Typologies in Rural Context
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Abstract—The interest of our research lies in the establishment of a reference frame that allows us to conclude if the rural settlement constitutes a whole homogeneous in the territory scale and if each scale of the morphology of the habitat can define a mission associated himself with the other, so that we may propose the recovery, revitalization and protection in terms of usage and exploitation of the most relevant and exemplary elements of the identity in the rural matrix that the community was producing and arranging over time.

Key Words—Morphology, Recovery, Rural, Typology.

I. INTRODUCTION
By setting the boundaries of this research, focusing its impact on the architectural morfo-typologies in rural areas, we made it aware that any of them may result from the set of events that characterize a particular society and that to knowledge them, from physically perspective, there may be no better way of working that can replace the graphic survey of the most representative models, that shows the initial matrix, their transformations and their cultural morphology.

However, it should not be considered that the architectural survey of selected typologies is just a simple act of measuring, but a graphical transcription of its formal qualities that vary depending on the greater or lesser difficulty that can be observed, analyzed and recorded in a real context.

The path of obstacles encountered during the approach of the structure of settlements and rural settlements also emerged some constraints that derives of the operative nature of the constraints inherent in the survey of the popular architecture models, because they were not designed based on dimensional or metric systems, while there is a proportion and has been achieved through other elements such as the inch, the foot or the stick, elements that in any case introduce uncertainties in the elements to measure, sometimes due to the lack of parallelism between walls, other due to the irregularities of the coating when exists and others due to the state of conservation of the majority of its structures.

II. RURAL SETTLEMENTS
A. Spatial Characterization
In Fig. 1 we can observe what hand drawings shows, which are based in the characterization of the building structure with continuous or discontinuous involvement, that gave us a concise and unified vision between all architectural elements and relational spaces, particularly between squares, streets, alleys, lanes and courtyards, centering the object in question, on a scale which contributes to specify its volume and spatial organization.

Fig. 1 – Draw of the Village of Vilar Seco

This methodology, used as well by Juan Baez Mezquita [1], allowed us to analyze the physical component of their concrete appearance and materials covering aspects such as the site, which includes the construction and implications of the logic of articulation and prioritization of various building elements as we can see in Fig. 2 and 3, identifying the materials they are made through their representative symbols.
Fig. 2 – Village of Vilar Seco

Efren Garcia Fernandes [2], refers that the relationship between the geometry of the building, particularly the strength characteristics of the material to traction and compression - and even the use of wooden girders themselves - for a first quantitative approach to the static of the building and a careful reading of the elements and the existing structural disorders, particularly the identification of the causes and processes that trigger through plans, sections and elevations, using dimensioning and triangulations.

Fig. 3 – Draw of an architectural typology in the Village of Vilar Seco.

This stratigraphic analysis, that assigns meaning to the constituent parts of the architectural object, allows us to make the withdrawal of morphologies and architectural typologies highlighting various construction seasons to confirm or deny the historical value of a site, a building or a group and the recognition that the historical and architectural analysis are tools that provide a comprehensive set of irreplaceable information that Norberg Shultz calls Genius Loci [3].
It can be inferred that by one or another way, the society is confronted with a reality in which the importance of measures on the real architectural rural buildings is measured by consistent intervention strategies that render the registration of various elements and mechanisms of a possible reconstruction as we see in Fig. 4.

III. Case Study

A. Vilar Seco

We are aware that it was the analysis of these levels approach to rural settlement that allowed us to realize the permanence and the rules that determine the profile of the housing typology presented by cell located in Vilar Seco, a village in the Mirandês plateau as we see in the maps of Fig. 5, and that has been the target of a profound analytical reflection as can be ascertained through a survey done by hand raised and the corresponding exact drawings.

As we have seen so far, regardless of the habitat characteristics may have different forms because when the rural community selects the appropriate territory place for each of its activities, establish its mode of use of space that modifies, despite the status of its physiographic components.
The cluster of Vilar Seco is of particular factor of analysis because, apart from showing some physical diversity, it has an unpropitious weather, the poverty of the land, property division, low population density, and the predominance of rain fed and the agro pastoral practice that features the structures of the Mirandês plateau, the uniqueness of their geographical location caused by the existing territorial boundary between the two counties – Portugal and Spain-, show us how this is atypical, since it is totally jammed at the end of Miranda do Douro, sharing with the rural centers of São Pedro da Silva and territorial waters living continuity that does not share with the rural centers which administratively belongs to the municipality of Vimioso.

