

## BRONZE AGE FUNERARY SPACES IN OUTEIRO ALTO 2 (BRINCHES, SERPA, PORTUGAL): THE HYPOGEA CEMETERY<sup>1</sup>

### *Espacios funerarios de la Edad del Bronce en Outeiro Alto 2 (Brinches, Serpa, Portugal): la necrópolis de hipogeos*

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**ABSTRACT:** The Outeiro Alto 2 (Brinches, Serpa, Portugal) is part of a wider range of archaeological sites recently excavated on the left bank of the Guadiana River, Baixo Alentejo, in the context of the Empreendimento de Fins Múltiplos de Alqueva - EDIA (Alqueva Dam). The chronology of its occupation extends from the Final Neolithic to the Bronze Age, also through Chalcolithic, and it is located on a gentle hill with a wide view of the landscape. In this study we present the data concerning to the occupation of the site during the Bronze Age, more specifically the hypogea necropolis. It is a cultural reality badly known and scarcely characterized and documented until recently, proper to the region, but where it becomes evident the influence of Argaric Culture, especially in the funerary rituals.

*Key words:* Funerary practices. Southwest Bronze. Argaric Culture. Subterranean funerary structures. Ossuaries.

**RESUMEN:** Outeiro Alto 2 (Brinches, Serpa) forma parte de un amplio conjunto de yacimientos arqueológicos recientemente excavados en la margen izquierda del río Guadiana, en el Bajo Alentejo, en el contexto de Empreendimento de Fins Múltiplos de Alqueva (EDIA). Su cronología de ocupación se extiende desde el Neolítico final hasta la Edad del Bronce, pasando por el Calcolítico, y se localiza en una suave colina con un amplio dominio del paisaje. En este estudio se presentan los datos relativos a la ocupación del sitio durante la Edad del Bronce, más concretamente la necrópolis de hipogeos. Se trata de una realidad cultural poco conocida, escasamente caracterizada y documentada hasta hace relativamente poco tiempo, propia de la región, pero donde resulta evidente la influencia de la cultura argárica, sobre todo en lo que a los rituales funerarios se refiere.

*Palabras clave:* Rituales funerarios. Bronce del Sudoeste. Cultura Argárica. Estructuras funerarias subterráneas. Osarios.

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## 1. Introduction

The archaeological interventions of the site of Outeiro Alto 2 located in Brinches, municipality of Serpa, Portugal (Fig. 1), were part of the Environmental Impact Assessment on cultural heritage during the execution of the adductor of Brinches-Enxoé/Reservoir of South Brinches. This Intervention was promoted by the Empreendimento de Fins Múltiplos de Alqueva (EDIA) and executed by the company Era-Arqueologia S.A. between June and November of 2010.

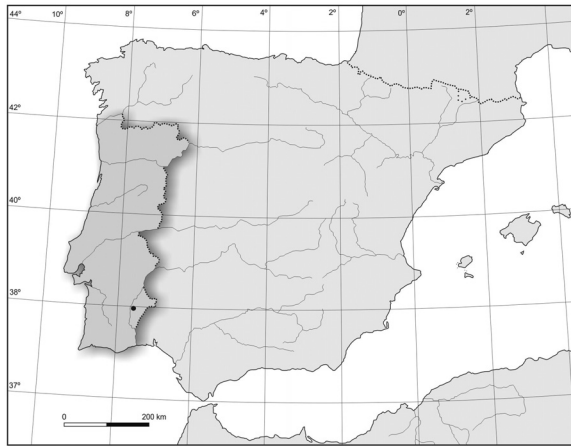


FIG. 1. *Outeiro Alto 2 location in Iberian Peninsula (modified from Gonçalves, 1989).*

Geologically, the site is located in the Ossa-Morena zone, part of the Hesperian platform, a landscape marked by peneplains. The site is on a discrete rise at 187 m above sea level, on the left bank of river Guadiana, municipality of Serpa, freguesia of Brinches. Although the site is located on rise that does not differ much of the other small elevations that spread out on the landscape, it still commands a very large visual control over the surrounding regions, with clear visibility of the city of Serpa and the Late Neolithic and Copper Age site of Alto da Forca (Caeiro, 1985; Lopes *et al.*, 1997). Outeiro Alto 2 is also visible to and from Montinhos 6 to the Southeast (Baptista *et al.*, 2012) and Torre Velha 3 (Alves *et al.*, 2010) to the East, two securely dated Bronze Age sites that also evince Bronze Age hypogea, and that were also intervened recently as part of an environmental impact assessment of an irrigation block.

It is a watershed that separates the hydrographical network of the Enxoé to the South, and of the brook of Pias to the North. This watershed integrates small streams that run across the hill-sides. To the East, the watershed is marked off by a brook tributary to the Barranco of Grafanes, a tributary in the North bank of the Enxoé; to the West and the North there are other streams that belong to the drainage system of the Barranco of Várzea, a direct tributary of the Guadiana river, located about 6,5 km West of Outeiro Alto (Valera and Filipe, 2010: 49).

According to the fl. 8 of the Portuguese Geological Cartography (1:200 000), Outeiro Alto 2 is characterized by the presence of Miocene clays, limestone, and conglomerates –Neogene and Cenozoic–. This geological region is adjacent to areas marked by Plistocene sands, sandstones, and gravel from the Baixo Alentejo –Neogene and Cenozoic–, and the volcanic-sedimentary complex of Moura-Santo Aleixo, more specifically, marked by the presence of cloritic shale and Silurian quartz –Paleozoic–.

Regarding mineral sources, the geological cartography also points out some abandoned iron mines to the North, close to Pedrogão –about 9 km from Outeiro Alto–, on both banks of the river Guadiana. About 15 km to the Northeast, close to Moura, there are some occurrences of zinc, tin, copper, and iron, and 15 km to the East, close to Vale de Vargo, the presence of tin, iron, zinc, and antimony. According to the soil capability cartography –fl. 43D-1:50.000–, Outeiro Alto is located on soils of type B and C –of limited and conditioned usage respectively–, and it's also worth pointing out that surrounding areas have soils of type A. Currently, the olive tree and pasture are the two main agricultural practices in this region.

During the archaeological intervention on Outeiro Alto 2, three nuclei were delineated based primarily on spatial and chronological assumptions, to which we can also add Monte do Gato de Cima 3 as an extra nucleus, a site previously excavated but probably part of the Outeiro Alto 2 complex (Fig. 2). Nucleus A is located on the southeast extremity of the rise where a sinuous shaped trench and with a good number of pits within and surrounding the trench were identified, pits that are dated to the Late Neolithic

