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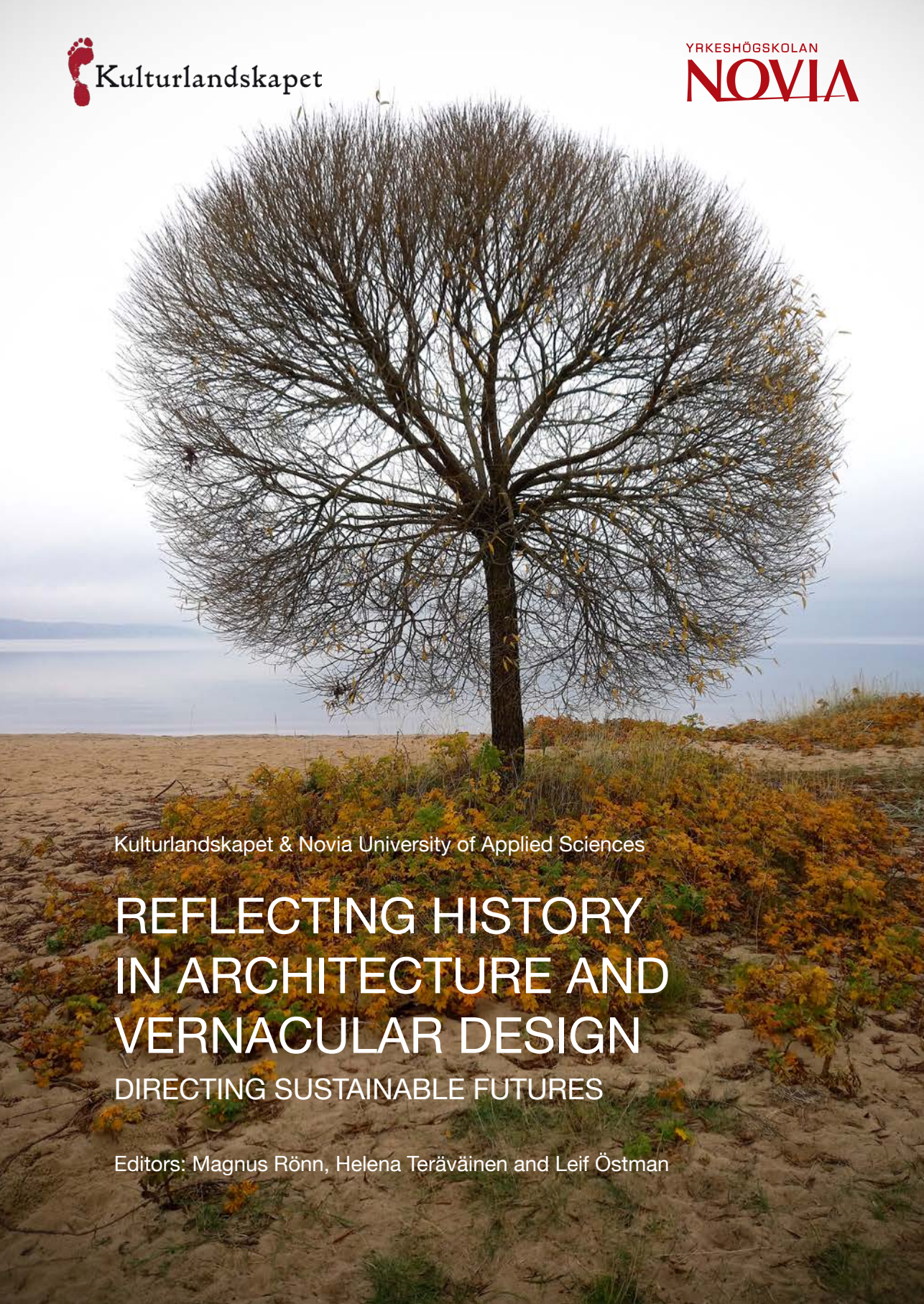

Kulturlandskapet & Novia University of Applied Sciences

REFLECTING HISTORY IN ARCHITECTURE AND VERNACULAR DESIGN

DIRECTING SUSTAINABLE FUTURES

Editors: Magnus Rönn, Helena Teräväinen and Leif Östman

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Salix fragilis 'Bullata' at the Lake Vättern
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Kulturlandskapet

YRKESHÖGSKOLAN NOVIA

CONTENT

VERNACULAR ARCHITECTURE IN THE NAVIA RIVER BASIN (ASTURIAS, SPAIN)

Santiago Rodríguez-Pérez

ABSTRACT

This work presents a synthesis of the results of the author's doctoral research, focused on the study of the landscape and vernacular architecture of a region in Asturias (Spain), the Navia River valley. It is a mid-mountain area where an interesting ethnographic and architectural cultural heritage is preserved. The research explores how the communities in the area shaped the landscape and their own architectural language through different building typologies, their historical evolution, and their relationship with their culture.

In the study area, the rural and peasant habitat is structured around the casería, the basic unit of settlement that includes domestic spaces (housing) and productive spaces (granaries, stables, cellars, auxiliary buildings, etc.), as well as farmland and pasture, and usage rights over communal lands, mills, etc. The *caserías* are grouped into villages and parishes and have formed the basis of rural settlement in the northwest of the Iberian Peninsula since the Middle Ages.

The conservation of this heritage faces various challenges: abandonment and ruin due to emigration and rural depopulation, urban speculation, as well as the lack of social awareness, economic resources, and legal protection regulations. Despite this, communities still maintain important ties with their cultural heritage. The objectives of my doctoral thesis were to establish a theoretical and methodological foundation for the study of landscape and architecture, to develop digital tools for the documentation and study of the cultural heritage of rural communities, and to provide a preliminary approach to the historical evolution of the peasant societies in the Navia Valley through their tangible and intangible culture.

KEYWORDS

Vernacular architecture, building archaeology, rural housing, Navia river basin, Asturias.

