ANCIENT DEATH WAYS
Proceedings of the workshop on archaeology and mortuary practices
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&
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Abstract

Ancient Death Ways – proceedings of the workshop on archaeology and mortuary practices, contains articles of the work in progress presented and discussed at the Ancient Death Ways 2013 meeting, which was organised around three main themes: current research, landscapes of death, and defining death. The diversity of case studies and subjects tackled by the participants reflects the richness of the field of archaeological research concerning death studies. This book does not aim to be a treaty on the archaeology of death in 2013, but rather a straightforward outcome of the sessions. The series of eight articles is introduced and closed by two commentary essays from two of the moderators of the workshop.

Keywords: Mesolithic, Neolithic, death, funerary archaeology, mortuary practices, archaeo-thanatology, cremation, ritual practice, GIS, landscape archaeology
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Abstract

This paper explores the intricate relations between mortuary ritual practice and the active role of memory in the construction and reconstruction of place by hunter-gatherer groups. The data for this preliminary study are drawn from the Mesolithic shell midden sites located in the Tagus and Sado valleys in Portugal, where ca. 374 human burials have been excavated since the late nineteenth century. The aim of this essay is to rehearse a holistic approach to the study of the Mesolithic hunter-gatherers, by sewing together the spheres of death, memory and place.

Keywords: hunter-gatherers; death; memory; ritual practice; place; Tagus and Sado valleys, Portugal

Introduction

The Mesolithic shell middens located in the Tagus and Sado valleys in Portugal are known for the unusually large number of human burials. These sites with burial grounds have been interpreted as hunter-gatherer territorial claims to establish control over economic resources (Arnaud 1989: 621), and as a base line argument for the origins of social complexity (Bicho et al. 2013). These interpretations are valid and plausible; however, these approaches do not address the question of how these sites have been kept...
meaningful and socially recognised during their long chronology of use. Furthermore, these classic approaches tend to ignore hunter-gatherers as agents of history, somewhat perceived as highly adaptive humans with a functional responsive behaviour.

Here, regardless of functional or symbolic interpretations, I wish to suggest that mortuary ritual practice plays a key role in the construction and maintenance of these places, because this social practice is a powerful memory aid. With this approach I wish to stress the active role of memory, performed by mortuary ritual practice, key in the construction and reconstruction of these places. This aspect of social memory, the memory transmitted through bodily practices, has been widely neglected, particularly in hunter-gatherer studies, which some authors have rightly criticised (Sassaman & Holly 2011). In this view, and in the scope of hunter-gatherer studies, landscapes are meaningful social environments rather than mere repositories of natural resources.

Following the open character of the Ancient Death Ways Workshop, in this essay I wish to rehearse a holistic approach to the study of the Mesolithic hunter-gatherers, by sewing together the spheres of death, memory and place, which I aim to develop in future studies.

Shell middens in the Tagus and Sado valleys

The archaeological sites under analysis are located in Portugal, some of them having been discovered and excavated since the late nineteenth century. These sites are characterised by the anthropogenic accumulation of marine animals, terrestrial fauna and stone artefacts. This type of site is known as shell midden after its most visible feature, the sea shells. Here, in the southwestern Atlantic coast of Europe, the rise of sea levels during the Atlantic climatic optimum (ca. 8350–6300 cal BP) resulted in the formation of large estuaries. The typical coastal sites known for the Pre-boreal and Boreal (ca. 11480–8350 cal BP) are now consigned to interior estuarine regions, by these new ecosystems (Araújo 2003). Today, far from the sight and influence of marine waters, these Late Mesolithic shell middens can be very large archaeological sites, many of them with well preserved human remains (Figure 6.1).
This new form of settlement is accompanied by a different relation to death. New born babies, children, young adults, men and women were carefully buried in these places. In the shell middens of the Tagus and Sado valleys burial practice is a common form of disposal of the dead. From the 12 middens identified in the Tagus valley, six have human burials (Figure 6.2) in a total of at least 262 individuals (Bicho et al. 2013; Cunha & Cardoso 2001, 2002–2003; Jackes & Meiklejohn 2008; Meiklejohn et al. 2009; Roksandic 2006). Similarly, in the Sado valley, there are 11 middens known, six of which with human burials (Figure 6.3) in a total of ca. 112 individuals (Cunha & Umbelino 1995–1997). The archaeological data regarding this practice of inhumation (i.e. burial) is in clear contrast with previous and contemporaneous sites in the region; burial as a mortuary practice is known in the Iberian Peninsula; however, it was never a common practice (Peyroteo-Stjerna in press).