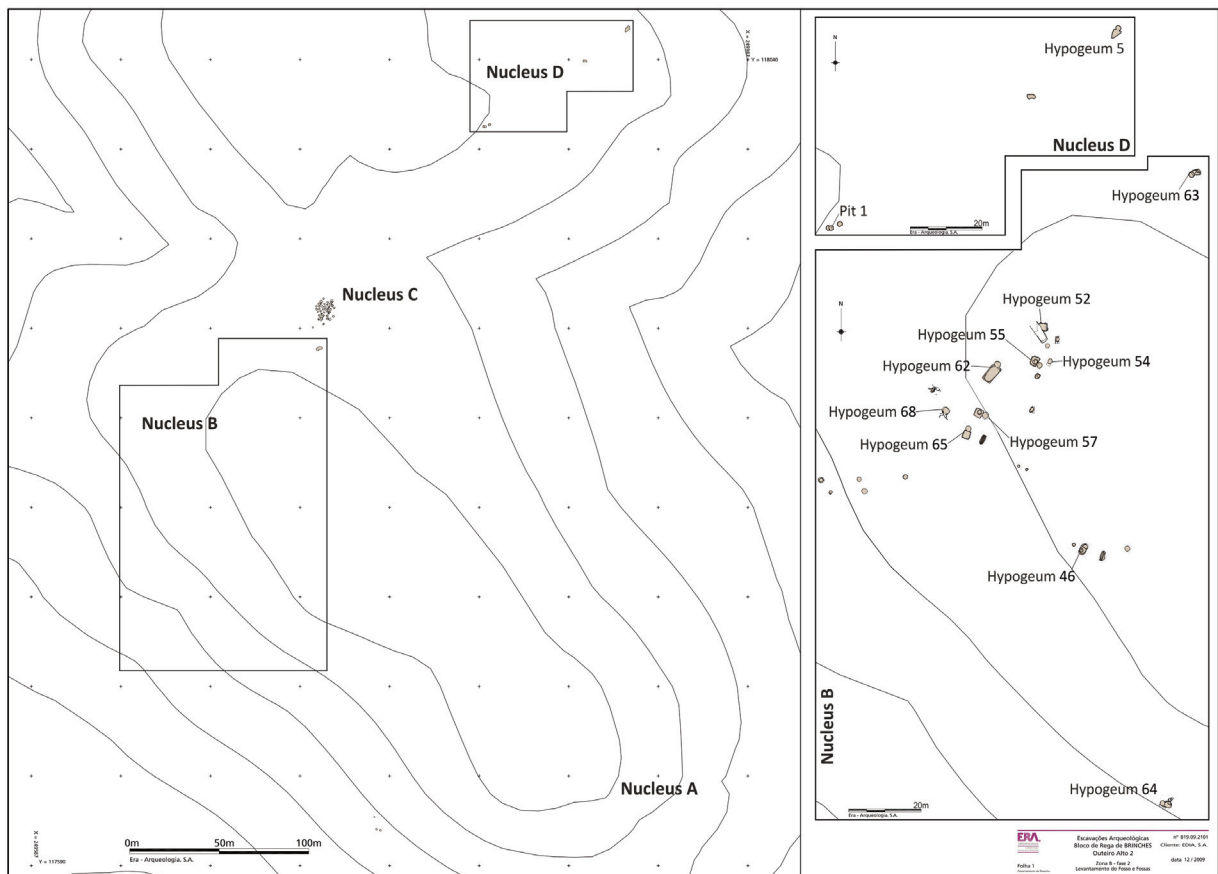


FIG. 2. Topography of the area and location of the different nuclei in Outeiro Alto 2.

and Early Copper Age. Nucleus B is located in the Northwest extremity of the excavation area, and is comprised primarily by the Bronze Age hypogea cemetery, but also contains some pits of undetermined chronology, some of which, contain burials, and also some pits dated to the Late Neolithic. Nucleus C, to the N, is comprised of 3 hypogea from the Late Neolithic that are located in the periphery of 35 strongly nuclearized pits. Nucleus D, to the NE, refers to the previously mentioned site Gato de Cima 3, and is comprised by a hypogea and a Bronze Age burial within a pit. Nucleus D also has some negative structures that are “bone-shaped” which have not been dated as of yet (Filipe *et al.*, 2010; Valera and Filipe, 2010)<sup>2</sup>.

<sup>2</sup> In addition *cf.* Valera, A. C.; Godinho, R.; Calvo, E.; Berraquero, J. M.; Filipe, V. and Santos, H.: “Um

The main aim of this paper is to present the data referring to the Bronze Age cemetery –Nucleus B and Nucleus D, pointing out that its study is still in a very incipient phase–.

## 2. The Bronze Age cemetery of Outeiro Alto 2

Several negative structures (Fig. 3) were identified in Outeiro Alto 2 Nucleus B and D that differ in their constructive scheme and overall functionality with two main distinct groups: the first group is comprised of negative funerary structures, some of which dated to the Bronze Age,

mondo em negativo: fossos, fossas e hipogeuas entre o Neolítico Final e a Idade do Bronze na margem esquerda do Guadiana (Brinches, Serpa)”. In *Actas do 4º Colóquio de Arqueologia do Alqueva. O Plano de Rega (2002-2010)*. Beja: EDIA, in press.



FIG. 3. From left to right: Late Neolithic and Chalcolithic ditch and pits, nucleus A; hypogea cemetery and other Bronze Age negative structures, nucleus B; Late Neolithic pits and hypogea, nucleus C (photos by Paulo Marques, EDIA, modified).

other yet to have a chronological definition, form a cemetery that extends itself at least 400 m; the second group is comprised mainly by negative structures of undetermined chronology and functionality, and also some pits dated securely to the Late Neolithic (Valera and Filipe, 2010)<sup>3</sup>.

Regarding the Bronze Age funerary structures, the diversity of construction schemes, and the monumentality of some of the structures, are the standout features of this site. The fact that these structures were virtually unknown in the Southeast part of Portuguese territory is worth mentioning. The only other case that was previously known was Belmeque (Schubart, 1974, 1975; Soares, 1994) although Belmeque is more of a burial within a niche than an actual hypogea.

The first approach to the finds lead us to propose an occupation dated to Middle Bronze Age, according to the traditional chronological schemes (Schubart, 1971). This chronology is a preliminary proposal that will be properly refined with a better study of the artifacts and the analysis of all available finds. For now, the radiocarbon dates obtained from meat offerings found on the site of Torre Velha 3 (Serpa) show that these funerary structures were utilized during the second and third quarters of the II<sup>nd</sup> millenium B.C. (Alves *et al.*, 2010).

Given our current data, we propose the following categories for the funerary Bronze Age structures of Outeiro Alto 2 (Fig. 4):

<sup>3</sup> Cf. *op. cit.* n. 2 and Filipe, V.; Godinho, R. and Granja, R.: "Outeiro Alto 2 (Brinches, Serpa): alguns dados preliminares sobre a necrópole da Idade do Bronze". Paper presented to *V Encontro de Arqueologia do Sudoeste Peninsular (Almodôvar, 18-20 de Novembro de 2010)*.

- Type A: Hypogea with sub-rectangular or sub-square antechamber and a subterranean sub-circular funerary chamber. These structures contain only one individual burial –hypogea 57 being the exception–, and show a complete absence of burials or reductions in the antechamber –hypogea 52 being the exception to this rule–. The passage from antechamber to funerary chamber is through a small entrance with a small step or ramp that is sealed with vertical slabs and binded with smooth clay. These structures recurrently evince meat offerings and other funerary offerings in varied number and type, from ceramic vessels to metal artifacts.
- Type B: Hypogea with sub-oval antechamber and a subterranean sub-circular funerary chamber. These structures are for collective burials, with the presence of ossuaries in the funerary chamber and the antechamber. The passage from antechamber to funerary chamber is through a small entrance with a small step or ramp that is sealed with vertical slabs and binded with smooth clay. These structures don't contain meat offerings, but there are funerary offerings in varied number and type, from ceramic vessels to metal artifacts.
- Type C: Small hypogea comprised of a circular pit, with access to a small funerary oval shaped subterranean chamber. The passage from antechamber to funerary chamber is sealed with vertical slabs but not binded with smooth clay. There are some grave goods but no burials or ossuaries in the antechamber.



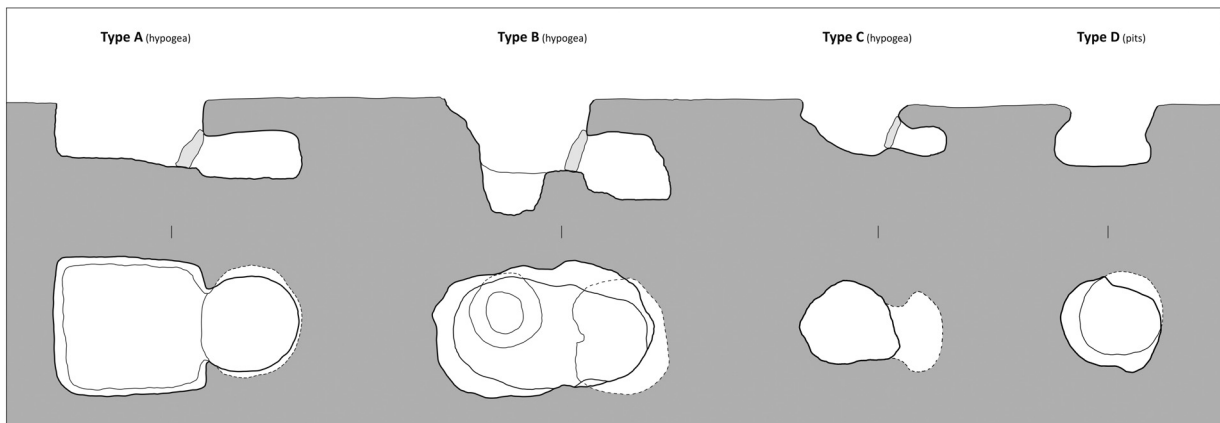


FIG. 4. Different types of funerary structures documented at Outeiro Alto 2.

- Type D: Circular pit, flat base, and slight concave or declined walls. The structures contain individual burials, and contain ceramic goods and meat offerings.

### 2.1. Type A structures

These type can be briefly described as structures dug in bedrock, of anthropomorphic shape when seen in plan, with varying depths and sizes,

comprised of a rectangular shaped or square shaped antechamber, vertical or sub-vertical walls, and flat base (Fig. 5). The funerary chamber is circular shaped, with concave walls, and a flat base. A total of seven of these structures were excavated at Outeiro Alto 2 –hypogea 5, 52, 55, 57, 62, 65 and 68–.

