

## DAWN OF THE DEAD: FUNERARY BEHAVIOUR IN THE MIDDLE TAGUS NEOLITHIC

### *O AMANHECER DOS MORTOS: COMPORTAMENTO FUNERÁRIO NO NEOLÍTICO DO MÉDIO TEJO*

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#### ABSTRACT

The Middle Tagus region, in central Portugal, is a region with significant geological and geomorphological variability, where the funerary behaviour of the first farming societies relates broadly to the type of substrate: the areas of the Limestone Massif have cave burials, whereas in the Hesperic Massif and Tagus Basin, dominated by schist, granite and detritic deposits, megalithic tombs are abundant. There are exceptions to this pattern, such as the megalithic complex of Rego da Murta in Alvaiázere, within the limestone zone, but in general the distinction between the geological zones holds firm.

We present a regional synthesis of evidence for land use, material culture and chronology, alongside the typology of burials and funerary structures. Our aim is to contextualize the megalithic funerary phenomena within the regional dynamics of funerary behaviour during the Neolithic, especially by comparing megalithic burials with cave burials.

The nature and distribution of the evidence currently available raise a number of questions: how do the chronologies and material culture(s) of burial caves and megaliths compare, and how are the two related in diachronic/synchronic terms? did burial in megalithic tombs reflect continuity or discontinuity with previous behaviour? were megaliths closely connected with a predominantly pastoralist way of life? how do funerary sites relate to settlements in the region? These questions will be discussed in the context of regional and macro-regional perspectives.

**KEY WORDS:** Middle Tagus, Neolithic, funerary behaviour, megalithic tombs, burial caves

#### RESUMO

*A região do Médio Tejo, em Portugal Central, apresenta uma variabilidade geológica e geomorfológica significativa, na qual o comportamento funerário das primeiras sociedades produtoras se relaciona com o tipo de*

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*substrato: as áreas do Maciço Calcário Estremenho apresentam enterramentos em gruta, enquanto no Maciço Hespérico e Bacia do Tejo, dominados por xistos, granitos e depósitos detríticos, o megalitismo funerário é abundante. Existem, contudo, exceções a este padrão, como o complexo megalítico de Rego da Murta, em Alvaiázere, na zona calcária, mas grosso modo, a distinção entre as zonas geológicas mantém-se.*

*Apresentamos uma síntese regional de uso do solo, cultura material e cronologia, assim como tipologia de enterramentos e estruturas funerárias. O intuito é o de contextualizar o fenómeno megalítico funerário nas dinâmicas regionais de comportamento funerário durante o Neolítico, em especial através da comparação de contextos megalíticos e em gruta.*

*A natureza e distribuição das evidências levantam várias questões: como as cronologias e cultura material dos enterramentos em gruta e megálitos se compara, e como ambas se relacionam em termos diacrónicos/sincrónicos? os enterramentos em megálitos funerários reflectem continuidade ou descontinuidade com comportamentos anteriores? os megálitos estão conectados com um modo de vida predominantemente pastoril? como se relacionam os sítios funerários com as ocupações de carácter doméstico na região? Estas questões serão discutidas no contexto de perspectivas regionais e macro-regionais.*

*PALAVRAS-CHAVE: Médio Tejo, Neolítico, comportamento funerário, megalitismo funerário, grutas necrópole*

*“Life is, and death is not at all”*

***Fyodor Dostoyevsky***

*Demons*

## **1. INTRODUCTION**

The study of Neolithic funerary behaviour has been a major focus of research on the later prehistory of Western Iberia. Several of the earliest sites associated with food-producing economies in Central Portugal are funerary contexts, a pattern that persists until the late Neolithic, since even with the growing number of domestic occupations (e.g., Neves, 2018), cave-necropolises and megalithic tombs are still far greater in number (Leisner & Leisner, 1959; Leisner, 1967, 1998; Kalb, 1987; Cruz, 1997; Oosterbeek, 1997; Zilhão, 1992; Boaventura, 2009).

A relationship may be established between funerary practices and their evolution during the Neolithic period: the earlier stages, identified in the limestone areas, have individualized funerary contexts, including on occasions a sequence of individual burials in spaces that were regularly re-used, accompa-

nied essentially by Early Neolithic material culture; whereas the collectivization of death seems to start during the Middle Neolithic and become dominant from the mid 4th millennium cal BCE.