INTRODUCTION

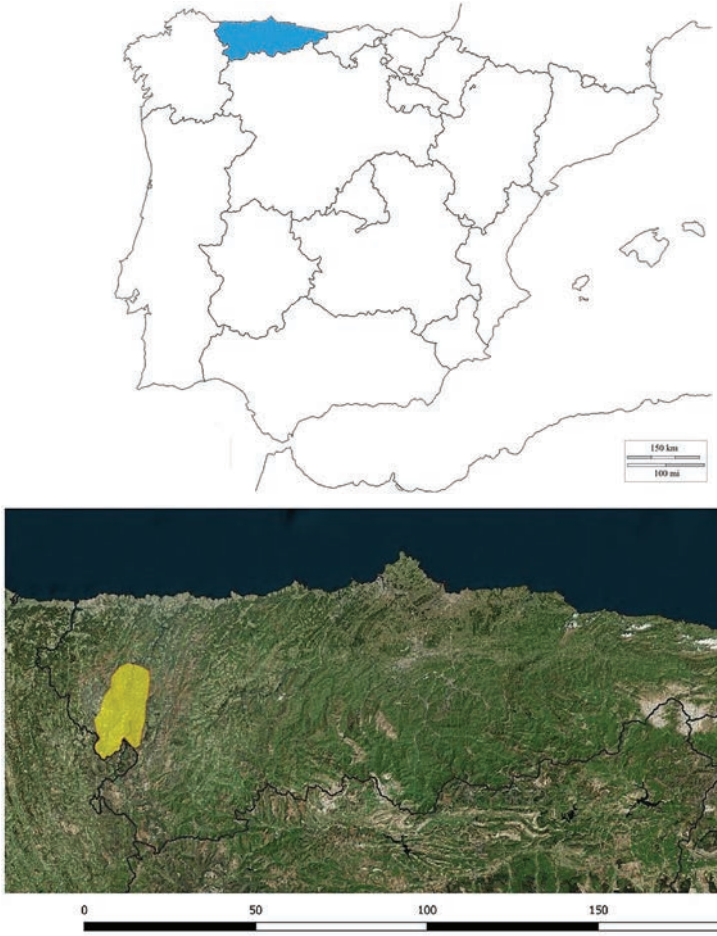
In recent years, I have been developing a research project on vernacular architecture, material culture, and ethnography of the rural areas in western Asturias, a region in the northwest of the Iberian Peninsula. In these regions, pre-modern or pre-industrial peasant lifestyles remained alive until the last decades of the 20th century. The impact of industrialization and the transformations of modernity have led to a slow but inexorable disappearance of traditional culture and the people who lived it. Despite all this, a rich material and immaterial cultural heritage linked to local communities and their traditional ways of life is still preserved. This includes knowledge about the use of resources and the landscape, agricultural and livestock systems, the production of objects, the construction of buildings, intangible heritage, language, etc. This ethnographic heritage offers many possibilities for studying peasant culture and the materiality of pre-industrial societies.

THE LANDSCAPE OF THE MIDDLE NAVIA VALLEY

The study area is in the northwest of the Iberian Peninsula, along the Atlantic coast, in the western part of the Asturias region. This mid-mountain region features a complex terrain characterized by deep valleys nestled between steep-sided mountain ranges that run perpendicular to the coast and through which the main rivers flow. Geologically, the terrain is composed of metamorphic rocks, predominantly slate and sandstone strata, interspersed with white Armorican quartzite, which form the mountain alignments. The mountain ranges do not exceed 1,250 meters in altitude and have gently sloping summits. The Navia River forms a deep, well-sheltered valley where the population and agricultural activities are concentrated. Climatically, the region is located to the west of the Atlantic Biogeographic Region, enjoying mild temperatures and abundant cloud cover and precipitation. The rich vegetation cover includes formations of oak forests, cork oak groves, and riparian forests, as well as extensive meadows and scrubland. The study area encompasses the municipalities of Eilao/Illano, Pezós/Pesoz, Grandas de Salime, and Allande.

BRIEF HISTORY AND EVOLUTION OF SETTLEMENT

The oldest evidence of settlement in the inland valleys of the Navia dates to the 5th millennium B.C. Neolithic communities developed livestock-based economies in the area, which led to deforestation to increase the grazing area, and the creation of seasonal and transhumant settlements (Villa Valdés, 2010, p. 65). The most outstanding manifestations of their presence are the



Figures 1 and 2. Geographic location of the study area, in Spain and in the region of Asturias. Source: Own elaboration based on data from the National Geographic Institute of Spain.

megalithic tomb stations, scattered throughout the territory. From the Late Bronze Age onwards, a whole series of hillforts arose in the northwest of the Iberian Peninsula, forming what is known as the Iron Age *castreña* culture. These settlements, distributed throughout the territory, were in strategic places and were protected by defensive devices that included moats and walled spaces, housing domestic habitats of circular huts. The communities of the castra survived until the Romanisation period and were dedicated to agricultural activity and mining. Gradually, from Late Antiquity onwards, the fortified *castreño* settlements were abandoned in favour of flat places where agricultural activity was possible, establishing a new relationship

between the settlement and the economic space. Although very few remains have been excavated and studied in the region, written documentation shows that between the 8th and 9th centuries the process of village formation was at an advanced stage, transforming the old centres of Roman power and colonising new areas. The current rural settlement has its origins in these early medieval villages, which initiated the configuration of the rural landscape that has survived to the present day. They are settlements made up of groups of houses and small orchards, surrounded by land dedicated to cereal cultivation, and on the margins of which we find areas of woodland and pasture for livestock (Fernández Mier et al., 2019). From the Middle Ages onwards, the administrative reorganisation of these communities began, with the appearance of manorial and ecclesiastical powers and the administrative organisation into parishes, which, later modified by the liberal reforms, would continue to the present day. It was also from the Middle Ages onwards that the agrarian space that we now consider traditional, and the forms of exploitation of the territory, took shape.

