POPULAR OR VERNACULAR ARCHITECTURE?
THE CASE OF SERRA DA ESTRELA

JOÃO JOSÉ FIGUEIREDO ALMEIDA LAVRADOR DE SOUSA

Instituto Superior Técnico, Universidade de Lisboa

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Introduction

Enormous transformations took part in the second half of the 20th century. Industries and services became the main occupation of the majority of the people, causing agriculture to lose the key place it had occupied for centuries, which, adding to the new ways of building and inhabiting, has caused profound changes to the landscape of cities, towns and villages. New constructions, such as the emigrant's house, took over the rural landscape, distorting villages' visual identity and making traditional popular architecture progressively less expressive. Most of the examples that have made it to the present day are either deeply transformed or in ruins. The popular architecture is characterized by the frugal and functional way it adapts to the place where it is built, using local materials and techniques, which is why its lessons are so important for a rooted and sustainable modern architecture. Thus, it becomes increasingly crucial to study popular architecture and its vernacular expressions. Therefore, the purpose of this work is to analyze the popular architecture in Serra da Estrela, aiming to identify if any of its characteristics can be considered as vernacular.

Serra da Estrela

Serra da Estrela is the main Portuguese mountain range, reaching the highest altitude in the country's mainland, of 1993 meters. It is part of the Central System, a larger mountain range formed by several Portuguese and Spanish mountains, which separates the Iberian plateau into two sub plateaus – the Septentrional, to the north, and the Meridional, to the south. This mountain range also separates the watersheds of

the Douro and Tagus rivers. The Central System works as a structuring element of the Iberian Peninsula, with Serra da Estrela at its westernmost end, acting as the structuring element of the Portuguese Beira region. This mountain range is on the end of Beira Alta and marks its separation with Beira Baixa.

Portuguese geographer Orlando Ribeiro divides Portugal accordingly to three influences [1]: continental, Atlantic and Mediterranean, all of them which can be found in Serra da Estrela. The blend of the three, combined with its altitude and geomorphology, is at the origin of a "mountainous subtropical maritime" [2] climate.

The higher altitudes in Serra da Estrela are characterized by extreme weather conditions, being "the only area in mainland Portugal with average monthly temperatures below 0ºC" [3], with over 100 days a year with precipitation and about 50 days a year with snowfall, as well as strong irregular winds.

These particularities grant the mountain the ideal conditions to be home to unique species of flora and fauna, and reflect on the ways people use the territory, such as pastoralism, agriculture or even architecture.

Popular, erudite, vernacular - similarities and dissimilarities

As stated in the Portuguese language dictionary, popular is something "that is transmitted informally or based on oral tradition, as opposed to erudite" [4]. The two terms are antonyms, and it is easy to distinguish between both, even though, sometimes, in architecture, the line separating them may be blurry.

The opposition between popular and erudite architecture begins in their origins, more the social than the geographical ones. Their roots dictate the relationship that is established between them. The urban influences, renovation, and the need for knowledge that portray erudite are opposed to the rural influences and the conformism with the discomfort of the popular. Whereas popular architecture is associated with the concept of tradition, erudite architecture is associated with the concept of innovation. What

[1] Orlando Ribeiro, Portugal, o Mediterrâneo e o Atlântico, 2011 [1945].
[2] "montanhoso subtropical marítimo", Daniel Lesparre e Eduardo Crespo, A Herpetofauna do Parque Natural da Serra da Estrela, 2008.
[3] "a única área em Portugal Continental, com temperaturas médias mensais inferiores a 0ºC", Gonçalo Vieira Teles, Geomorfologia dos Planaltos e Altos Vales da Serra da Estrela. Ambientes frios do Plistocénico Superior e dinâmica actual, 2004, p. 28.
[4] Dicionário Priberam da Língua Portuguesa, dicionario.priberam.org/popular [consulted in 2021/09/10].

distinguishes them is the rhythm in which each evolves, that is a direct result of the environment in which they are inserted.

But popular and erudite are not immune to mutual influences. With the popular as background, there were many times when erudite architecture was influenced by the local way of building, blending itself with the landscape in which it was inserted and adapting elements of popular architecture to its scale and proportion. And, in the same way, the popular incorporates elements that are of erudite origin, although it is often done for purely aesthetic reasons, without an understanding of the formal solution in which it is inspired.