In this paper, we seek to determine how megalithic tombs relate to cave burials in the Portuguese Middle Tagus and discuss the regional dynamics by comparing this information with other contexts in the Lower Tagus Basin.

## **2. THE STARTING POINT: BURYING AND DWELLING**

The Middle Tagus is a region where three major geomorphological units converge: the Estremadura Limestone Massif, with an abundance of Neolithic cave-necropolises, some ephemeral rock-shelter and open-air occupations of a domestic character and, more rarely, megalithic tombs; the Tagus detritic Basin, where both open-air occupations and funerary contexts are known; and the Hesperic Massif, dominated by schist, granite and gneiss, where a number of megalithic tombs punctuate the landscape. The hydrography of this region is dominated by the Tagus River and its main tributaries (Almonda, Alviela, Nabão and Zêzere).

It is a region with a significant amount of research on the Neolithic transition process and several models have been proposed in the past (e.g., Zilhão, 1992; Cruz, 1997, 2011; Oosterbeek, 1997; Carvalho, 2008). Funerary behaviour assumes an important role in this perspective, not only because it is one of the better-known domains of activity of the first food-producing economies, especially in comparison to domestic contexts, but also because the organic preservation in some of these deposits allows the acquisition of fine-grained absolute dates, and also, more recently, palaeodietary, palaeomobility and palaeogenetic analyses.

By contrast, funerary megaliths present problems of organic preservation, as well as the lack of absolute chronologies (but see Burbidge & alii, 2014), and the re-use and modification of contexts and structures. Several authors have discussed how megalithic tombs fit into Neolithic population dynamics (e.g., Oosterbeek, 2003; Boaventura, 2009, 2011; Boaventura & Mataloto, 2013; Mataloto & Boaventura, 2009).

One objective of a current FCT funded project (MTAS – PTDC/EPH-HIS/4356/2014) comprising field surveys, excavations and laboratory analyses, is the excavation of relevant funerary contexts, both in cave (Gruta do Cadaval, Tomar) and megalithic tombs (Anta 1 de Vale da Laje, Tomar), along with related settlement contexts (Salvador, Abrantes). The main focus is to understand the evolution of settlement patterns and their relationship to the distribution of funerary contexts.

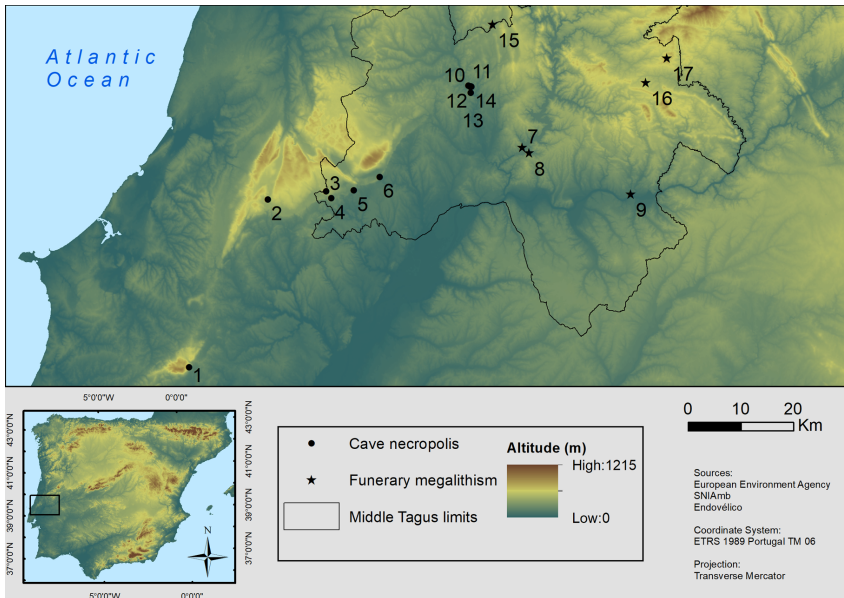


Figure 1. Digital Terrain Model (DTM) with indication of the limits of the Middle Tagus region and location of selected archaeological sites. 1. Algar do Bom Santo; 2. Lugar do Canto; 3. Carrascos; 4. Algar do Barrão; 5. Galinha; 6. Galeria da Cisterna (Almonda); 7. Anta 1 de Vale da Laje; 8. Pedra da Encavalada; 9. Anta da Foz do Rio Frio; 10. Gruta do Caldeirão; 11: Gruta do Morgado superior; 12. Gruta dos Ossos; 13. Nossa Senhora das Lapas; 14. Gruta do Cadaval; 15. Megalithic Complex of Rego da Murta; 16. Cabeço dos Pendentes; 17. Anta da Lajinha.

