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ABSTRACT

The purpose of this paper is to study the *cubas* – small constructions known for their domes painted with whitewash – specifically those located in the “*kûra*” of Beja in Portugal. Although we can pinpoint the existence of many of these buildings in the Beja territorial area, many questions remain about them, such as: What was the purpose of the *cubas*? When were they built? What is their origin?

In order to try and answer these questions, I will be following two methods of analysis. First, I will focus on the correlation that exists between these buildings and the landscape in which they are located. This can shed some light on the reason behind their construction and the purpose of this type of structures. Secondly, I will analyse the buildings themselves – with special attention given to the metric and constructive analysis – in order to clarify the period of construction and the origin of their architectural typology.

With this project I also aim to raise awareness of both the academic community and the political decision-makers on the existence of these buildings and their importance for the understanding of Iberian-Islamic culture. And maybe this can eventually inspire political action that will lead to the forging of policies for the preservation of this important part of our architectural and cultural heritage.

Keywords: Cubas, Religious Islamic architecture, Funerary architecture, South Iberian landscape.

INTRODUCTION



Figure 1: São Brás, Serpa, Portugal.

Forgotten Pathways of A Secret Landscape: An Inquiry In To The “Cubas” Of The South Of Portugal

Luis Duarte Ferro

Anyone who has widely travelled in the Arabic countries and in the regions that were once under Islamic rule – such as the Southern Iberia, the Balearic Islands, Sicily and Malta – is probably familiar with the *cubas*, those buildings painted with whitewash, usually abandoned and in ruins, concealed in dense vegetation or buried in dunes, damaged by the winds and the sand.

The dome is the main element that identifies this type of construction, the one component that gives singularity to the *cubas*. In Portuguese, the word “cuba” is a semantic evolution of the Arabic word “qubbā” and the Latin word “cupa”, both meaning “dome”¹. The main architectonic characteristic of the *cubas* is the two

1 José Pires Gonçalves, “A Cuba de Monsaraz” in *A Cidade de Évora* n.º 47, Évora, 1964, p. 13; Artur

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basic shapes which compose them: a sphere (the dome) on a cube. Since Plato's *Timaeus* that the cube is associated with the element of earth², while the hemispherical shape – both in Plato's work and in all Oriental cosmogony theories – is compared to the celestial welkin, the sky³. Thus, the Earth and the Sky, the combination of the cube and the dome, represent the cosmos.

The specific shapes of the base and the dome can vary from region to region, as well as the "solutions to the transitions from the base to the dome can be more or less simple or complex"⁴. A more thorough analysis can show that the *cubas* from "Al-Masriq" (East) are more monumental and vary more in form than those located in "Al-Maghrib" (West). Hence, we can identify the existence of an architectural subtype of *cubas* called the "maghrebian", since many morphological similarities and resemblances in construction can be found between the *cubas* located in Morocco, Algeria, Tunisia, the Balearic Islands, Sicily, Malta and Andalusia.

For the purpose of this paper – and in order to develop a more detailed analysis of the *cubas* – I will focus my attention in the study of the architectural elements of the *cubas* located in the "kūra" of Beja – the administrative division of the region during Muslim rule –, which presents the following geographical boundaries: the Sado and the Xarrama rivers, the Alvito dam, the mountain range of Portel and the Ardila river to the North; the Caldeirão and Monchique mountain ranges to the South; the Aroche and Morena mountain ranges to the East (today part of Spanish territory); and the Mira river to the West⁵.

Since an inventory of this type of buildings has never been made, it is unknown the precise number of *cubas* that exist in the "kūra" of Beja. However, we can point to the existence of hundreds of *cubas*⁶.

Goulart de Melo Borges, "As 'Kubbas' Alentejanas: Monumentos de Origem ou Influência Muçulmana no Distrito de Évora" in *Actas do Congresso sobre o Alentejo Semeando Novos Rumos*, Edição da Associação dos Municípios do Distrito de Beja, 1985, p. 200; Rui Miguel Ramalho Carreteiro, "*Cubas*" no *Alentejo*, Departamento de História da Universidade de Évora, Volume I, 1997, p. 7; Rafael Manzano Martos, *La Qubba, Aula Regia en la España Musulmana*, Discurso del Académico Electo, Real Academia de Bellas Artes de San Fernando, 1994, p. 13; António Rei, "O Castelo de Valongo: Estudos Métrico-Construtivo e Histórico-Espacial" in *A Cidade de Évora*, II Série, n.º 4, 2000, p. 202; Federico Corriente, *Diccionario Árabe-Español*, 2ª ed., Madrid, IHAC, 1986, p. 604.