The regional expressions of erudite architecture, in the way they adapt to the place where they are built, may sometimes be considered vernacular, given the way they are distinct from their origins, becoming something unique. This thought contradicts what is defended by many authors, who present vernacular architecture only as primitive – a base unit of the popular architecture, that lacks evolution. Bernard Rudofsky, for example, refers to vernacular as an *Architecture without Architects* [5], presenting the concept only in its primitive form*. But contrary to this and many other authors' point of view, vernacular architecture can take different forms, both in the domain of popular and erudite. Vernacular architecture is not a concept closed in on itself and it cannot, in any way, be understood as immutable. In this aspect – that of the assumption of the lack of evolution by many authors – vernacular and popular architecture have a lot in common. In the context of the popular, as in that of the erudite, the vernacular corresponds to the architectural expression proper to a region or a time, with defined limits. The particularities that the erudite architecture of a given place presents, within a limited time span, can also gather the characteristics to be considered as vernacular, as they are exclusive to that period, representing a significant difference over other periods.

Given the extensive bibliography that does not acknowledge evolution in popular and vernacular architecture, it is important to refer Orlando Ribeiro's expression, *immobility without history* [6]. The denial or omission of this historical dimension, under penalty of mischaracterizing what the authors recognize as popular and vernacular, arises from their inability to admit the flexibility of the limits of these architectures, and is based on the search for a purism in their definitions. Admitting its historical dimension is

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[5] Bernard Rudofsky, *Architecture without Architects*, 1964.
[6] Imobilidade sem história.

accepting evolution and exposure to external influences. It is very unlikely that there will be a mutual exchange of influences, whether it is between popular and popular, popular and erudite, or erudite and erudite. However, whether the architecture is popular or erudite, the vernacular is defined as what is generally not infected by external influences; but, even when it is, this only adds to its uniqueness, not calling into question its fundamental characteristics.

Inquérito and Arquitectura Popular em Portugal

The *Inquérito à Arquitectura Regional Portuguesa* - Survey on Portuguese Regional Architecture – was an enterprise of the SNA [7], the Portuguese Architects Association, in the late 50's of the 20th century. It is important to acknowledge the moment when this work took place. Since the mid 30's, Portugal was under a dictatorship who appropriated the Casa Portuguesa movement – Portuguese House movement –, as its taste policy, opposing to the modern movement. The Casa Portuguesa consisted of a collage of architectural elements from different popular and erudite regional architectures, on top of a south-inspired base.

The main protagonists of the *Inquérito*, Francisco Keil do Amaral [8] and Fernando Távora [9], both wrote articles in magazines in the mid 40's, proposing a survey on popular architecture and criticizing the approach to the theme that was being made by the Casa Portuguesa movement. The main objective was to prove that there were a variety of regional expressions of popular architecture in Portugal and denying the possibility of summarizing all its characteristics into one type of house, as the regime advocated.

The architects expected to find, in the small villages all around the country, the basis to a rooted modern architecture, as they recognized the popular architecture as modern in its essence, as it was very functional and modest, without superfluous decorative elements.

Popular architecture in Serra da Estrela

It is important to emphasize that the popular mentioned in this work is one of rural base, in its most frugal and utilitarian features, conformist with discomfort. This popular architecture, which has evolved very little over time and has remained more constant and faithful to its characteristics, can be vernacular, if it is exclusive to a given

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[7] Sindicato Nacional de Arquitectos.
[8] Francisco Keil do Amaral, Uma Iniciativa Necessária, 1947.
[9] Fernando Távora, O problema da casa portuguesa, 1945.

territory. This research aims to understand if the popular architecture that was practiced in Serra da Estrela can be considered vernacular, by comparing it to the one that is built in the Beira region, in which this territory is inserted.

To do so, it is used the characterization of the Beira region (Zone 3) that was made by Francisco Keil do Amaral and two other architects in the *Inquérito*, which led to the publication of the book *Arquitectura Popular em Portugal* [10].

There are six subjects that are analyzed to make the comparison: agriculture and human occupation; structure of the villages; materials and construction techniques; buildings of popular architecture; houses and their types; highlighted elements.

In the Beira region, as in Serra da Estrela, **agriculture** is the main conditioning factor for **human occupation**. As it is the main activity for those who inhabited this territory, it is the location of the most fertile soils that constitutes the most important factor in the establishment of a settlement. If Serra da Estrela could be distinguished here because of its mountainous situation, prone to steeper slopes and different solutions, particularly in the southwestern valleys, this is not the case. In the mountains adjacent to

Estrela and with the same schist characteristics – Açor and Lousã – the human occupation is similar. The use of terraces is also common to other regions, as well as the relationship between water courses and the best land for agriculture.