Figure 6.3. Sado valley: shell midden sites with human burials. Site/Minimum Number of Individuals (MNI) (Cunha & Umbelino 1995–1997): Arapouco/32; Poças de S. Bento/15; Cabeço das Amoreiras/6; Vale de Romeiras/26; Cabeço do Pez/32–36; Várzega da Mó/1
According to the currently available radiocarbon dates (Table 6.1) the chronology of the human burials in the Tagus valley ranges from ca. 8422 to 6687 cal BP. The data is more limited for the Sado valley, with only three human burials dated so far (Table 6.2) ranging from ca. 8175 to 7333 cal BP. I am currently running a radiocarbon programme to upgrade the available data, in the scope of current research on the mortuary practices in these two valleys. Nevertheless, for this chronology, this concentration of human burials is unique in the Iberian Peninsula and also one of the largest and oldest concentrations known in Europe.

These sites are also rich in faunal remains (Detry 2007; Lentacker 1986, 1994; Rowley-Conwy 2004) providing evidence for the consumption in situ of a varied range of food resources, both marine and terrestrial (Umbelino 2006; Umbelino et al. 2007). According to these studies there is no evidence for domesticated plants or animals, except for the domestic dog (Detry & Cardoso 2010). Stone tool production is also well documented for all stages of the chaîne opératoire (Araújo 1995–1997; Marchand 2001; Nukushina 2012). The relatively few ceramic fragments found in some of these contexts are attributed to later occupations, to the Early and Late Neolithic (Diniz 2010).

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2 Tables 6.1 and 6.2: Samples were calibrated through OxCal v4.2 (Bronk Ramsey 2009) using IntCal13 curve (Reimer et al. 2013) for terrestrial samples. Marine samples and human samples with mixed diet were calibrated using Marine13 curve (Reimer et al. 2013) and regional ΔR accordingly; ΔR = 140±40 14C yr BP for the Tagus valley and ΔR = −100±155 14C yr BP for the Sado valley (Martins et al. 2008). Marine diets (%) were calculated following Ambrose (1993) using assumed marine and terrestrial endpoints of −12 and −21‰ respectively (Schulting & Richards 2001).

The (*) δ13C values were obtained by accelerator mass spectrometry (AMS) during the process of 14C measurement and not independently by isotope-ratio mass spectrometry (IRMS) (C. Umbelino, personal communication, December 2014). The offset is variable and although the AMS- and IRMS-based values may be highly correlated (Schulting & Richards 2001) with an average offset lower than 2‰, it can be as high as 10‰ (Taylor & Bar-Yosef 2014). Only IRMS-based δ13C values should be used for dietary reconstructions or other isotopic-based environmental analysis such as reservoir corrections (Millard 2014:557; Taylor & Bar-Yosef 2014) and for this reason, these values and the respective calibrations should be interpreted with caution.