2 Rafael Manzano Martos, *Op. Cit.*, p. 13.

3 *Idem*, p. 13.

4 Artur Goulart de Melo Borges, *Op. Cit.*, p. 199.

5 In order to define the borders of the "kūra" of Beja I used information from two sources: *Mértola: O Último Porto do Mediterrâneo* (2006) by Santiago Macias, who has determined the exact boundaries to the North, South and East; and the article "A Fronteira no Sudoeste Peninsular (1234-1242): novas revisões da "Reconquista" a partir do "al-Mughrib" de Ibn Saïd de Granada" (2003) by António Rei who clarified that the West boundary of the "kūra" was the Sado river, and not the Atlantic coast.

6. "In the district of Évora the square shaped constructions with a hemispherical dome based on

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Although the original use of these buildings is still debatable, the majority of the researchers defend the *cubas* were sanctuaries that housed the remains of a Muslim saint, thus immortalizing and perpetuating his symbolic power⁷. However, the clear tie that exists between the *cubas* and the surrounding landscape has been raising many doubts and has led to many hasty conclusions. For example, the historian Artur Goulart sees the location of these constructions – on the top of the highest mountains in Southern Portugal – as a functional alliance between places of worship and military surveillance⁸. According to Jorge Feio, some *cubas* are located on the official administrative borders of the Alvito county, which can be seen as evidence that these constructions were both religious in nature and had an administrative function of defining the territory⁹. José Pires Gonçalves adds the hypothesis that the *cubas* marked Islamic necropolis¹⁰.

However, the debate over the *cubas* goes far beyond their original purpose; the origin of this architectonic typology and the precise dating of construction is still a matter of dispute in the scientific community. Pires Gonçalves asks: were the *cubas* an architectural typology imported from Northern Africa built during the period of Muslim occupation in Portugal, between 711 and 1191 A.D.? Or were they the "expression of a very common type of funeral construction in the Iberian Peninsula during the period that preceded the *Reconquista* and then taken to the Maghreb by the Moorish architects that were expelled from the regions of Estremadura and Andalusia in 1502, and later in 1610?"¹¹.

Folowing these debates – and the recognition that the *cubas* are underappreciated and little attention have been given to their study – with this paper, I hope to achieve two main goals:

1. To access the relevance of the landscape over the popular religious imaginary. In a map featuring the "kūra" of Beja, I will introduce historical data (such as the location of Roman fortifications and roads, burial sites, Muslim *ribats* and *azóias*, watchtowers and medieval convents); geographic data (topography, rocky sites, vegetation, streams and rivers, ancient paths of transhumance, and pilgrimage routes); and the precise location of the *cubas* I have chosen as my objects of study. With the analysis of this data I aim to shed some light over the issue of the original use of the *cubas*.

2. To complete the architectonic and photographic survey and consequent inventory of the *cubas* from the "kūra" of Beja – expanding the work started by

simples tubes are ninety-seven", in Artur Goulart de Melo Borges, *Op. Cit.*, p. 200.

7 José Pires Gonçalves, *Op. Cit.*, p. 12.

8 Artur Goulart de Melo Borges, *Op. Cit.*, pp. 199-200.

9 This information can be found in Jorge Feio's ongoing doctoral thesis.

10 José Pires Gonçalves, *Op. Cit.*, p. 14 and 27.

11 Idem, p. 13; Francesco Gabrieli, *Os Árabes*, Lisboa, 1965, p. 105.

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Rui Miguel Carreteiro in the district of Évora. It is important to mention that Carreteiro's work did not emphasize enough the the existing articulation between the building and the surrounding landscape, nor did he gave sufficient attention to the morphological, constructive and metric features of the *cubas*. In this paper I will try to take into account the importance of the mentioned features since they can be a good evidence in the way to find the period of construction of these buildings, which will be decisive in order to clarify the migratory direction of this very specific architectural typology.



