

# Vernacular Architecture Case Study: Picote

Manuel Diogo, Maria Diogo, Patrícia Diogo, Joana Diogo

**Abstract**— In Vernacular Architecture, the analytical study of formal aspects related to the cluster, with especial relevance to the measurement of full and empty spaces, uses, height measures, conservation condition and marking of typological variations, in particular those who are linked to the housing architecture, storage, processing and production. In addition we proceed to the existing hierarchy and classification of public spaces and registering relevant architectural elements through drawing by hand raised.

**Index Terms**—border architecture, cluster, formal and typological variants, vernacular architecture.

## I. INTRODUCTION

For the understanding of this case study is imperative that we introduce the territory with its administrative characterization. Picote is located in the Northern of Portugal in Europe.

The Union of the Villages of Picote and Fonte Aldeia belongs to the municipality of Miranda do Douro, district and diocese of Bragança, is geographically situated on the right bank of the Douro River in the far south-east of the county's territory slightly hilly and mountainous terrain, overlooking the deep Douro valley separating the Natural Parks of the International Douro in Portuguese side and Arribes del Duero in the Spanish side.

## II. HISTORICAL AND CULTURAL FACTORS

In the absence of reliable historical references that determine the etymological designation of Picote we rely on the interpretation of the Priest Augusto Ferreira [1] that states that can derive of the etyma picoto, hill or acute top of a tor, being also assumed that the qualification is originated in the old location of the village, meaning here small or little mountain high peak [2]. The origin of this thorp - that over a long historical period have suffered the vicissitudes resulting from the Moorish occupation that left a diverse archaeological legacy - is attributed to the Bronze Age or early Iron Age. Also the Romans left here their passage attended by seven hundred years, changing the habits and customs of the indigenous population by imposing their culture, in particular the law, the art and the religion as can be seen by the large number of funeral tombstones.

As a settlement, Picote appears cited for the first time in the Inquiries that D. Afonso III done around the kingdom and therefore in all the Land of Miranda and attachments places to Algosó Village.

## III. ANALYTICAL CROWDED RECOGNITION

The cadastral survey of formal elements were recorded in planimetric plant comprising three typological variants from the following aspects [3]:

- 1) full and empty resulting nesting structure that is formed from an organic concentric mesh that expands radially from Church as we see on Fig. 1 painted in yellow, located in the center of population;

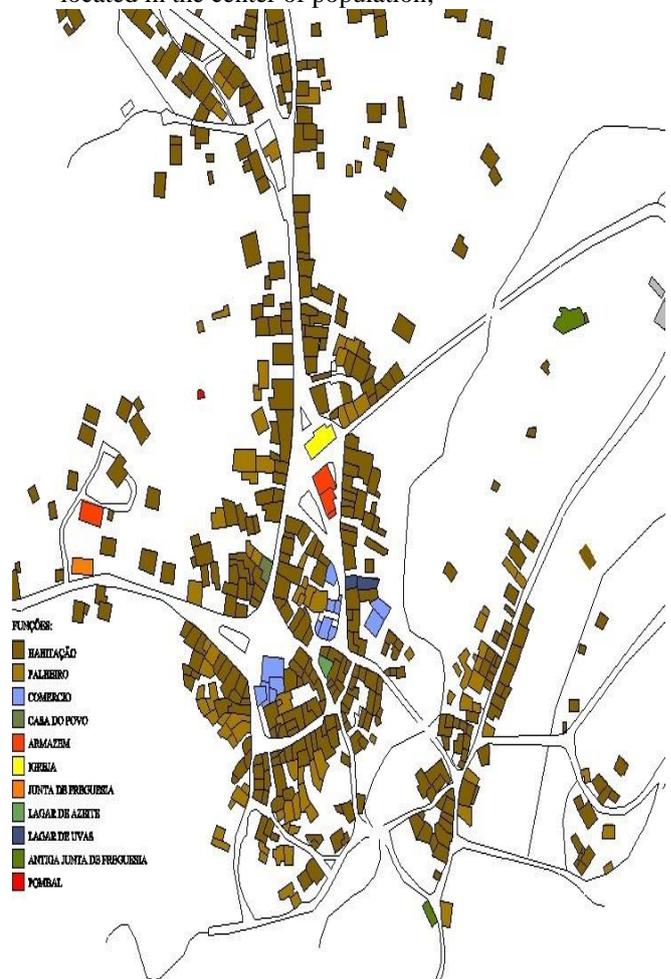


Fig. 1 – Functions of the Village of Picote.