For this paper, a number of sites located in the Middle Tagus and beyond have been selected due to the kinds of evidence they offer for discussion of the abovementioned aspects (e.g., absolute chronologies, material culture and other published data) (Figure 1).

### 3. A BRIEF REGIONAL SYNTHESIS

The Neolithic of the region has evidence for two successive funerary cycles. The first of these is dated to around 5500 – 3800 cal BCE, comprising what is traditionally referred as Early Cardial, Early Evolved and Initial Middle Neolithic. In the Estremadura Limestone Massif, this first cycle is represented by sites such as Galeria da Cisterna (Almonda karstic system, Torres Novas – Zilhão, 2001, 2008; Zilhão & Carvalho, 2011), Gruta do Caldeirão (Tomar – Zilhão, 1992) and Gruta de Nossa Senhora das Lapas (Tomar – Oosterbeek, 1993a).

These earlier funerary contexts with individualized interments span all of the Early Neolithic and may continue even into the Initial Middle Neolithic, as suggested by Carvalho & Cardoso with reference to the layer D of Gruta do Cadaval (Tomar – Oosterbeek, 1997) and the “founder” phase of Lugar do Canto (Alcanede – Carvalho & Cardoso, 2015).

In these earlier contexts, human remains were normally not found in anatomical connection but scattered throughout the stratigraphy due to post-depositional processes (e.g., Tomé & alii, 2017). The re-use of burial spaces is a particular problem, and palimpsests are the norm rather than the exception, hindering the understanding of the funerary behaviour(s) involved, as well as challenging the undisputed relationship between absolute dates and artefacts (Oosterbeek, 2000). These factors have occasionally led to the interpretation of some of these contexts as collective burials, or even as ossuaries. Yet, where it is possible to ascertain, these earlier contexts correspond to individual inhumations, mainly of a primary character, accompanied by decorated ceramics, personal ornaments (beads and pendants of shell, animal teeth and bones), blades and bladelets, and some polished stone elements. The later part of this first cycle overlaps with the earliest megalithic burials, whereas its earlier part may be contemporary with the dawn of megaliths, represented by the earliest menhirs (e.g., Vilarinha 3 in southern Portugal – Gomes, 2008, pp. 63-64).

Later, around 3800 cal BCE (Figure 2), the dynamics of funerary behaviour shift towards collective burials. These constitute the second cycle, and collective burials predominate up to the Final Neolithic and beyond (e.g., Tomé, 2011; Carvalho & Cardoso, 2015; Carvalho, 2014a). Among the first collectivized burials are those from Lugar do Canto (Alcanede – Leitão & alii, 1997; Cardoso & Carvalho, 2008), Algar do Bom Santo (Carvalho, 2014a), layer C at the Gruta do Cadaval (Oosterbeek, 1997; Cruz, 1997) and, later, Gruta dos Ossos (Tomar) (Oosterbeek, 1993b, 1997; Cruz, 1997).

The almost complete lack of absolute dates for funerary megaliths in the region is still a problem and the possible existence of a proto-megalithic phase (Silva & Soares, 2000), comprising simple burials accompanied by a limited number of artefacts should be considered. Here the site of Jogada 5 / Pedra da Encavalada (Abrantes – Cruz, 2011) should be mentioned because it consists of an atypical megalithic monument which incorporates a gneiss bedrock outcrop in a mid-slope position, associated with nine deposits in pits that seem to correspond to individual burials (Cruz, 2011). TL dates on ceramics gave results that place these contexts at the end of the 5th and beginning of the 4th millennium BCE.

