture in fine condition; consolidated urban structures; networks of public spaces; homogeneous scale; attractive special architectural sequences; emblematic buildings and powerful elements of identity; close relationships with the rural environment; the archaeologically valuable irrigation system from a Paleolithic society.

**Social**: high quality of life and healthy environment; strong identity and sense of belonging from the citizens and the young people who live in big cities and return to their town origins for weekends and holidays; deep-rooted cultural tradition linking cultural and natural heritage; cooperation between different organizations of regional towns; active cultural organizations.

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Economic: renowned local delicacies have won the “Basque Quality Label,” including Alava Mountain potatoes, honey from Antoñana, Idiazabal cheese from San Vicente de Arana, black sausage from Maeztu, and bread from Santa Cruz de Campezo; existence of native resources with productive potential (cultural heritage, environment, etc.)

On the other hand, we have defined some threats and weaknesses:

- limited perception of the value of the cultural heritage;
- lack of professional and legal measures to protect the cultural heritage;
- abandonment of agricultural practices;
- absence of environmental impact monitoring;
- few complementary relationships between different urban settings;
- deterioration of built heritage;
- deficient urban equipment on town and territorial scales;
- lack of articulation between spatial sequences;
- deficient communication elements, such as sign postage and directions;
- absence of special activities for different group of citizens;
- depopulation and increase of elderly citizens;
- low GDP;
- difficulties in generating new economic dynamics;
- low occupational training.

C. Urban and Territorial Strategies: Multipolar model and Multidisciplinary approach

The starting point for defining the strategic position of the Álava Mountain Region is to recognize our principal objective, cultural heritage revitalization, and also the potential number of citizens, tourists, and investors involved. At the same time, it is vital to identify the stakeholders, to develop a benchmarking study, and to review the preliminary studies.

Our project articulates a holistic approach, combining a multipolar model of urban-territorial regeneration and management with a multidisciplinary vision. The multipolar model stimulates complementarities between the cultural heritage of the territory and the different historic towns. The multidisciplinary vision translates this strategy into tangible and measurable objectives focused on sustainable outcomes.

This approach may well certify the value of this strategy as a powerful tool in the sense that it can generate positive cultural, social, environmental, and financial externalities.

Urban and territorial networks, hubs, and actions were combined in nine strategic lines to start up a driver project with capacity to attract resources.
In establishing the strategy for the achievement of the overall vision, it is necessary to define several objectives. One of them will be to involve the actors most affected by the objectives to be achieved so that they will become willing contributory partners in the process. These actors include: citizens, public administrations, technical experts in various disciplines, and the private sector. It seems particularly relevant to engage the interest and involvement of citizens and public administration in this work, as they represent the areas where the current problems lie and the areas that can provide the testing ground for each of the innovations defined in this paper. Moreover, they will be the greatest beneficiaries of a successful outcome to the multipolar model proposed. In a parallel way, it is important to set down the main areas for research that will support the implementation of the objectives. These will inevitably overlap in several aspects and will contain themes on which, in some cases, continuous work will be required. Other themes will follow a critical route, where additional investigations must be completed before the main research work can begin.

The small- and medium-scale towns’ networks, as well as the creation of hubs and actions looking for a sustainable interaction, consolidate a driver project, and they will present a new way of cultural heritage rehabilitation.

Fig 3. Urban and Territorial Strategies

I. Small- and Medium-Scale Towns Network: Sustainable Interaction
II. Mobility and Communication: Historic Towns and Landscape Exploration

The Álava Mountains Region is an attractive natural area surrounded by three nature reserves—Entzia, Codes, and Izkiz. With the existing paths, tracks, and roads, it offers a great opportunity for the incorporation of natural and cultural heritage. The other element relevant to territorial regeneration is the presence of a derelict rail track.

The existence of these combined elements is valuable in allowing the articulation of a green network that connects historic towns with natural, agricultural, and cultural landscapes. These elements can be complemented by special services with high environmental qualities.\[4\]

III. Environmental and Cultural Network: Natural, Agricultural, and Cultural Landscapes

The integration of natural, agricultural, and cultural landscapes as a strategy has been considered as a key issue of development. Some specific characteristics have been studied in depth:

- natural landscapes as having value in multiple arenas: aesthetic, economic, natural heritage, as an environmental quality indicator, and as a citizens’ identity constructor;
- cultural landscapes as a synthesis of cultural and natural heritage, and as reference of social identity; and
- agricultural landscapes as reserves of economic power.

