



Toward the Reconstruction of Sacred Medieval Spatialities: Multiscale Analysis of the System of Eremitical Landscapes in Southern Portugal from Historical Records

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Abstract Reconstruction of the landscape of late medieval southern Portugal is hampered by the scarceness of physical evidence after the subsequent centuries of evolution. The aim of this article is to understand how the spread of eremitical communities in this region interacted with the existing landscape, contributing to its transformation. A multiscale analysis is carried out through the examination of historical records containing scattered data about the landscape system. This methodology is applied to a specific case study, the Portuguese eremitical congregation of São Paulo da Serra de Ossa, in southern Portugal. Although fragmentary and dispersed, primary sources from between 1366 and 1578 are useful in reconstructing the components of this landscape.

Initial results show the definition of a typical Mediterranean form of settlement: “agro-sylvo-pastoral.”

Resumen La reconstrucción del paisaje del sur de Portugal bajomedieval se ve dificultada por la escasez de evidencias físicas tras los siglos posteriores de evolución. El objetivo de este artículo es comprender cómo la expansión de las comunidades eremíticas en esta región interactuó con el paisaje existente, contribuyendo a su transformación. Se lleva a cabo un análisis multiescala mediante el examen de registros históricos que contienen datos dispersos sobre el sistema del paisaje. Esta metodología se aplica a un estudio de caso específico, la congregación eremítica portuguesa de São Paulo da Serra de Ossa, en el sur de Portugal. Aunque fragmentarias y dispersas, las fuentes primarias de entre 1366 y 1578 son útiles para reconstruir las características de este paisaje. Los resultados iniciales muestran la definición de una forma típica de asentamiento mediterráneo: “agro-silvo-pastoral.”

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Résumé La reconstruction du paysage du Portugal méridional de la fin du Moyen-Âge est entravée par la rareté des preuves physiques après les siècles successifs d’évolution. Cet article a pour objet de comprendre la manière dont l’expansion de communautés érémitiques dans cette région a interagi avec le paysage existant, contribuant à sa transformation. Une analyse pluri-niveaux est menée à bien au moyen d’une étude des archives historiques contenant des données

dispersées sur le système paysagier. Cette méthodologie est appliquée à une étude de cas spécifique, la congrégation érémitique portugaise de São Paulo da Serra de Ossa, dans la région sud du Portugal. Bien qu'elles soient fragmentaires et dispersées, les sources principales datant de 1366 à 1578 sont utiles pour reconstruire les caractéristiques de ce paysage. Les résultats initiaux indiquent la définition d'une forme d'implantation méditerranéenne typique : « agro-sylvo-pastorale ».

Keywords eremitical settlements · historical records · late Middle Ages · sacred spatiality · southern Portugal

Introduction

If there has been difficulty in recovering knowledge of the previous state of the landscape due to its unceasing transformation over the last centuries and the scarcity of historical records and studies, such is even more the case with regard to the eremitical movements of the late Middle Ages in Portugal. Previous studies approach agricultural evolution in Portuguese territory (Cincinnati da Costa and de Castro 1900; Rau 1965; de Oliveira Marques 1978), and some address the southern regions specifically, focusing on the case of Alentejo's *dehesa* (Feio 1949; Parsons 1962; Joffre et al. 1988; A. Fonseca 2004; Fra Paleo 2010).¹ The only known monastic chronicles linked to the movement of hermits (de Santo António 1745; de São Caetano 1793) provide very little data about the structure of the landscape. Moreover, these chronicles are concerned with displaying a continuity between the eremitism of Serra de Ossa and that of primitive Christians, ending their narrative precisely

¹ The Spanish word “*dehesa*”—*montado*, in Portuguese—designates an agro-sylvo-pastoral system typical of the southwestern Iberian Peninsula. Generally, such estates are used for cattle rearing, hunting, and exploitation of other forest products. Deriving from the ecosystem of the Mediterranean forest, they exemplify the agroforestry system of the areas in which they are particularly widespread—areas that can be defined as economically “marginal” for limited agricultural uses due, for example, to poor soil quality. Such is the case of the Alentejo and Algarve regions in Portugal. Regarding the southwestern Iberian Peninsula, with reference to the Algarve region, see Garcia (1986).

in the middle of the 14th century, when the movement's first historical records appear. Many of their considerations are therefore apologetic and lacking an historical basis, even though, as Fontes (2012) highlights, the second of these sources offers some information useful for the reconstruction of the custodial history of some records. Importantly, in the 18th century Damásio lists documented records related to the mid-14th century. This means that, as Fontes shows, there has not been a great loss for this period in terms of documentation. Indeed, several documents are still available today. A few studies in the field of medieval history (Mattoso 1972; Beirante 1985, 2000:149–154; Fontes 2005, 2012) have led to an increase in knowledge about the most representative movement in southern Portugal, known as the “men of poor life” (*da pobre vida*). Recent work has combined both historical and architectural approaches (Volzone and Fontes 2020). Despite this, a reconstruction of this medieval sacred spatiality has yet to be robustly researched. This article sets out to address this research gap by combining methodologies from history and landscape architecture. Our study of historical primary sources took an ecological perspective²—focusing on the way in which people and natural landscapes interact—in investigating the eremitical settlements: the organization of the properties and the administrative logic. We first examine the genesis of this eremitical movement and the spatial distribution of its communities in Portuguese territory. Then we delve deeper into the fragmentary and dispersed primary sources through the identification and analysis of 1,300 historical records. Of these, 300 were selected due to the paradigmatic data they contain about specific spatial components helpful in defining the structure of the eremitical landscape. After that, in order to systematize this information, the components are introduced into a database and grouped into “cultural” and “ecological categories.” On the basis of these categories, four systems are identified: “circulation,” “vegetation,” “water,” and “building.” We discuss the importance of this analysis in revealing the transformation and construction

² The ecological perspective is taken into account due to the completed analysis. Indeed, the relationship between the hermits and the physical environment is taken into account. The focus is on natural-resources management, including land, water, soil, plants, and animals.

of the landscape of southern Portugal by hermits; we also consider how this analysis represents a basis for future studies in the field of archaeology.

Historical Framework: An Eremitical Movement in the South of Portugal

This article considers the historical period from 1366 to 1578. A documentary source dated 1366, the oldest found to date (Fontes 2012), already attests to the existence of “men of poor life” in the Ossa Hill Chain. In 1578, the papacy integrated, with a large degree of autonomy in its government, the existing Congregation of the Hermits of Serra de Ossa into the religious order of Saint Paul the First Hermit. The analyzed time frame includes the historic convocation of the Council of Trent (1545–1563), after which all the religious or mendicant orders went through a phase of reform and transformation. In a period marked by the Black Death—the first epidemic dates from 1348—with strong effects on Portuguese population, and by the famine associated with repeated years of poor harvest, the Crown was naturally motivated to develop a policy aimed at demographic and economic recovery and reorganization in order to attract population to new villages and municipalities (Beirante 1985). The plague and the population exodus resulted in large areas of abandoned and uncultivated land, so it is not surprising that municipalities supported hermits who would certainly contribute to the settlement and recovery of farmland. In addition, hermits were admired by different institutions and populations because of their exemplary way of living (Beirante 1985; Fontes 2012). The region chosen by “men of poor life” for their eremitical settlements presented particular natural conditions, along with a peculiar population, that clearly set them apart from the northern region of Portugal. Indeed, the southern region of Alentejo—whose name literally means “beyond the Tagus River”—is dominated by the peneplain.³ The soil is not very rich in terms of hydric resources in comparison with the northern regions, with low rainfall and low–medium agricultural capacity (Rau 1965). There, human occupation has always been limited and concentrated, mostly because of the soil’s low fertility, as well as historical and political factors (Feio 1949; Sousa 1988). The low population and the consequent shortage of labor favored the presence of

large uncultivated areas distant from urban centers. These were used for pastoral transhumance and for cattle breeding, important sources of income through the sale of animals and related products: meat, milk, and fur (Morais 1998).

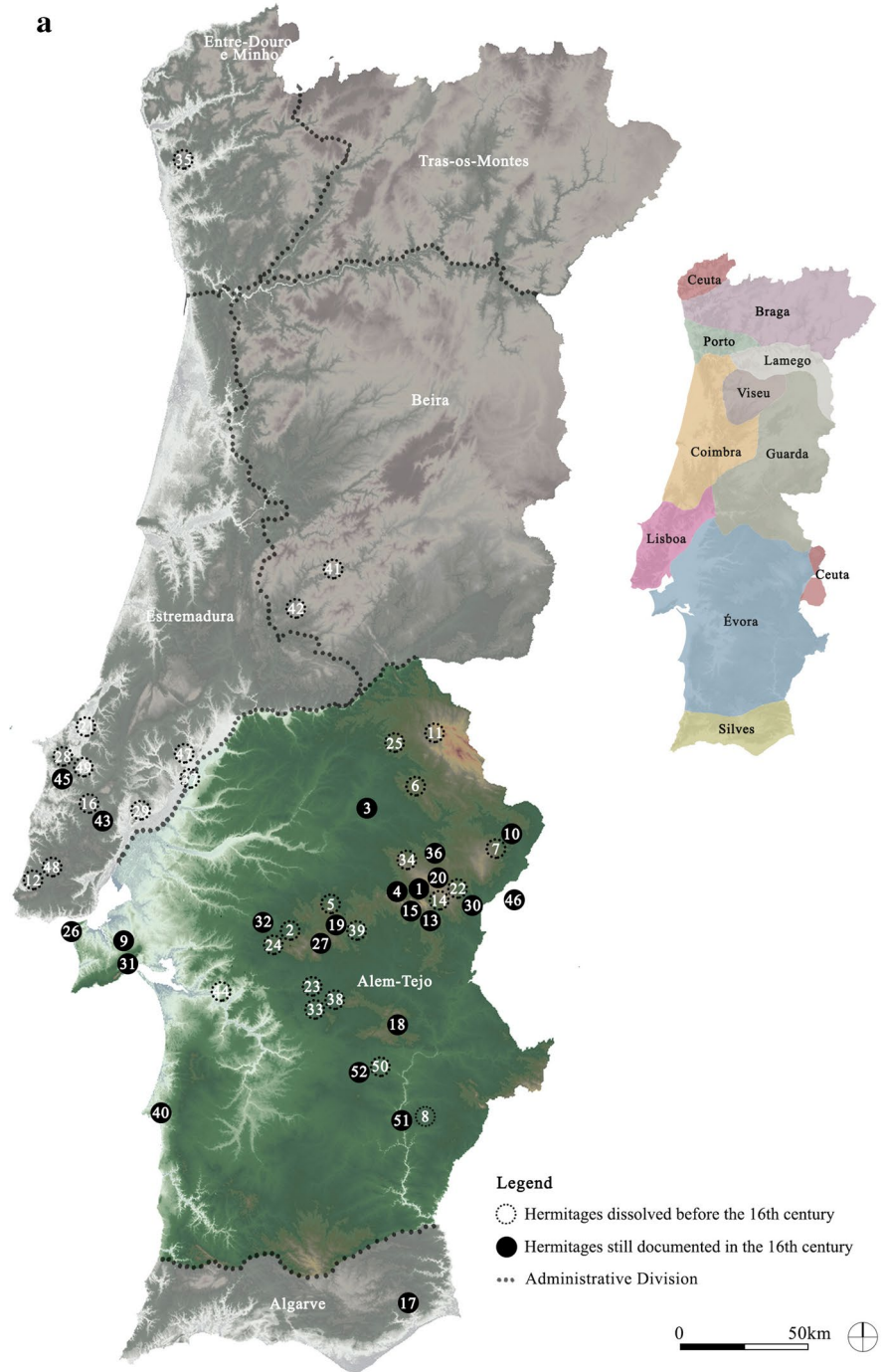
In the southern Portuguese territory, particularly in the diocese of Évora, it has been verified that there was only a thin regular settlement of monastic orders. Since the middle 13th century the mendicant orders, particularly the Franciscans and Dominicans, who enjoyed special papal support through several bulls (Vilar 1999), spread quickly in the area, with their convents near the main urban centers. It is in this context that the hermits of Serra de Ossa expanded and, later, became a congregation (Fig. 1).

Small communities of 3–7 hermits can be identified,⁴ with exception of the community of Serra de Ossa and Vale de Infante, each with 20 hermits. These were governed by a mayor. This eremitism was closer to the Franciscan model, associated with pauperism, combining solitude and penance with manual work and forgoing pastoral activity. Of note is the isolated character of the places in which they settled, for which they are termed “hermitages.” Indeed, they settled at the edge of the urban nucleus, where the environment could guarantee seclusion and self-subsistence. The communities did not accumulate many possessions, with exception of Serra de Ossa—the motherhouse—which had considerable assets. However, they tended to accumulate the properties needed for a consolidated area of possession, mostly around their settlement, either through donations, purchase, or by obtaining letters of *sesmaria*—granted to them by the municipalities on condition that the land was cultivated. These were important because the hermits

³ The region is bordered to the north by the natural boundary of the Tagus River and Ribatejo, to the south by the Algarve region, to the west by the Atlantic Ocean, and to the east by Spain. The peneplain, with a median altitude of ca. 300 m, represents a hinge between the lowest areas in the south of this region and the highest in the north. It is interrupted by few hill chains—São Mamede in the north reaches a height of 1025 m, while others are not very high: Ossa (698 m) in the north-east, Monfurado (423 m) in the west, and Portel (412 m) in the southeast.