With the exception of hypogea 57 where there was an individual and the reduction of another, all the type A hypogea presented only one burial

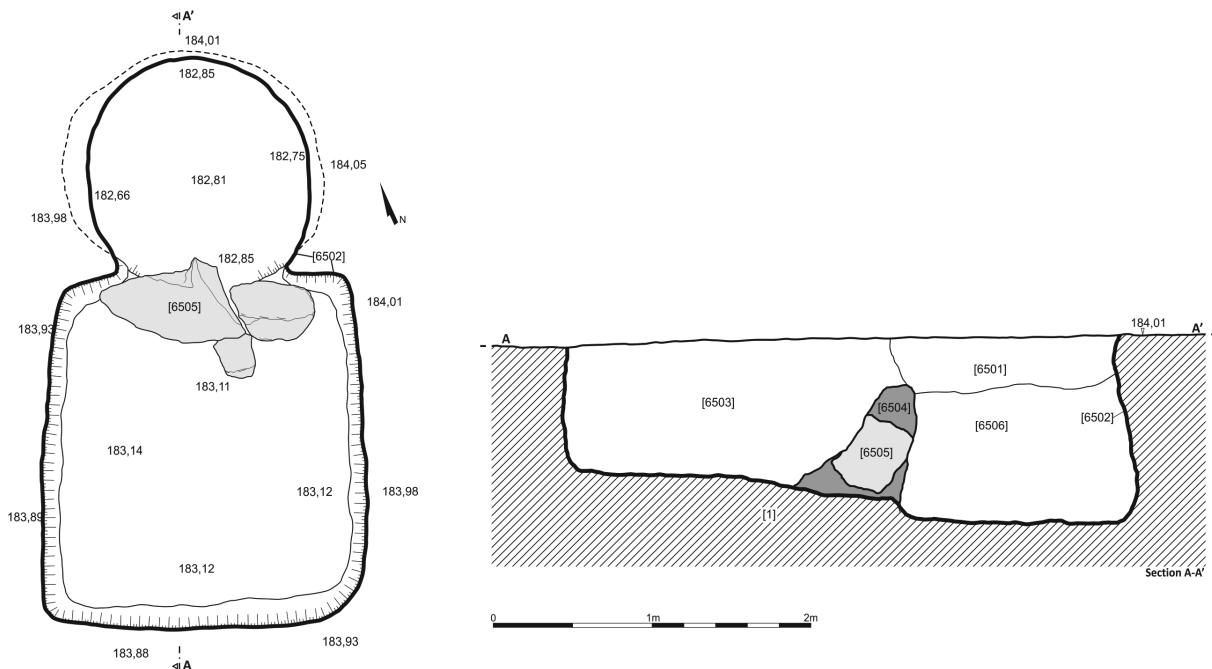


FIG. 5. Plant and section of hypogeaum 65, type A.

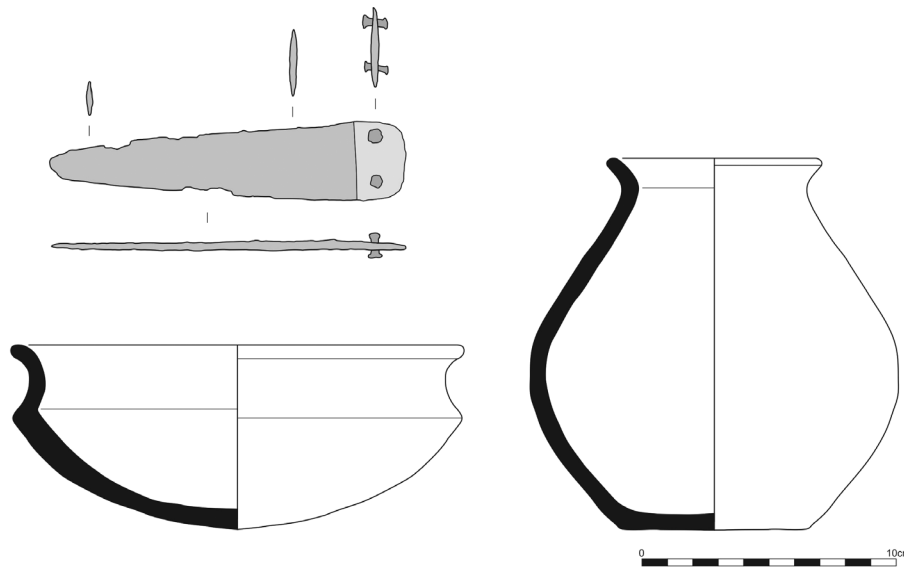


FIG. 6. *Funerary offerings associated with the hypogeum 65 burial.*

within the funerary chamber, in fetal position and with grave goods that could include two or three ceramic vessels –Ataláia and Santa Vitória type sharp inflexion vases, vases with S profile and flat bottom, strangled neck bowls, and others–, one or two metal objects –dagger with rivets, knives with rivets and awls– and mammal bones (Fig. 6). Most individuals are found with their back towards the entrance with the grave good placed close to their inferior members. Regarding hypogea 52, a destruction of the chamber in prior works on the terrain did not allow us to record the number of burial, their positions, or the accurate presence of grave goods.

There was no osteological evidence to be found in any of the antechambers, with the exception of hypogea 52, where a burial without grave goods in top half of the fill, and a ossuary with three ceramic vessels and mammal bones at the bottom of the fill, could be found.

The passage from the antechamber to the funerary chamber was sealed with big slabs of shale, marble, or quartz stone, and these were covered with a heterogeneous clay that is quite fatty, with the probable intention of sealing the entrance. The analysis done on the clay used to cover the slabs in Herdade do Montinho (Vale de Vargo, Serpa), revealed elements of pig fat

(Ribeiro and Soares, 1991). Curiously, when the clay that covered the slabs in hypogea 62 was exposed, there was a strange permeating smell similar to that of bovine manure.

Hypogea 55 and 57 revealed also the presence of a circular pit excavated in the base of the antechamber, close to the entrance of the funerary chamber, and aligned with the entrance. These pits are filled with a deposit which is clearly distinct than the regular fill of the antechamber, which covers

this deposit, and which was already stamped at the time when the stone slabs were placed to cover the funerary entrance.

The stratigraphic record also shows that the funerary chamber were initially subterranean, excavated in the bedrock, as can be seen by the thick and sterile deposit of chalk that covers the burial, and also the interior of the ceramic vessels, due to the collapse of the ceiling. The collapse of the ceilings, whether it was still during the Bronze Age or whether in later times is difficult to discern, since there is very little evidence to be found on top of the chalk that caused the aforementioned collapse. This small amount of evidence comprises some chipping of quartz or quartzite and some small wall sherds of manual pottery, and these cannot provide conclusive inferences regarding typology or chronology, although they can possibly be considered Bronze Age artifacts.

It is also possible to discern that the antechamber must have been intentionally backfilled shortly after its use. The backfill is composed of only one deposit, which indicates, with regards to the size of these structures, a fast and intentional stamping of this deposit –that occurred as a single man-made event–. Regarding hypogea 52, the backfill did not fill the totality of the antechamber, since there is

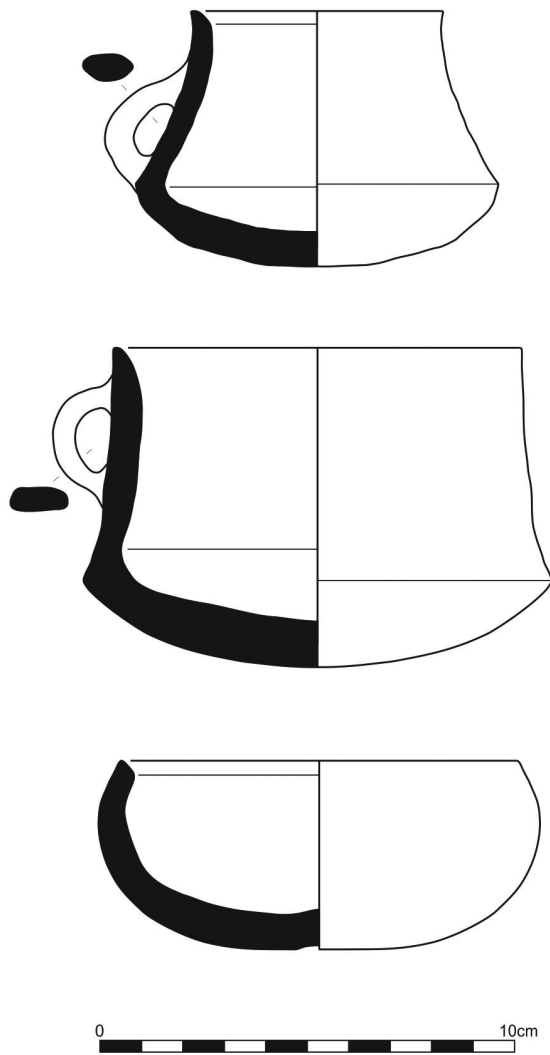


FIG. 7. *Funerary offerings associated with the ossuary located at the antechamber of hypogeum 52.*

the presence of another deposit, a shallow deposit that covered a burial at the top of the antechamber (Fig. 7). This backfill which is sterile in most cases, is very similar to the bedrock, and usually hard to differentiate from the negative structure, probably corresponds to the sediment that was removed when the antechamber was originally dug.