THE CASERÍA

In rural Asturias, the house is an entity with its own personality. It refers not only to an architectural structure, but also to several overlapping realities. In the first place, the *casería* is made up of the constructions that provide room and shelter for a family group. Secondly, within the traditional agrarian system, the house constitutes the basic cell of production and consumption. The *casería* is equipped with all the elements for agricultural production and includes, in addition to the dwelling, the annexed constructions dedicated to agriculture and storage (stables, cellars, raised barns, haystacks, etc.), as well as all the vegetable gardens, farmland, rights of use over mills, communal land, mountains, etc. (García García, 1976, p. 270; García Martínez, 2007a, p. 51).

The importance of the house for pre-industrial societies is essential, as some authors have already pointed out. The house constitutes the main nucleus of domestic and family life, it is the place of work and agricultural production, and at the same time, its members maintain an indissoluble link with it, since the house provides them with a name and identity (González Ruibal, 2003, p. 102). This symbiosis is manifested precisely in the name of the house: in western Asturias it usually adopts the name of an ancestor who built it or who achieved a certain renown, or another toponym. This name endures, its members being recognised by their belonging to it, as happens with the farmhouse in Euskadi (Arruza, 2017, p. 44). When the time comes, even if

the owners change, the new inhabitants will continue to be recognised by the nickname of the house to which they belong (García Martínez, 2008). In the area under study, western Asturias, the link between house and family is very close. The model of inheritance transmission is carried out through a son (*meirazo, meiralgo, petrucio*, etc.) who receives all the inheritance of the house, forcing the rest of the siblings to marry outside or remain in the background. Thus, a trunk family model is established, in which the grandparents, the *meirazo* and his wife and children live together in the same house, perpetuating the link between the family group and the house over time (García García, 1976, p. 286). The house has a functional spatial configuration, suitable for habitation, but it is also a cultural representation of its own inhabitants. It is necessary to consider it as a symbolic system, which responds to certain forms of social organisation and cultural values (Sánchez Pérez & Cátedra Tomás, 1990, p. 5). Culture acts as a designer of space, and it is here where the keys to its articulation must be sought. However, authors like Rapoport and others agree in denying any form of determinism, as the built environment acts neutrally: it can inhibit or facilitate behaviour, but it does not determine it. Houses can shape the habitus, imposing a way of perceiving the world, social relations, gender, or family, but they can also accommodate a new habitus, not necessarily setting the rules (González Ruibal, 2003, p. 99). Beyond a functional space, a set of buildings that shelters a family group, the house itself is the cultural representation of its inhabitants. As a place of enculturation of family members, the rural dwelling, in the words of Xurxo Ayán, is a repository of memory, a perfect machine for generating identity (X. M. Ayán Vila, 2020).

The bond between family and house is so strong that the house improves if the family prospers. Thus, this is the most precious investment of the family group, which over time contributes to the extension and improvement of the property, and to the increase of the assets of the homestead. In fact, the peasantry takes it as its own duty to improve the building in which it lives (González Ruibal, 2003, p. 76). Throughout history, the house and its domestic spaces have been modified and adapted to new circumstances, incorporating new spaces, discarding or reconverting others, and the interior spaces and their material and symbolic functionality have also been defined. For this reason, although the buildings apparently belong to specific typologies, they have a long history of alterations, extensions and demolitions, which sometimes leave their mark in relatively complex stratigraphies.

THE CRISIS OF THE TRADITIONAL RURAL WORLD AND THE PROBLEMS OF CONSERVING THE VERNACULAR ARCHITECTURAL HERITAGE

The industrial transformation of the Spanish and Asturian countryside began at the end of the 19th century. The traditional farmhouse and the peasantry as a social group disappeared, giving way to large farms, focused on meat and dairy production, as well as agriculture based on fodder and forestry monocultures. One of the consequences of these 20th century transformations is the depopulation of rural areas, which in Spain is particularly worrying, with the massive migration of young people to urban areas and the ageing of the population, resulting in numerous abandoned villages.

These transformations have a major impact on traditional architecture in rural areas. Ethnographic heritage and vernacular architecture are very fragile and face a series of problems that hinder their conservation. In economically developed areas, traditional buildings are either aggressively rehabilitated or replaced by modern constructions, and in more impoverished areas they are ruined by neglect. In Spain, legislation on the protection of traditional architecture is ambiguous. Not all buildings of interest are protected, and in most cases, urban planning allows for very permissive rehabilitations of the cultural or environmental values of buildings, or their demolition. Vernacular architecture has little social value, and there is no real awareness of the need for its conservation among rural inhabitants. Likewise, traditional building trades and techniques have practically disappeared, and there is a lack of people specialised in architectural conservation. It is also necessary to emphasise that there is a very large number of buildings: in the study area, most of the existing constructions in the villages could be catalogued as popular architecture, representing more than 90% of the buildings. In the conservation of elements of special interest, such as raised wooden granaries (*hórreos*), restoration costs are high, and the population must resort to the scarce public aid for their rehabilitation.

For all these reasons, we consider that this heritage is in danger of disappearing, and its research can be useful both to learn about many aspects of the anthropology and history of the peasantry, and to contribute to its conservation or to propose alternatives for the future of the rural environment. Therefore, in line with the work of many other researchers, the main focus of my research in recent years has been on the documentation and study of the tangible and intangible cultural heritage of the rural communities of western

Asturias, from an interdisciplinary perspective. To this end, I aim to answer several research questions: How can the cultural heritage produced by rural communities, especially their landscapes and architecture, be documented? What is the sociocultural context of this heritage? How has it evolved throughout history? What does its conservation contribute to society, and what can we do to maintain it? My doctoral thesis (a synthesis of which I present in this article) represents the first part of this research, which I hope to continue developing in the future, in other areas of the northwest of the Iberian Peninsula.