⁴ A document (Congregation of Serra de Ossa [1573–1578]) sent in response to an inquiry ordered by the pope—drafted between 1573 and 1578—shows the number of religious men living in monasteries in that decade.

Fig. 1 The geographical distribution of Serra de Ossa eremitical communities in Portugal (1366–1578). This page (a): Map with the settlement locations and Portuguese medieval dioceses (14th–15th centuries), based on de Oliveira Marques (1987:366). Next page (b): Legend with the hermitage names and the first and the last individuated documented references. The settlements dissolved before the 16th century are highlighted in gray. (Figure by Rolando Volzone, 2020.)



could sell part of what they produced to people from the urban centers—wooden spoons, among other items.

In addition to the *locus eremus* or *eremitério* (hermitage), the Portuguese late medieval documentary sources use the terms “*oratorio*” (oratory), “*cela*”

Fig. 1 (continued)

b

	Hermitage Designation	1st documented reference	Last documented reference
1	Serra de Ossa	1366	1834
2	Felgueira	1369	-
3	Azambujeira	1371	1618
4	Vale da Infante	1374	1642
5	Arraiolos	1378	1396
6	Cabeço de Vide	1378	1385
7	São Domingos de Brunheda	1378	1405
8	Mata de Serpa	1378	1378
9	Alferrara	1380	1813
10	Rio Torto	1380	1834
11	Vale de Flores	1385	1436 - 1467
12	Penha Longa	1390	1400
13	Vale Abraão	1390	1593
14	São Pedro de Bencatel	1395	1441
15	Santa Maria de Monte Virgem	1397	1559?
16	São Jerónimo do Mato	1400	1400
17	Vale Formoso	1401	1834
18	Água das Infantes	1405	1834
19	Santa Margarida do Aivado	1406	1797
20	Montes Claros	1407	1834
21	Alentejo, termo de Óbidos	1409	1434 - 1465
22	Ameal do Gorjão	1409	1425
23	São Brissos de Xarrama	1409	1425
24	Ervedeira	1410	-
25	Flor da Rosa	1410	1410
26	Cela Nova / Barriga	1414	1813
27	Montemuro	1415	1593
28	Olho Marinho	1416	1416
29	Santa Maria de Azambuja	1416	1416
30	Valbom	1416	1834
31	Mendoliva	1420	1531
32	Rio Mourinho	1422	1823
33	Zarco	1425	1436
34	Amieira (Estremoz)	1428	c. 1440
35	Franqueira	1429	1476
36	Espadaneira	1433	End of 1500
37	Santa Catarina de Vale de Mourol	1433	1470
38	Viana do Alentejo	1436	1450
39	Santa Maria do Espinheiro	1446	1446
40	Junqueira	1447	1645
41	Amieira (Figueiró)	1448	1449
42	Santa Maria de Sertã	1454	1454
43	São Julião de Alenquer	1459	1823
44	Alcácer do Sal	1465	1482
45	Pó	1468	1533
46	Asseiceira	1470	1502
47	Alcanhões	1471	1487
48	Santa Maria da Pena	1477	1477
49	Moutelas, Vale de Ramada	1478	1478
50	Vale do Bispo	1479	1479
51	Serpa, Nossa Senhora da Consolação	1494	1592 - 1834
52	São Miguel o Anjo	1496	1526

(cell), and “*provença*.” The latter term is frequent in the older toponymy, and it sometimes survives in the more recent cartographies, making it possible to identify the settlements’ locations. The term is not exclusive to Portugal, but appears in other geographies, such as Spain and Italy. Indeed, a broad movement, especially in southern Europe, proposed a return to the wilderness and poor life. De Viterbo (1865) includes two definitions for the term “*provença*”: one refers to the spatial ideas of “province, region, diocese”; the second refers to “providence.” It is interesting to note that the term “*proveza*” appears on the same page, also referring to “poverty.” One record refers to the words “*pobrençia*” and “*probençia*” as closely linked to *pobres* or *probes* (poor men) (Rio Mourinho 1483a). The term can thus be understood as used with the meaning “place of the poor life.” This can be compared with the first settlements of the Franciscan observance, which have been analyzed from a historical point of view by Vitor Teixeira (2010), José García Oro (2006), and Mario Sensi (1985).⁵ Comparison can also be made to the settlements of the Castilian Hieronymites (dos Santos 1980; Ortiz 2021).

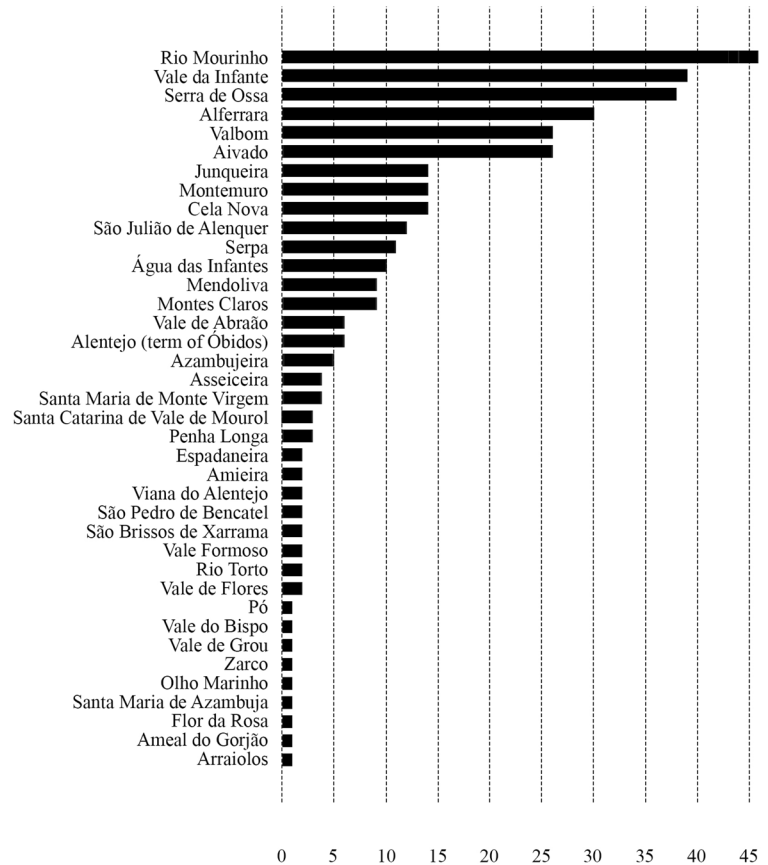
We have introduced the location of the eremitical settlements under consideration into a map of Portugal by cross-referencing data from historical records, previous studies (Fontes 2012), the analysis of cartographic sources, onsite visits, and interviews with local administrations and management entities (Fig. 1). Here, as well as in other geographies, these settlements played an important role in periurban areas, working as dynamic elements of their surrounding areas through their spatial organization. Indeed, despite their ascetic practices, certain activities were indispensable for their self-sufficiency, e.g., raising cattle and beekeeping. For these reasons, they used the resources of the forests and cultivated lands around the hermitage, obtained through donations and sales that are documented with official charters. These documentary records are analyzed below, with the aim of reconstructing the landscape in which the “men of poor life” settled.

Toward a Reconstruction of the Eremitical Landscape from Historical Records

We approached the history of the construction of the landscape through the analysis of documentary sources, which, despite being fragmentary and dispersed, have been useful to identify specific spatial components that helped to define the eremitical landscape. In this case, analysis of primary sources is made from an ecological perspective, focusing on the interaction between hermits and the environment in which they settled. Although they bear little evidence when compared with the existing documents on other congregations or religious orders, charters for eremitical communities played an important role in the delineation of each eremitical settlement. The medieval landscape system that welcomed the “men of poor life” was reconstructed by elaborating the information contained in 1,130 charters, transcribed in previous research (Fontes 2012) and dating from 9 March 1366, including a charter for land donated by Gil Afonso to the Serra de Ossa hermits (Estremoz 1366), to 1578, when Gregory XIII (1578) issued the bull *Creditum nobis* for the approval of the Order of Saint Paul. These documents represent a corpus of evidence that makes it possible to understand the eremitical landscape of the late Middle Ages. They were issued by kings, landowners, nobles, municipal authorities, and clerics, and they include such records as donations of properties, sales, and exchanges. Mainly conserved in the Évora Public Library, the National Archive of Torre do Tombo, the National Library of Portugal, and in district and municipal archives (e.g., those of Évora, Coimbra, Beja, and Portalegre), these sources include valuable data about the structure of the lands of the eremitical settlements, their boundaries and confines, with information about circulation, vegetation, and water systems. Upon analyzing the set of 1,130 charters, 300 were selected for the paradigmatic data they contain about the landscape of the eremitical settlements. They were introduced into a database, enabling categorization on the basis of the typology of the records. By cross-referencing the typological categories with the production dates of the documents, it has been verified that, generally, the first historical records regarding the communities belong to the donation charters. It is clear that, in a first phase, the expansion of the eremitical settlements was driven by land donations, mostly by local

⁵ A transnational and transdisciplinary analysis of the material components is currently ongoing in the European project F-ATLAS: Franciscan Landscapes: The Observance between Italy, Portugal and Spain. More information can be found at <<https://www.f-atlas.eu/>>.

Fig. 2 Hermitages and the number of charters (1366–1578). (Figure by Rolando Volzone, 2020.)



communities. Moreover, the hermits received important privileges, such as tax exemptions, from the Portuguese kings and benefited from their influence in gaining other privileges from the papacy. Regarding the foundation of the hermitages of Montemuro (Duarte 1415) and Penha Longa (João I 1390), among others, there was direct intervention by the monarchy in order to assure them the possession of the lands on which they sought to pursue their religious vocation. Beyond the Crown, the support of the municipalities is evident through the granting of lands in *sesmaria*, as is that of the local population through land donations. The nobility was not as involved, being more linked to other orders. However, the support of the Pereira and Bragança families is attested.

In a subsequent consolidation of the movement, communities started to implement strategies of property management that were also based on the acquisition of new lands, especially around the hermitage, in order to increase the land they could work and

ensure their subsistence and isolation. Through an analysis in which the number of documents and the communities are related, it is possible to conclude that Rio Mourinho, Vale de Infante, Serra de Ossa, Alferrara, Valbom, and Aivado appear in a larger number of charters, mostly of the donation and sale type (Fig. 2).⁶

It is not surprising that these communities, as well as others with a consistent number of charters, were not dissolved before the 16th century, instead becoming part of the Congregation of São Paulo da Serra de Ossa.⁷ To account for this, a set of variables has been grouped into two categories based on the division elaborated by Magalhães (1996): “cultural” and “ecological” components.

⁶ The community of Rio Mourinho includes data for Felgueira and Ervedeira; Cela Nova includes Barriga.

⁷ This analysis should be considered in light of two factors: (1) the conservation and loss of the settlements’ records and (2) the shorter or longer lifetimes of the settlements.