In the same line of reasoning, the absence of a layer at the base that is clearly distinct from the backfill, that would have been formed through natural sedimentation, sediment that was dragged by wind or water, or even through the collapse of

the walls of the antechamber reinforces the idea that the time between the original digging up of the antechamber and its backfill would have been a very short period.

Regarding the orientation of these types of hypogea there seems to be two distinct practices –albeit with small variations–: a NW-SE orientation with the funerary chamber to the SE and SW-NE with the funerary chamber towards the NE. There is also the case of hypogea 52 which is orientated W-E, with the funerary chamber pointing to W.

Worthy of note is the apparent relationship between the NW-SE orientation –hypogea 55 and 57– and the presence of circular pits at the base of the antechambers, pits that are not found in the hypogea that have a SW-NE and E-W orientation, in other words, the hypogea that have the funerary chamber facing SE are the only examples that have a pit in the antechamber. Though, this could prove to be merely coincidental since the sample of hypogea from Outeiro Alto 2 is too small to allow for interpretations based on patterns, besides, the site of Montinhos 6, pits within antechambers were also identified and these had different orientations than the ones proposed earlier (Baptista *et al.*, 2010).

## 2.2. Type B structures

Regarding the second type of structures, the type B hypogea, these are also negative structures dug into the bedrock, of ovaloid plan, walls that tend to be slightly declined and mostly irregular, with concave funerary chambers that have irregular and slightly declined bases. The interior of the structure, the chamber and antechamber, is separated with large vertical slabs and stones, and the use of some fatty clay. With the exception of structure 64, ossuaries are found within all the structures of this type, and in structure (Fig. 8) there are grave goods accompanying the ossuary, and in structure 63 there is a sharp inflection vase, and a bronze or copper awl covering the ossuaries.

In the funerary chambers, along with the last burial which is generally in fetal position and accompanied by grave goods (Fig. 9), there is always the presence of ossuaries, which makes

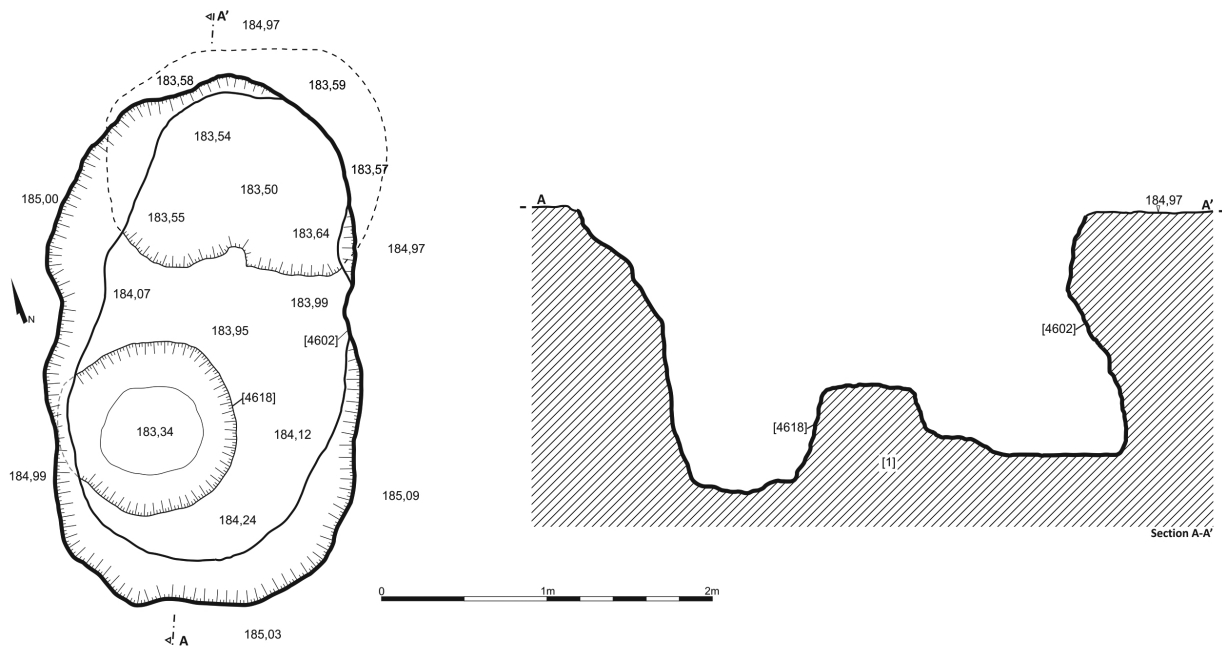


FIG. 8. *Plant and section of hypogeum 46, type B.*

these funerary structures of collective use. Taking the stratigraphy into account, and similar to what happened to the type A hypogea, the funerary chambers of these structures were subterranean. In all cases there is the presence of a thick and sterile deposit of chalk –bedrock– over the osteological evidence within the chambers, which we interpret as the collapse of the ceiling –in the same fashion and with the same issues as the type A hypogea–.

With regards to structure 46 and 64, we also identified the presence of circular pits in the antechambers (Fig. 10), just like hypogea 55 and 57, although, in these cases, the pits were not aligned with the entrance to the funerary chamber.

We identified a total of three structures of this type –hypogea 46, 63, and 64–, whereby structures 63 and 64 were partially destroyed by construction work associated with this enterprise. Taking into consideration the orientation of these structures, hypogea 63 is orientated NE-SW, with the chamber facing SW, hypogea 46 is orientated SW-NE with the chamber NE, and hypogea 64 E-W, with the chamber facing W, which leads us to believe that there is no intentional patterning associated to these structures.

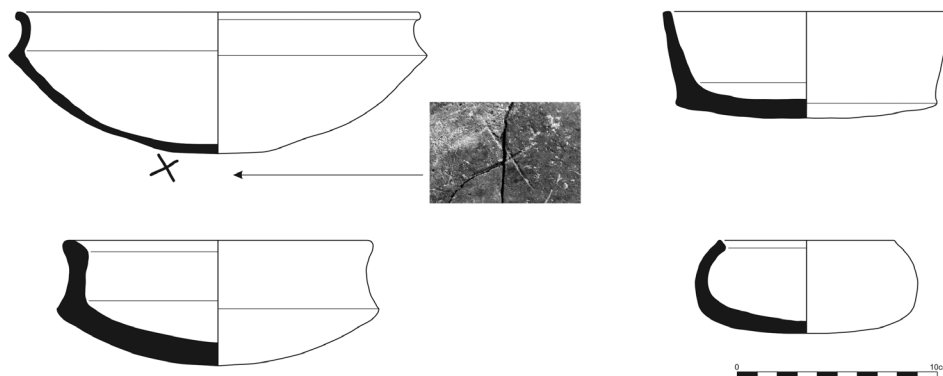


FIG. 9. *Funerary offerings located in the funerary chamber of hypogeum 46, associated to the last burial and to the ossuary.*



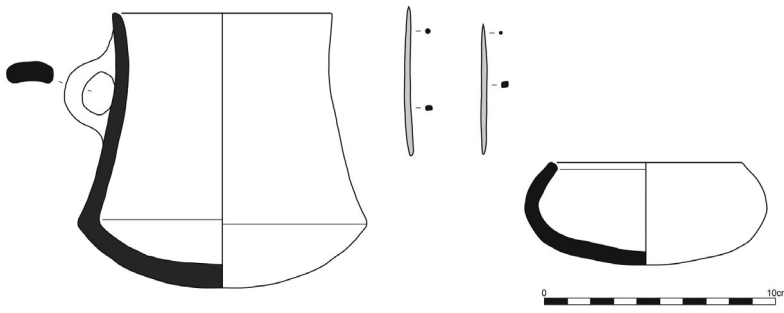


FIG. 10. *Funerary offerings associated with the unarticulated bones located at the antechamber of hypogeum 46.*

### 2.3. Type C structures

Only one case of these structures was identified, hypogea 54 (Fig. 11), which is comprised of a circular pit that has access to a small subterranean and oval shaped chamber dug into the SE extremity of the pit. The small niche, of which the ceiling did not collapse –unlike the other structures–, was sealed with vertical slabs and inside contained the osteological remains of a young individual, and the grave goods comprised only a bronze or copper awl. Although on a much smaller scale, and with a different plan, the

construction scheme of this structure is similar to what can be seen in the other hypogea.