THEORETICAL APPROACHES

It is necessary to make a brief introduction to the theoretical approaches on which the research is based. Firstly, it should be noted that from our point of view, the entire architectural record is a product of culture through its material manifestations, and therefore, susceptible of being studied with archaeological methodology, with a transdisciplinary perspective (Mañana Borrazás et al., 2002). Secondly, architecture is inseparable from landscape. The human species intervenes on the territories in which it settles, modelling them according to its needs and converting them into cultural habitats. In this process, architecture plays a fundamental role. The connection between landscape and architecture is well defined by Glassie (2000, p. 22): the moment landscape landmarks are marked, or two stones are placed to indicate a path, the delimitation of space begins, the separation between outside and inside, and from there to the construction of larger walls and buildings is a step. In this way, architecture shapes the globality of the human-built environment, including landscapes, urban spaces and buildings, which establishes a dialogue between past and future (Roth, 1999). Landscape is the result of the interaction over time between people and the environment in which they live, being "the socio-cultural product created by the objectification, on the environment and in spatial terms, of social action of both material and imaginary character" (Criado Boado, 1999, p. 5), and is constituted by the physical environment, the social environment and the symbolic environment, modelled over time by the temporal dimension (Arruza, 2017, p. 14; Askasibar, 1999, p. 8; X. Ayán Vila, 2005, p. 36; Criado Boado, 1993, 1999). The necessary tool for the transformation of the landscape is culture, understood holistically as the set of knowledge and know-how indispensable for the development of human life in different contexts, and encompasses all the knowledge available to the species for its adaptation to the environment, as well as its material and intangible productions, in other words, all human work (Piña, 1985, p. 22).

The result of human interaction generates material and immaterial references. In it, elements that have survived in a long-lasting process coexist with others that have gradually been transformed and adapted to economic, social, and cultural changes. At the same time, new elements have emerged within the material culture, and this process of transformation has continued up to the present day. The result of all this is the cultural and architectural landscape, which is the same landscape we inhabit today, the result of the accumulation of all the historical landscapes that have occurred over time, and in which all the traces of human activity, past and present, are intermingled, superimposed and combined, forming a palimpsest (Bailey, 2007).

The great majority of the buildings studied in this work would fall within what has traditionally been called vernacular, popular or traditional architecture, or other appellatives (primitive, without architects, etc.) when they have not been openly questioned as architecture, or even placed in a lower category, as constructions. This reveals the debate that has historically existed around their definition, which we will not go into here. We agree with Blier (2006, p. 231), who, following Norberg-Schulz (1971/1980) and Bonta (1978), states that separating so-called vernacular architecture from other architectural types is a fallacious way of thinking. Architecture is still architecture, regardless of when, where, by whom or for whom it was created, so we avoid the use of labels. All architecture is part of the landscape, and we do not distinguish between small buildings and great works, as they are all productions of human material culture and are embedded in cultural contexts (Rapoport, 1969/1972; Johnson, 2010). Nevertheless, the term 'vernacular' is useful to give visibility to a large percentage of built heritage, as well as to make it a category of analysis (Glassie, 2000, p. 21).

METHODOLOGICAL APPROACHES

In this research it is necessary to systematise and organise hundreds of elements within a local culture, to understand their genesis and development, their context and relationships, their historical evolution, and their relationship with the society that created them, and at the same time, to understand the relationship that society maintains with materiality, through other tools such as operational chains, landscape archaeology, architectural archaeology, or symmetrical archaeology (González Ruibal, 2007).

Complex systems provide a theoretical and methodological framework for the organisation of information at different scales (house, village, parish,

municipality, etc.), which is why models of this type are applied in the study of traditional societies in the study area. From our theoretical approach, we consider human cultures as organic entities, in which all the elements that make up the culture, material and immaterial, form a complex network of nodes that establish various types of relationships, linear or not. They are not synchronic entities, since over time changes are introduced that can modify part or all the cultural system, introducing the factor of temporality. For this reason, we consider it necessary to go beyond chronological frameworks, considering the long duration of many processes in pre-industrial societies, applying an updated systemic approach (Johnson, 2000, p. 100).

The objective of our work is the inventory and documentation of the vernacular architectural heritage scattered throughout the study territory. Given that this heritage is at severe risk of disappearing, we consider it necessary to document it digitally for several reasons: to gather information about the material culture that can provide data for research; to enable its preservation despite the destruction of these assets through virtual copies; and to pass on this legacy to future generations. The rural community holds a vast array of knowledge, including traditional crafts, which have significant ethnographic value for understanding their culture and the history of the landscape. However, the population is very aged, making it urgent to document all this knowledge. To this end, we have designed our own database application, linked to a GIS, as well as an image bank with metadata. The database incorporates files for cataloguing movable and immovable property (identifiable by unique codes), as well as sub-files for the archaeological study of the buildings, a multilingual cultural heritage thesaurus and a file of terms for research. The system also incorporates databases for bibliographic references, and for documentary and oral sources. All these elements interrelate with each other, making it possible to build the most complete cultural heritage information system possible. The system was designed for the cataloguing of vernacular architectural heritage but can be used to document other heritages. Thus, all the architectural elements of the territory are registered in a digital file; they are geolocated in the cartography and documented photographically in an image bank, labelling all the material with metadata and unique codes that allow their identification. From there, work is carried out using photogrammetry and 3D digital models to reliably document their current state and draw up plans. Based on this cataloguing and documentation, the archaeological study of the real estate is carried out: the different construction typologies and their

chronologies are categorised and analysed, by means of readings of facings and archaeological documentation, which involves stylistic comparison with dated buildings, the use of documentary and oral sources. Samples of materials are also taken, and recently, in collaboration with other researchers, we have begun work on dendrochronology to try to provide reliable dates for the construction of these buildings, given the scarcity of chronological data we have in this regard. In this sense, this is pioneering work in the region, as these techniques had never been applied here for the study of vernacular architecture.

TRADITIONAL CONSTRUCTION IN THE NAVIA VALLEY

Despite the numerous studies on the vernacular architecture of the Asturias region, there are fewer studies available for the western part of the region. Among others, notable works include those by Armando Graña and Juaco López on the elevated granaries of the Allande council (1983), the research by Ástur Paredes and Adolfo García on Asturian popular architecture (2006), and the more recent work by Javier Fernández-Catuxo (2011) on elevated granaries in western Asturias and eastern Galicia. Adolfo García is also the author of a study on the anthropology of housing in the area (2007).