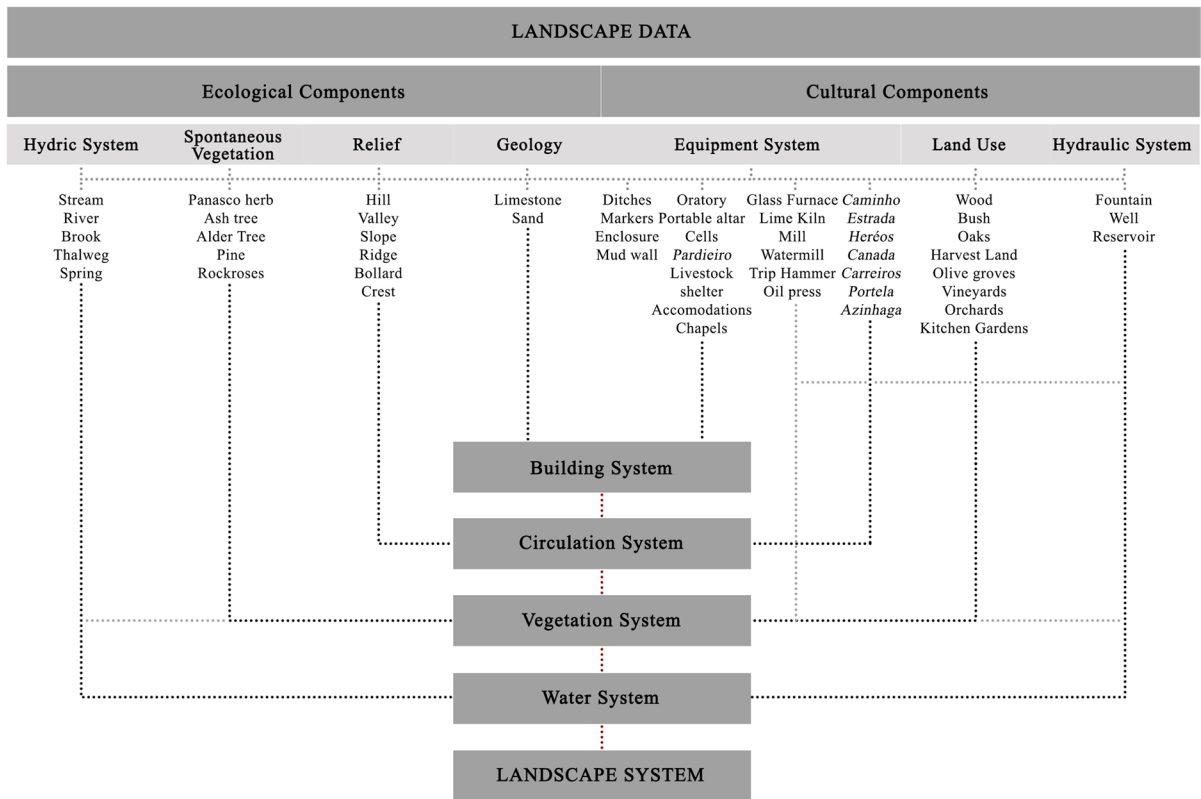


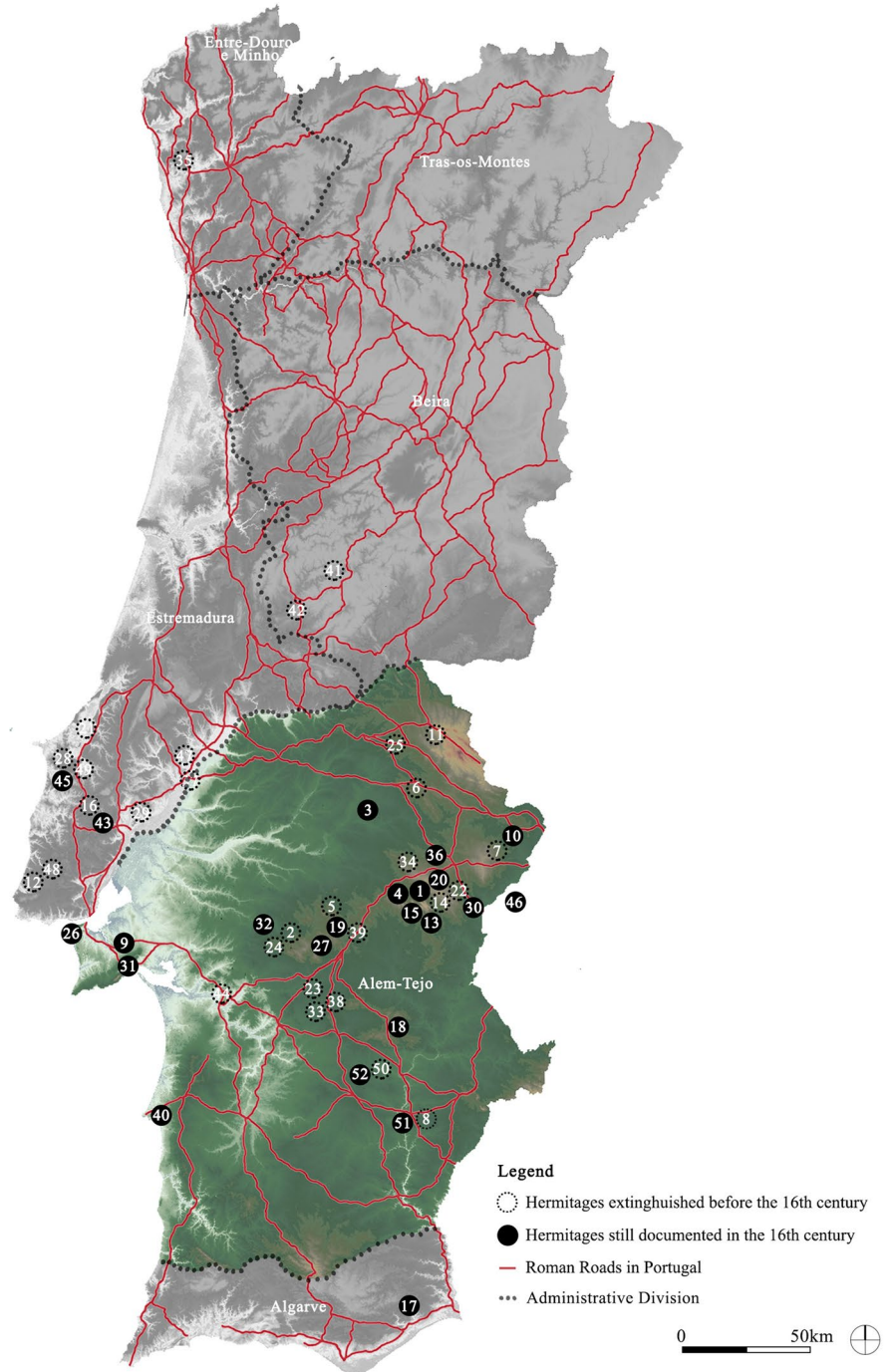
Fig. 3 Organization of landscape data: cultural components and their relationship with the ecological components. (Figure by Rolando Volzone, 2020.)

This allows the definition and delimitation of the landscape’s structure, and it contributes to further knowledge of the history of humanization and construction there. The ecological components consist of the hydric system, spontaneous vegetation, orography, and geology. Cultural components represent the way cultures use ecological resources for daily life: equipment, land use, and hydraulic systems. Due to the kinds of data available and through the interaction between the components, this study identified four systems: circulation, vegetation, water, and building (Fig. 3). The spatiality is further explored through a multiscale analysis process: the study proceeds from territorial scale to hermitage scale. Therefore, this study begins by analyzing the roads and pathways—the first way to access the land—then moves to explore the lands themselves and their use, the enclosure and its interior, and, finally, the buildings.

Circulation System

Hermits intended to lead a secluded life. Distance was important, but also relative, as the microcosm they constructed was not a space of complete isolation. The fenced perimeter that often surrounded lands and hermitages welcomed the outside world, since the hermits’ tradition required them to provide hospitality to those who were looking for it. However, the opposite happened too: hermits visited and stayed in cities when they needed to celebrate a juridical act, request a copy of a document, or simply to deliver surplus fruits from their lands or the wooden spoons they made to women who would sell them (Fontes 2012). For these reasons, a strict relationship between the hermitage and the system of circulation was necessary. Based on historical studies of the Alentejo region, it is known that some Roman routes were used during the medieval period, and others were

Fig. 4 The relationship between the network of ancient Roman roads in Portuguese territory (data adapted from Soutinho [2020]) and the locations of the hermitages. (Figure by Rolando Volzone, 2020.)



partially abandoned (Boissellier 2003; Bilou 2005; Carneiro 2010). In some cases it is evident that the existence of a road could determine the selection of a place. In other cases locations led to the creation of new roads. This defines a system enriched with other hierarchically organized

connections (Volzone and Fontes 2020). By overlapping the ancient network of Roman roads, adapted from previous studies, and the location of the hermitages, even at a macro scale, it is evident that the eremitical settlements lay in areas relatively close to the roads (Fig. 4). The main

road network generally ensured connection with the most important nearby settlements and with the rest of the territory. A secondary network of paths—which were sometimes narrow, allowing the passage of just one person or two—connected parts of the same settlement, such as orchards and vineyards (J. Fonseca 1998). Indeed, some lands needed to be worked on a daily basis, and a network of rural paths was indispensable to ensure capillary circulation through them. These two levels of road network outline the landscape, and, together with other components, serve to delimit the land possessions, whether larger or smaller.

Analysis of the charters helps in understanding the various diverse elements useful as spatial delimiters and in reconstituting the Alentejo regional landscape of the late Middle Ages. Regardless of their dimensions—a type of information that is rarely included in the records—the location or the type of use of hermit-owned lands needed to be delimited in order to facilitate their management. Previous studies (Gonçalves 2013) argued for the use, at first, of less-defined elements materialized in landforms, such as ridges, heads, waterlines, and valleys. These delimitations have subsequently acquired a greater accuracy, thanks to continuous elements—e.g., ditches—or punctual elements, isolated or in sequence—e.g., markers. The documentation designates an abundant set of physical elements for the lands' delimitation into spatial units. Sometimes these were elements created specifically for this purpose: boundary markers, as stemming from the Roman tradition, were usually positioned in series, along paths, or at the limits between two lands belonging to different owners, sometimes underlining other types of property markers, such as ditches.⁸ Ecological components were also able to serve this function naturally, without human intervention. Brooks (Vale da Infante 1437)⁹ and streams (Rio Mourinho 1483b)¹⁰ were suitable as continuous property delimiters (Gonçalves 2013).

⁸ A demarcation instrument for Aivado (1464) is exemplary. It indicated a series of boundary markers all around the property, with their respective distances. This has been verified also in Alferrara (1529)—and in relationship with hydric, vegetation, and orography components, such as in Montes Claros (1425), de Serra (1450, 1463), and Valbom (1505).

⁹ A *sesmaria* charter for Vale da Infante (1437).

¹⁰ A demarcation instrument for Rio Mourinho (1483).

Vegetation System

The vegetation system is the result of the interaction between ecological components that are natural to a specific area and cultural components, introduced through human action. Both are morphological components that define the identity of a landscape. In the late Middle Ages in the Évora area, for instance, land use was spatially distributed in a concentric form around the urban centers. Cultivation that needed daily attention occupied areas closer to the city, within walking distance. Agricultural systems followed a typically Roman organization of the landscape, split into productive and complementary groups: *urbs*, *hortus*, *ager*, *saltus*, and *silva* (Mazoyer and Roudart 2001), corresponding respectively to the urban area, kitchen garden, agricultural field, pasture paths, and forest.

When applied to Portuguese territory, four concentric circles are identified (Barata and Leite 1996).¹¹ The first of these—about 1–2 km from the center or from its walls—was that of the *ferragial*, an intensive livestock feed-production site where barley and rye were cultivated. Other forms of agricultural production were common as well, such as kitchen gardens in a rotating system, in order to ensure food sustainability for the city. This circle was located nearest to the city because of daily needs. The second circle was located from 2 to 5 km away from the center and was generally occupied by vineyards, which, unlike the kitchen gardens, did not need daily care over the whole year. It was also cultivated with other arable crops, depending on the ecological conditions that were more apt for certain products. In the Alentejo region, vineyards were complemented mostly with olive trees or figs. Even from the landscape and morphological point of

¹¹ Unfortunately, the continuous alteration of the vegetation system, due mostly to eucalyptus cultivation, in mischaracterizing the landscape and the lack of specific indication about the exact point at which specific components were present, hamper the reconstruction of the circular organization of the vegetation system. It could be interesting to use GIS in order to create hypothetical maps of the landscape in the centuries under consideration. However, for this work, a team specializing in the digital humanities would be required. Similar works have been developed by the University of Barcelona, mostly in the doctoral dissertations of Xavier Costa Badia (2019) and Marc Fernández Ferrer (2019). However, these two specific cases approached major religious orders with important and detailed records that allow that kind of deeper analysis in contrast to the eremitical congregation we are analyzing.

view, they constituted a boundary of the peri-urban space (Serra 2006). Indeed, Langhans (1970) also notes that the cultivated areas were those in the immediate surroundings of the villages, and the rest was endless scrub and desert. Farms were located in the third circle. There, crop fields and grazing lands coexisted. These areas did not need daily treatment, so they were located 15 km away from the center. The last circle was for pasture. Évora had important indigenous cattle production and was also a place that transhumant livestock passed through on its way from Serra da Estrela to the southern fields and in their return to the highlands in the summer (Morais 1998). Finally, there are two more systems to highlight: harvest lands¹² and woods.¹³ The former could be associated with the *ferragial*, vineyards or parcels of the farm; the latter had an important role in the population's daily life, as place of feed, fodder, and raw materials. Monoculture fields with an exclusive system were rare—indeed, associations were common: kitchen gardens with harvest lands, and vineyards with olive trees, cork trees, or orchards, among others (Barata and Leite 1996). Starting from the distinction between ecological and cultural components, we have grouped all the identified landscape data regarding the vegetation system into the seven categories previously analyzed. In order to correlate these components and their presence in 17 eremitical communities,¹⁴ a radar-type

chart was made. This chart supports different interpretations. Firstly, it makes it possible to understand the presence of each component in the settlements, enabling a specific comparison. Secondly, it makes it possible to verify the global richness of each community in terms of its agricultural products on the basis of the documentary references, taking all the components into consideration simultaneously. Thirdly, it highlights the association between systems of grinding equipment in specific settlements and components of land use (Fig. 5).