### 2.4. Type D structures

Regarding type D structures, there is only one structure of this type, Pit 1, located in nucleus D. It is a pit that is dug through a layer of clays and the bedrock, of circular plan, concave walls, and a flat base (Fig. 12). It is 92 cm in depth and it cuts an older pit [107]. Only one individual was identified in this pit, with the inferior and superior members flexed and with associated grave goods: an Atalaia type sharp inflection vase, a small tronco-conical cup with attached handles, and a meat offering.

This is very possibly a case of re-usage of a negative structure since the individual was not placed directly on the base of the structure –like in all the other hypogea of Outeiro Alto 2–, but over a deposit that was formed previously (Fig. 13). Also noteworthy is the fact that there are other structures of similar shape, dimensions, and

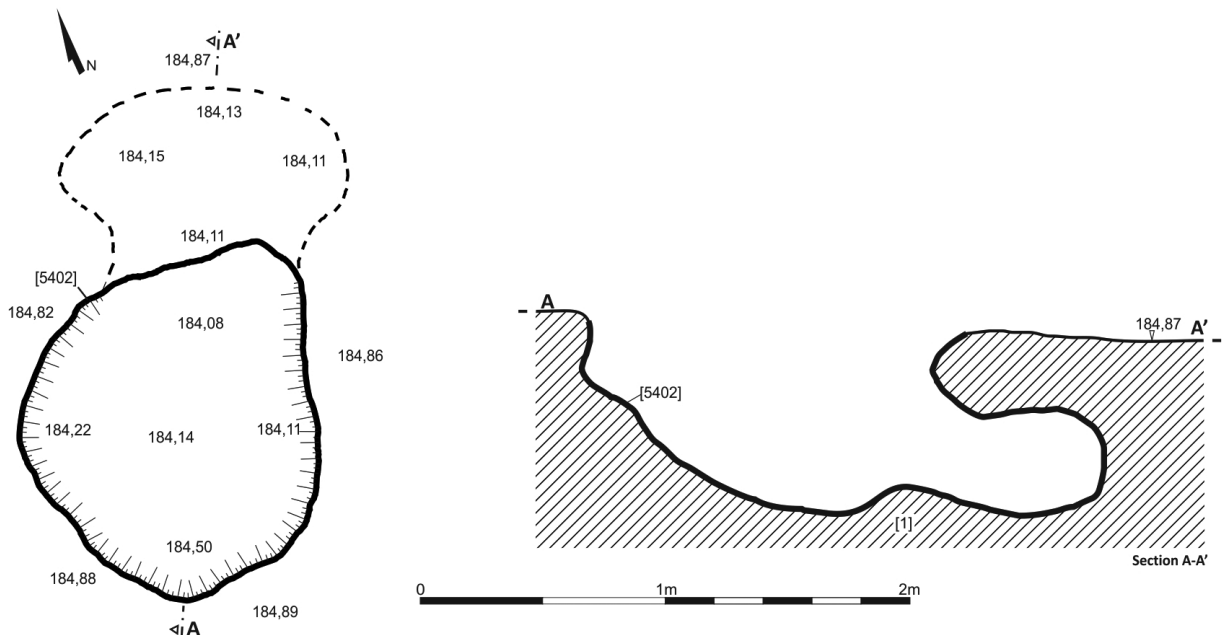
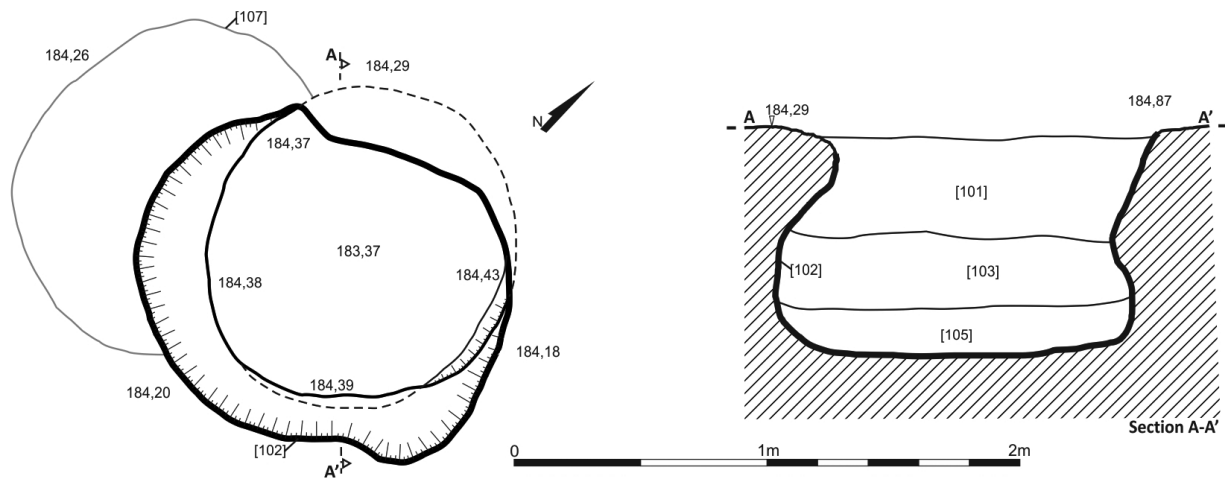
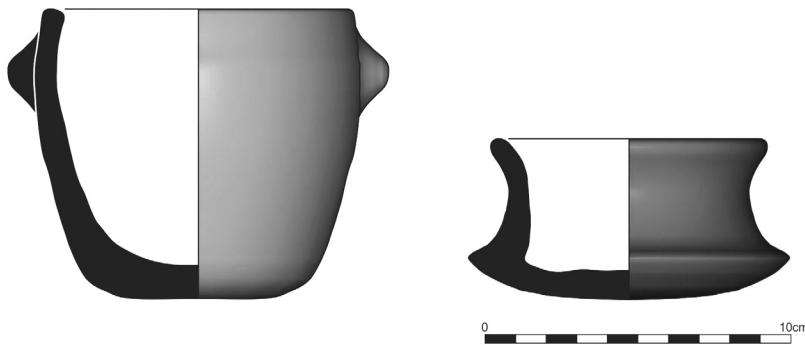


FIG. 11. *Plant and section of hypogeum 54, type C.*

FIG. 12. *Plant and section of pit 1, type D.*FIG. 13. *Funerary offerings from pit 1.*

chronology, in the immediate areas, but that do not contain any burials or ossuaries.

### 3. The anthropological data

The archaeological excavation at Outeiro Alto 2 provided data on 12 funerary structures that chronologically can be ascribed to the Bronze Age period. These were divided into four types –A, B, C and D– and were described previously in the present article. The effort now is to provide information concerning these structures, the burial, and the ossuaries, with regards to funerary practices and paleobiological data.

An analysis of the funerary characteristics is vital to our understanding of past cultural practices,

since it provides us with glimpses of funerary rituals, reflections of past ritual practices (Fogelin, 2007), and indicators of how the living behaved with regards to the dead (Crubézy, 2000).

It is important to point out how multiple taphonomical aspects affect the state of preservation of the osteological remains which limits its analysis (Stodder, 2008). Given the bad preservation of the sample, our analysis of the osteological evidence has limited us regarding our paleobiological and our funerary inferences. This is the reason why most our inferences are accompanied by interrogation point and/or claims that have been reduced to mere possibilities. It is also worth noting that the data that is here presented is based on an analysis that was performed onsite, whereby a future laboratory analysis of the exhumed burial and ossuaries will enrich and complement the study presented here. Given the present circumstances, an analysis of the osteological evidence and the deposits it was inserted in, is essential to the understanding of the archaeological contexts, and it can also provide potential information that could alter our current hypothesis.