In the following pages we offer a summary of the local architecture, very briefly given the length of this article, but which aims to offer the reader an approximation to the built heritage of the region. Perhaps one of the most distinctive features of the architecture of the Navia valley, as in western Asturias and eastern Galicia, is the grey colour of slate. It is the fundamental building material in masonry and roofs and is also used for other types of construction work. However, the geology of the region is not homogeneous, since within the slate there are different formations and lithotypes, which condition the local masonry. Other stone materials such as white quartzite or *ferrial*, granite or *pedra de grao*, or sandstone, are also extracted in very specific points of the territory. The material is extracted in local quarries, where, depending on their properties, stone is obtained for masonry (quarries known as *pedreiras*), slate slabs for roofing and large flat pieces of various thicknesses (*louxeiras*), or stones suitable for tilling (*canteiras*). The extraction of building materials is carried out by the owners who wish to carry out a work with the collaboration of the community or part of it, as it is considered a task that falls within the reciprocal relations between neighbours. The masonry of most of the buildings is made of slate masonry, using larger pieces for corners, lintels, etc. Depending on the type of construction, the masonry is laid dry, as in enclosure walls, terracing or

other works, or using clay mortar, which is more common in buildings and helps to set the stones. Knowledge of masonry was widespread among the peasantry, who carried out the usual repairs, while more complex works were carried out by specialised stonemasons. The use of lime is very rare, as it is a material that does not exist in the region and must be imported. Its use is restricted to domestic interiors, and its use began to become widespread at the end of the 19th century, used mainly for interior plastering and in the exterior decoration of some buildings. The use of pigments for decoration and protection of wood was also rare in the area until the end of the 19th century. Generally, iron oxide or *mazarron*, which is extracted from local veins, lime white and blue are used.

Regarding wood, the most used in construction are chestnut and oak, and with industrialisation, from the end of the 19th century onwards, pine was introduced. The wood is cut in the communal forests or on private properties, by teams of carpenters who work and square the trunks with an

Figure 3. Hórreo *thatched with rye straw, in Pasarón (Vilanova d'Ozcos).*

axe to obtain beams and saw by hand the planks that will later be used in carpentry. Apart from the main walls, which are made of stone and have a structural function, timber is used for roof trusses, floor slabs and enclosures, and in constructions made entirely of wood, such as overhead barns (*hórreos* and *paneras*).

The oldest roofing system that has survived to the present day is that of green roofs, although today their use is marginal and very few craftsmen are involved in their construction. Rye straw is used for this purpose, which is laid using the '*beo*' technique, which consists of arranging the thatch on the roof, spreading it out in a regular manner, and fastening it using a braided rope made of *uz brancal* (*erica arborea*) (Graña García & López Álvarez, 2007; Parque Histórico del Navia & Oficina de Coordinación Cultural y Lingüística, 2011, p. 9). Its use is highly appreciated in overhead barns, as it maintains a suitable thermal stability inside for the preservation of meat products.

Although the use of slate slabs for roofing has been known since ancient times, it seems that the use of slate roofs was restricted to buildings of a certain quality. From the 16th-17th centuries onwards, based on documentary evidence, slate roofing seems to have become more widespread among the peasantry, although rye continued to be used as a roofing material. The technique of thatching did not disappear, and in fact it is still alive and well in the municipality of Grandas de Salime.

CONSTRUCTION TYPOLOGIES

Henry Glassie, in his classic study of eighteenth-century Virginia architecture (1975), concluded that the design of dwellings was based on a series of basic units, to which craftsmen applied a system of 'grammatical' rules to obtain different typologies of dwellings and buildings. Glassie referred to this method as transformational grammar, that is, a series of units that went through cognitive phases until they became houses (Johnson, 2000, p. 123). In our research we found a certain diversity of building typologies (dwellings, stables, barns, haystacks, etc.), but we observed that there is a recognisable local building language in the different building elements (walls, spans, dimensions, etc.), which combine to form the different building typologies, building and architectural typologies that also evolve over time.

THE HOUSE

In the Navia valley, the most primitive house model is the stone house with a round floor plan and a green roof. This typology, whose most remote antecedents would be the protohistoric huts found in the fortified settlements of the northwest (X. M. Ayán Vila et al., 2005) is widespread in other areas of Asturias, León and Galicia, and its use has survived until recent times in some regions, where some buildings are still preserved (called *pallozas* or *pallazas* in Galicia). There is an abundant bibliography on this type of building (Graña García & López Álvarez, 1990, 2007; Paredes, 1997), so we will not go into this in detail here. In the study area there are some elements of this typology whose chronology is still uncertain.

From the 17th century onwards, the usual model of peasant housing that can be found throughout the area began to spread, which some researchers call a block house (Paredes & García Martínez, 2006). They are cubic houses, made of slate masonry and covered with three or four slopes of thatch or slab. The openings are small and frequently framed in large pieces of stonework and lack lime plastering on the interior and exterior. When the house is in areas with a steep slope, they adapt to the hillside. Generally, on the lower floor is

Figure 4. Round house in Grandas de Salime.

the court or stable, where the livestock is housed. The cellars are also located here, if the house has them. On the upper floor, which can be accessed by a ramp on the slope, there is a doorway and the kitchen, and above the stable, there is the living room and the bedrooms. In the humblest houses, there are no individual bedrooms, the living room being an open space that houses the beds and other belongings. We have been able to date some of the oldest examples to the middle of the 18th century by inscriptions.

At the end of the 19th century, a very common typology in the coastal area of western Asturias, which some authors call evolved "casías" (Paredes & García Martínez, 2006), began to spread towards the interior valleys. Its characteristic profile is that of a large rectangular volume, with a half-hip roof, eliminating the apex of the gable end and thus finishing off the ridge with a chamfered ridge. The typologies of the late 19th and early 20th centuries began to incorporate glass windows, which replaced the old wooden windows; the use of whitewashing and interior distributions around corridors and rooms also became popular. The construction of new houses was influenced by the arrival of capital from emigration to America, which made it possible to renovate the old houses or to build new, larger, more spacious and luminous houses

Figure 5. Remains of a round house in Argul Pezós/Pesoz).