<table>
<thead>
<tr>
<th>Site</th>
<th>H. sapiens</th>
<th>Excavation</th>
<th>Lab. Ref.</th>
<th>Age BP</th>
<th>Marine % (±10%)</th>
<th>Δ13C‰</th>
<th>Years cal BP, 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cabeço da Amoreira</td>
<td>CAM-01-01</td>
<td>2001</td>
<td>Wk–26796 1</td>
<td>6329±40</td>
<td>46</td>
<td>-16,9</td>
<td>7158–7679</td>
</tr>
<tr>
<td>Cabeço da Amoreira</td>
<td>CAM-00-01</td>
<td>2000</td>
<td>TO–10218 10, 11</td>
<td>6630±60</td>
<td>44</td>
<td>-17,1</td>
<td>7445–7165</td>
</tr>
<tr>
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<td>TO–10225 10, 11</td>
<td>6550±70</td>
<td>14</td>
<td>-20,1</td>
<td>7563–7246</td>
</tr>
<tr>
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<td>7</td>
<td>1930s</td>
<td>Beta–127450 3, 4, 5</td>
<td>6850±40</td>
<td>50</td>
<td>-16,5*</td>
<td>7591–7370</td>
</tr>
<tr>
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<td>Burial 2011.2</td>
<td>2011</td>
<td>Wk–32142 2</td>
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<td>57</td>
<td>-15,8</td>
<td>7609–7400</td>
</tr>
<tr>
<td>Cabeço da Amoreira</td>
<td>Burial 2011.1</td>
<td>2011</td>
<td>Wk–32143 2</td>
<td>7132±41</td>
<td>55</td>
<td>-16,0</td>
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</tr>
<tr>
<td>Cabeço da Amoreira</td>
<td>CAM-00-01</td>
<td>2001</td>
<td>TO–11819-R 9</td>
<td>7300±80</td>
<td>52</td>
<td>-16,3</td>
<td>8027–7669</td>
</tr>
<tr>
<td>Cabeço da Arruda</td>
<td>N</td>
<td>19th cent.</td>
<td>TO–356 7</td>
<td>6360±80</td>
<td>62</td>
<td>-15,3</td>
<td>7156–6087</td>
</tr>
<tr>
<td>Cabeço da Arruda</td>
<td>CA-00-01</td>
<td>2000</td>
<td>TO–10217 10, 11</td>
<td>6620±60</td>
<td>34</td>
<td>-18,1</td>
<td>7503–7184</td>
</tr>
<tr>
<td>Cabeço da Arruda</td>
<td>D</td>
<td>19th cent.</td>
<td>TO–355 7</td>
<td>6780±80</td>
<td>26</td>
<td>-18,9</td>
<td>7678–7371</td>
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<tr>
<td>Cabeço da Arruda</td>
<td>42</td>
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<td>TO–359 7</td>
<td>6960±70</td>
<td>43</td>
<td>-17,2</td>
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</tr>
<tr>
<td>Cabeço da Arruda</td>
<td>A</td>
<td>19th cent.</td>
<td>TO–354 7</td>
<td>6970±60</td>
<td>25</td>
<td>-19,0</td>
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<tr>
<td>Cabeço da Arruda</td>
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<td>2000</td>
<td>TO–10216 10, 11</td>
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<td>36</td>
<td>-17,9</td>
<td>7860–7567</td>
</tr>
<tr>
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<td>19th cent.</td>
<td>TO–360 7</td>
<td>6990±110</td>
<td>38</td>
<td>-17,7</td>
<td>7916–7441</td>
</tr>
<tr>
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<td>6</td>
<td>1930s</td>
<td>Beta–127451 4, 5</td>
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<td>25</td>
<td>-19,0*</td>
<td>8422–8012</td>
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<tr>
<td>Cova da Onça</td>
<td>unknown</td>
<td>1915?</td>
<td>Beta–127448 4, 5</td>
<td>7140±40</td>
<td>43</td>
<td>-17,2*</td>
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</tr>
<tr>
<td>Moita do Sebastião</td>
<td>CT</td>
<td>19th cent.</td>
<td>TO–135 6, 8</td>
<td>6810±70</td>
<td>62</td>
<td>-15,3</td>
<td>7560–7246</td>
</tr>
<tr>
<td>Moita do Sebastião</td>
<td>16</td>
<td>1950s</td>
<td>Beta–127499 4, 5</td>
<td>7120±40</td>
<td>47</td>
<td>-16,8*</td>
<td>7850–7590</td>
</tr>
<tr>
<td>Moita do Sebastião</td>
<td>41</td>
<td>19th cent.</td>
<td>TO–134 6, 8</td>
<td>7160±80</td>
<td>48</td>
<td>-16,7</td>
<td>7935–7591</td>
</tr>
<tr>
<td>Moita do Sebastião</td>
<td>24</td>
<td>19th cent.</td>
<td>TO–132 6, 8</td>
<td>7180±70</td>
<td>47</td>
<td>-16,8</td>
<td>7940–7615</td>
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<tr>
<td>Moita do Sebastião</td>
<td>22</td>
<td>19th cent.</td>
<td>TO–131 6, 8</td>
<td>7240±70</td>
<td>54</td>
<td>-16,1</td>
<td>7959–7639</td>
</tr>
<tr>
<td>Moita do Sebastião</td>
<td>29</td>
<td>19th cent.</td>
<td>TO–133 6, 8</td>
<td>7200±70</td>
<td>46</td>
<td>-16,9</td>
<td>7960–7639</td>
</tr>
</tbody>
</table>
Places in the Landscape