The irregularity that marks the **structure of the villages** of Beiras is also notorious in Serra da Estrela, mainly due to self-construction and lack of urban planning. Most villages are structured around the main street and the church, where normally the only square takes place. The church, as well as the manor, are the only prominent features of most villages in this region, due to their scale and general appearance. However, in some parts of Serra da Estrela, these structures take on more contained forms. Most of the smaller villages, usually located in remote areas within the Serra, have smaller churches or chapels, erudite examples being very rare. When these exist, they generally assume a proportion and sobriety that camouflages them in the general appearance of the villages, being only recognizable by the presence of some decorative elements or using of plaster. The villages on the steep slopes of the southwest of the mountain, where the local stone is schist, are distinguished from other villages in Serra da Estrela by their even denser structure, as well as by their narrow-ramped paths and

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[10] Francisco Keil do Amaral et al, Arquitectura Popular em Portugal, 2004 [1961]

stairs. But, once again, this structure is no different from that which can be found in places with similar characteristics, in the nearby mountains.

Regarding **materials and construction techniques**, the standard is the same. If in other parts of the Beira region there are specific places where different materials are found, Serra da Estrela is nothing more than a sample of what abounds in the rest of the Beiras. A mixture of granite, schist, chestnut wood, and pine, in which the stone masonry is built with the rock that exists on the site, wood is used in the floors, in the roof structure, in the doors and windows and, in replacement of stone, in the lintels of the buildings in shale. The roofs are made of schist, when using shale masonry, and made of ceramic tile, when using granite masonry. Some constructions of mixed masonry stand out because of the peculiar solutions they adopt.

As for the **constructions of popular architecture**, there is also no difference in relation to what exists in the rest of the Beira region. The highlights in Serra da Estrela are the small barns for agriculture tools and livestock, especially in farms further away from the houses, the watermills, next to the water courses, where the cereals were milled, and the shepherds' shelters, especially important in higher territories, further away from the villages.

As far as **houses and their types** are concerned, once again, Serra da Estrela mirrors the general reality of Beiras. The predominant type is the exposed stone masonry house, with two floors and exterior stairs and balcony, through which the interior of the house is accessed, on the first floor. Above the house itself is located a storage area for animals and tools. Most houses have very few openings and no chimneys. The space, usually rectangular and irregular, has only a reinforced corner that corresponds to the fireplace, where people cooked, and a small "bedroom" where the whole family slept. This kind of house is called Type A.

Again, the southwestern schist valleys make a difference in the context of the territory that is being studied. It is here that can be found a house that is considered to have the necessary differences to constitute a type distinct from those identified in *Arquitectura Popular em Portugal*. This building is given the name of Type X. The house is a construction in shale masonry, with several floors, which has direct access to (almost) all floors, as it is located on steep slopes. The lack of reference to these constructions by the *Inquérito*, not even integrated in the other types that are presented, could indicate that it is vernacular architecture. It is a construction with differentiating characteristics from the architecture of the surrounding areas and

established within a defined limit. However, these constructions have nothing different from those found in villages with similar environments in the Açor and Lousã mountains.

As for the **highlighted elements**, Serra da Estrela also stands out for its simplicity. The decorative details are practically non-existent. The highlight, on the simple facades of the houses, goes to the balconies, which take various forms in this region, but none that stand out from the ones that exist in Beiras. The only elements that show concern with the aesthetic aspect of the houses are the flower boxes, but these are not exclusive to Serra da Estrela, nor to the Beira region.

Therefore, the conclusion is that *there is no vernacular architecture in Serra da Estrela*. Although there are types and expressions that stand out from the generality of the Beira region, these are not exclusive to the studied territory, but common to other areas with similar geological, geomorphological, climatic, or human conditions. Therefore, it is important to understand *why there is no vernacular architecture in Serra da Estrela?*

The answer to the question begins with another question: *why would one expect to find vernacular architecture in Serra da Estrela?*

The altitude and geomorphology, as well as the climate, are the main differentiating factors of this territory. The climatic conditions already mentioned could determine the existence of a vernacular construction, in this case corresponding to a popular architecture adapted to the conditions that are extreme when compared to the rest of the Beira region.