Moreover, also the orientation of the settlement is determined by the morphological structure and the water line that runs on the north/south direction, extending in two nuclear groups linked linearly along the main street where the buildings are concentrated mostly the residential buildings and the complementary and work constructions.

Joana Diogo states in her Doctoral Thesis that "Vilar Seco's main feature is the existence of two residential neighborhoods created and organized differently: the northern district, which is the oldest, came around a line of water - river - that feeds the agricultural land. Expanded to the south causing a splash of buildings along the busiest road of the village, to unite with the South District, which, by the presence of the Mother Church, has its expansion conditioned" [4]. Deepening this idea, and analyzing the Fig. 6, we can say that the spatial distribution appears strongly organized between the rhythm that marks the most linear structural pathways and harmony of its buildings. In addition, this village still has the condition to be facing south, so with good solar exposure it provides conditions of agrarian economy of great significance.

This means that although the administrative plan of Vilar Seco belongs to the municipality of Vimioso, in Northern of Portugal, his economic and cultural affinity as well as its mode of social life suffered for a long period of its history strong influence of Miranda do Douro. This appropriating practices and customs as witness the festive traditions, including Christmas fire, the use of hornpipe, the covers of honors, but above of all the well known Mirandês dialect, now elevated to the status of Portugal second language.

For our analysis of Vilar Seco interests, fundamentally, the establishment of the relationship of the core with his place of deployment and note that the core has expanded from of a primary network, whose development is directly involved with the economic resources of the place, particularly with the relationship between the built environment and the agrarian landscape.
The reflection of this relation with the spaces of culture determines, while the contraction or expansion of its core, and the dynamics of this phenomenon can be seen first in the division of its territory, and especially in the housing association and in the cells the spaces defines.

Essentially, and despite the fact that we are dealing with a territory that is in desertification process, we can not fail to note that in architectural terms, Vilar Seco is balanced between the percentage of those who are in good state of conservation and those who are dissonant, as well as between the number of buildings classified in the ground floor buildings and two floors buildings exemplified in Fig. 8, and also the finding of most complementary constructions, auxiliary buildings to the work that are in ruin, as well are mills, bread furnace, forges, blacksmith and tin.

In summary, these questions lead us to consider that the existence of identical form of relief, climate, vegetation cover and human activity itself did not prevent the cluster to distributed himself around the two cores referenced above, condensing the housing at the crossroads of the main road to dissociate in the middle of open fields divided into crop fields with biennial rotations.

The settlement structure is formed from a concentric primary network that develops in two nuclear groups linked together linearly along the main street that serves crossing and connecting with the network of clusters of municipalities of Miranda do Douro and Vimioso.

However, we need to point that the religious architecture assumes great importance in the organization of the mesh as is evidenced by the relative peripherally of the current location.

By other side, the altimetry plan shows that there is a balance between the number of buildings on the ground floor and the building with two floors and rarely in the buildings with three floors, which in this case are concentrated in the two main cores of the cluster.
In Fig. 10 is noted that although the conservation status of most buildings is generally reasonable, there has in recent years the recovery of houses by residents in other urban areas, helping to stop the cyclical abandonment that from decades of seventies and eighties was coming to process.

The exception is the abandonment of complementary constructions: the ones of processing, of storage and work in Vilar Seco, due to the type of economy practiced, took a considerable weight in the formal, spatial and functional terms, marking its presence with the identity of place.

Vilar Seco, like most places sprinkling Lands of Bragança and Miranda, is organized on the basis of a social community structure which includes a basic set of features such as dwell, transform, store, manage, educate and pray, all of them typical of an economy of subsistence [5].
Fig. 11 – Draw of a street in Vilar Seco

Fig. 12 – General plan of a core in Vilar Seco

Fig. 13 – Draw of a core in Vilar Seco

Fig. 14 – Section of a core in Vilar Seco
IV. CONCLUSION

In this sense, and taking into account that this work refers to an ongoing research project, it can be concluded that the typological survey carried out during the investigation forms part of the concerns of the research project, in the measure that we registered and transcribed graphically a lot of information that referenced the plans, the sections and the existing cracks through the façade. The pathologies, particularly the deformations of the walls and the inflections of vestments, provided the spatial vision of axonometric representation and the degradation of masonry, wood, plaster, mortar, colors, shades and textures, as well as constructive and decorative details. Only the depth fieldwork allowed us to reach these conclusions.

REFERENCES


AUTHOR BIOGRAPHY

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