Figures 6, 7 and 8: Houses in Pelorde (Pezós/Pesoz), 18th century.

Figure 9: Casa de Linera (Oneta, Villayón).

Figure 10: Brañaveya (Pezós/Pesoz).

Figure 11: Vilar de Buyaso (Eilao/Illano). Different typologies of hillside or turria houses, one of the most widespread peasant housing morphologies in the region. As can be seen in the images, they maintain a certain harmony in the system of proportions, distributing the openings of the facade and the interior around modules of one to four openings.

of various heights. However, the distribution continues to be very similar: stables and cellars on the lower floor, the kitchen, living room and bedrooms on the second floor, and an attic that can be used as an auxiliary space or to store agricultural products. From the 1920s onwards, rectangular houses with gable roofs began to be built, and finally, from the 1960s onwards, new types of houses made of modern materials were introduced, which broke with the constructive logic of the traditional architecture of the area.

In this typological evolution proposal, it is necessary to consider several factors. The houses remain in use for long periods of time, and innovations are introduced on the older ones, such as the opening of larger glazed openings, extensions in height or sides, etc., following the construction fashions of the moment, but sometimes the traditional forms survive, so that the constructive analysis must include the typologies of both the building and its different elements. It is also necessary to consider the continuous reuse of old elements, or the survival of some forms in some areas, so that the typology of the building is not always a reliable indicator of its age. We often find in the buildings, wall stratigraphies, sometimes of a certain complexity, which show that they are not static architectures, but are in continuous adaptation and evolution over time.

Figures 12 and 13. Mixed models of turria and casia house in Zadamoño (Eilao/Illano).

THE ROOMS OF THE HOUSE

The kitchen

The kitchen is the main space of the peasant house: here people cooked, prepared bread, warmed up the family, received friends and relatives, and told stories and tales. The oldest kitchens are called *tizois* kitchens. They are kitchens with open fires on the floor, whose antecedents go back to prehistoric times, to the Iron Age homes that can be found in many castle dwellings. Generally, they usually have a floor tiled with slate slabs, and the fire is in the central space. The smoke comes out through the roof, by *lumieiras,* or in the most developed and wealthy houses, with wooden bells. The smoke is also used for curing sausages and dried fruits such as chestnuts. Around the hearth there is a bench, the *escano*, where the family sits, which incorporates

a table that can be raised and lowered, the *mesa de levante*. The cauldrons and pots for cooking are hung from an iron chain called *gamalleira*, attached to the *guindaste*, a structure consisting of a horizontal pole supported by a rotating vertical pole, which allows the pots to be moved from the fire. In the kitchen we also find the bread oven, a fundamental element for domestic food production, since it constitutes the basis of the diet (García García, 1976, p. 274; Paredes & García Martínez, 2006, p. 101; García Martínez, 2007a, p. 52; Fernandi Bas Costales, 2019).

In the first decades of the 20th century, iron kitchens, called economical or *bilbaínas*, began to become widespread. They did not replace the old *tizois* kitchens, since these were still used as auxiliary spaces to cure the *mondongo* (the products of the slaughter), or to prepare the food for the animals. Sometimes they coexist in the same room, but if the kitchen room is large, it can be divided in two by a partition wall, with one part for the old kitchen and another for the new one. Other rooms can also be adapted without demolishing the old kitchen. The new kitchens incorporated modern elements, such as countertops and tile fronts, or the generalized use of the table and chairs to sit down to eat, new furniture and appliances, etc.

Figure 14. Tizois *kitchen of the* Casa del Vilar, *in Argul (Pezós/Pesoz). Source: www.grupocountryhomes.com/propiedad/1219-casa-a-reformar-en-pueblo-medieval*

Living rooms and bedrooms

The space of the hall was common in the houses of wealthy farmers and local elites, and little by little, it was incorporated into the homes of the common peasants. It is usually located in the noblest part of the house, on the upper floor, with the openings facing the facade. In the common houses it has diverse uses, from bedroom, storage of the harvest of certain products, chests for clothes or corridor-distributor (Graña García & López Álvarez, 1996, p. 401). It is the place where families celebrate family and social events.

The living room plays the role of a social integrator. It is an interior space of the house, but projected outward, which opens to the rest of the neighbourhood on certain dates of special relevance for the community and the family. Thus, around meals and domestic events, the use of this space makes it an integrator of the family within the rural community (García García, 1976, p. 276). It is the place where family members and friends of the domestic group gather for meals on special days, such as patron saint festivities or on farm chores, slaughtering, and *mallegas*. It is also used in family events, such as wedding meals, and it is the place where the deceased are watched over before being taken to the church and the cemetery. And therefore, the living room is a space of social representation of the family itself, but within the

Figure 15. Wood stove, ca. 1920-30. Vilarmayor (Grandas de Salime). During the 1920s and 1930s, the renovation of the kitchen in popular houses began, with the introduction of wood-burning stoves, tiles and new furniture and customs.

dwelling. The furniture here is of a certain quality. We find a large table with chairs and the cupboard or sideboard where the chinaware is kept. The living room, as a space of representation, also houses objects of a symbolic nature, such as the clock, which became widespread in houses of a certain level at the end of the 19th century. With the appearance of photography, the portraits of the ancestors are placed here, highlighting the photos of the ancestral marriages of the family. Thus, this space becomes a space of representation and reproduction of the social and identity capital of the family (Rodríguez Pérez, 2022). The houses also had sleeping quarters, at least that of the main couple, and others such as the *folga* room, which was intended for guests. But given the large number of family members, beds were often shared, and the living room space was occupied by the young children.