The data will be presented synthetically by type of structure with the intent of emphasizing

their characteristics and providing comparisons that highlight the differences within the structures. A thorough description of the funerary and biological data can be found in the corresponding archaeological report. The paleobiological data presented here reports solely to individual that were found in anatomical connection.

### 3.1. The results

#### 3.1.1. Type A

Seven structures were classified as type A at Outeiro Alto 2. From these, structure 57 contained two individuals in the funerary chamber. One was in perfect anatomical order (in the center of the chamber). The other was located next to the limit of the chamber opposing the entrance and showed possible evidences of “reduction”<sup>4</sup> (Fig. 14A). Structure 52 contained one individual in anatomical order and one ossuary in the antechamber. The remaining structures contained one individual in anatomical order in the respective chambers. Thus, we exhumed one burial per hypogea in 5/7 (71.4%) of the funerary monuments. In these structures all the individuals were found in anatomical order, with a complete absence of ossuaries and/or deposits with unarticulated bones.

The orientation of these burials regarding the monuments is quite heterogenous, varying between: SW-NE (2/8 = 25%), SE-NW (2/8 = 25%), S-N (1/8 = 12.5%), W-E (1/8 = 12.5%), E-W (1/8 = 12.5%), NW-SE (1/8 = 12.5%). The orientation of the burial in regards to the funerary monument, when applicable, shows less variability, with 6/7 (85.7%) of the individuals with their back towards the entrance of the chamber and only 1/7 (14.3%) with their front almost facing the entrance. The position in which the bodies are found vary between prone lateral right position (5/8 62.5%) and prone lateral left (3/8 = 37.5%). The superior members and inferior members are found flexed or semi-flexed. The individuals are almost always found (7/8 = 87.5%) with grave goods (Fig. 14).

<sup>4</sup> For details see Filipe, V. and Godinho, R. (2010): *Relatório final dos Trabalhos Arqueológicos. Outeiro Alto 2 – Fase 2 – Núcleo C.* Report for ERA-Arqueologia.



FIG. 14. A. Individuals buried in hypogea 57, with funerary offerings; black arrows indicate the meat offerings; B. Burial identified in hypogea 5 and funerary offerings: sharp inflexion vase, bronze or copper awl and meat offering.

As can be seen in Fig. 18, regarding the estimates on age of death, we verified there are five adults, three possible adults, and no infants. The sexual diagnosis allowed to confirm the presence of 1 man, 2 women, and 5 were not determined (Fig. 19).

#### 3.1.2. Type B

Three structures of these type were excavated, and in these structures, there were one or two ossuaries and/or deposits with unarticulated bones. Besides these, all three structures also contained a burial in anatomical order. The preliminary assessment of minimum number of



individuals of ossuaries/deposits varied between 1 and 5.

The cardinal orientation of individuals in anatomical order varies between: NW-SE (1/3 = 33.3%); NE-SW (1/3 = 33.3%); N-S (1/3 = 33.3%). However, the position of the bodies relative to the funerary chamber is more homogeneous with all individuals with their back facing the entrance (3/3 = 100%). The position of the bodies varied between: prone lateral right (1/3 = 33.3%); prone ventral (1/3 = 33.3%); and prone dorsal (1/3 = 33.3%). It is within the realm of possibility that the individuals in prone ventral and prone dorsal were originally in a prone lateral position, and due to post-depositional processes, the bodies rotated. The superior members were flexed or extended. The inferior members were invariably flexed. All burials contained associated grave goods.



FIG. 15. *Individual and ossuary exhumed in hypogeum 63 and funerary offerings.*

The analysis of the estimate age of death shows us that there were two adults, and one individual of indeterminate age (Fig. 15). Of the three burials, two are women and the other was undetermined.

### 3.1.3. Type C

Only one structure of these category was excavated, and this structure contained one individual in anatomical order (Fig. 16). A small group of bones was found close to the cranium of the individual that did not belong to the burial in question, with a minimum number of individuals of one.



FIG. 16. *Hypogeum 54 burial.*

The body was found in the prone lateral left position, with a NE-SW position, with the superior and inferior members complete flexed. This burial was also associated to grave goods.

In terms of paleobiology, the individual is a non-adult that was between 8-10 years of age at the time of death. The gender is undetermined.

### 3.1.4. Type D

There is only one structure that belongs in this category (Fig. 17). The orientation of the individual was E-W, with the torso over the back, with the superior and inferior members flexed to the left. It presented grave goods. In terms of paleobiology, the individual is an adult male.



FIG. 17. Individual exhumed in pit 1 and funerary offerings, including meat offering in anatomical connection.

### 3.2. Some remarks on the anthropological data

The sample comprises a total of 12 funerary structures (type A: 7; type B: 3; type C: 1; type D: 1), 13 individuals in anatomical order, 5 ossuaries, and a small deposit of bones. This sample does

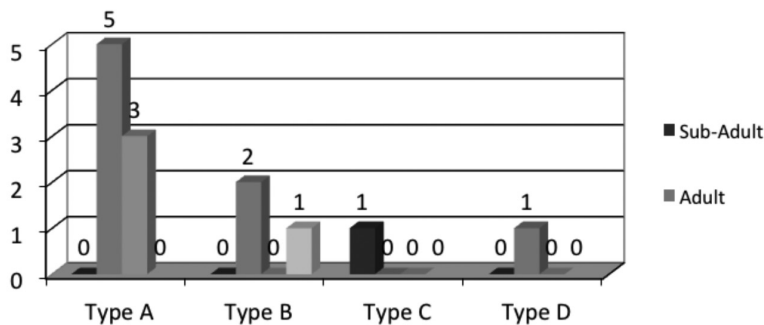


FIG. 18. Graphic representation of age-at-death estimation of the individuals from the Bronze Age necropolis of Outeiro Alto 2.

not represent statistical relevance and thus, an accurate a bio-archaeological analysis of this sample is not possible. In order to pursue this aim, we would need a statistically representative sample of the universe of all funerary structures, in which the ones presented here are included, but this requisite has not been provided.

The analysis and discussions around the Outeiro Alto 2 cemetery is limited in this regard. Adding to this is the fact that the finds have yet to be studied in a controlled setting, including, of course, the ossuaries. This data could, possibly, complement the data that is presented in this paper. However, we did not allow this to be a deterrent, and given our current evidence we will provide some working hypotheses to the best of our ability, with the awareness that our data is compared and complemented by data obtained from other archaeological sites.

In funerary terms, it is important to highlight that the type A structures mostly present only one individual (5/7 = 71.4%), invariably in anatomical order (Fig. 18). These structures seem to be in most cases of individual use, without reutilization. The orientation of the burials, as previously stated, is extremely variable, without a fixed tendency with regards to the cardinal orientation. The analysis of the relationship of the orientation of individual and the funerary structure, when applicable, shows a much more fixed pattern with 6/7 of the individuals with their backs facing the entrance, and only one individual with their front facing the entrance.

In these structures we recorded the presence of adults (n = 5) and possible adults (n = 3), highlighting the complete absence of non-adult individuals. Sexual diagnosis (Fig. 19) was made very difficult due to the very bad preservation of the bones, with an accurate diagnosis on only 3/8 (37.5%) of the individuals. From these three bodies, two were women and 1 was a man.

The type B structures present invariably individuals in anatomical order and ossuaries, revealing the deposition of multiple individuals. The cardinal orientation is,



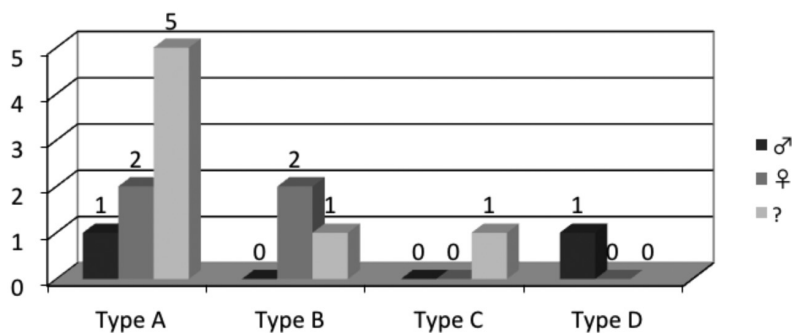


FIG. 19. Sex diagnosis of the individuals from Outeiro Alto 2 necropolis.

once again, heterogenous. The position of the body with regards to the structure follows the same pattern as type A structures with all the individuals with their back facing the entrance of the chamber (3/3).

Paleobiologically, of the individuals in anatomical order, there seems to be no non-adults, with two confirmed adults and one individual whose age of death was not possible to discern. The lack of good preservation of the bones only allowed the sexual diagnostic of 1/3 of the individuals, and this diagnosis revealed that the individual was female.