- 2) Buildings intended for complementary activities to support agriculture and others in smaller numbers, for processing architecture such as wine and olive oil mills, and furnaces wood intended for bread-making as we can locate on Fig. 1.
- 3) altimetry survey of formal variants of the ground floor houses and of two floors houses and, although being rare, the three floors houses which in this case are spread by cluster as we can observe in Fig. 2.

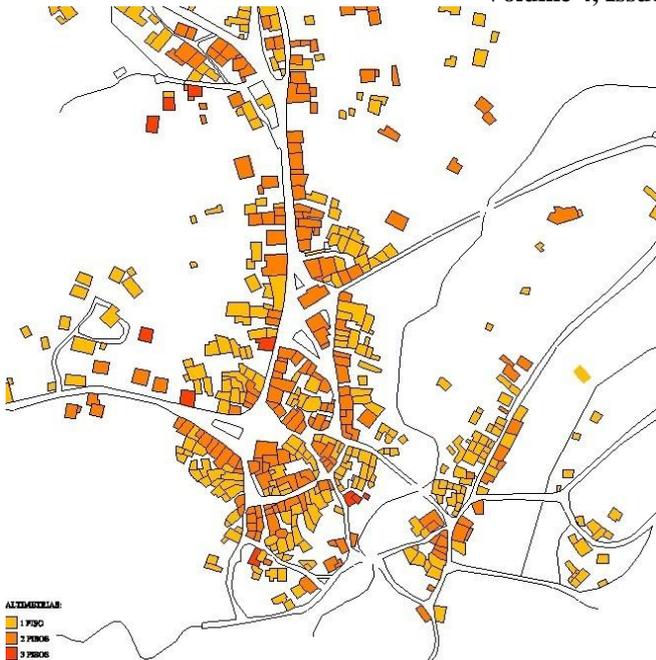


Fig. 2 – Plan of Altimetries, Village of Picote.

4) State heritage conservation pointed in Fig. 3 that has suffered from the introduction of materials and construction techniques that alter dysfunctional array of traditional architecture.

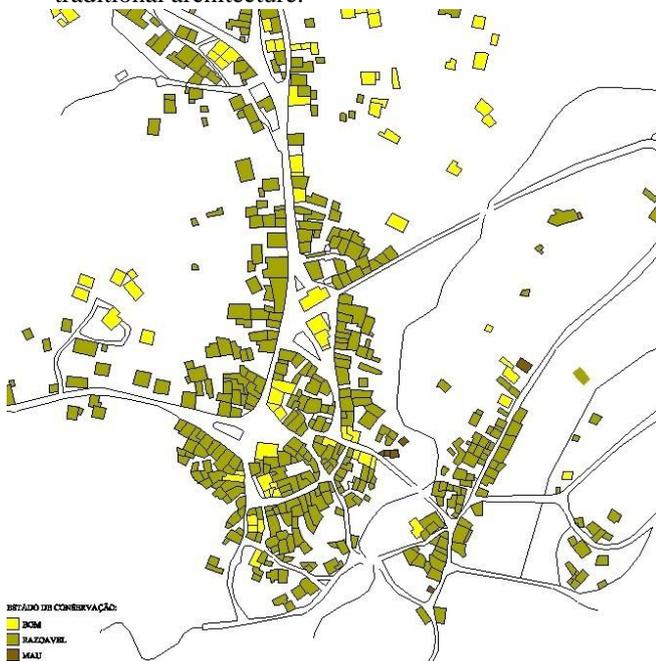


Fig. 3 – Plan of the state of conservation of the constructions, Village of Picote.