Figure 2: São Lourenço do Olival, Portel, Portugal.

STATE OF THE ART

Most of the *cubas* that were chosen as objects of study in this paper were never part of any investigative work. So, it is not easy to find an architectural case study about the *cubas* and their connection to the surrounding landscape. The study that comes closer to being an introduction to this problematic is probably Rui Miguel Carreteiro's work from 1997 titled "'Cubas' no Alentejo" ("Cubas' in Alentejo"). Carreteiro made a series of architectural and photographic surveys that show a deep link between geography and the *cubas* located within the Southern district of Évora¹².

Specifically about the *cubas* located in Portuguese territory, we have mentioned earlier two of the most relevant papers that present historical investigations on the topic at hand: "A Cuba de Monsaraz" ("The Cuba from Monsaraz") (1964) by José Pires Gonçalves, and "As "Kubbas" Alentejanas: Monumentos de Origem ou Influência Muçulmana no Distrito de Évora" ("The 'Kubbas' from Alentejo: originary monuments or Muslim influence in Évora") (1985) by Artur Goulart. Both present the still unanswered questions concerning the original use, date of construction and migratory direction of the *cubas*.

The study of the Iberian political and cultural history during the period of Muslim

¹² Rui Miguel Ramalho Carreteiro, *Op. Cit.*, Volumes II and III.

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rule was introduced in Portugal by the Spanish architect Fernando Chueca Goitia when he presented his exhibition "Peninsular Muslim Architecture and Its Influence in Christian Architecture: a photographic exhibition" inaugurated in November 1962, in Fundação Calouste Gulbenkian. Thirteen years after this pioneering exhibition, António Borges Coelho published his book titled "Portugal na Espanha Árabe" ("Portugal in Arabic Spain") (1975), also a very important work to anyone who is interested on investigating Islamic Portugal. Also worth mentioning are the works from António Rei, such as "A Fronteira no Sudoeste Peninsular (1234-1242): novas visões da 'Reconquista' a partir do 'al-Mughrib' de Ibn Saïd de Granada" ("The Frontier of the Peninsula's Southeast (1234-1242): new views about the 'Reconquista' from the 'al-Mughrib' of Granada's Ibn Saïd"); José Luís de Matos' book "Lisboa Islâmica" ("Islamic Lisbon") (1999); and the projects in Mértola's Archaeological Site under the supervision of Cláudio Torres and Santiago Macias.

In an international level Spain has undoubtedly the most scientific research about this topic. I would like to highlight the pioneer works written by Torres Balbás: "Rábitas Hispanomusulmanos" (1948) and "Cementerios Hispanomusulmanos" (1957), both papers published in the *Al-Andalus Journal*. Specifically about the *cubas* located in Northern Africa, I would like to mention the *Hespéris Journal* – specially the work from Henri Basset and Henri Terrasse, such as "Chella: Une Nécropole Mérinide" ("Chella: a Merinide necropolis") (1922) – and the *Muqarnas Journal*¹³ particularly the papers "Andalusian Roots and Abbasid Homage in the Qubbat al-Barudiyyin in Marrakech" (2008) by Yasser Tabbaa and "The Church of the Cuba near Castiglione di Sicilia and its Cultural Context" (1994) by Charles E. Nicklies.

These examples illustrate the lack of investigative work done about the *cubas* located in Beja, and most of the work that is available is focused on the historical side.

13 The Journal "Hespéris: Archives Berbères et Bulletin de l'Institut des Hautes Études Marocaines" published forty-seven numbers between 1921 and 1960, eventually merging with the "Tamuda" Journal. Currently, the "Muqarnas" Journal is the main editorial reference in what concerns Islamic art and architecture (it is published Gülru Necipoglu and funded by Program for Islamic Architecture do Massachusetts Institute of Technology through the Aga Khan Foundation).

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Figure 3: São Sixto, Cuba, Portugal.