A common geographic trait of these sites is their location by the palaeo-estuaries of large rivers. In the Tagus valley all sites are located in low terraces right by the shores of the palaeo-estuary, subject to occasional floods. This location close to the aquatic resources seems to be the privileged area of settlement. At Sado, however, some large sites are placed further inland and all are located at relatively higher altitudes. Here, a location with good visibility through the valley seems to be more important than the proximity to aquatic resources (Diniz & Arias 2011: 147).

In both valleys there are sites with and without human burials, but the distribution of sites with burials seems to follow a different pattern. In the Tagus valley the sites with human remains are concentrated in the Muge area, with the exception of Cova da Onça, located by the tributary Magos (Figure 6.2). In contrast, in the Sado valley, the human burials are not concentrated in any specific area of the valley, with one exception for the sites of Cabeço do Pez and Vale de Romeiras (Figure 6.3).

There is a fundamental difference in site formation in these two valleys, which is reflected in their stratigraphic complexity and ultimately in the spatial arrangement of the burials in the sites. In the Tagus valley, these artificial mounds are formed by the superposition of cultural layers and can reach 4 to 5 metres in classic vertical stratigraphy (Roche 1965, 1967). In contrast, the middens in the Sado valley are relatively shallow and visually difficult to identify. Here, the site formation is mainly on a horizontal logic.
of occupation with a current stratigraphic width of 60 to 80 cm at most (Arnaud 1989; Diniz & Arias 2011; Larsson 1996). This stratigraphic difference is possibly related to the relative location of the sites to aquatic resources but also to ecological constraints under study (Diniz & Arias 2011). The stratigraphic argument supports once again the secondary importance, for reasons still under investigation, of the shell element in the Sado valley middens in comparison to the Tagus sites.

Another common characteristic seems to be the placement of the burials in clusters within the sites, as observed from available field records from the old excavations. The excavation strategy in the 1950s in the Sado valley, when more than 100 burials were recovered, consisted of opening long narrow trenches along the recognised limits of the site. Then, if human remains were found these trenches were expanded. In all sites the human remains were found in one trench, later expanded as the main excavation area. One exception is the large site Cabeço do Pez, where the site plan from 1956, in the archives of the National Museum of Archaeology in Lisbon, shows two areas with human remains. Although the records are sparser for the Tagus valley, this seems to be also the case at least at Cabeço da Arruda, Moita do Sebastião and Cabeço da Amoreira. Unfortunately there are no records for the other sites with human burials in the Tagus valley. In the Tagus valley most of the burials known were recovered from the bottom layers of the shell middens. However, there are some cases of burials through the stratigraphy and in the upper layers, confirmed by recent field work in both Cabeço da Arruda (Roksandic 2006) and Cabeço da Amoreira (Bicho et al. 2013; Roksandic 2006). Similarly, in the Sado valley, most burials were found in the sandy bottom layers. In general, in both valleys, the burials seem to be spatially organised in tight areas within a much larger area of the site. The relation between these burial clusters with the remaining areas of the sites remains an open question.