#### IV. FORMAL VARIANTS

##### A. *Tipe 1*

The first type corresponds to a house drawn in Fig. 4 with two floors with balcony and external staircase parallel to the facade, adding another building adjoining intended to guard utensils used for farming

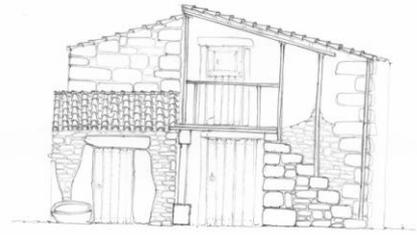


Fig. 4 – Facade of a two floors house in Picote, drawn by Joana Diogo.

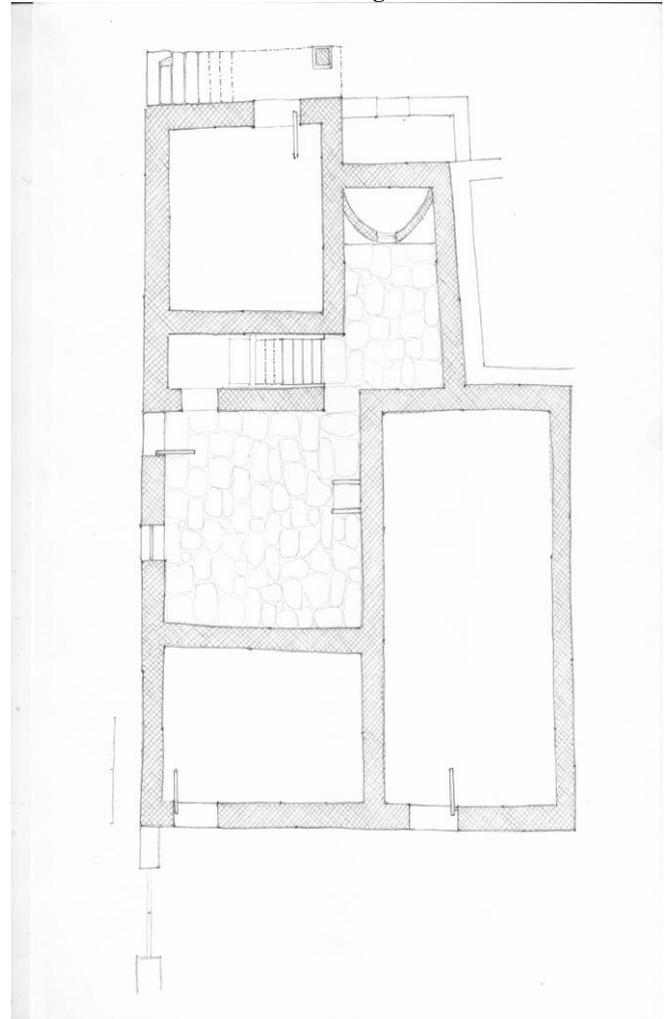
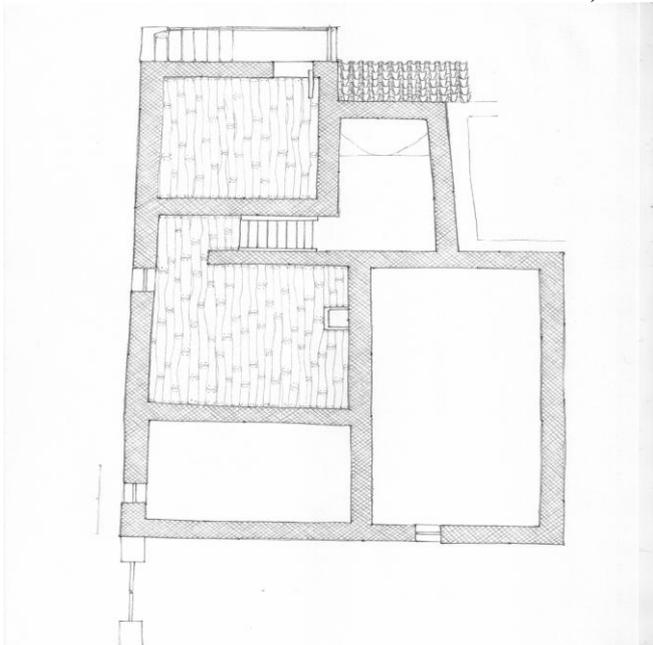