It is important to combine several conditions in the regeneration of the area: environmental quality strengthening without cultural, social, and economic deterioration; managing natural resources to encourage culture, tourism, and recreational activities; stimulating cultural and natural heritage as a development key as opposed to high impact activities, low quality tourism, or increasing depopulation.\[5\]
III. Popular Architecture and an Educational Project: Experimental Center for Vernacular Architecture Conservation

Popular architecture construction systems require constant maintenance programs and timely small interventions. The most difficult barrier to overcome in establishing such maintenance programs is the lack of sensitivity and know-how about cultural heritage from all of the stakeholders: rural public administrations, craft construction SMEs, owners who want low quality modern patterns, and architects without specific knowledge, among others.

The creation of an Experimental Center for Vernacular Architecture Conservation has two main purposes: 1) to train construction professionals in the application and conservation of traditional constructive techniques, and 2) to raise the value of cultural heritage as a social and economic asset of the region. The launch will require a strong public effort in terms of human resources, materials, coordination, and cooperation.

IV. Stone Wall Towns and Urban Regeneration: Experimental Center for the Regeneration of Stone Wall Towns (ECRSWT)

ECRSWT will be a place for an interdisciplinary think tank about specific conservation and regeneration problems, including the promotion of responsible intervention leadership, the integration of socioeconomic and urban issues, and encouraging the maintenance of urban structures and unique cultural heritage features.

ECRSWT will engage in two kinds of activities: 1) information dissemination and community participation programs, and 2) offering educational activities for all the stakeholders involved. The Center will offer a library with technical documentation, interpretation resources, and information on the conservation and socioeconomic revitalization challenges of stone wall towns.

The Center’s first site will be in Antoñana, where a laboratory for technologies and methodologies will be created. Recurring and one-time workshops on theoretical and practical issues will present different aspects of stone wall towns’ regeneration:

- Economic: compatible activities and favorable measures
- Social: relationships between citizens and stone walls
- Historical and archaeological
- Technological and constructive: how to consolidate and preserve stone walls and their semi-detached buildings
- Urban and legal: property and heritage preservation
- Project planning, construction, and evaluation

ECRSWT will organize activities like technical guiding visits to stone walls, conferences to present current projects, and community participation activities. It will also develop specific seminars for each group of stakeholders.

V. Historic Water Systems and Urban Structure: Previous Studies for Its Integration into the Cultural Heritage Asset Network

Water management is a crucial issue in the organization of everyday life in rural areas. Its study will deepen knowledge about previous social and ecological strategies in the region. Additionally, water is an evocative element of well-being and has the emotive power to expand our sensory sphere. Artificial incorporation of water into the plans of parks and gardens is an old tradition that we still enjoy.

The documentation, study, and comprehension of the Álava Mountains Region water system will offer new approaches for regeneration and new social and economical improvement strategies.
The starting point will be the recognition of three basic physical structures:

- **Structures of capture**: different types include river waterwheels and cisterns for dispersed water in dry areas.
- **Structures of conduction**: these include water pipes that connect rural and urban areas, as well as canals, galleries, aqueducts, etc.
- **Structures of distribution**: water is delivered to each plot through special systems, depending on the social and economic organization of communities.

The next step will be to locate each structure on a topographic map, differentiating the dimensional, typological, constructive, and material points of view. In a parallel way, a group of experts will consolidate documentation from public libraries and poll citizens for undocumented data. This analysis will allow the reconstruction of the old physical water system.  