ANALYSIS OF THE CUBAS LOCATION IN THE “KÛRA” OF BEJA

In order to access the relevance of the landscape over the popular religious imaginary – the first aim of this project – I needed to have a macro-image of the landscape of the “kûra” of Beja. For that purpose I placed in a map of the region the precise location of the *cubas*¹⁴ as well as the relevant geographic and historical data. The overlap of information approximates this project to a study in space archaeology, since I am searching for traces of elements that may have existed and with whom the *cubas* might share a strong link, “as if all was united in one drawing; one ancient, great and unique project”¹⁵, “where architecture is associated to the natural world through a system of relations in which the rules of proportion and dimension of the edifices seem to be an extension [of nature]”¹⁶.

Such an ambitious task requires an historical understanding of the landscape of the “kûra” of Beja specifically how it was in the time when the *cubas* were constructed. This is an effort that pushes us towards the past, to that period

14. This is the complete list of the selected *cubas* for this paper: Igreja de São Matias, São Matias; Igreja de São Marcos da Ataboeira; Igreja de São Brissos, São Brissos; Igreja de São João Baptista, São João dos Caldeireiros; Igreja de Santa Margarida, Peroguarda; Igreja do Espírito Santo, Espírito Santo; N^a S^a da Conceição, Corte do Pinto; N^a S^a da Conceição, Mértola; N^a S^a da Esperança, Entradas; N^a S^a da Guadalupe, Serpa; N^a S^a da Natividade, Ferreira do Alentejo; N^a S^a das Neves, Brinches; Santa Luzia, Alvito; Santa Luzia, Mértola; Santa Margarida, Serpa; Santo Amaro, Almodôvar; São Brás, Serpa; São Brissos, Vila Nova da Baronia; São Pedro, Alvito; São Pedro, Cuba; São Pedro, Serpa; São Pedro das Cabeças, Castro Verde; São Pedro, Vidigueira; São Pedro, Vila Nova da Baronia; São Luís, São Luís; São Miguel, Alvito; São Neutel, Vila Nova da Baronia; São Sebastião, Beringel; São Sebastião, Ferreira do Alentejo; São Sebastião, Mértola; São Sixto, Cuba; São Vicente, Ferreira do Alentejo.

15. Giorgio Grassi, “Cuestiones de Proyecto” (1983) in *Arquitectura Lengua Muerta y Otros Escritos*, Barcelona, Ediciones del Serbal, 2003, p. 38.

16. Armando Rabaça, *Entre o Corpo e a Paisagem: Arquitectura e Lugar antes do Genius Loci*, Departamento de Arquitectura da Faculdade de Ciências e Tecnologia da Universidade de Coimbra, Coimbra, 2011, p. 156.

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between the 11th and 15th centuries. In order to fully grasp a territory and to unveil the mysteries of history we should not deem as unchangeable what has eventually changed¹⁷. "That mighty sculptor, time"¹⁸ shapes and influences the landscape, darning, pulling, and replacing thread-by-thread, line-by-line, the ensemble of its elements. Therefore ancient maps have great importance since the information they convey not only render possible that return to the past, but also enlighten their reader to the gradual evolution of the landscape¹⁹.

About this link between the landscape and the buildings, Arthur Goulart's study is a precious guide and starting point for my journey. In his study about the location of the *cubas* Artur Goulart proposes three typologies²⁰:

TYPE 1A	Advantageous strategic situation on semi-level upland terrain, which allows a broad panoramic field of vision and isolation.
TYPE 1B	Advantageous strategic situation on semi-level upland terrain (same as in Type 1a) located in the peripheral areas of human settlements.
TYPE 1C	Advantageous strategic situation (same as in Type 1a) located within human settlements.
TYPE 2	Advantageous strategic isolated location near roads, rivers or watchtowers.
TYPE 3A	Without any apparent advantageous strategic situation, located in the peripheral areas of human settlements.
TYPE 3B	Without any apparent advantageous strategic situation, located away from human settlements human settlements.