Fig. 5 – Exemple of a groundfloor house with two floors, drawn by Joana Diogo

On the ground floor are distributed the shop, the store, the bread furnace and the kitchen as we can observe in Fig. 5; in the north elevation, below the balcony, are distributed the pen of pigs, and at the same height, but in the space that supports farming, there are two barns and a court for animals;

On the first floor illustrated in Fig. 6, where access is made through the loggia gabled by the roof advance, coated gutter tile, the house is composed of kitchen, living room and two bedrooms.



**Fig. 6 – Draw of the first floor of a two levels house, Picote, Drawn by Joana Diogo.**

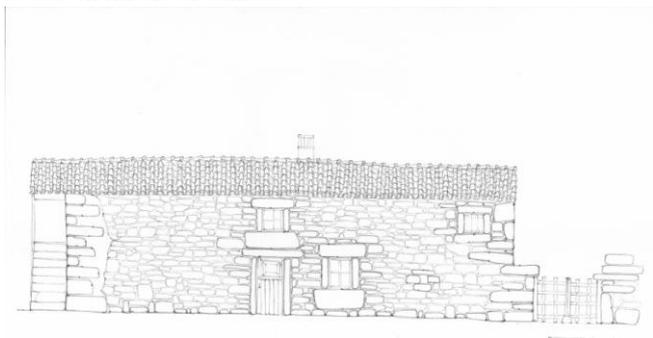
It is noted that there is a variant of the two-storey house that has no balcony, and differs from the previous in the access flooring that is effected through one staircase built in wood.

**B. Type 2**

The second type is located in the oldest part of town. It is a core of considerable size, consisting on ground floor, first floor and a building that serves as a support to farming which is currently shredded due to successive sharing operations;

The access to the ground floor is processed through the main elevation, oriented to the east, where are located the living room, the kitchen and the bread furnace. At the same quota in the elevation facing south, under the balcony, are located the pen of pigs and chickens roost;

The accesses to the first floor through the granite staircase and balcony extending parallel to the facade and organize the connection to the distribution of the rooms area. In the formal setting plan the balcony, and partly the ladder, are covered by the roof extension as we see on Fig 7, gable coated Moorish tiles, whose weight is distributed by vertical wooden beams based on lintels of schists.



**Fig. 7 – Draw of a facade of a one floor house, drawn by Joana Diogo.**

Note that contiguous to the dwelling house are located in most cases in auxiliary and complementary constructions of support to agriculture, spatially organized with high-ceiling, for the storage of fodder, cuts designed to livestock intended for the creation, production meat and milk, and also those who help in farming chores.

Constructively the corners, the lintels and jambs are constituted by larger stones, building facades by valued pace in small holes of the resulting structural assembly that aided in the construction, currently serving not only of shelter for birds, but also ventilation system.

The roof eaves is usual to find small embedded shale blades in order to protect the structural stability of the masonry of rainwater infiltration.

**C. Type 3**

Corresponds to the single-storey house and belongs generally the households of lower economic means;

The main elevation is formally constituted by a door or a door and a window.

The spatial organization has a kitchen and one or two bedrooms although in many instances belong to a large family;

This set consisting of two cores separated by a street layout, is located in the oldest area of Picote, following the slope and differentiation of dimensions that characterize the morphology of the site;

Housing of one floor consists of kitchen and bedroom with sloping roof of one water coated Moorish tiles;

In higher elevation located in the barn and a covered to keep the car pulled to draft animals and, not far, the only division haystack.

This core consists of small vegetable garden and chicken coop situated to the west. Constructively comprises a rubble apparatus which stand out corners, the jambs, the door and window lintels and the coverage of a single water mourisca coated tile.