Water System

The wide availability of water—part of the hydric system—enabled hermits to carry on their secluded life with the necessary autonomy from the closest settlements. The hermits needed a hydraulic system to collect, transport, store, and distribute water for personal use (washing and cooking), as well as for the irrigation of crops and for cattle (Mascarenhas and Jorge 1996). In addition to nourishing the earth, water played a religiously symbolic role in the hermits' settlement (Volzone 2020). Consequently, it is not surprising that hermits settled near springs or important watercourses. The names of rivers are revealed in several documents, and it is interesting to verify how many of these hydronyms are still present in contemporary cartographies. In several records the community's name itself includes the hydronym: Rio Mourinho, Rio Torto, Água das Infantes, and São Brissos de Xarrama.

The energetic potential of water was also used as a driving force for the operation of grinding systems: mills, watermills, and trip-hammer mills. Mills were the most-used technologies for raw-material processing and transformation. In Portugal, as highlighted by previous studies (de Oliveira et al. 1983), there existed two types of grinding devices moved by hydraulic power: the *moinho*—mill, generally with a horizontal waterwheel—and the *azenha*—also known as a watermill, using a vertical waterwheel.¹⁵ These

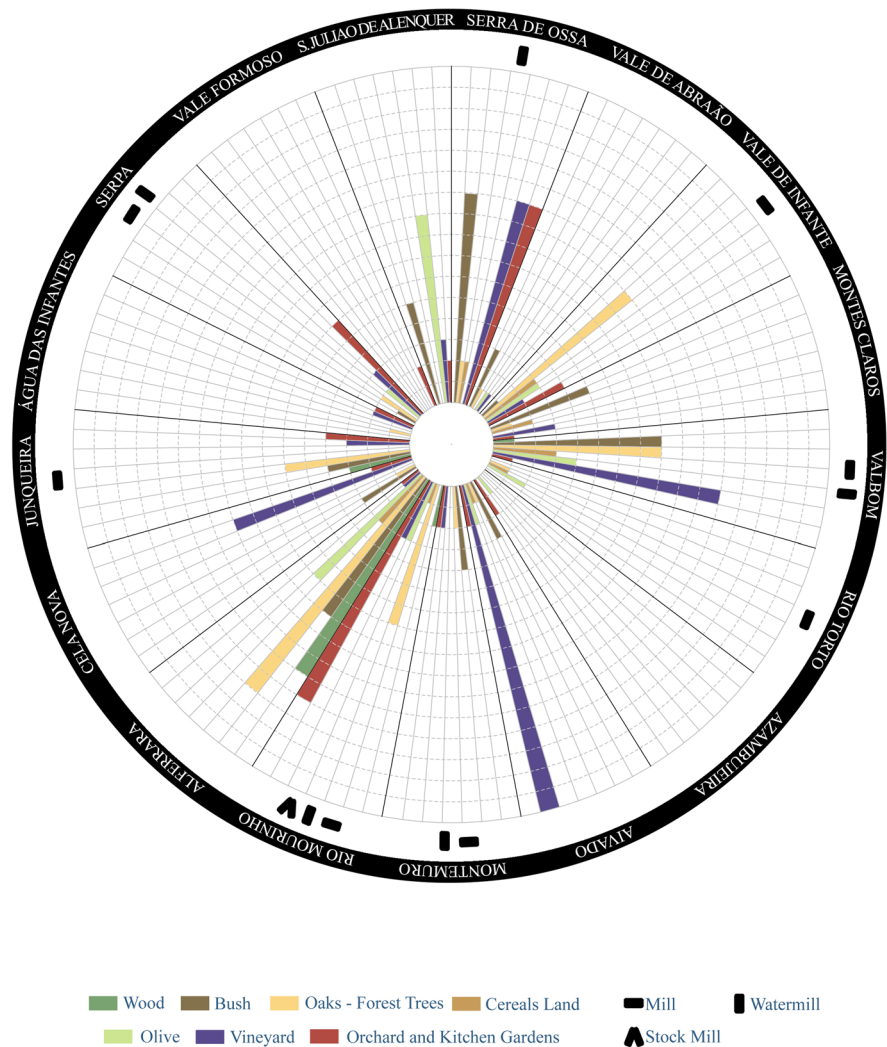
¹² The Alferrara community charters refer several times to harvest lands: “*herdade de pam que eu ey onde chamam os barris termo da vijlla de pallmella*” (a harvest land with cereal that I have, called “os Barris,” on the outskirts of Palmela) (Alferrara 1462, 1520); “*casal de pam que Elles avijam a beira da mata do barrill*” (a harvest property with cereal that they had next to the wood of Barril) (Alferrara 1475); and “*courela de herdade de pam*” (a small piece of harvest land with cereal) (Alferrara 1476). Sometimes they are associated with olive groves, but most of the time they relate to the presence of woods. Around 75% of documents with references to harvest lands belong to sale charters. In one of these, harvest lands are associated in the same land with pine forests, olive groves, and a quarry with an adjoining limekiln (Alferrara 1494).

¹³ References are mostly found in relation to the Mendoliva and Alferrara communities in the Setúbal Peninsula: “*mata de el rei*” (wood of the king) (Alferrara [1465]) and “*mata do Barril*” (Wood of Barril, in relation to the hill with the same name) (Alferrara 1475, 1476). In the first identified charters, the wood was located immediately next to the hermits' possessions, delimiting the hermitage. Since 1490, sale charters show part of this wood being purchased, demonstrating the enrichment of the communities and the accumulation of land around the hermitage (Alferrara 1494).

¹⁴ These 17 case studies were chosen for deep analysis due to two different factors: firstly, these eremitical communities have developed into monastic ones; on the other hand, these tend to present a more consistent number of charters, being paradigmatic in terms of landscape data.

¹⁵ According to de Oliveira et al. (1983), windmills would have been rare in Portuguese territory between the 14th and 16th centuries.

Fig. 5 Hermitages and land-use components found in analyzed charters (1366–1578). View the article online for the color version of this figure. (Figure by Rolando Volzone, 2020.)



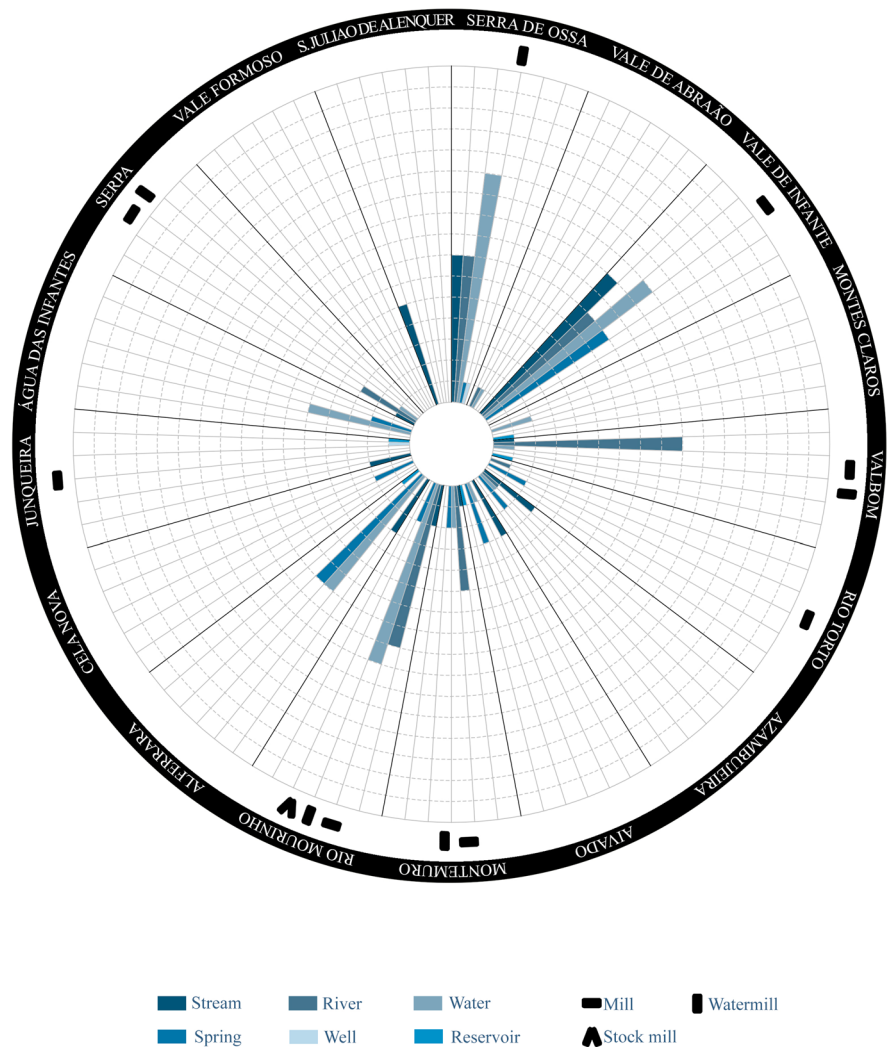
needed to be located in places with abundant water-courses¹⁶ in order to work. They were distributed all over Portuguese territory, depending on the local ecological component and the proximity to urban centers or to the circulation system. As with the analysis of the vegetation-system components, we have created a radar chart to display the relationship between the components of the water system and their presence in records regarding a specific settlement (Fig. 6). This makes it possible to interpret the data of a specific settlement, while at the same time enabling comparison with the others. By analyzing these data, it is evident how communities around the Ossa, Arrábida,

and Monfurado hill chains were richer in terms of hydric and hydraulic components. Through this analysis, the majority of the records in the database regard the Serra de Ossa, Vale da Infante, Valbom, Alferrara, and Rio Mourinho communities. This shows a correspondence with the chart for the vegetation system, underlining the link between water resources and soil fertility. The communities of Serra de Ossa, Vale da Infante, and Rio Mourinho show multiple references to *água* (water).¹⁷ Since most of the references regard running or flowing water, it is evident that they occur mainly in mountainous or valley topographies. In

¹⁶ See White and Lejeune (1969:106–107) and Gimpel (1977:9–18).

¹⁷ We have identified 33 references to *água* (water), differentiated among *águas vertentes* or *correntes* (either still or running water), and *água do alto* (water from above). The last one is from São Brissos (1409).

Fig. 6 Relationship between hermitages and the water system (1366–1578). View the article online for the color version of this figure. (Figure by Rolando Volzone, 2020.)



some cases—above all in Rio Mourinho—the presence of records regarding grinding equipment is strictly linked to the prevalence of references about the water system. In other cases, this correspondence does not exist, as evident in Junqueira, Serpa, and Rio Torto. As seen before, the geomorphology influenced eremitical settlements through the interaction among orography, vegetation, and water—basic components of any natural place. Understanding these factors, the hermits respected and accommodated the genius loci (Norberg-Schulz 1980). Each settlement needed a natural framework with specific features. These features met practical needs, such as the population's relative remoteness and the presence of abundant drinking water, which also supported the fertility of the soil. The spaces chosen were characterized by the

presence of (1) hills, (2) valleys, and (3) important waterlines (Fig. 7). These elements were included in charters several times. The Alentejo region is mostly flat, considered to be a peneplain interrupted by chains of low-altitude mountains or hills. Detachment was the most important element; in those centuries, hills as well as valleys were not very busy places. For hermits the desire for seclusion implied distance from community life, which provided the tranquility necessary for this life of meditation, prayer, asceticism, and silence in contrast to life in the outside world.