Table 1. Typologies according to Artur Goulart

The emphasis Arthur Goulart puts on Type 1 demonstrates the proeminence given to the *cubas* located on places of high altitude, whereas the examples whose location is clearly connected to other elements – such as roads, rivers, rocky sites, trees, or possible archaeological remains – where all classified as Type 2. The special importance conferred to high places can be pointed as the cause for the doubts and controversies surrounding the *cubas* since those places can be interpreted as symbolic sets where the Earth is closer to Heaven, or can be seen as territorial limitation marks, or even as viewpoints for the surrounding

17. George Duby, *A História Continua*, Edições Asa, Porto, 1992, p. 35.

18. Marguerite Yourcenar, *That Mighty Sculptor, Time*, Farrar, Straus and Giroux, 1993.

19. The maps that present the most ancient geographical information about the topic at hand can be found in the Portuguese National Library's Mapoteca. Some were used for this project, such as: "Portugalliae que olim Lusitania, novissima & exactissima descriptio" (1560) by Fernando Álvares Seco; "Mappas das Provincias de Portugal" (1762) by João Silvério Carpinetti; and "Carta Corográfica" (1904) by Filipe Folque.

20. Artur Goulart de Melo Borges, *Op. Cit.*, pp. 200-201.

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landscape.

In my opinion, in order to fully understand the location of the *cubas* on Alentejo's peaks one must also analyse all the other examples located elsewhere. A closer examination of the latter cases show that these are located near natural elements, such as rocky site or woods²¹, natural ways of communication (rivers that run through the valeys on their way to the sea), near human paths, or even where nature is "sublime or blissful"²².

After the first analysis I am able to identify the existence of a complicity between the buildings and the nature that surrounds them. Two centers of gravity can be denoted: human settlements and watercourses. Of the thirty-two cases analysed, twenty-six are located within the perimeter of a human settlement; four cases are located away from these settlements but near a watercourse²³; and two *cubas* still remain in an uncertain advantageous location that can probably be unveiled after a closer historic analysis²⁴.

This uncertainty related to the elements that justify the choice of location of some of the *cubas* in this study can be linked to the transformations in the landscape over the last five centuries: the Roman and Medieval roads are now modern highways; agriculture is an industrialized process; the religious beliefs and traditions changed; the ancient cities, towns and villages have grown and expanded outside their initial limits or the rural exodus led to the near desertification or disappearance of these settlements. The sociological and political life of the region has changed, and consequently so did the landscape and the purpose of the *cubas*. Soon enough, these constructions were rendered obsolete and abandoned.

21 About the importance of trees, Moisés Espírito Santo states that the "first popular Arab temples were the woods, and the first niches a hole in a tree that evolved into *cubas*, those small squared temples, nowadays dedicated to the souls of popular saints." in *A Religião Popular Portuguesa*, Assírio & Alvim, Lisboa, 1990, p. 11-12.

22 Idem, p. 3.

23 N^a S^a da Conceição, Corte do Pinto; N^a S^a das Neves, Brinches; São Brissos, Vila Nova da Baronia; São Luís, São Luís.

24 The two *cubas* whose location criteria remains uncertain are the following: Igreja de São Brissos, São Brissos; and Igreja de Santa Margarida, Peroguarda.

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Figure 4: São Pedro, Vila Nova da Baronia, Portugal.

Thus began the slow process of degradation, which make these buildings prone to theft and vandalism. The *cubas* that were swallowed by the new limits of the cities were suddenly surrounded by housing blocks, sports facilities, industrial infrastructures (such as São Sebastião in Ferreira do Alentejo), or schools (such as São Sebastião de Mértola),

After this first analysis on how the *cubas* are connected to the surrounding landscape, I would like to propose my own set of typologies:

TYPE 1.A	Proximity to a human settlement and high altitude.
TYPE 1.B	Proximity to a human settlement and to a natural spring.
TYPE 1.C	Proximity to a human settlement and to a trail.
TYPE 1.D	Proximity to a human settlement and to rocky sites.
TYPE 1.E	Proximity to a human settlement and existence of tree-rich area.
TYPE 2	Proximity to a body of water.
TYPE 3	Unknown location criteria.

Table 2. Proposed typologies according to the existing relation between the *cubas* and the landscape.

The first common trait I have noticed after analysing the data was that the *cubas* devoted to Saint Peter and Saint Michael are usually located on high places (Type 1.A) and those devoted to Saint John can be found near water (Type 2). This observation can lead to the hypothesis that the location of some *cubas* can be connected to the attributes of the Saints to whom they are dedicated.