Normally found in clusters of monuments, Middle Tagus funerary megaliths are not considered as impressive as that of other regions of Iberia; but still

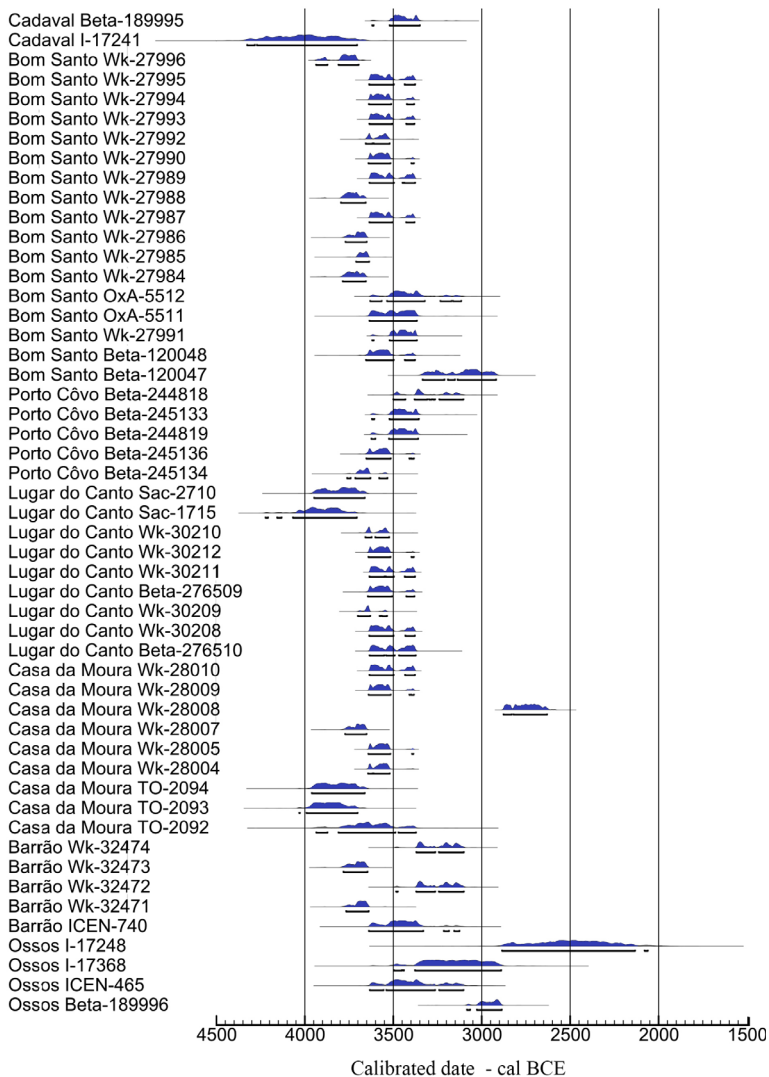


Figure 2. Absolute dates for collective funerary contexts in the Estremadura region (after Carvalho & alii, 2003; Carvalho and Cardoso, 2010/2011, 2015; Carvalho and Petchey, 2013; Cruz, 1997; Gonçalves, 2008; Lubell & alii, 1994; Oosterbeek, 1997; Tomé, 2006). Dates calibrated using OxCal 4.2.4 (Bronk Ramsey, 2009; Bronk Ramsey and Lee 2013) with atmospheric curve IntCal13 (Reimer & alii, 2013).

falls part of that wider phenomenon (e.g., Bueno Ramirez & alii, 2006; Santos, 2000; Oliveira, 2000; Cardoso, 2008). Scarre & Oosterbeek (2010), referring specifically to the megalithic tombs of the Northern Mação area, suggested that they could be a part of the Proença-a-Nova megalithic cluster, representing an inland phenomenon without immediate links to the Tagus valley. Nonetheless, the Proença-a-Nova megalithic tombs are part of the larger cluster that includes sites in Vila Velha de Ródão, which are close to the Tagus. Among the main megalithic tombs in the region are Anta 1 de Vale da Laje (Tomar – Drewett & alii, 1992; Oosterbeek & alii, 1992), Anta da Lajinha / Anta do Pereiro (Mação – Silva Louro, 1939; Horta Pereira, 1970; Scarre & Oosterbeek, 2010) and the megalithic complex of Rego da Murta (Alvaiázere – Figueiredo, 2006, 2010).