Building System

Concerning the architectural elements forming the hermitages, records are extremely scarce. The

Hermitage	Hill Chain	Valley	Hydric System	
			River name	Stream name
Serra de Ossa	Serra de Ossa Serra de São Gens	Vale das Roçadas Vale do Inferno Vale do salgueiro Vale do colmeiro Vale do pinheiro Vale do pereiro Vale da fornalha Vale da terra de cabeça Vale do durão Vale de Abraão	Ribeira de Pero Crespo Ribeira do Espinheiro Ribeira de Ana Loura Ribeira de Alcuvisca	Ribeiro de Pero Crespo Ribeiro de Palhavã
Vale de Infante	Serra de São Gens Serra da Fonte do Lobo Serra de Sousel	Vale de Carnes Vale de Fatoz Vale de Maceiras	Ribeira do mestre Ribeira de Gatuz Ribeira de Alfanger Ribeira de gatos	Ribeiro do ferreiro Ribeiro da pedra Ribeiro de Monporcam
Azambujeira		Vale de Santiago	Ribeira de Avis	Ribeiro de Azinhal Ribeiro do vale de Santiago Ribeiro de Fonte Arcada
Alferrara	Serra do Barril Serra de el Rei Serra grande Serra de Louro	Vale de argalho Vale do milho		
Rio Torto			Ribeira de chinchês	
Vale Abraão				
Vale Formoso				
Água das Infantes	Serra de Portel			
Aivado	Serra do Aivado	Vale da Silveira Vale dos Freixos		Ribeiro do Aivado
Montes Claros	Serra de Parua			
Cela Nova				
Montemuro		Vale panascoso Valverde	Ribeira de Rio Mourinho Ribeira de Degebe	
Valbom			Ribeira de Guadiana Ribeira de Borba Ribeira d emures Ribeira da Asseca	
Rio Mourinho		Vale de Corvos Vale de Mós Vale do vilão	Ribeira da Javallacira Ribeira de Odjera Ribeira de Xarrama	Ribeiro de Infante Ribeiro da Espadaneira
Junqueira		Vale da esteveira		Ribeiro dos camachos
São Julião de Alenquer		Vale do Junco		
Serpa			Ribeira de Guadiana Ribeira de Álamo	

Fig. 7 Hermitages and their relationship with hill chains, valleys, and the hydric system: toponyms and hydronyms identified in the historical records (1366–1578). (Figure by Rolando Volzone, 2020.)

systematization, critical analysis, and interpretation of the few clues included in the historical records allow us to outline some conclusions aimed at identifying the physical structures that housed the hermits or fulfilled certain functions. As seen before, grinding

equipment was identified in several settlements. In this regard it is interesting to note that the hermits were involved in the repairing and maintenance of these structures, such as watermills or trip-hammer mills, which were built close to the watercourses.

This emerges, for example, in records referring to the hermit Gonçalo da Silveira and his companions.¹⁸ It has therefore been supposed that hermits were involved in the construction of these and, perhaps, other elements. Although local materials such as stone were used for some equipment, these medieval constructions were mostly made of perishable materials, especially wood, and so were quite fragile and rudimentary. For this reason, several references to ruined buildings, sometimes completely destroyed, are identified. The *pardieiro* or *paredeiro* is a physical structure that emerges in some records. The term refers to a house in ruins, deserted or uninhabited, indicating the presence of a previous dwelling that was abandoned afterwards. In Cela Nova this term is associated with harvest lands—*terra com pardieiro* (Rosa 1516a, 1516b). In this sense it corroborates the abandonment of agricultural land, when associated, for example, with dead vineyards or lands previously cultivated and then overgrown, in Valbom (Valbom 1416). It justifies the interest shown by municipalities and kings in promoting the cultivation and settlement of these lands, which were also donated for this reason. But these structures are rarely mentioned as being within the enclosures of the hermitages, instead being mostly associated with their areas for cultivation. Through the analyzed records, the existence of portable altars is verified. The presence of these structures has been documented since 1402 through the bull *Sincere devotionis affectus* of Pope Boniface IX. Hermits obtained the license to own a portable altar and to erect a belfry for Masses or celebrations of other services by a suitable priest of their choosing (Boniface IX 1402). Consequently, hermits did not need a built chapel, but could adopt this type of structure to celebrate anywhere. Fixed altars were gradually introduced with the consecration of worship places inside the hermitages, as affirmed by Fontes (2012:201) regarding the hermitages of Serra de Ossa, Água das Infantes, Montemuro, and Valbom.

¹⁸ “E que ao tempo que elle o dito moynho ouuera, Era muito delapidado, e que ele com os outros pobres seus parceiros que no dito logo com ele estauam trabalharam no dicto muinho e ho lançaram a moer” (And by the time he had the mill, it was badly damaged; and he, along with the other poor, his partners, who lived with him in that place, worked to rebuild the mill and managed to get it working again) (Afonso V 1447). In addition, a *sesmaria* charter allows the construction of a water-mill close the Xarrama Stream (São Brissos 1409).

Another interesting structure in the records is the oratory, *oratorio* or *adoratorio* (Valbom 1428). Several charters attest the existence of oratories in Rio Mourinho (Afonso V 1457), Montemuro (Duarte 1415), Portel (Portel 1434), Aivado (Aivado 1406), São Julião de Alenquer (São Julião de Alenquer 1465), Vale da Infante (Vale da Infante 1436), and Nossa Senhora da Consolação de Serpa (Serpa 1494), among others. A judgment of King João II (1483) about a conflict between “men of poor life” and Hieronymites includes a description of the incident from both points of view.¹⁹ Despite the differences in their stories, common spatial elements are identified in the hermitage Serra de Ossa. Firstly, the record mentions the enclosure (*cerquoyto*) with a possible entrance. Secondly, the presence of an oratory can be verified. Thirdly, there were houses in which the hermits took refuge, closing the doors. This proves the existence of a built structure, not just a cave typical of the eremitical traditions. Similarly, in a charter dated 1483 regarding the resolution of the conflict, once again, between the “men of poor life” of Rio Mourinho and the Hieronymites, a description of assets contains data on the architectural system of this community (Rio Mourinho 1483b). This consisted of the mud wall, some grinding equipment, an oratory, and also some houses; even more interestingly, the presence of six beds, including their linen, is also noted. It is likely that the same typologies were associated

¹⁹ With regard to the hermits: “[S]e meterom dentro em ssuas casas e oratório e çarrarom de dentro ssuas portas e as trancarom muy bem, E os dictos dous frades e vigayro e os homens de cauallo sse foram as portas pera as abrirem E botarom duas fora do couçe e per força entrarom dentro contra a vontade dos outros yrmittães que na dicta casa Estauam” ([T]hey went inside their houses and oratory and locked their doors from within and locked them very well. And the two friars and vicars and the men on horseback went to the doors and tried to open them. And two doors burst open with the kick of the horses, and by strength they managed to enter inside against the wishes of the other hermits who lived in the community). The Hieronymites’ version differs: “[S]em outra força foram dentro ao oratório e casas da dicta provençia estando as portas abertas por onde entraram paçifiquos e manssos ssem outro escandallo” ([W]ithout any force, they went into the oratory and houses of the province, the doors being open, through which they entered peaceful and meek, without any scandal”) (João II 1483). Underlying the difference between the monastic and the eremitical typology even more, in the same document they declare: “Elles nom consentyam que ssua casa e oratory fosse tornado em moesteyro” (They do not consent that their house and oratory are turned into a monastery).

with the other eremitical settlements. Indeed, already since 1383, a charter concerning the Rio Torto community²⁰ attests to the presence of closed houses (Rio Torto 1383). It is therefore possible to deduce that the model adopted foresaw the existence of cells, or houses, and not a common dormitory. This kind of shelter populated the landscape even in the engraving contained in *Chronica dos Eremitas da Serra de Ossa* (de Santo António 1745), which represents the Serra de Ossa monastery on a slope of the Ossa Hill Chain. This could indicate the existence of small oratories inside the hermitages, even after the institutionalization of the eremitical movement. As seen previously, due to the values of the eremitical tradition, “men of poor life” welcomed old and sick people and pilgrims, but also men interested in buying products, such as wooden spoons or fruit. It is evident that structures for hospitality existed, as proven by a testimony given by Brother Paulo de Portalegre in *Novo Memorial do Estado Apostólico*—the first chronicle of the Secular Canons of St. John the Evangelist, dated 1468.²¹ This document contains the description of the welcome received by Brother Paulo de Portalegre in the Serra de Ossa hermitage, and it mentions the presence of a structure for keeping horses and of houses inside and outside the enclosure. On the one hand, this implies a differentiation of spaces; on the other, it implies that not everyone could enter into the hermitage’s most intimate space. Information about the architectural system is mostly fragmentary and sparse. This hampers a more complete reconstruction. However, it is very probable that the identified built components were replicated in the other hermitages.

It is possible that gradual spatial organization, still far from following a defined model, was their basis. In the Ossa Hill Chain, hermits could firstly have taken advantage of the natural resources for shelter. They most likely settled into caves, such as those located in Vale da Infante (Fig. 8), or made use of other structures already existing on the lands (Boaventura et al.

2014).²² It is important also to highlight that the papal bull *Cum vobis visitationem* of Pope Gregory XI gives precious data about the communities existing in the entire Portuguese territory. In fact, a visit was ordered to inquire about the life, customs, and orthodoxy of these hermits. On the 2 February 1378, Vasco Domingues issued a statement focused on these hermits, who lived in “mountains and desert places of the Évora Diocese and Alentejo County” in groups of four.²³ However, the lack of historical records that indicate the exact location of this kind of occupation, as well as of in-depth archaeological studies, do not allow us to confirm this theory yet, and the evolution and spread of the movement ended up not pursuing such occupation.

Discussion and Conclusions

Landscape construction arises from the interaction between humans and the environment. The eremitical landscape of “men of poor life” and the construction of their symbolic spatiality is no exception. The *locus eremus* is defined in terms of practical and spiritual aspects, and those related to the spiritual dimension are strictly linked and guaranteed only if the material needs are satisfied. Our analysis of the paradigmatic data included in the medieval charters has distinguished cultural and ecological components. Our study of cultural elements has verified that their presence at a specific site was due to the natural substrate, soil, and geology. Indeed, the density of a specific cultural component is a function of the presence of certain ecological components.

²⁰ “[D]erom aos pobres e a el e seus Irmãos que ujem em na dicta proue uida o dicto logar em que ora estam com suas Casas çaradas com suas aruores em que fazem seruiço a deus” ([T]hey gave the poor and to him and his brothers who live in poor life the place where they are settled with its houses, enclosed, and its fruit trees, where they serve God”) (Rio Torto 1383).

²¹ See the critical edition, de Portalegre et al. (2007).

²² The archaeologist Rui Mataloto, who carried out the excavations in the Ossa Hill Chain, confirms that the dolmen of Candeeira, with a peculiar hole in its structure, was probably used by medieval hermits. This can be confirmed by the location of that dolmen and by the material evidence that emerged during an archaeological campaign in 2013. Indeed, the dolmen was located close to a natural pathway—still marked in the Portuguese cartography of the 1960s and 1970s—connecting the various routes that made it possible to cross the Ossa Hill Chain in a north–south orientation. However, an estate named “Candeeira” appears in written records only in the 15th century as one of the hermits’ properties worked by *caseiros* (lay peasants) with no reference to a previous eremitical settlement (Afonso V 1472).

²³ “[N]as montanhas e logares Ermos do bispado d euora e comarca d aalem teio” ([I]n the hills and solitary places of the diocese of Évora and district of Alentejo) (Domingues 1378).

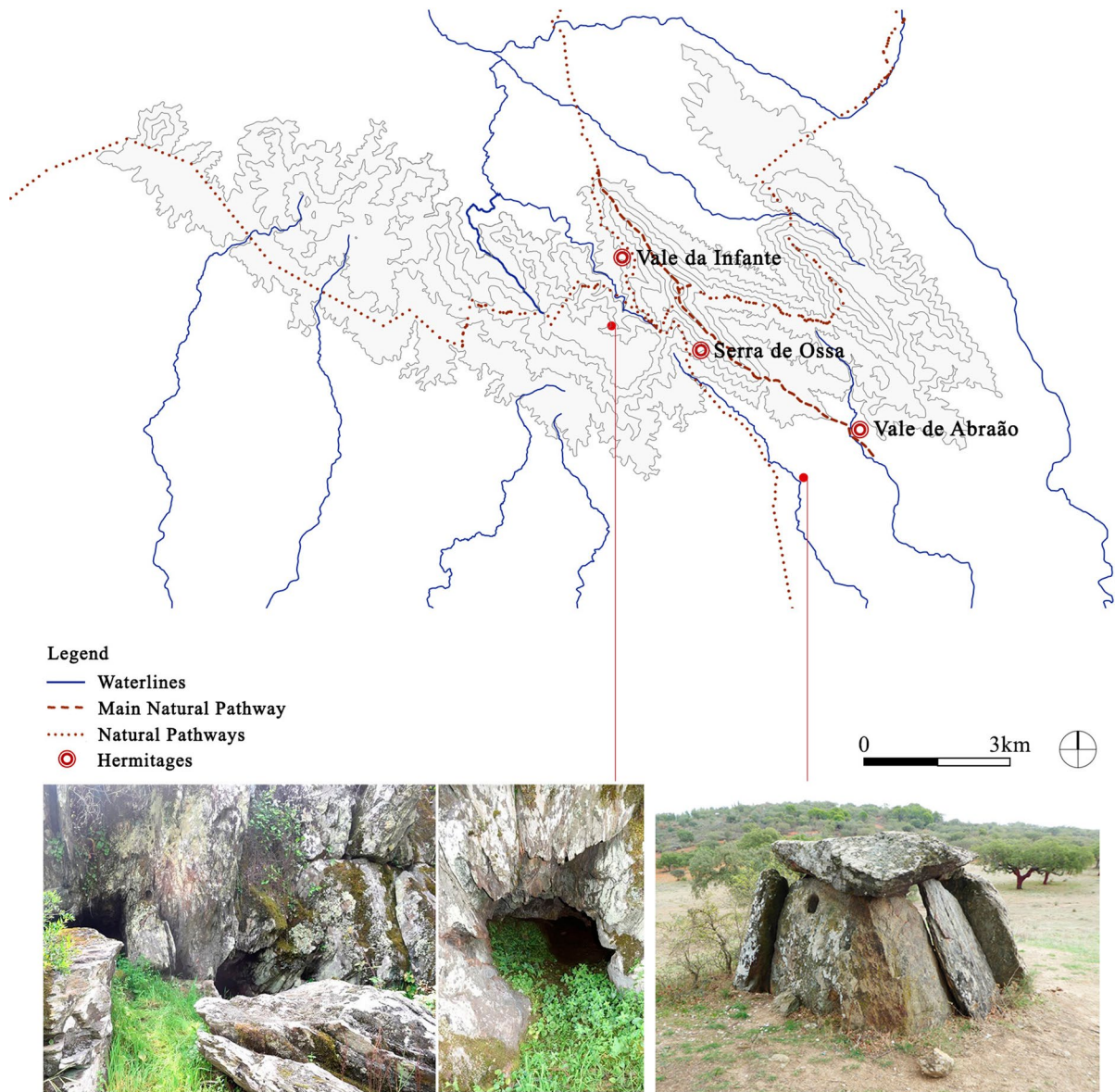


Fig. 8 The Ossa Hill Chain with the identification of natural pathways and hermitages (top), the natural caves in Vale da Infante (bottom, left), and the Candeeira dolmen (bottom, right). (Figure by Rolando Volzone, 2021.)