For reasons still to be clarified, the settlement strategy was slightly different in the two valleys. However, I would like to emphasise a core set of common practices for the treatment of the dead. In both Tagus and Sado valleys, the natural processes of decomposition were hidden, buried underground – or at least covered with piles of shells and sediment. As demonstrated by Nilsson Stutz (2010) in her study on early mortuary practices in the Baltic area, here as well, the last image of the dead was ritually staged as lifelike (p. 136): the bodies were carefully laid in their final place – in the form of a primary burial. Also, in both valleys, the respect for the integrity of the body
is clear. The location of the graves was remembered and respected, and earlier graves were seldom disturbed by later graves.

**Places for the dead?**

Despite the unusual number of human burials, these sites have been studied almost exclusively from the perspective of settlements for the living. Models of seasonal occupation have been proposed (Arnaud 1989; Marchand 2001); detailed studies on palaeo-diets (Umbelino 2006) and palaeo-populations focused on the Mesolithic-Neolithic transition have been done (Jackes & Lubell 1995; Jackes & Meiklejohn 2008), and just very recently some brief syntheses on mortuary practices have been published (Jackes & Lubell 2012; Jackes *et al.* 2014; Roksandic & Jackes 2014; Roksandic 2006; Umbelino & Cunha 2012). Although the dead have been the main reason why these sites have been excavated and internationally recognised, their place in archaeological interpretation has been largely ignored. The following painting by the French archaeologist H. Breuil (1949) (Figure 6.4) illustrates this perspective well, making no allusion to mortuary practices. Interestingly, by this time, more than 200 burials had been recovered from the Muge shell middens. The painting is accompanied by a page long text with just a very brief reference to burial practices:

> They must have lived in straw or reed huts quite near their heaps of shell-fish, in which they often buried their dead; the bodies were generally doubled up. (Breuil 1949: 93)

This apparent disregard for the *place of the dead* is certainly related to general research trends. In practice, however, problems in terminology could also explain this seeming disinterest. Questions of terminology are important because they influence our interpretations, and here I would like to highlight some terms that may be useful when analysing archaeological contexts with human remains.
First, we may consider the disposal of human remains in one single structure. Assuming that the intentionality of the mortuary practice is confirmed, one must take into account the number of individuals, and most importantly, the tempo of disposal. Accordingly, funerary deposits in one single structure can be: individual, multiple or collective deposits (Figure 6.5).

<table>
<thead>
<tr>
<th>Individual deposit</th>
<th>Multiple deposit</th>
<th>Collective deposit</th>
</tr>
</thead>
<tbody>
<tr>
<td>• one structure</td>
<td>• one structure</td>
<td>• one structure</td>
</tr>
<tr>
<td>• one individual</td>
<td>• two or more individuals</td>
<td>• two or more individuals</td>
</tr>
<tr>
<td></td>
<td>• simultaneous or successive deposit in a short period of time</td>
<td>• successive deposit in a more or less long time interval</td>
</tr>
</tbody>
</table>

Figure 6.4. Daily life in a Muge shell midden, Tagus valley, Portugal (Breuil 1949: 94–95).

One single funerary structure defined for the mortuary remains of one individual is an individual deposit. This structure can be as simple as a pit dug in the soil or as complex as a pyramid for a pharaoh. A ceramic pot containing the cremated remains of one individual also belongs in this category.
The distinction between multiple and collective deposits is based on the tempo of disposal. These terms are often used interchangeably. However, these expressions reflect specific cultural options that should be clear by the use of appropriate terminology. The simultaneous disposal of two or more individuals in one funerary structure is a multiple deposit. Multiple deposits can also include the successive disposal of various individuals, but in a short time frame between each disposal, as in contexts of mortality crisis related to catastrophes, massacres or plagues (Duday 2009: 98). The mortuary practices in a collective deposit follow a very different cadence. A collective funerary structure is used over a more or less long period of time where two or more individuals are deposited during separate events. Passage graves and dolmens are good examples of collective funerary deposits. These are single funerary structures successively re-opened for the deposit of new individuals over a period of time.