**V. CONCLUSION**

Selected typological variants represent first community expression that influenced the weather, the physical structure of the territory, the characteristics of the materials and then the work of individuals who built and contributed to determine the formal nature and the plasticity of the buildings that now thrive in a volume of one floor where are located the rooms and facilities designed the kitchen, wood and multipurpose space for storage; or, when circumstances so require, a volume that develops between the ground floor formed by the designated "home rush", storage and cellar and the first floor consisting of kitchen, bedrooms for the household and, possibly by small room.

It also has relevance the fact that we do not find in traditional architecture Picote the preponderance of external staircase while matrix that characterizes many rural centers of Bragança region or complementary buildings designed to accommodate the animals are located on the ground floor; in

most cases they are separated and constructed in place adjacent the housing intended to house.

However, given the fact that agriculture is based on model of exploitation of auto consumption, dominated cultures of wheat and rye, wine and the cultivation of vegetables in the most fertile land and plenty of water, close to home or in adjacent yards, produced a type of architecture that Maria Xavier Diogo developed in doctoral thesis under the heading “Arquitectura Complementar e do Trabalho” [4].

Currently, similar to what was observed in most of the Portuguese countryside also the effects of emigration is reflected in the economic situation of the population, a presence the influence of models mischaracterize the array of traditional architecture and indicates the mismatch between the new and the old Community culture.

In the future, we hope that this work of research about Picote, contributes with a solid base that provides the tools to improve enhancements in the territory, in the village, and in population quality of life.

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#### AUTHOR BIOGRAPHY



**Manuel Diogo** was born in Sendim, Portugal in 6th February of 1954. In 1994 he defended his Doctoral Thesis in Escuela Técnica Superior de Arquitectura in the University of Valladolid with the title “Arquitectura Vernácula em Terras de Miranda” recognized in Portugal by Oporto University. He is Integrated Research in CEPESE - Centre of Studies of Population, Economics and Society, classified by FCT - Foundation for Science and Technology with Very Good. He his the Coordinator and principle investigator in the research project registered with the n.º. **PTDC/AUR-AQI/120606/2010**, with the title “**Território, Assentamentos e Arquitecturas de Fronteira**” classified by FCT with Excellent.



**Diogo, Maria** was born in Sendim, Portugal in 10th January of 1957. In 2002 she defended her Doctoral Thesis in Escuela Técnica Superior de Arquitectura in the University of Valladolid with the title “Arquitectura Complementar e do trabalho em Terras de Miranda” recognized in Portugal by Oporto University. She is Integrated Research in CEPESE - Centre of Studies of Population, Economics and Society, classified by FCT - Foundation for Science and Technology with Very Good. She belongs to the research project registered with the n.º. **PTDC/AUR-AQI/120606/2010**, with the title “**Território, Assentamentos e Arquitecturas de Fronteira**” classified by FCT with Excellent.



**Diogo, Patrícia** was born in Oporto, Portugal in 10th June of 1980. In 2009 she defended her Doctoral Thesis in Escuela Técnica Superior de Arquitectura in the University of Valladolid with the title “Núcleos Rurais: uma manifestação de autenticidade” recognized in Portugal by Oporto University. She is PhD and Auxiliary Professor of University Lusíada of Oporto and University Lusíada of V.N. de Famalicão and teaches Project in Architecture Department and Master Program.



**Diogo, Joana** was born in Oporto in 27<sup>th</sup> June of 1984. In 2012 she defended her Doctoral Thesis in Escuela Técnica Superior de Arquitectura in the University of Valladolid with the title “Morfologias e Tipos Arquitectónicos no espaço rural” recognized in Portugal by Oporto University. This work was supported by the Portuguese Government under the FCT – Foundation for Science and Technology. From 2012 she is a researcher in the Research Project n.º **PTDC/AUR-AQI/120606/2010**, with the title “**Território, Assentamentos e Arquitecturas de Fronteira**” classified by FCT with Excellent. She is PhD and Auxiliary Professor of University Lusíada of V.N. de Famalicão and teaches Project in Architecture Department.