VI. Bioclimatic Architecture: Research and Innovation

The architectural dimension leads us to study bioclimatic solutions for cultural heritage and for new interventions. A permanent R&D workshop will be located in Corres and act as a catalyst for urban regeneration and cultural heritage interventions. It will develop activities in the following areas:

- **Bioclimatic architecture**: evaluating buildings’ energy conditions and needs; promoting energy saving and integrating renewable energy infrastructures; researching nontoxic and energy-efficient materials, from production to useful life; recycling and reutilizing construction wastes; recovering traditional construction systems.
- **Bioclimatic urban development**: encouraging sustainable urban planning, recovering natural patterns; planning new urban areas; studying geomorphology, vegetation, and sun and water conditions; analyzing climatic needs; designing public space, green areas, streets, and roads; improving the waste cycle; developing new materials and constructive systems.
- **Renewable energy**: focusing on sun, wind, and biomass energy, a pilot project will introduce R&D results into urban regeneration policies, strategies, and projects, showing a new way of working with bioclimatic architecture and cultural heritage in Corres.
- **Conservation and regeneration of cultural heritage and urban structure**: avoiding alterations in urban structure; reviewing urban plans; favoring rehabilitation over new construction; elaborating new legal frameworks by focusing on soil, uses, and cultural heritage; protecting specific instances of cultural and natural heritage; recovering old rail tracks as green corridors; introducing green areas at different scales: parks, streets, houses, and terraces.
- **Conservation and protection of natural heritage**: disseminating sustainable uses for natural resources; qualifying young people to create green communal nurseries; developing small-scale ecological product industries; inventorying natural assets that explain the dynamics of ecosystems.
- **Analysis of best practices**: analyzing new productive systems based on sustainable parameters that recognize cultural and natural heritage as support, condition, and power of production processes; designing and applying new systems that promote an equilibrium between the preservation of cultural and natural heritage and the promotion of economic and social benefits; researching ecologically-sound agriculture and bioclimatic architecture that increases quality of life; stimulating initiatives to respect popular architecture, archaeology, history, and traditions; improving communication and shared programs between different administrative departments.
- **Alternative production activities**: promoting agricultural and industrial small-scale activities; encouraging the creation of small enterprises and community organizations; sponsoring workshops focused on sustainability and development.
- **Dissemination**: supporting the commercialization of agricultural products; dispersing bioclimatic architecture; promoting specific seminars.
VII. Land Art and Public Art: Interrelated Dynamics

Including art in urban and regional regeneration is a way to open up new horizons for old citizens and a way to attract new ones. Three steps are fundamental in initiating this strategic line: 1) improve the framework for art expansion, rehabilitating cultural heritage and its urban scene, creating new landmarks, exploring the visualization of urban axes and elements; 2) provide new cultural hubs; and 3) develop artistic activities of different disciplines for diverse social groups. These measures will deliver impacts at various venues: art-urban landscape-buildings, where architecture is the space for art expression; art-society-economy, where culture, participation, community, and art are the key issues; and art-landscape-territory, where cultural roads facilitate the discovery of art and an unusual connection with the whole area and its emotional power.

- **Urban spaces rehabilitation**: stimulate art, design, and architecture to enrich public spaces and social interaction; design human-scale spaces, respecting local traditions and community identity; use materials and textures sensitive to the urban environment.

- **Land art**: strengthen the relationship between people and the natural environment, encouraging art manifestation in landscapes; alter landscapes with short-term interventions for artistic purposes; rescue local traditions by involving citizens and tourists.

- **Cultural hubs**: create new public centers with art as a tool to expose community to culture; develop supporting elements in villages, like art hotels, art schools in rural environments, and cultural and conference centers; special events. [8]

VIII. Economics Dynamics Hubs: Green Workshop and @ Workshop

The goal of studying the economics of the Álava Region Mountain and specific development projects has been to look—from a regional perspective—for indigenous potential, for the growth of internal resources, and for the rise of internal capacities.

The intention was to buoy the regional economy through two complementary projects: the Green Workshop, based on the development of ecologically-sustainable agricultural products, and the @ Workshop, based on ecologically-sound industrial design products. Both workshops will be installed through the rehabilitation of popular architecture in Maeztu and San Vicente de Arana.

Both strategies will seek to promote a creative economy, small enterprise, and regional competitiveness through the design and development of new products with high added value and innovative solutions. Our key words in this strategy are: Innovation, Constant Learning, and Interaction.

- **Innovation**: to increase regional competitiveness and as a small enterprises improvement engine, attracting new ideas, human resources, and financial inputs.