Exemplifying this relation is the presence of limekilns and glass furnaces in correspondence with limestone or sandy areas, respectively. Indeed, the hermits showed great empathy to the place and deeply respected its *genius*. Charters contain references to cultivated land inside and outside enclosures that were farmed by hermits themselves, along with the presence of cattle and beehives, displaying an agrarian distribution typical of periurban areas. Similar to

other monastic experiences, the more fragile cultures (*culturas mimosas*, in Portuguese), such as orchards and vegetable gardens, created a first ring around the hermitage. These were often inside the first enclosure because they required more maintenance and surveillance. This also justifies the installation of wells and reservoirs in such areas. Vineyards and olive groves formed the second ring.

It should be noted that these settlements—despite not yet having a monastic structure—had an administrative logic that was not only spiritual, but also revealed humanization of the land. Hermits were extremely clever in the way they organized the properties obtained through donations of lay benefactors and municipal authorities or through purchases. Some communities accumulated considerable possessions, increasing their acreage around the hermitages by creating a compact area around the enclosure. This allowed them to safeguard their seclusion and subsistence while enlarging their cultivated areas. They sometimes owned areas that may even have been geographically isolated, but that ensured their survival. In such cases, the lands farthest from the hermitage were assigned to the care of a tenant. Their settlement in scarcely populated areas contributed to the human occupation of the surrounding rural municipalities and the enlargement of their cultivated areas. On the one hand, they used local resources (e.g., water, wood, and stone); on the other hand, they transformed the surrounding landscape with the support of those municipalities that granted lands in allotment, knowing that they would ensure their cultivation and use. Moreover, through their agroforestry-pastoral system they developed their own subsistence economy, but maintained relations with the outside world: they sometimes needed to go to the city or to welcome those seeking their hospitality into the hermitages. These foundations brought something new to the spatial framework of the rural monastic experience of the late Middle Ages. Indeed, by virtue of their spiritual vocation, they changed the space while, at the same time, adapting themselves to the space and the environment. Additionally, by cultivating abandoned areas away from the urban centers—areas where they could take advantage of existing resources, such as water, soil, and vegetation—they introduced a new typology of settlement into the south of Portugal, one different from that of the urban mendicants found in the north.

Another interesting conclusion is that the presence of mountains and valleys tended to play a role in site selection in view of the territory's ecological richness, the isolation these environmental features permit, and their symbolism. Unfortunately, in the oldest documents, the few indications about built elements are very dispersed. Although no references to a conformed space, following either the monastic or the

conventual model, emerge until the 16th century, a gradual organization in terms of spatiality is verified closer to when this movement was institutionalized. This organization is evident through references to the delimitation made by fences, as well as to oratories, cells, and spaces of reception. No further elements exist that could provide a more complete image of the hermitage.

The empirical results and contributions of this study should be considered in the light of two limitations: (1) the scarcity of documentary sources and (2) the profound subsequent transformation of the settlements in terms of architecture and landscape. Due to their intrinsic nature, based on isolation, silence, and introspection, eremitical communities present a scarcity of documentary sources when compared with other religious experiences—even more so before 1378—as previous studies attest (Fontes 2012). Indeed, eremitical communities followed no kinds of rules or norms until an organized congregation was established, and even then their statutes or rules do not contain detailed or prescriptive information in terms of spatial organization. Moreover, iconographic sources and technical drawings are rarely found, thus hampering the diachronic reading of certain buildings. Secondly, the conditions of conservation and accessibility are precarious for some monasteries that lost their religious designations. The great transformations these spaces have undergone over the centuries and their state of abandonment or decay often hinder a deeper analysis. Indeed, it is important to take into consideration that some buildings have partially or totally disappeared, sometimes leaving only few traces. Landscape analysis on the basis of contemporary findings is similarly difficult, as various transformations have compromised the edaphoclimatic conditions, e.g., eucalyptus forestation in the Ossa Hill Chain.

This research adds new information to the organization of the eremitical landscape structure. These kinds of settlements are commonly imagined as devoid of real constructions. However, the analyzed data show that the landscape was really altered through the introduction of orchards, kitchen gardens, vineyards, the hydraulic system, and so on. Indeed, the eremitical landscape was not reduced to pure experience and adaptation to the landscape, but was constructed. The research on this topic is still open, and this

work, by establishing a dialogue with existing studies, can serve as a starting point for future research. Future archaeological studies should be undertaken to complement the data exhibited in this research with material evidence from onsite works. It is important to investigate the sites of the medieval settlements in order to understand how they are spatially organized and what structures exist (if they still do): enclosures, interior and exterior spaces, dormitories, cells, common spaces, etc. Specific cases are identified in the areas around Portel (Água da Infante hermitage), Serpa (Serpa hermitage), and Portalegre (Vale de Flores hermitage). Secondly, fieldworks in cave eremitical settlements should be analyzed further. In Vale da Infante, for example, three caves have been identified, suggesting that other caves must have punctuated the hill chains described in the historical documentation: Ossa, Arrabida, Monfurado, and Portel. Identification, spatial analysis, and survey of these would make it possible to understand their relationship with the network they formed and with the whole territory, and to overcome the scarcity of information provided by the available documentation. Thirdly, the current location of the monasteries could, in some cases, reveal medieval structures, taking into account enclosures, mills, watermills, the network of pathways, and the hydric system, among others. Structures have been identified in the Ossa Hill Chain (a watermill close to the hermitage of Santa Maria) and in Palmela (a limekiln in the enclosure of the monastery Alferrara), but archaeological studies are needed.

Moreover, it would be interesting to analyze these communities' landholdings in Portuguese territory, transposing the data into a georeferenced system aimed at understanding the real extension and the diachronic expansion of their assets.

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Declarations

Conflict of interest The authors declare that there is no conflict of interest.

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References

- Afonso V
1447 Carta de D. Afonso V autorizando Gonçalo, o pobre, a vender a azenha por ele construída e três vezes destruída pelas cheias, junto à ribeira de Degebe (Letter of king Afonso V authorizing Gonçalo, the poor, to sell the watermill built by him and three times destroyed by the floods, near the Degebe River), 20 December. Manuscript, TT, Leitura Nova, Odiana, Book 3, fol. 187–188, Arquivo Nacional da Torre do Tombo, Lisbon, Portugal.
- Afonso V
1457 Letter to the Poor of the “Oratory” of Rio Mourinho, 17 January. Manuscript, TT, Leitura Nova, Odiana, Book 2, 213r–213v, Arquivo Nacional da Torre do Tombo, Lisbon, Portugal.
- Afonso V
1472 Privilégio régio para um homem que aceite morar e cultivar a herdade da Candeeira, recentemente comprada pelos pobres da Serra de Ossa (Royal privilege to a man that agrees to live in and harvest the property of Candeeira, recently purchased by the poor of Serra de Ossa), 17 April. Manuscript, TT, Leitura Nova, Odiana, Book 2, fol. 185, Arquivo Nacional da Torre do Tombo, Lisbon, Portugal.
- Aivado
1406 Carta de doação e demarcação feita por Fernão Lourenço a João de Lamego e a Gomez, de um pedaço de terra (Donation charter of a piece of land and demarcation made by Fernão Lourenço to João de Lamego and Gomes, poor of Santa Margarida do Aivado), 9 September. Manuscript, TT, Colégio de S. Paulo de Coimbra, Book 2, No. 100, Arquivo Nacional da Torre do Tombo, Lisbon, Portugal.
- Aivado
1464 Instrumento de demarcação feito por João Afonso (Demarcation certificate issued by João Afonso), 22 April. Manuscript, TT, Colégio de São Paulo de Coimbra, Book 2, No. 99, Arquivo Nacional da Torre do Tombo, Lisbon, Portugal.
- Alferrara
1462 Carta de venda feita por Pedro Afonso ao pobre de Alferrara (Sale charter by Pedro Afonso to the poor of Alferrara), 5 October. Manuscript, TT, Convento de Nossa Senhora da Consolação de Alferrara,

- Bundle 3, No. 28, Arquivo Nacional da Torre do Tombo, Lisbon, Portugal.
- Alferrara
[1465] Carta de doação feita por Afonso Amigo e Irene Afonso a João Brandão, regedor da provença de Alferrara (Donation charter made by Afonso Amigo and Irene Afonso to João Brandão, regent of Alferrara), 23 December. Manuscript, TT, Convento de Nossa Senhora da Consolação de Alferrara, Bundle 3, No. 26, Arquivo Nacional da Torre do Tombo, Lisbon, Portugal.
- Alferrara
1475 Carta de venda feita por João Martins e Maria Afonso aos pobres de Alferrara (Sale charter by João Martins and Maria Afonso to the poor of Alferrara), 12 January. Manuscript, TT, Convento de Nossa Senhora da Consolação de Alferrara, Bundle 3, No. 49, Arquivo Nacional da Torre do Tombo, Lisbon, Portugal.
- Alferrara
1476 Carta de venda feita por Leonor Gomes Pinheira ao pobre da provença de Alferrara (Sale charter by Leonor Gomes Pinheira to the poor of Alferrara), 27 November. Manuscript, TT, Convento de Nossa Senhora da Consolação de Alferrara, Bundle 3, No. 52, Arquivo Nacional da Torre do Tombo, Lisbon, Portugal.
- Alferrara
1494 Carta de venda feita por Beatriz Eanes a João de Viana, pobre de Alferrara (Sale charter by Beatriz Eanes to João de Viana, poor of Alferrara), 6 April. Manuscript, TT, Convento de Nossa Senhora da Consolação de Alferrara, Bundle 3, No. 64, Arquivo Nacional da Torre do Tombo, Lisbon, Portugal.
- Alferrara
1520 Carta de venda feita por Gomes Eanes aos pobres da provença de Alferrara (Sale charter by Gomes Eanes to the poor of Alferrara), 28 January. Manuscript, TT, Convento de Nossa Senhora da Consolação de Alferrara, Bundle 3, No. 72, Arquivo Nacional da Torre do Tombo, Lisbon, Portugal.
- Alferrara
1529 Carta de Venda feita por Domingos Gonçalves (Sale charter issued by Domingos Gonçalves and his wife, Branca Vaz, to the hermits of Alferrara), 15 December. Manuscript, TT, Convento de Nossa Senhora da Consolação de Alferrara, Bundle 3, Nos. 81–100, 21r–21v, Arquivo Nacional da Torre do Tombo, Lisbon, Portugal.
- Barata, Filipe Themudo, and A. M. Almeida Leite
1996 Coberto Vegetal e Paisagens Alentejanas: Esboço da Linha Evolutiva desde a Idade Média (Vegetation cover and Alentejo landscapes: Outline of the evolutionary line since the Middle Ages). In *Actas do I Colóquio Internacional de Ecologia da Vegetação*, Carlos José Pinto Gomes, editors, pp. 141–153. Universidade de Évora, Évora, Portugal.
- Beirante, Maria Ângela
1985 Eremitérios da Pobre Vida no Alentejo dos Séculos XIV–XV (Hermitages of the "poor life" in Alentejo of the 14th–15th centuries). In *Actas das Jornadas de História Medieval, 1383–1385 e a Crise Geral dos Séculos XIV–XV*, pp. 257–266. História & Crítica, Lisbon, Portugal.
- Beirante, Maria Ângela
2000 Eremitismo (Hermitism). In Carlos A. Moreira Azevedo, editor, *Dicionário de História Religiosa de Portugal*, Vol. 2. Círculo de Leitores, Lisbon, Portugal.
- Bilou, Francisco
2005 *O sistema viário antigo na região de Évora* (The ancient road system in the Évora region). Colibri, Lisbon, Portugal.
- Boaventura, Rui, Rui Mataloto, Patrícia Moita, Jorge Pedro, and André Pereira
2014 O "dólmen furado" da Candieira (Redondo): Novas investigações no século 21 (The "holed dolmen" of Candieira [Redondo]: New investigations in the 21st century). In *VIII Encuentro de Arqueología del Suroeste Peninsular*, pp. 53–72. Municipal de Serpa, Serpa, Portugal.
- Boissellier, Stéphane
2003 *Le peuplement médiéval dans le sud du Portugal: constitution et fonctionnement d'un réseau d'habitats et de territoires, XIIe–XVe siècles* (Medieval settlement in southern Portugal: the formation and functioning of a network of settlements and territories, 12th–15th centuries). Centre Culturel Calouste Gulbenkian, Paris, France.
- Boniface IX
1402 Bula *Sincere deuotionis affectus* que concede aos pobres da Serra de Ossa a possibilidade de terem altares portáteis, de construírem um campanário para os chamar à missa e a outros ofícios litúrgicos e de escolherem um sacerdote para lhes celebrar os sacramentos (Bull *Sincere deuotionis affectus* granting the poor of Serra de Ossa the power to have portable altars, to build a bell tower to call them to Mass and other ceremonies and to choose a priest to celebrate the sacraments), 13 September. Manuscript, BPE, Pergaminhos Avulsos, Folder 7 (Pergaminhos do Convento de São Paulo da Serra de Ossa, sécs. XIV–XV), No. 2, Biblioteca Pública de Évora, Évora, Portugal.
- Carneiro, André
2010 *Itinerários romanos do Alentejo: uma releitura de 'As grandes vias da Lusitânia: o itinerário de António Pio de Mario Saa,' cinquenta anos depois* (Roman itineraries of the Alentejo: A re-reading of Mario Saa's 'The Great Roads of Lusitania: The Itinerary of Antonio Pio,' fifty years later). Edições Colibri, Lisbon, Portugal.
- Cincinnati da Costa, Bernardino, and Luiz Filipe de Castro
1900 *Le Portugal au Point de Vue Agricole* (Portugal from an agricultural perspective). Imprimerie National, Lisbon, Portugal.
- Congregation of Serra de Ossa
[1573–1578] Resposta ao inquérito ordenado pelo papa Gregório XIII, com 28 perguntas (Reply to the survey ordered by the Pope Gregory XIII, with 28 questions). Manuscript, TT, Convento de São Paulo da Serra de Ossa, Bundle 1, No. 5, Arquivo Nacional da Torre do Tombo, Lisbon, Portugal.