However, as these conditions are the exception and not the rule, these factors are pivotal not for the appearance of an adapted architecture, but rather for the people not to occupy these territories. The fact that there are almost no villages located above the altitude of 900 meters is proof of this.

Serra da Estrela stands out, but not for the originality of its architectural solutions, quite the opposite. There are several characteristics that exist in the Beira region which are rare in Serra da Estrela. This area does not have any differentiated solutions. As far as architecture is concerned, Serra da Estrela takes the form and technique of the surrounding territories, instead of functioning as one, different from these. The mountain – more precisely its ridge – acts as a barrier. The higher altitude, unpopulated areas represent an obstacle to its unity.

The Limits of Vernacular Architecture

The preexistent perception of the concept considered the definition of vernacular

architecture only in its primitive sense – a popular architecture, free from influences that could modify its *Genius Loci* [11]. Thus, the existence of limits was acknowledged in the definition of the concept, both related to the area to which the vernacular refers, and to the fact that evolution was denied through the introduction of external influences to it.

Although, in general, the bibliographical review confirmed what was understood as vernacular in architecture, the inconsistencies between the definitions presented by different authors triggered a critical view on the subject. It is the process of understanding how popular and erudite architecture are studied, and its intersection with the definitions of vernacular, that lead to a recognition of the historical dimension of this concept.

Given the recognition of evolution based on the introduction of external influences and the impossibility of denying its existence, the redefinition of vernacular limits is mandatory, and the introduction of the exclusivity in the concept is considered, even though it is in a non-absolute way. Its practical application, through the search for a vernacular architecture of Serra da Estrela,

allowed the understanding of the concept in the way that perception evolved.

This investigation started with the expectation that it would be possible to identify the characteristics that would establish a vernacular architecture typical of Serra da Estrela. The expected process was to collect data, through fieldwork, of the simplest examples – and therefore less susceptible to external influences – of the popular architecture of this territory. This would allow the creation of a typological base that, being typical of Serra da Estrela, would define its vernacular, which distinguished itself from the globality of the popular by assuming itself as primitive.

The introduction of the possibility of external influences and, consequently, of the historical dimension in vernacular architecture deconstructs this process, as it no longer refers only to the primitive. Thus, the concept of vernacular comes close to its etymological origin, starting to be defined as what is proper to a territory and, therefore, distinguishes it from others. Vernacular architecture becomes an element that defines an identity. It is this need for distinction associated with the concept that leads to the idea of exclusivity. Thus, the limits take on a new dimension, which can be physical or even

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[11] *Genius Loci* is a Latin expression that means spirit of the place, and is understood as the identity of the place, which individualizes it, distinguishing it from others.

time-based, and implies the definition of the space of which this architecture is proper.

In the search for a vernacular architecture of Serra da Estrela, the study of the region in which it is located has also become implicit, in order to understand where this territory stands out, by recognizing what is characteristic of the architecture of Serra da Estrela, if it exists. In this way, it is the confrontation with the architecture of the Beira region, through the work carried out in the *Inquérito*, which allows the conclusion that Serra da Estrela does not have a vernacular architecture of its own, as there are no characteristics that distinguish it, either from the Beiras as a whole, or from other places in the region with similar characteristics to those of the studied area.

Therefore, it might be possible to identify a vernacular architecture of Beiras, or a vernacular architecture of the schist villages, which included the mountains of Estrela, Açor and Lousã; or even a vernacular architecture of the higher mountain regions, which included the higher altitude areas of mountains such as Estrela and Montemuro, among others. These are possibilities which would need to be confirmed by works specifically dedicated to them, but within which would be included parts or the whole of Serra da Estrela.

Conclusion

It is the limits within which the same characteristics are perceived, almost always as result of similar features of the environment, that define the possibility of referring to a vernacular architecture. It is verified the contrary of what was assumed at the beginning of this investigation, in which the work would be the opposite: first the definition of the limits of the area to be studied and only then the definition of its own characteristics. It is not possible to identify the *Genius Loci* of an area delimited by us, but rather to understand the limits of that *Genius Loci*.

I1: Shepherds' shelter built in schist masonry.

I2: Watermill in Casal do Rei, built in schist masonry.

I3 Type A house in Videmonte, built in granite masonry.

I4: Type D house in Verdelhos, built in schist masonry.

I5: Type X house in Fontão, built in schist masonry.

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