After considering the different types of disposal of human remains in one single structure, according to the number of individuals and time frame, we can focus on contexts with more than one funerary structure, i.e. cemeteries. Essentially, a cemetery accommodates a number of funerary structures regardless of the number of individuals and tempo of disposal. In its simplest definition, a cemetery can be defined as a funerary complex that accommodates more than one funerary structure, organised in a more or less complex manner (Duday 2009: 13). In modern cemeteries it is not uncommon to find the three types of funerary deposits described above: individual, multiple and collective (Figure 6.6), but this seems to be less common in earlier periods. As a last observation on terminology, I have chosen to avoid the term necropolis and opted for the term cemetery instead. Necropolis is a common term used in archaeology and it has been used to cover a variety of categories when human remains are found in archaeological contexts, including cemeteries. Besides its vague definition, the term has an urban connotation derived from the Hellenistic Greek language, “the city of the dead”, which may not be the most suitable for deeper chronologies.
Accordingly, the burial grounds known for the shell middens in the Tagus and Sado valleys can be considered cemeteries by definition. Through a period of time, various individuals have been buried in these sites, mostly in simple individual structures and organised in a more or less complex manner (Figure 6.7). This observation does not exclude other interpretations of further uses of these sites. This observation implies solely that at least part of these sites was used as a cemetery over a more or less long period of time, in a more or less continuous manner.

As mentioned, the practice of inhumation was not common in the Iberian Peninsula, neither for previous chronologies nor in contemporaneous sites (Peyroteo-Stjerna in press). Yet it is common mortuary behaviour in these valleys during the Late Mesolithic and apparently since the first episodes of use of these sites. This particular form of dealing with death, with the constitution of cemeteries, is a key aspect in the life of the last hunter-gatherers of this region, and should not be overlooked.
It could be argued that in these semi-sedentary societies (Arnaud 1987, 1989), this concentration of human burials was essentially a practical need. These bodies would simply be buried on location, as a way of dealing with a decomposing corpse. This practicality was possibly one motivator for this mortuary behaviour. However, considering the longevity of use of some of these cemeteries, in contrast with the relatively low number of buried individuals, it can be suggested that only a segment of the population received this treatment. Additionally, there is a clear respect for the integrity of the body in the long term, hence a practice that goes beyond the practical need of hiding a decomposing corpse.

The processual interpretations link these Late Mesolithic cemeteries to hunter-gatherer territorial claims to establish control over economic resources provided by the new environmental conditions in these estuaries (Arnaud 1987, 1989). These are valid and persuasive arguments. However, I argue that the economic motivator cannot be sustained on its own. Furthermore, the construction and maintenance of cemeteries in these early
chronologies has been regarded as an indicator of social complexity. According to this view social complexity will be mirrored by mortuary complexity (Binford 1971). This may be factual in certain contexts; however, I argue that in these sites this correlation is not necessarily valid, as these cemeteries are not necessarily more complex than other funerary practices that do not engage in construction of cemeteries.

This particular approach to death, with the development of cemeteries in open air sites, as opposed to a concealed death in caves or in remote places, reveals a relation of death to a daily landscape. Thus, instead of focusing on economic constraints and issues of social complexity, I would like to emphasise the role of mortuary practices in the construction and maintenance of these locations as meaningful places remembered over generations. In this perspective, these locations are not only a repository of resources but spaces that hold experiences, events and memories (Low & Lawrence-Zúñiga 2003). The commitment of the living to the formation and maintenance of these cemeteries is a positive indicator of the importance of the dead in defining space and place (Wright 2013: 414) in the long term. In practice, consciously and/or unconsciously, death plays a role in the collective memory of these sites.