- Costa Badia, Xavier
 2019 Paisatges monàstics. El monacat alt-medieval als comtats catalans (segles IX–X). (Monastic landscapes. Early medieval monasticism in the Catalan counties [9th–10th centuries]). Doctoral dissertation, Department of History and Archaeology, University of Barcelona, Barcelona, Spain.
- de Oliveira, Ernesto Veiga, Fernando Galhano, Manuela Costa, and Luís Ferrand de Almeida
 1983 *Tecnologia Tradicional Portuguesa: Sistemas de Moagem* (Traditional Portuguese technology: Grinding systems). INIC-Centro de Estudos de Etnologia, Lisbon, Portugal.
- de Oliveira Marques, António Henrique
 1978 *Introdução à História da Agricultura em Portugal* (Introduction to the history of agriculture in Portugal), 3rd edition. Edições Cosmos, Lisbon, Portugal.
- de Oliveira Marques, António Henrique
 1987 *Portugal na crise dos séculos XIV e XV* (Portugal in the crisis of the 14th and 15th centuries). Editorial Presença, Lisbon, Portugal.
- de Portalegre, Paulo, Cristina Sobral, and José Mattoso
 2007 *Novo memorial do Estado Apostólico: Primeira crónica dos Lóios* (New memorial of the Apostolic State: First chronicle of Lóios). Roma Editora, Lisbon, Portugal.
- de Santo António, Henrique
 1745 *Chronica dos eremitas da Serra de Ossa no reyno de Portugal, e dos que floresceram em todos os mais ermos da Christandade; dos quaes nos seguintes séculos se formou a Congregação dos Pobres de Jesu Christo; e muitos depois a sagrada de S. Paulo Primeiro Eremita, chamada dos Eremitas da Serra de Ossa, Tomo I—que contém a historia anachoretica, e cenobitica dos primeiros cinco séculos do mundo Christão; Tomo II—que contém a historia anachoretica, e cenobitica dos seculos sexto, settimo, oitavo e nono* (The chronicle of the Hermits of the Serra de Ossa in the Kingdom of Portugal, and of those who flourished in all the more distant parts of Christendom; of which in the following centuries was formed the Congregation of the Poor of Jesus Christ; and many afterwards the Sacred of St. Paul the First Hermit, called the Hermits of the Serra de Ossa, Volume I—containing the anchoritic and cenobitic history of the first five centuries of the Christian world; Volume II—containing the anchoritic and cenobitic history of the sixth, seventh, eighth and ninth centuries). Officina de Francisco da Sylva, Lisbon, Portugal.
- de São Caetano, Manuel
 1793 *Thebaida Portuguesa. Compendio Historico da Congregação dos Monges Pobres de Jesu Christo da Serra de Ossa, chamada depois de S. Paulo I Eremita, em Portugal* (Thebaida Portuguesa. Compendium of the Congregation of the Poor Monks of Jesus Christ of Serra de Ossa, named after St. Paul I the Hermit, in Portugal). Officina de Simão Thaddeo Ferreira, Lisbon, Portugal.
- de Viterbo, Joaquim de Santa Rosa
 1865 *Elucidário das palavras, termos e frases, que em Portugal antigamente se usaram e que hoje regularmente se ignoram: Obra indispensavel para entender sem erro os documentos mais raros e preciosos que entre nós se conservam* (Elucidary of words, terms and phrases that in Portugal were formerly used and are regularly ignored today: An indispensable work to understand without mistake the rarest and most precious documents that are preserved among us), 2nd edition, 2 vol. A. J. Fernandes Lopes, Lisbon, Portugal.
- Domingues, Vasco
 1378 Sentença eclesiástica, após inquérito ordenado pelo papa Gregório XI, sobre a ortodoxia dos pobres eremitas da Serra de Ossa (Ecclesiastical sentence, after enquiry ordered by pope Gregory XI, on the orthodoxy of the poor hermits of Serra de Ossa), 16 February. Manuscript, BPE, Pergaminhos Avulsos, Folder 7 (Pergaminhos do Convento de São Paulo da Serra de Ossa, sécs. XIV–XV), No. 24 (1389.08.19), Biblioteca Pública de Évora, Évora, Portugal.
- dos Santos, Cândido Dias
 1980 *Os Jerónimos em Portugal: Das origens aos fins do século XVII* (The Hieronymites in Portugal: From the origins to the end of the 17th century). Instituto Nacional de Investigação Científica, Centro de História da Universidade do Porto, Porto, Portugal.
- Duarte [later Duarte I]
 1415 Letter to Évora Municipality, 11 February. Manuscript, BNP, Coleção de Pergaminhos, Série Roxa, PGS 3R, Biblioteca Nacional de Portugal, Lisbon, Portugal.
- Estremoz
 1366 Doação feita por Gil Afonso e Maria Afonso, sua mulher, moradores e vizinhos de Estremoz (Donation by Gil Afonso and Maria Afonso, his wife, residents and neighbors of Estremoz), 15 November. Manuscript, BPE, Convento de São Paulo da Serra de Ossa, Book 40, Bundle 1, No. 36, Biblioteca Pública de Évora, Évora, Portugal.
- Feio, Mariano
 1949 *Les Bas Alentejo et l'Algarve* (The lower Alentejo and the Algarve). Union Geographique International, Lisbon, Portugal.
- Fernández Ferrer, Marc
 2019 Arqueologia del paisatge altmedieval al Baix Montseny, segles VI–X. Una demostració pràctica dels sistemes d'informació geogràfica (Archaeology of the early medieval landscape in Baix Montseny, 6th–10th centuries. A practical demonstration of geographic information systems). Doctoral dissertation, Faculty of Geography and History, University of Barcelona, Barcelona, Spain.
- Fonseca, Ana
 2004 *O Montado no Alentejo: Séculos XV a XVIII* (The "Montado" in Alentejo: 15th to 18th centuries). Colibri, Lisbon, Portugal.

- Fonseca, Jorge
1998 *Montemor-o-novo no século XV* (Montemor-o-Novo in the 15th century). Câmara Municipal de Montemor-o-Novo, Montemor-o-Novo, Portugal.
- Fontes, João Luís
2005 Cavaleiros de Cristo, Monges, Frades e Eremitas: um Percurso Pelas Formas de Vida Religiosa em Évora durante a Idade Média (Sécs. XII a XV) (Knights of Christ, monks, friars and hermits: A journey through the forms of religious life in Évora during the Middle Ages [12th to 15th cent.]). *Lusitânia Sacra* 17(2):39–61.
- Fontes, João Luís
2012 Da «pobre vida» à Congregação da Serra de Ossa: Gênese institucionalização de uma experiência eremítica (1366–1510) (From "poor life" to the Congregation of Serra de Ossa: Genesis of the institutionalization of an eremitical experience [1366–1510]). Doctoral dissertation, Faculdade de Ciências Sociais e Humanas, Universidade Nova de Lisboa, Lisbon, Portugal.
- Fra Paleo, Urbano
2010 The Dehesa/Montado Landscape. In *Sustainable Use of Biological Diversity in Socio-Ecological Production Landscapes: Background to the "Satoyama Initiative for the Benefit of Biodiversity and Human Well-Being,"* pp. 149–151. Secretariat of the Convention on Biological Diversity, CBD Technical Series 52. Montreal, QC. Convention on Biological Diversity <<https://www.cbd.int/doc/publications/cbd-ts-52-en.pdf>>. Accessed 12 May 2023.
- Garcia, João Carlos
1986 *O Espaço Medieval da Reconquista no Sudoeste da Península Ibérica* (The medieval space of the Reconquest in the southwest of the Iberian Peninsula). Centro de Estudos Geográficos, Lisbon, Portugal.
- García Oro, José
2006 Los "Frades da Pobre Vida." Un Nuevo Franciscanismo en Galicia y Portugal (The "Friars of the Poor Life." A new Franciscanism in Galicia and Portugal). In *Los Franciscanos Conventuales en España. Actas del II Congreso Internacional Sobre el Franciscanismo en la Península Ibérica*, Gonzalo Fernández-Gallardo Jiménez, editor, pp. 245–274. Franciscanos Conventuales—Asociación Hispánica de Estudios Franciscanos, Madrid, Spain.
- Gimpel, Jean
1977 *The Medieval Machine: The Industrial Revolution of the Middle Ages*. Penguin, New York, NY.
- Gonçalves, Iria
2013 Delimitar, Demarcar e Apropriar o Espaço: Terras da Ordem de Cristo na Beira Interior nos Alvores da Modernidade, (Delimiting, demarcating and appropriating space: Lands of the Order of Christ in Beira Interior at the dawn of modernity). In *Paisagens Rurais e Urbanas: Fontes, Metodologias e Problemáticas*, Iria Gonçalves, editor, pp. 31–59. Centro de Estudos Históricos-Universidade Nova de Lisboa, Lisbon, Portugal.
- Gregory XIII
1578 Bula *Creditum nobis* de aprovação da Ordem de São Paulo, com instrumento de publicação (Bull *Creditum nobis* regarding the approval of the Order of Saint Paul, with the certificate of publication), 1 September. Manuscript, BPE, CLXIX/1–7, Biblioteca Pública de Évora, Évora, Portugal.
- João I
1390 Letter to João Domingues, 14 July. Manuscript, TT, Mosteiro de Nossa Senhora da Saúde de Penha Longa, Bundle 1, No. 30 (1390.08.05, Penha Longa), Arquivo Nacional da Torre do Tombo, Lisbon, Portugal.
- João II
1483 Sentença régia sobre o conflito entre os eremitas da Serra de Ossa e os Jerónimos de Santa Maria do Espinheiro de Évora, determinando a devolução aos eremitas da propriedade plena da sua comunidade e bens (Royal verdict on the conflict between the hermits of Serra de Ossa and the Hieronymites of Santa Maria do Espinheiro of Évora, granting the hermits the ownership over their community and assets), 26 February. Manuscript, BPE, Pergaminhos Avulsos, Folder 7 (Pergaminhos do Convento de São Paulo da Serra de Ossa, sécs. XIV–XV), No. 88, Biblioteca Pública de Évora, Évora, Portugal.
- Joffre, Richard, Jean Vacher, Carlos de los Llanos, and Gilbert Long
1988 The Dehesa: An Agrosilvopastoral System of the Mediterranean Region with Special Reference to the Sierra Morena Area of Spain. *Agroforestry Systems* 6(1–3):71–96.
- Langhans, Franz Paul
1970 *Antropologia Luso-Atlântica. Estudo das Maneiras de Viver do Homem Português* (Luso-Atlantic anthropology. Study of the lifeways of Portuguese man). Parceria António Maria Pereira, Lisbon, Portugal.
- Magalhães, Manuela Raposo
1996 *Morfologia da Paisagem* (Landscape morphology). Universidade Técnica de Lisboa, Instituto Superior de Agronomia, Lisbon, Portugal.
- Mascarenhas, José Manuel, and Virgolino Ferreira Jorge (editors)
1996 *Actas do Simpósio Internacional Hidráulica Monástica Medieval e Moderna: Convento da Arrábida, 15–17 de Novembro de 1993* (Proceedings of the International Symposium Medieval and Modern Monastic Hydraulics: Arrábida Convent, 15–17 November 1993). Fundação Oriente, Lisbon, Portugal.
- Mattoso, José
1972 Eremitas Portugueses no Século XII (Portuguese hermits in the 12th century). *Lusitânia Sacra* 1(9):1–40.
- Mazoyer, Marcel, and Laurence Roudart
2001 *História das agriculturas do mundo: do neolítico à crise contemporânea* (History of world agricultures: From the Neolithic to the contemporary crisis). Instituto Piaget, Lisbon, Portugal.