An excavation near Garvão village (in the district of Ourique) revealed a votive deposit belonging to an ancient sanctuary dated to four or five centuries B.C. Thousands of pottery fragments were discovered in the site that rendered possible the precise dating of the sanctuary. Archaeologists also found in the dig small, engraved silver blades whose drawings seem to be two eyes. This can point to the powers of the divine entity that was worshiped in the sanctuary

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centuries ago. The blades were probably offerings to the divinity asking for cures for eye diseases. This hypothesis is supported by the similarity that the artefacts have with the gifts offered to Saint Lucy – patron of the blind and those with eye problems – and also by the fact that in Garvão, Saint Lucy was adopted as the region's patron Saint (and the village's community is still very devoted to her)²⁵.



Figure 5: São Brás, Serpa, Portugal.

Figure 6: Sidi Meer, Zarzis, Tunisia.

CUBES FROM ALENTEJO AND DOMES FROM ARABIA

As I have already stated in the beginning of this paper, the completion of a thorough inventory of the individual features of every *cuba* under analysis is essential to this project, specially the data concerning metric measurements and constructive characteristics, since they can shed some light over the period of original construction. Later, and with the objective of better clarify the migratory direction of this type of constructions, I will compare the data collected and analysed with the *cubas* in Northern Africa.

The thirty-two *cubas* analysed share the same type of centralized groundplan of square, circular or octagonal shape, that varies between 5 and 5,50 meter side or diameter²⁶ and ends in a dome made of hemispherical or conical shaped fireclay²⁷.

The centrality in shape of these buildings is given by an axis drawn from the front door entrance (to the Northwest) until the altar (to the Southeast) that has a 24-degree angle with the horizontal line of reference. On the pavement, a

25 Joaquim Boiça, *Imaginária de Mértola: Tempos, Espaços, Representações*, Campo Arqueológico de Mértola, Mértola, 1998. p. 8.

26. São Pedro in Alvito is the smallest *cuba* in our study, with only 3,74 meter side. Santa Luzia, also in Alvito, is the largest with 6,18 meter side.

27. José Pires Gonçalves, *Op. Cit.*, p. 13.

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tombstone marks this axis²⁸.

The *cubas* analysed have the following characteristics:

EXTERIOR	<p>The walls of the base (cube) are heavy and robust. The weight of the dome is supported either by four arches embedded in the walls of the cube, either by masonry or partition walls.</p> <p>The dome is made in fireclay and it is usually of circular shape²⁹.</p> <p>The dome can have several exterior coatings, in some cases being lime plastered, in other cases being coated with roof tiles that may or may not be whitewashed (as in the case of São Brás, Serpa).</p> <p>The rainwater drainage is made directly by the structure (Santa Luzia, Alvito) or it can be made through a platband which collects the water and conveys it through the gargoyles (São Vicente, Ferreira do Alentejo).</p> <p>The fenestration is turned South, has a vertical orientation, and its measurements vary between 5 and 10 cm width, and between 50 and 60 height. The interior and exterior corners have 45-degree angles and an embrasure with no glass³⁰.</p> <p>The materials used in the stonework are marble (used in the doorway, doorposts and lintel) while the door itself is made of wooden planks arranged vertically.</p> <p>Some of the examples have four decorative merlons on the upper corners of the cube near the basis of the dome.</p>
INTERIOR	<p>Four simple or angular tubes make the transition between the dome and the cube.</p> <p>The dome and the lateral walls are painted with <i>frescos</i> usually with geometric shapes.</p> <p>The altar is usually a small niche.</p> <p>The floor is made of fireclay tile (30/30 cm)</p>

Table 3. Constructive characteristics of the *cubas* from the "kūra" of Beja.

In Alentejo, the buildings that present a squared plant and a dome are popularly referred to as "*cuba* type constructions". This is an interesting expression that not

28. Santa Luzia de Alvito is the only exception with an axis facing Northeast-Southwest that has a 20-degree angle with the Equatorian line. The building directly faces Alvito and has a magnificent panoramic view of the town and the surrounding area.