The sample from the type C structures is very small as it comprises one structure with one individual in anatomical order and a small set of bones with a minimum number of individuals of one. The individual in anatomical order is a non-adult of undetermined gender, which was found with the back towards the entrance.

The type D structure contained only one individual, of the male gender, with all of the member in a flexed position, possibly in the prone dorsal position, with a E-W orientation, and with associated grave goods.

To conclude we would like to highlight (Fig. 20):

- The orientation of the individuals regarding the structure seems to be more important than the cardinal orientation of the bodies, with their backs facing the entrance in 10 out of 11 (90.90%), and only 1 out of 11 (9.10%) with the front facing the entrance.
- The preferential position of the bodies is prone lateral with the member flexed (fetal position), while some of the other positions could be the result of post-depositional rotation of the bodies.
- The absence of non-adults in type A, B, and D structures, and the presence of only one non-adult in the type C structure.
- The individuals have, in most cases, associated grave goods.

Number of structure	Type of structure	Structure orientation	Antechamber							Funerary chamber							Sex diagnosis (Individuals)	Age-at-death (Individuals)	
			Number of individuals	Ossuaries	Deposits with unarticulated bones	Ceramic vessels	Awl	Meat offering	Circular pit in the base	Number of individuals	Ossuaries	"Reductions"	Ceramic vessels	Awl	Dagger with rivets	Knife with rivets			Meat offering
46	Type B	N-S (NNE-SSW)	0	0	2	2	2	0	1	1	1	0	4	0	0	0	0	♀ Fem.	≥ 25
52	Type B	W-E	1	1	0	3	0	1	0									Undet.	Adult?
54	Type C	SE-NW	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	Undet.	8-10
55	Type A	SE-NW	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	Undet.	Adult
57	Type A	SE-NW	0	0	0	0	0	0	1	1	0	1	3	1	0	0	2	Undet.	Adult
62	Type A	NE-SW	0	0	0	0	0	0	0	1	0	0	3	0	1	0	1	♂ Male	Adult
63	Type B	SW-NE	0	1	1	1	0	0	0	1	1	0	4	1	0	0	0	♀ Fem.	≥ 25
64	Type B	SW-NE	0	0	0	0	0	0	1	1	1	0	3	2	0	0	0	Undet.	Indet.
65	Type A	NE-SW	0	0	0	0	0	0	0	1	0	0	2	0	1	0	1	Undet.	Adult?
68	Type A	NE-SW								1	0	0	2	1	0	1	1	♀ Fem.	≥ 25
5	Type A	NE-SW	0	0	0	0	0	0	0	1	0	0	1	1	0	0	1	♀ Fem.	Adult
Circular pit																			
1	Type D	/	/	/	/	/	/	/	/	1	0	0	2	0	0	0	1	♂ Male	Adult

FIG. 20. Generic data of the funerary structures excavated in Outeiro Alto 2.

#### 4. Discussion

During these last years there has been considerable work accomplished on the archaeological front in the region of the Baixo Alentejo, specially under the aegis of the environmental impact assessments that have been promoted by the Empreendimento de Fins Múltiplos do Alqueva (EDIA). The collected results that have been obtained from these projects, with particular emphasis on recent Prehistory, will take several years to be studied and published, first, due to the high volume of data that these projects produced, and second, due to the fact that the molds in which contract archaeology in Portugal follows does not (usually) foresee, in the contracts with the promoting entities, the research and the publication of the results of those projects. However, the broadening of the knowledge provided by this new data represents, in light of current research, what we can now possibly conceive as a new empirical revolution and a “New [recent] prehistory of Southern Portugal”<sup>5</sup>.

The Bronze Age on the left bank of the Guadiana revealed to us, up to this point, a certain diversity of funerary and ritual practices, evinced in the different types of structures and the different types and quantities of grave goods, as can be seen in cist burials, with or without tumulus –like in the cases of the Bugalhos cemetery in Serpa (Soares, 2000), Talho do Chaparrinho in Vila Verde de Ficalho (Soares, 1994), Carapinhais in Sobral de Adiça (Soares *et al.*, 2007), Herdade do Montinho in Vale de Vargo (Ribeiro and Soares, 1991), Carapetal in Aldeia Nova de São Bento (Soares, 1976-1977), Santa Justa and Barranco do Salto in Serpa (Soares, 1994); or the re-usage of megalithic monuments –like in the case of Monte da Velha 1 in Vila Verde de Ficalho (Soares 2008)–; or through another type of tomb, Belmeque being the only known case, until now considered as an

<sup>5</sup> Valera, A. C.; Godinho, R.; Calvo, E.; Berraquero, J. M.; Filipe, V. and Santos, H.: “Um mundo em negativo: fossos, fossas e hipogeus entre o Neolítico Final e a Idade do Bronze na margem esquerda do Guadiana (Brinches, Serpa)”. In *Actas do 4º Colóquio de Arqueologia do Alqueva. O Plano de Rega (2002-2010)*. Beja: EDIA, in press.

exogenous manifestation of the Southwest Bronze, with parallels in the Culture of El Argar (Schubart 1974, 1975; Soares, 1994). Also known were cases of burials within circular pits –identified at Casarão da Mesquita 3, Monte da Cabida 3 (where cist burials were also present) and Horta do Albardão in São Manços, Évora– all reflections of Southwest Bronze practices, and where there was a complete absence of grave goods (Santos *et al.*, 2008, 2009; Soares *et al.*, 2009).

The same practices were identified in the site of Torre Velha 3 where seven pits contained individual burials without grave goods, with the exception of a pit that contained two individuals hugging and a small set of grave goods (Alves *et al.*, 2010). In this regard, the case of pit 1 from nucleus D in Outeiro Alto 2 seems like an exception since it contains an individual interred along with an Atalaia type sharp inflection vase, a small tronco-conical cup with attached handles, and a meat offering. This type of offerings do not differ from the ones found in the type A hypogea of Outeiro Alto 2, with the exception of metallic artifacts, which on occasion weren't present in the type A hypogea either. If what we are seeing here is the synchronicity of two different types of funerary structure, this could be interpreted as evidence of social differentiation.

Regarding burials within pits, besides pit 1 from nucleus D, another four pits from nucleus B were found to contain individual burials and that did not contain any grave goods –pits 48, 50, 53, and 56–, which can possibly be ascribed to belonging to the Bronze Age. However, only radiocarbon dating could provide an exact chronological ascription since there is a complete absence of any characteristic artifacts associated to these burials, and we also have to take into account the fact that Outeiro Alto 2 also has Late Neolithic and Copper Age occupation.

The biggest novelty in the funerary world of SW Bronze in the Serpa municipality is, without doubt, the identification of several hypogea cemeteries which follow the same ritual practices and, in a large measure, situated on sites with identical topographical conditions. The initial interpretation of the endogenous characteristics associated to burial of Belmeque was, at the time,

affected by the geographical constraints of the research, but at this point, it is safe to claim that Belmeque along with the hypogea sites identified so far, are part of a cultural reality and identity that is characteristic to this region, albeit with some influences from the Argaric world.

Besides Outeiro Alto 2 where 11 hypogea were excavated, there are also the sites of Torre Velha 3 where 25 hypogea were excavated (Alves *et al.*, 2010), Montinhos 6 where 14 hypogea were excavated (Baptista *et al.*, 2012), Horta do Folgão where 3 structures of this type were excavated (T. Ricou, personal information) and Ourém 7 where 1 hypogea was found<sup>6</sup>, archaeological sites that are all in the Municipality of Serpa. We have yet to identify this type of structure outside this region although the tomb of Vejer de la Frontera in Cadiz (Nieto, 1959), seems to follow the same construction as the type A hypogea.

Although there are some differences in the construction type, “niches” 1 and 2 documented in the tumulus of the Las Conteras tholos in Alcalá de Guadaíra, Seville (Hurtado and Amores, 1984) share some similarities with the type B hypogea. Regarding the type B hypogea one can also establish parallels with the three hypogea of Huerta de San Francisco in Seville (Alonso de la Sierra and Hoz, 1985) and tomb T.1 from Plazuela de Santiago in Carmona (Belén *et al.*, 2000).

In the Argaric world, it is already known the parallels between the Belmeque tomb and tomb 95 from Fuente Álamo (Schubart *et al.*, 1989; Soares, 1994), although other tombs from this site could have been referred –54, 58, 70...–.