Montes Claros

- 1425 Carta de proteção à provença (Document of protection to the hermitage), 9 December. Manuscript, BPE, Convento de S. Paulo de Borba, Book 7, No. 3 [9], Biblioteca Pública de Évora, Évora, Portugal.

Morais, J. A. David

- 1998 *A Transumância de Gados Serranos e o Alentejo* (The transhumance of mountain cattle and the Alentejo). Câmara Municipal de Évora, Évora, Portugal.

Norberg-Schulz, Christian

- 1980 *Genius Loci: Towards a Phenomenology of Architecture*. Rizzoli, New York, NY.

Ortiz, Ángel Fuentes

- 2021 Los monasterios Jerónimos, nuevos espacios de memoria en la Castilla Trástmara (1373–1474). De los lenguajes de Al-Andalus a la revolución del gótico final (The Hieronymite monasteries, new spaces of memory in Trastamara Castile [1373–1474]. From the languages of Al-Andalus to the late Gothic revolution). Doctoral dissertation, Department of Art History, Universidad Complutense de Madrid, Madrid, Spain.

Parsons, James J.

- 1962 The Acorn-Hog Economy of the Oak Woodlands of Southwestern Spain. *Geographical Review* 52(2):211.

Portel

- 1434 Traslado em pública-forma de uma carta régia solicitado por Álvaro, pobre do "oratório" de Portel (Transfer in public form of a copy of a royal letter demanded by Álvaro, poor of the "oratory" of Portel), 8 March. Manuscript, BPE, Pergaminhos Avulsos, Folder 6 (Pergaminhos dos Conventos), Convento de S. Paulo de Portel, No. 1, (Doc. 98), Biblioteca Pública de Évora, Évora, Portugal.

Rau, Virgínia

- 1965 A grande exploração agrária em Portugal a partir dos fins da Idade Média (The great agrarian exploitation in Portugal from the end of the Middle Ages). *Revista de História* 30(61):65–74.

Rio Mourinho

- 1483a Instrumento de posse da casa de Rio Mourinho por parte da Serra de Ossa (Certificate about the ownership of Rio Mourinho settlements by the Serra de Ossa community), 6 February. Manuscript, TT, Colégio de S. Paulo de Coimbra, Book 2, No. 30, Arquivo Nacional da Torre do Tombo, Lisbon, Portugal.

Rio Mourinho

- 1483b Instrumento de concórdia, transação, amigável composição e sentença estabelecido entre o mosteiro de Nossa Senhora do Espinheiro de Évora e a provença da Serra de Ossa sobre a casa de Rio Mourinho (Instrument of agreement, transaction, mutual composition and judgment established between the Hieronymites of Nossa Senhora do Espinheiro de Évora and the province of Serra de Ossa regarding the house of Rio Mourinho), 5 February. Manuscript, TT, Colégio de S. Paulo de Coimbra, Book

2, No. 3, Arquivo Nacional da Torre do Tombo, Lisbon, Portugal.

Rio Torto

- 1383 Sentença sobre conflito entre Frei João, pobre estante em Rio Torto, no termo de Elvas, e Maria Domingues, sobre a posse de terras do eremitério (Judicial sentence on plea between Friar João, living as poor in Rio Torto, and Maria Domingues, on the possession of the hermitic settlement), 24 November. Manuscript, ADPTG, Convento de S. Paulo de Elvas, Coleção de Pergamonhos, No. 1, Arquivo Distrital de Portalegre, Portalegre, Portugal.

Rosa

- 1516a Carta de venda feita por Pedro Álvares e Joana Fernandes de um local no termo de Almada (Sale charter made by Pedro Álvares and Joana Fernandes of a land in the outskirts of Almada), 11 March. Manuscript, TT, Convento de Nossa Senhora da Caparica, Bundle 2, No. 36, Arquivo Nacional da Torre do Tombo, Lisbon, Portugal.

Rosa

- 1516b Carta de venda feita por Pedro Brás e Guiomar Álvares a Rodrigo Sancho (Sale charter made by Pedro Brás and Guiomar Álvares to Rodrigo Sancho, regent of Santa Maria da Rosa), 19 February. Manuscript, TT, Convento de Nossa Senhora da Rosa da Caparica, Bundle 2, No. 45, Arquivo Nacional da Torre do Tombo, Lisbon, Portugal.

São Brissos

- 1409 Carta de sesmaria por Afonso Vicente e Rodrigo Eanes Verregoso a Gonçalo, pobre de São Brissos de Xarrama (Sesmaria charter made by Afonso Vicente and Rodrigo Eanes Verregoso to Gonçalo, poor of São Brissos de Xarrama), 27 May. Manuscript, BPE, Convento de S. Paulo de Coimbra, Book 2, No. 40, Biblioteca Pública de Évora, Évora, Portugal.

São Julião de Alenquer

- 1465 Carta de doação de um olival ao oratório de S. Julião e aos pobres aí residentes (Donation of an olive grove to the oratory of São Julião and its poor inhabitants), 3 June. Manuscript, TT, Colégio de São Paulo de Coimbra, Book 2, No. 111, Arquivo Nacional da Torre do Tombo, Lisbon, Portugal.

Sensi, Mario

- 1985 *Le osservanze francescane nell'Italia Centrale (secoli XIV–XV)* (The Franciscan observances in central Italy [14th–15th centuries]). Collegio San Lorenzo da Brindisi—Istituto Storico dei Cappuccini, Rome, Italy.

Serpa

- 1494 Carta de venda feita por D. Catarina de Almada, viúva, de uma propriedade no termo de Serpa, a Martim Gonçalves Baralho e João Manuel, clérigos, para aí construírem um oratório dedicado a Nossa Senhora da Consolação (Sales charter by D. Catarina de Almada, widow, to Martim Gonçalves Baralho and João Manuel, clerics, of a property to build in it an oratory dedicated to Our Lady of Consolation), 5 November. Manuscript, ADBJ,

- Convento de S. Paulo de Serpa, Book 1, No. 13, Arquivo Distrital de Beja, Beja, Portugal.
- Serra, Joaquim Bastos
2006 O espaço periurbano de Évora nos finais da Idade Média. Uma aproximação ao seu estudo (Periurban space of Évora in the late Middle Ages. An approach to its study). *Media Aetas. Revista de Estudos Medievais, Paisagens Medievais* 2:116–132.
- Serra de Ossa
1450 Sentença dada por Gil Afonso relativa a uma contenda acerca da demarcação de uma herdade dos pobres da Serra de Ossa (Sentence given by Gil Afonso concerning a dispute over the demarcation of an estate belonging to the poor in Serra de Ossa), 27 December. Manuscript, BPE, Convento de S. Paulo da Serra de Ossa, Book 39, No. 20, Biblioteca Pública de Évora, Évora, Portugal.
- Serra de Ossa
1463 Carta de Sesmaria dada por Rodrigo Afonso aos pobres da Serra de Ossa (Charter of sesmaria given by Rodrigo Afonso to the poor of Serra de Ossa), 3 March. Manuscript, BPE, Convento de S. Paulo da Serra de Ossa, Book 44, No. 28, Biblioteca Pública de Évora, Évora, Portugal.
- Sousa, Bernardo Vasconcelos e
1988 Paisagem agrária e organização social do espaço no Alentejo medieval (séculos XII a XV) (Agricultural landscape and the social organization of space in medieval Alentejo [12th to 15th centuries]). *Economia e Sociologia* 45/46:21–39.
- Soutinho, Pedro
2020 Vias Romanas em Portugal (Roman roads in Portugal) <<https://viasromanas.pt/>>. Accessed 10 June 2020.
- Teixeira, Vítor Gomes
2010 *O movimento da observância franciscana em Portugal, 1392–1517: História, património e cultura de uma experiência de reforma religiosa* (The movement of Franciscan observance in Portugal, 1392–1517: History, heritage and culture of an experience of religious reform). Centro de Estudos Franciscanos, Porto, Portugal.
- Valbom
1416 Carta de Sesmaria outorgada por Pedro Rodrigues Loução e Gonçalo Gonçalves Rebelo a Pedro Afonso, o pobre, de uma "serra" coberta de matos e sobreiros, nos arredores de Vila Viçosa, num lugar chamado de Vasco Eanes (Sesmaria charter by Pedro Rodrigues Loução and Gonçalo Gonçalves Revelo to Pedro Afonso, the poor, of a "mountain" covered with bushes and cork oaks, in the outskirts of Vila Viçosa, in a place called of Basco Eanes), 20 October. Manuscript, TT, Colégio de S. Paulo de Coimbra, Book 2, No. 103, Arquivo Nacional da Torre do Tombo, Lisbon, Portugal.
- Valbom
1428 Doação feita por Gonçalo e Afonso, pobres de Viana do Alentejo (Donation charter made by Gonçalo and Afonso, poor people from Viana do Alentejo), 28 June. Manuscript, BPE, Convento de Nossa Senhora do Amparo de Vila Viçosa, Book 7, Doc. B2, Biblioteca Pública de Évora, Évora, Portugal.
- Valbom
1505 Instrumento de repartição de terra dado por Álvaro Afonso entre Martinho, Gil Domingues, João da Gama, e os de Valbom (Document of land repartition given by Álvaro Afonso among Martinho, Gil Domingues, João da Gama, and the poor of Valbom), 15 November. Manuscript, BPE, Convento de Nossa Senhora do Amparo de Vila Viçosa, Book 2, No. 64, Biblioteca Pública de Évora, Évora, Portugal.
- Vale da Infante
1436 Traslado em pública-forma de uma carta régia solicitado por Fernando, pobre do "oratório" de Vale da Infante (Transfer in public form of a royal letter demanded by Fernando, poor of the "oratory" of Vale da Infante), 11 March. Manuscript, BPE, Pergaminhos Avulsos, Folder 7 (Pergaminhos do Convento de São Paulo da Serra de Ossa, sécs. XIV–XV), Nos. 35 and 36, (Doc. 334), Biblioteca Pública de Évora, Évora, Portugal.
- Vale da Infante
1437 Carta de sesmaria passada por João Rodrigues e João Fernandes aos pobres do Vale da Infante (Sesmaria charter by João Rodrigues e João Fernandes to the poor of Vale da Infante), 17 March. Manuscript, TT, Convento de Santo Antão de Vale de Infante, Bundle 1, No. 9 (1), Arquivo Nacional da Torre do Tombo, Lisbon, Portugal.
- Vilar, Hermínia Vasconcelos
1999 *As dimensões de um poder: A diocese de Évora na Idade Média* (Dimensions of power: The diocese of Évora in the Middle Ages). Editorial Estampa, Lisbon, Portugal.
- Volzone, Rolando
2020 Architecture of the Soul: Legacy of the Eremitical Congregation of São Paulo da Serra de Ossa (Portugal). Doctoral dissertation, School of Technology and Architecture, ISCTE-University Institute of Lisbon, Lisbon, Portugal.
- Volzone, Rolando, and João Luís Fontes
2020 The Portuguese Eremitical Congregation of the Serra de Ossa: Spatial Analysis of the Monastic Settlements. *Journal of Medieval Iberian Studies* 12(1):84–105.
- White, Lynn, and Martine Lejeune
1969 *Technologie Médiévale et Transformations Sociales* (Medieval technology and social transformations). De Gruyter Mouton, Berlin, Germany.

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