- **Constant Learning**: for young people, to motivate and share novel ideas, problems, insecurity, and experiences with different experts.

- **Interaction**: for the consolidation of a local and global network of people, projects, and places.

This approach will involve old and new citizens, regenerate urban areas, rehabilitate cultural heritage, and consolidate social identity. [8]

IX. Social Dynamics Hubs: Quality of Life, Social Inclusion, and Cultural Heritage

In order to improve the quality of life of the inhabitants of the area, special attention needs to be given to the region’s primary problems: an aging population, the pull of the bigger cities that attract young people, and the dearth of opportunities for more vulnerable sectors of this rural society, notably women and young people. Therefore, the efforts in this area were directed at increasing motivation, helping these less well-off sectors of society improve their entrepreneurial capacities, and carving out a future for them in their villages. The goal is to stimulate:
real opportunities for decent and attractive jobs,
partnerships between local groups and associations with other institutions to improve their communities,
and
rural tourism, with real potential to maintain and promote cultural and natural heritage.

Three main strategic lines were identified:

- **Inclusion, self-employment, and social integration**: The actions included in this strategy are aimed at detecting the training needs of the population while also studying employment opportunities in the area. These actions would be complemented by the identification of the specific barriers affecting the female population and with the promotion of services to facilitate juggling work and family life.

- **Cultural heritage and identity**: This project is designed to promote collaboration between local and regional institutions and the local population in order to create a voluntary network of local people to promote and disseminate local heritage.

- **Rural tourism**: In line with the previous strategy, an opportunity was identified to promote a model of ecotourism, an activity orientated to enjoy nature in an active way, with the purpose of understanding the natural and cultural values of the area and its communities.

**D. Implementation**

The next step is to determine priorities for 2010, 2015, and 2020, visualizing the innovations and breakthroughs required, establishing indicators of validation, verifying and proposing new legislation, and defining public-private financial models. Finally, the planning implementation stage should evaluate its adherence to the strategic plan, giving feedback on the global operative model.

An integral part of this model for revitalization is the participation of the inhabitants of the area, the people who will be a key element determining the success or failure of the model’s implementation. The participation strategy envisaged would start at the very beginning of the process with an initial social study to involve and engage the community and all the stakeholders involved. Community involvement will be encouraged throughout the process by setting up consultation groups, reference groups, and action groups.

**Final thoughts**

The concepts of sustainable development must be translated to a new situation when dealing with cultural heritage. We are building now the cultural heritage of future generations: consequence-based advanced technologies and practices must be used to keep our cultural heritage alive in the more attractive towns.

These new practices include:

- new economic models for an interactive and flexible cultural heritage management;
- the setting up of a European PPCP (Public-Private-Citizen Partnership) for greater societal involvement in the preservation of cultural heritage;
- promotion of an integral management of cultural heritage based on its sustainable interaction with its environment;
- promotion of historical knowledge to encourage new and more eco-efficient construction and materials; and
- re-establishment of the preservation of cultural heritage as a priority for city management techniques, with the objective of setting up dynamic urban regeneration and active regional development.

These development goals are challenging. We all hope that the Álava Mountains Region multipolar model for cultural heritage revitalization will leave a positive impression in its territory and its citizens.
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Fundación Labein (Labein) is a research and innovation center located in the Basque Country Region, in Spain. The mission of Labein is to support enterprises and administration bodies in their research and innovation needs by means of research, development and innovation projects – like GESPAR – as well as in technology transfer, technological services, consulting, training, and dissemination activities. Labein has a wide experience in collaborative projects in the European Framework. Actually has been involved or still involved in 40 projects from the 6th FP, leading 10 of them. Among these projects 27 are in relation to building and/or energy issues. Labein is leading seven of them. The Construction and Environment Unit provides services to the whole range of construction sectors: construction product manufacturers, engineering and architectures firms, constructors, and developers, users of buildings and structures and administration bodies. Our construction R&D activities are focused in the following areas: Strategic management of building cultural heritage, Sustainable city and urban regeneration, Environmental strategic management, Process innovation, Sustainable Building and Nanotechnology.


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