STABLES

The *corte* or stable is the space destined for the shelter of animals, bovine as well as equine, goat and sheep; habitually they are located in the first floor of the house. In the houses attached to slopes a part is excavated from the rock to increase the usable space. They are very simple stables, with a manger where the animals are tied up and are provided with fodder. They do not have channels for the evacuation of liquids or similar. The pavement may be

Figure 16. Main hall of the house of the Chousaveya, in Llombatín (Eilao). The house, dating from the 18th-19th century, underwent a major renovation in 1929. This is the time when the space of the central hall and the four rooms on the sides are configured, generating private spaces. The space is whitewashed and painted, and a sash window is opened to let in light and create a viewpoint.

of trodden earth or of the bedrock itself. They are usually dark spaces, with small flared windows as the only ventilation.

AGRICULTURAL CONSTRUCTIONS

Bread cereals (wheat, rye, corn, etc.) have been the basis of the local peasantry's diet until recent times, and the vital calendar of rural communities is structured around agricultural cycles (García Martínez, 2007b). Given that families produced for their own sustenance, and for the payment of the rents of the lands owned by noble or ecclesiastical elites, the farmhouses and villages were equipped with a series of buildings and spaces necessary for the exploitation of the agricultural and livestock resources of the landscape, such as cereal production and other crops such as vineyards, fruit and forest species, or the production of honey.

Around the villages we find the cultivation areas. The *vilares* and *cortinales* are the lands of cereal cultivation, delimited with dry masonry walls (with different typologies), or enclosures of large slabs of slate driven into the ground (*chantos*). These enclosures enclose private properties, meadows, roads, communal spaces, etc., and prevent the passage of livestock. The steepest terrains are adapted for cultivation by the construction of terracing

Figure 17: Stable in Argul (Pezós/Pesoz).

structures, the *zapatas*. Thus, by means of stone walls, slopes and cobblestones, a network of roads, irrigation channels, etc. is formed to form the agricultural space around the villages.

The villages and *caserías* have a series of specific constructions for the processing, conservation, and preparation of cereals for consumption. Once the grain has been harvested in the cultivated lands, the *cuelmos* are transferred to the *eiras de mallar*. These are open spaces, covered with large slate slabs,

Figure 18. Footings to create terraced cultivation spaces in Salime (Grandas de Salime).

Figure 19. Eira de mallar *in Pelorde (Pezós/Pesoz).*

where the *mallega* takes place, an event that in August brings together family members and neighbours to carry out the work of separating the grain and straw, and cleaning the cereal to store it in the raised granaries, the *hórreos*.

RAISED GRANARIES

The bread cycle continues with the conservation of the grain in raised granaries (*hórreos, paneras* and *cabazos*). These constructions are perhaps the most archetypal of Asturian rural architecture and enjoy legal protection and social recognition of their cultural value. In the study area, some reference works have been published on these elements, such as the works of Juaco López and Armando Graña (1983), and Fernández-Catuxo (2011). There is evidence of the existence of raised granaries in the northwest of the Iberian Peninsula since pre-Roman times. In early medieval times the existence of these elements is cited in written documentation (*orrea*), whose typology was probably the same as that of the Galician *cabaceiros*: small circular structures, made with walls of woven rods and conical plant cover, a typology that is documented in the area until the 17th century, according to some descriptions of the 16th century (Alfonso de Carvallo, 1695, p. 26). From the 17th-18th centuries onwards, the *hórreo* model with wooden box and hipped roof began to spread throughout the region, following the models that were being developed in central and eastern Asturias since the end of the 15th century (Graña García & López Álvarez, 1986, p. 460). In our research, the oldest references to raised granaries are traced in notarial documentation, which attests to the presence of *hórreos* with wattle walls (*orrio de bara*, 1583). Already in the 18th century, written documentation records the presence of hundreds of these elements associated with farmhouses, which always repeat the same scheme: four-foot granaries made of chestnut or oak wood, many of which have a space underneath that is used as a stable, cellar or auxiliary space.

The *panera* is a typological evolution of the *hórreo,* it maintains the same scheme but instead of a square floor plan, it increases its surface with a rectangular floor plan, since it is designed to house larger harvests. Their construction spread in the area from the end of the 18th century; they continued to be built until the first decades of the 20th century, and we find them especially in the eastern part of the Navia river, in the municipalities of Allande and Eilao/Illano. From the inscriptions engraved on them and the data of the written documentation, we know that from the first half of the 19th century many hórreos were replaced by paneras (Graña García & López Álvarez, 1983). In them, there are also carved decorative programs of

Figure 20. Hórreo in Pelorde (Pezós/Pesoz).

Figure 21. Panera in Estela (Eilao/Illano).

Figure 22. Mondoñedo style cabazo in Santesteba (Eilao).

the so-called Allande style (Graña García & López Álvarez, 1985), mainly *tetrasqueles*, clocks, monstrances, etc. At the end of the 19th century and up to the middle of the 20th century, another type of overhead granary spread throughout the region, the *cabazos*, a building derived from the raised granaries of the neighboring region of Galicia. These are rectangular buildings with wooden slatted walls, more suitable for air circulation and corn preservation (Fernández-Catuxo García, 2011; Arrieta Berdasco & Ferreira Martínez, 2022).

HYDRAULIC MILLS

One of the most studied elements in the works on vernacular architecture are the hydraulic mills, wide-spread throughout northern Spain due to the abundance of rivers and streams that allow the use of hydraulic energy for milling. Their use made it possible to transform the cereals produced in the farmhouses into bread flour for domestic consumption (García Martínez, 2007b, p. 59). The presence of hydraulic mills in the area has been documented since the early Middle Ages, in the documentation of ecclesiastical archives such as that of the monastery of Santa María de Villanueva de Oscos. With the data we have today and without archaeological excavations, we cannot certify the real age of many of these mills, although most of them, or at least their location, is recorded in the Ensenada Cadastre (1752). In some cases,

during the prospecting works, we have located remains of old canalizations, with post holes carved in the rock of the riverbed and indications of wooden dams, which indicates that many of the present mills are in the same location of other previous ones.