**Topographical relationships of Death**

Barrett (1996) highlights how mortuary rituals structure the *topographical relationships of death*. Following Van Gennep’s (1960) threefold division of rites of passage, Barrett identifies critical spatial differences in the rites involved in primary burial (i.e. inhumation), secondary burial and cremation. As opposed to inhumation, secondary burial practices and cremation afford a spatial and temporal separation between the initial rites of liminality and the concluding rites of incorporation (Barrett 1996: 397). Conversely, the mortuary rituals involved in a primary burial will settle both the place and the moment of the transition of death (Barrett 1996: 398) in a permanent place in the landscape.

Inhumation and respect for the body as a whole were significant elements in the mortuary practices of the last hunter-gatherers of the Tagus and Sado valleys. Here, the dead were not removed from daily landscapes. Rather, they were granted with a formal and permanent location possibly in the heart of the social and daily life of these hunter-gatherers.
In this perspective, these sites, as with other early cemeteries, reveal a new conceptual link between the dead and the landscape (Pettitt 2011: 263). Through the development of a place for the dead, the experiences and consciousness of the participants take a material and spatial form with important implications in the construction of a conceptual landscape. This angle in the perspective is important because in fact, as some authors have argued (Low & Lawrence-Zúñiga 2003), places are not in the landscape but in people’s minds.

**Memory in the Landscape: Rituals in Practice**

The stress on memory emphasises the role of ritual practice in the construction of the landscape. This approach acknowledges the archaeological record of burial practices as material traces of memory construction. In this perspective, mortuary rituals are key elements in the construction of places. Following this, I would like to argue that it is through mortuary ritual practices that these sites are remembered and kept meaningful in the landscape.

Memory, here as shared memory of a social order, requires certain mechanisms to be maintained and transmitted within the social group over time and across generations. Memory can be inscribed in monuments and texts. In archaeological contexts, monuments are evident traces of memory and commonly emphasised, but incorporated memory leaves archaeological traces as well (Preucel & Meskell 2004: 216; Van Dyke 2010: 279). Memory can be materialised in representations, objects, ritual behaviours and places (Van Dyke & Alcock 2003), and ritual behaviour in particular, can be revealed through the observation of the remains of mortuary practices in the archaeological context.

As Connerton (1989) demonstrates, embodied or incorporated memory, manifested through performative rituals and physical behaviour, is much more effective in the production and transmission of social memory. In his work *How Societies Remember*, Connerton (1989) shows through various case-studies that memory is transmitted in non-textual and non-cognitive ways through ritual practice. This is shown to be a powerful system to enhance memory because ritual practice is a formalised, sequential and repetitive performative language that implies continuity with the past (Connerton 1989: 45). Thus, Connerton (1989) argues, incorporating practices through embodied behaviour provides a particularly effective system of mnemonics.
Nevertheless, inscribed memory is commonly considered the privileged form for the transmission of the memories of a given society. In archaeology, this aspect of social memory, the memory transmitted through bodily practices has been widely neglected, particularly in hunter-gatherer studies, as authors such as Sassaman and Holly (2011) have pointed out. However, it has been shown that systems of inscription, even the more complex, do not correlate to the capacity of a society to remember (Connerton 1989: 102). Thus, following Connerton’s (1989) premises, mortuary ritual practices are determinant in the process of memorialisation of these places.

Death in Place

The topographical placement of the dead within the landscape of the living is a key element in the social dynamics of the last hunter-gatherers of the Tagus and Sado valleys.

Memory could be reproduced some other way, but here the dead were granted a permanent location through the construction and maintenance of cemeteries, affording them a concrete place of memory.

In this essay I have considered the spheres of death, memory and place were intricate components in the life of the Mesolithic hunter-gatherers. It is my view that archaeological interpretation can be enhanced if these spheres are approached in a holistic manner. Among other possible features and interpretations, these shell middens are mutually a place for the dead, and a place of ritualised codes. In this context, death rituals play a central role in the life of these hunter-gatherers in developing a sense of community within the landscape, as well as maintaining the social ties in both life and death.

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