#### **4. THE DEAD AND THE LIVING**

As already observed, absolute chronologies are an issue in understanding Neolithic funerary dynamics. The individual burials at Pedra da Encavalada (Abrantes – Cruz, 2011) would fit well within the first cycle of funerary behaviour, i.e. Early and Initial Middle Neolithic, if we accept 3800 cal BCE as marking the beginning of the collectivization of death. The absolute dates for collective cave-necropolises in the limestone areas would ideally be compared with similar information from megalithic tombs but the latter is lacking. Exceptions could be Anta da Lajinha (Mação) that has several TL results indicating a chronology of between 4300 and 3800 BCE, with tumulus construction probably around 3800 BCE (Burbidge & alii, 2014); and the chronologically more recent contexts of Rego da Murta, in the limestone areas of Alvaiázere (Figueiredo, 2006, 2010).

Available data for Early and Middle Neolithic settlement sites is scarce, especially in the inner Tagus regions (Oosterbeek, 1994; Cruz, 1997, 2011; Carvalho, 2008; Neves, 2018). Several factors might be hindering the identification of these types of contexts, but the use of cave-necropolises for non-funerary activities has already been suggested for the Early Neolithic of Gruta do Caldeirão (Rowley-Conwy, 1992) and the Middle Neolithic of Gruta do Cadaval (Almeida, 2017), both in the Nabão area north of Tomar.

With the exception of a few domestic sites that have evidence of a more permanent occupation in inland Tagus (Cruz, 1997, 2011; Oosterbeek, 1997), current interpretations indicate the importance of sporadically used sites of a more ephemeral or specialized nature (e.g., Rowley-Conwy, 1992; Carvalho, 2008; Correia & alii, 2015). This is not only inferred from the type of occupations and settlement patterns, but also from the material culture, the lack of

large pottery vessels being an example. These types of contexts are also difficult to identify and easily destroyed or disturbed by agricultural activities (see Carvalho et al., 2013).

Evidence of material culture and its dispersion, along with the direct skeletal analysis of the human groups involved in the earlier development of food-producing economies, suggest the very diversified nature of the process itself. Looking specifically at data for the Middle (and Final) Neolithic, published information (Fernández Domínguez & Arroyo-Pardo 2014) suggests an interesting scenario of groups composed of individuals from different regions with a diversified pattern of provenance and mobility (Price, 2014; Waterman, & alii, 2013) or palaeodiet (Carvalho, 2013; Carvalho & Petchey, 2013; Carvalho & Rocha, 2016; Guiry & alii, 2016).

Palaeobotanical studies conducted in the Middle Tagus (synthesis in Ferreira, 2017) show that pastoral and agricultural practices co-existed from the appearance of the first food-producing economies, even if oscillations in their respective importance might have occurred throughout these initial phases. In fact, direct indicators of plant cultivation are generally lacking (but see Carvalho & alii, 2013; López-Dóriga & Simões, 2015), while animal domesticates exist but their relative importance is still far from understood (synthesis in Valente & Carvalho, 2014; Almeida, 2017) and the impact of these activities on the landscape seems to have been negligible until the Final Neolithic / Chalcolithic (Almeida & alii, 2014; Ferreira, 2017).

Besides that, the mountainous hinterland areas, such as the northern part of Mação region, are not easily associated with cereal agriculture, due to poor soils and rugged terrain, being more suitable for a mobile economy based on pastoralism than settled arable farming (Scarre & Oosterbeek, 2010; Scarre & alii, 2011). The only relevant evidence comes from the Middle Neolithic faunal data, but it is relatively scarce throughout all of the Lower Tagus basin and limited to sites located at higher altitudes: Gruta do Cadaval (Almeida, 2017), Costa do Pereiro (Carvalho, 2008) and Abrigo da Pena d'Água (Valente, 1998; Correia & alii, 2015), all in the Limestone Massif. It is interesting to note the predominance of *Cervus elaphus* or *Ovis/Capra* at these sites, a faunal profile that matches the dominant zoomorphic representations in Tagus basin rock art.

Unfortunately, the chronological, geographical or even cultural applicability of this information to the inner areas where funerary megaliths punctuate the landscape is problematic at least, and there are no preserved bones...

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