The typology is common to all these mills: a dam that cuts the river and diverts the water (*a turula)* into a channel that leads the water to the dam where the water is dammed (*banzao*), at a sufficient height to descend through the bucket and come out with pressure to move the horizontal wheel mechanism (*rodez*), which transmits the movement to the millstones (*moas, molas*). In the most modern examples, the machinery is made of iron and includes sieves for *peneirar* (sifting the flour and separating it from the bran).

WINE PRODUCTION

Historically, vineyards have been one of the most important agricultural productions in the middle Navia basin, and in the past, they occupied a significant area of the lower quality land (Pasarín Arne, 2004). Most of the farmhouses in the area had their own vines or vineyard cultivation areas and produced wine for domestic consumption and surplus for sale. Its cultivation was carried out either next to the houses, with wooden trellises supported on pillars and walls, or in vineyards on suitable land. The constructions of wine

Figure 23. Interior of the Sequeiros mill (Pezós/Pesoz).

production would be the subject of much more extensive work, so we will limit ourselves to briefly outline them. The peasants had communal or private wine presses, where the must was extracted with large wooden presses, or they did the process themselves by treading it in vats (truncated cone-shaped barrels open at the top, or in baths (large monoxylic pieces in the shape of a bathtub). The grapes matured in barrels in the cellars, which can be found inside the house, in small buildings near the farmhouses, or located in the vineyards, where the wines are kept in barrels or *bocóis* until consumption. The cellars are of two types: either a room in the lower part of the house, occupying dark, humid spaces in contact with the ground, or in free-standing buildings, of small dimensions and one or two floors. The vats are stored on the lower one, and the upper one maintains an auxiliary use. The orientation is usually towards the north, to prevent the sun's rays from entering and to keep the room cold and humid. Occasionally in the vineyards, we find sets of cellars such as the one in Busmayor (Grandas), where families used to go during the harvest season.

Figure 24: "Molín veyo" (old mill) of Brañaveya.

Figure 25. Cortín in Valledor (Allande).

BEE PRODUCTION

Beekeeping has a long tradition in the study area and is one of the most important activities of the homestead (López Álvarez, 1994). Honey for domestic consumption and wax were obtained from the hives. Most families owned several beehives (*trobos*), distributed around the house or in *cortines* located in the most unproductive or scrub areas. The *cortín* is a circular structure, 7 to 10 meters in diameter, which is in places far from domestic habitats, in unproductive areas, and can house several dozen hives,

thus protecting them from bear attacks. The chronology of this typology is uncertain, although there are documents that date its origin to the 17th century. Many of them are still in use today.

FORESTRY PRODUCTION

In Asturias, the chestnut tree (*castanea sativa*) has historically been a fundamental resource for rural societies. The chestnut was a staple food in the rural diet, sometimes replacing bread for several months of the year (Fernández Benítez et al., 2002, p. 54). Traditionally, chestnut trees were planted in *soutos* (chestnut-growing forests), on the edges of farms or in communal spaces. Each farm had several trees, considered as another property of the farm, which could be sold or rented. Chestnut trees had a mixed production, oriented to both fruit and timber production. To this end, work was done on the cultivation of the tree by means of pollarding, which consisted of pruning the upper branches to obtain shafts without cutting down the tree and thus not losing its fruit production.

Chestnuts were harvested in the autumn, by shaking the branches to release the burrs, which were then collected and stored in the *corripas*. The *corripas* are dry stone constructions, between 2 and 4 meters in diameter, where the chestnuts were stored with their burrs. There, they were covered with

Figures 26 and 27. Pollarded chestnut in Villanueva de Santu Adrianu (Asturias). Corripa at Sequeiros (Pezós/Pesoz).

ferns and vegetable matter until the burrs rotted, and after two months the chestnuts were removed and taken to the house to be cured and preserved in *hórreos* and *paneras* (García Martínez, 2007a, p. 118). Dozens of these constructions have been preserved in the study area.

HUNTING STRUCTURES

In this area, we can also find a constructive typology of a hunting character, the *cousos* for hunting wolves. These structures consist basically of an enclosed enclosure of masonry walls of a certain thickness (up to 2 meters), and between 2 and 3 meters high. In the case of those preserved in the upper Navia, some are quite large (75x44 meters). They form a closed enclosure, without entrances, and topped by an overhang towards the interior. Inside these corrals, a bait was placed, dead or alive, to attract the predator (generally wolves), which, once inside, could not get out. The

Figures 28 and 29. Couso dos lobos *of Pelorde (Pezós/ Pesoz).*

oldest references to the construction of these structures date back to the early medieval period in other areas of the Iberian Peninsula (Ordóñez Castañón & Concepción Suárez, 2017, p. 75). In the future, it would be interesting to carry out archaeological interventions on these elements to characterize them and determine their chronology.

CONCLUSION - FUTURE PERSPECTIVES FOR THE CONSERVATION OF THIS HERITAGE

The perspective for the conservation of vernacular architectural heritage is discouraging. The crisis of the rural environment in some European regions, together with industrialisation and changing patterns of land use, have led to rural depopulation and little interest in the preservation of these assets. As a result, a significant part of the vernacular architectural heritage has fallen into ruin and neglect.

In recent years, a network of associations dedicated to the defence of ethnographic heritage has emerged in Asturias, with the aim of increasing social awareness of the value of these elements and the need for their conservation. However, the problems do not have a simple solution. For this reason, we believe that the most viable solution at present is the graphic documentation of this heritage (both photographic and planimetric), research into its characteristics and history, and the implementation of heritage education actions that transmit the importance of its preservation to young people. Documenting and studying the ethnographic heritage of rural communities is a fundamental tool for the future, as valuable lessons can be gained from this knowledge. This means recording and understanding how a piece of land has been occupied, and how a human group has developed techno-ecological adaptation strategies throughout history. It also means understanding ways of life and production, material culture (architecture, artefacts, etc.), as well as the intangible world linked to these objects: mentalities, religiosity, forms of social organisation, leisure, etc. This type of study makes it possible to establish links between culture, heritage, landscape, and contemporary societies.

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