29. Santa Luzia in Alvito is once again the only exception. The base of its dome begins with a hexagonal shape that gradually develops into a circular shape, which ends in a modern decorative merlon.

30. I have found four examples that do not have the fenestration facing South: São Bartolomeu (Alvito) and São João Baptista (Monsaraz) present fenestrations facing North; the fenestrations of São Sixto (Cuba) and São Pedro (Vila Nova da Baronia) do not have the traditional purpose of lighting, however this can be due to alterations made centuries after their initial construction.

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only denotes the typological idea that is popularly connected to the Arabic *cubas*, but also reveals that this type of construction was common in the region, an architectonic reference known by many, one that has endured until today.

Presently, some of the *cubas* in the “*kūra*” of Beja are not independent structures. This means that throughout the centuries, many changes were made to the original structure, and some *cubas* even became part of a new construction. This is actually a very important difference from the ones in Northern Africa, since there most of the *cubas* present their original shape.



Figure 7: São Vicente, Ferreira do Alentejo, Portugal.

In Beja “hermitages were built over the Qubbas”³¹ and thus, they were “progressively integrated in broader architectonic ensembles where the purpose of the space was converted, and so did its religious purpose”³². The most usual transformation was to adapt the *cuba* and transform it into the presbytery and then to add the nave (where people attend mass) and the lobby’s narthex. In some cases, the original *cuba* is found on the side of the hermitage, connected to the presbytery, in the same place where we found the sacristy in a church. The most curious cases are those where it was added a lobby’s narthex to the original *cuba*. And in the even rarer cases when the *cuba* is located in a place where it is impossible to add building space, a hermitage was built as close as possible to the original construction.

This adaptation of the *cubas*, giving them new uses adjusted to the needs of the communities, was responsible for the inclusion in the architectonic culture of Alentejo of this type of constructions. The aforementioned popular expression “*cuba* type constructions” is a reflection of this integration, which can also explain the existence of calvaries and other chapels with square shaped or

31. Paulo Varela Gomes, *Arquitetura, Religião e Política em Portugal no Século XVII: A Planta Centralizada*, FAUP publicações, Porto, 2001, p. 20 ; K. A. C. Creswell, *A Short Account of Early Muslim Architecture*, Londres, 1958, p. 50.

32. Rui Miguel Ramalho Carreteiro, *Op. Cit.*, p. 12.

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circular shaped groundplans with a dome and an masonry made with black shale – echoes of the ancient East, from old Mesopotamia to Christian Iberia that together create a culture filled with mystery and beauty.

Having said that, how do we differentiate the original *cubas* from the “*cuba* type constructions”? An analysis of the metric data can help clarify this issue³³.

IDENTIFICATION	MEASUREMENT (cm)	PES* (1=29,57cm)	PAC* (1 = 55,5cm)	PLGC* (1 = 66cm)
Santa Luzia, Alvito	612,9x610	20,7x20,6	11x11	9,3x9,2
São Vicente, Ferreira do Alentejo	502,7x552,4	17x18,7	9x10	7,6x8,3
São Sixto, Cuba	552,4x502,1	18,7x17	10x10	7,6x8,4
São Sebastião, Monsaraz	446,1x445,1	15x15,1	8x8	6,7x6,7
São João Baptista, Monsaraz	545,8x614,4	18,5x20,8	9,8x11	8,3x9,3
Nª Sª Natividade, Ferreira do Alentejo	529x545,2	17,9x18,4	9,5x9,8	8x8,26
São Bento, Monsaraz	488,7x513,6	16,5x17,3	8,8x9,3	7,4x7,8
São Brás, Serpa	427,4x425,2	14,5x14,4	7,7x7,7	6,5x6,4
São Pedro, Alvito	378,6x398,6	12,8x13,5	6,8x7,2	5,7x6
São Pedro, Vila Nova da Baronia	379,6x405,5	12,8x13,7	6,8x7,3	5,7x6,1

Table 4. Metric data of ten *cubas* from the “*kūra*” of Beja. * pes - Roman Feet; PAC - Portuguese Andalusian Cubit; and PLGC - Portuguese Late Gothic Cubit.

The plans of Santa Luzia, São Vicente, São Sixto and São Sebastião have the exact measurements of the so called Portuguese Andalusian Cubit, which can lead to the conclusion that these examples were built by Muslims or Moorish architects between the 11th and 12th centuries A.D.

All the other *cubas* analysed have undefined measurements that do not meet the parameters of the Roman Feet nor the Portuguese Andalusian Cubit or Late Gothic Cubit.

Nevertheless, other type of data (such as the one concerning building materials and location sites) can also be a valuable instrument to help with the dating of these constructions. Although this data have not yet been gathered, two papers – one by António Rei titled “O Castelo de Valongo: Estudos Métrico-Constructivo e Histórico-Espacial” (“The Valongo Castle: metric-constructive and historical-spatial studies”) published in 2000, and the other written by Sergei Chmelnizkij

33. The Muslim constructions were often made according to the metric unit known as Portuguese Andalusian Cubit, which amounts to 55,5 cm.

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from 1990, titled "The Mausoleum of Muhammad Bosharo"³⁴ – can help guide this investigation further in this respect, since they present two studies similar to the one I have been developing. The first study mentioned dated the different construction phases of the Valongo Castle through a metric-constructive analysis of the building and through the study of the spelling and semantics of the inscriptions found inside the castle. The second study used a different method to reach the date of construction: Chmelnizkij conducted a thorough analysis of the metric data and the constructive characteristics of the building and reach his conclusion through the examination of the composition of the bricks, that pointed to the name of their manufacturer, which then led to the precise date of construction.



Figure 8: São Pedro, Serpa, Portugal.

CONCLUSION

After analysing the thirty-two *cubas* from the "kūra" of Beja that I have selected as my objects of study for this paper – and even though this is still a working-paper and definite answers are not yet possible to be provided to all the questions in debate – I am able to put forward some preliminary conclusions.

Firstly, all identified *cubas* are located in bucolic settings. The proximity to administrative borders or other architectonic sites is not a factor of major importance but apparently an afterthought, since the focus seems to be put on the inspiring natural surroundings.

Secondly, it is becoming clear that human settlements, bodies of water, rocks, trees, trails, natural springs and high altitude locations compose the main structure of the theoretical nature of the *cubas* since they do not only define the elements that influenced the decision behind the choice over building sites, but also denote that the buildings are integrated in the popular religious imaginary

34. Sergei Chmelnizkij, "The Mausoleum of Muhammad Bosharo" in *Muqarnas, Volume VII: An Annual on Islamic Art and Architecture*, Oleg Grabar (ed.), Leiden: E.J. Brill, 1990.

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of those people. Thus, I can claim that the landscape has a very important sociological function since it is a representation of the sacred and of the relation between Men and God.

Thirdly, after a thorough analysis of the architectonic data collected during the course of this investigation another conclusion can be draw. The *cubas* are a specific type of architectonic building that was carried out over time, adapting to local culture and eventually blending in with the culture of Alentejo thus, changing that popular culture and becoming a part of that region heritage.

To conclude, I would like to present a final note: the study of Islamic Architecture is essential to portray the history and cultural identity of the Iberian Peninsula. How was the Hispania culture and landscape before *Tariq Ibn Ziyad* conquered Iberia, in April 1st, 711 A.D.? Is it possible to imagine the Iberian Peninsula without the vital role of Andalusian culture and wealth? Indeed the contribution given by Muslim Rulers to the Iberian culture is priceless.

Despite the existance of more than three hundred *cubas* in the South of Portugal, there is little knowledge of these buildings that represent the most expressive presence of the Andalusian culture in Iberian Peninsula. The *cubas* have been neglected for far too long. It is time to pay attention to these buildings and to give them the respect we owe them as symbols of Iberian-Islamic culture. If we can raise awareness of both the academic community and the political decision-makers to the existence of these buildings and their importance for the understanding of Iberian-Islamic culture, hopefully this investigation can trigger political action that will lead to the forging of policies for the preservation of this important part of our architectural and cultural heritage as well as bring back the people to this sites, now condemn and abandoned, and once again see reigning over the hills their whitewashed domes.