We can observe 3 distinct variants, types A, B, and C, in the hypogea that were dug at Outeiro Alto 2, with type A (7) and B (3) being the most representative. Between these two types, besides the differences in construction scheme (Fig. 21), there are also some differences regarding how these hypogea were utilized. The fact that all the type A hypogea were used for individual burial,

<sup>6</sup> Cf. bibliographic reference in n. 2; in addition cf. Filipe, V. and Godinho, R.: “Intervenção Arqueológica nos sítios Ourém 7 e 8, Brinches, Serpa”, poster presented in *IV Colóquio de Arqueologia do Alqueva. O Plano de Rega (2002-2010)*, 24 a 26 de Fevereiro de 2010.

with the exception for one, while the type B shows that the funerary chamber was always re-utilized for the inclusion of more individual burials or ossuaries, is the main glaring evidence. Besides this difference, in type B hypogea there is a stratification in the fills of the antechamber and the presence of ossuaries and grave goods in different strata –which indicates that the backfill of these antechambers was slow and gradual since this space was also used as funerary space–, with the exception of hypogea 64, while type A hypogea’s antechambers contain only one backfill and complete absence of burials and grave goods –except for the previously mentioned hypogea 52–. Let us not forget that in hypogea 52 only the antechamber was preserved and in this antechamber there was a ossuary with grave goods at the base, including a meat offering, and, in the upper levels of the fill, a burial without any grave goods. Part of the bones in this ossuary were placed at the base of the antechamber leaning against the slabs that covered the funerary chamber, and these bones were partially covered by the same clay which was used to cover the slabs and seal the funerary chamber, which indicates that the ossuary was placed at the same time that the chamber was sealed.

Hypogea 52, although included in the type A hypogea, differs significantly from this type of hypogea, with the exception of its squared shaped antechamber, and the fact that only the antechamber was preserved. This has lead us to believe this hypogea is a different type of structure, possibly a type B, or even a different type altogether.

The existence of two individuals in the funerary chamber of hypogea 57, deposited in distinct phases, raises several questions. Individual burials were documented in all the type A hypogea from Outeiro Alto 2, just as in most of the hypogea that were dug in Torre Velha 3 –in 20 individual inhumations in the funerary chambers of the hypogea, only in 5 were reductions documented, and 1 double inhumation (Alves *et al.*, 2010: 138). The inferences caused by these deviances in Outeiro Alto 2 and in Torre Velha 3 can allow us a better understanding of the funerary rituals associated to these hypogea, rather than cause confusion about them.

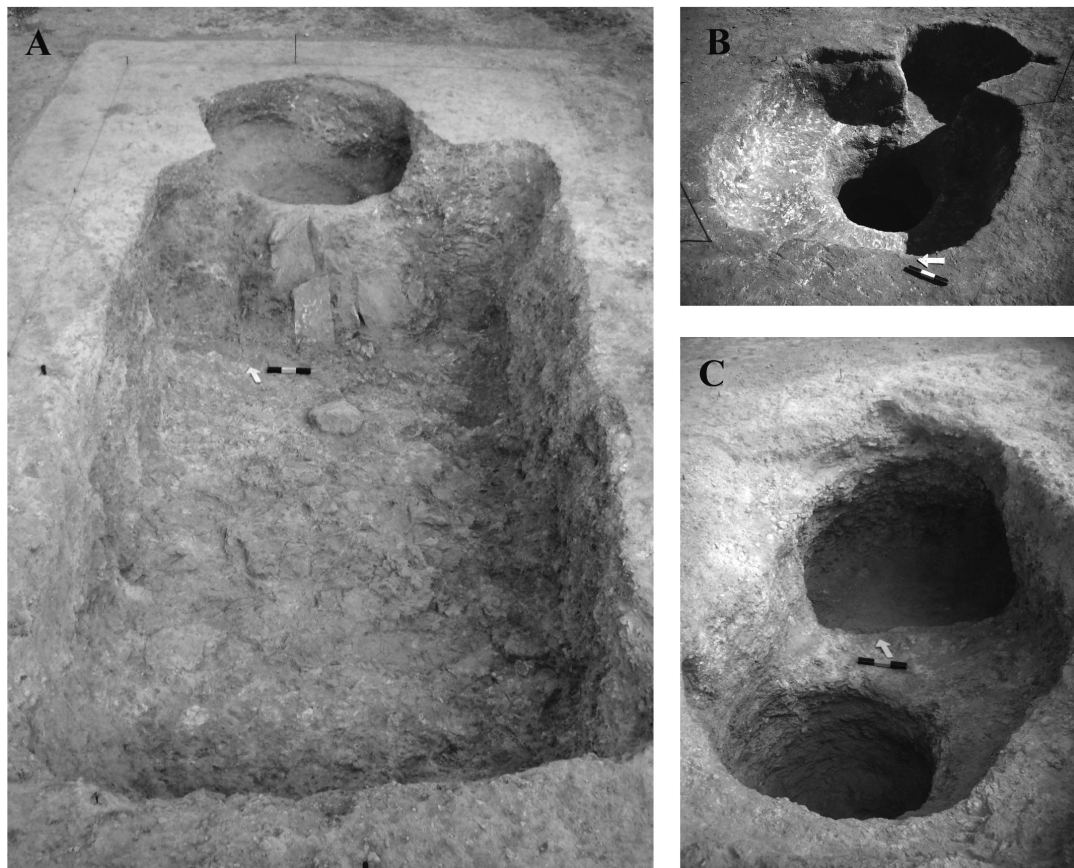


FIG. 21. A. Hypogeum 62 still with the vertical slabs binded with smooth clay sealing the entrance to the funerary chamber. B. Final plan of hypogeum 55, type A. C. Final plan of hypogeum 46, type B.

The construction scheme of this type of structure, meaning, the sequence of behaviors associated to these burials, can be better understood if we assume that the deposition of the second individual was not premeditated during the construction of the hypogea/deposition of the first individual. Although this is only a working hypothesis, which allows for other hypothesis, it is safe to assume that these structures were meant to be for individual use, especially if we take into account the fact that the individual [5710] was very degraded during its reduction which should mean there was a time interval between the deposition of the two individuals in hypogea 57.

In the remaining type A hypogea we can succinctly reconstruct the sequence of events, based on the stratigraphic information, as the following:

excavation of the structure in the bedrock following a preordained construction scheme and norms; deposit of the individual and the grave goods; funerary ritual that included a feast with meat consumption; closing of the funerary chamber with big vertical slabs and/or stones and the sealing of these with fatty clay; finally, backfill of the antechamber with the soil that came from the excavation (Fig. 22).

The time elapsed between each of these actions is difficult to infer, however, it is safe to assume that once the individual and corresponding grave goods were inserted in the funerary chamber, the remaining actions must not have taken too long to occur.

Regarding this issue, the stratigraphic data documented during the excavation of hypogea 57



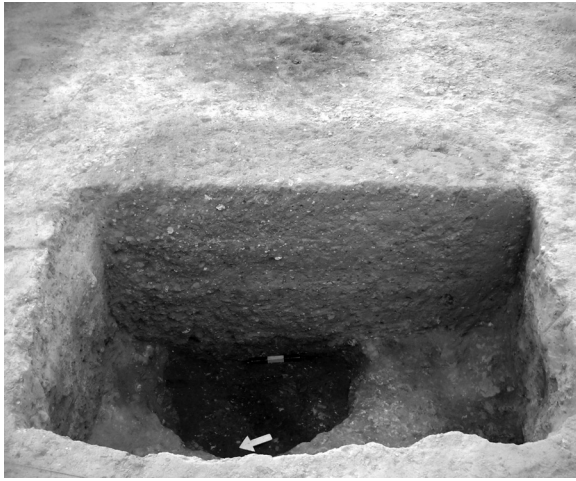


FIG. 22. *Hypogeum 57 during the antechamber excavation; note the thickness of the only deposit that fills it, covering the pit situated at the base of the antechamber and the deposit that fills it.*

can provide some important information. The identification of only one deposit in the backfill of the antechamber indicates that not only was the backfill performed in only one moment, but also only once, which shows us that there was no re-utilization or re-opening of the antechamber after it was backfilled. We can deduce from this that the antechamber was open and easily accessible after the deposition of the first individual in the funerary chamber, even though the funerary chamber could have been already sealed, and it could have remained like this for a period of time, at least until the deposition of the second individual.

Therefore, we propose that the existence of a period of time between the deposition of the first individual and the backfill of the antechamber –sufficiently long to allow for the degradation of the soft tissue of the individual, but short enough that it did not allow for the formation of sediment, through natural processes, in the base of the antechamber– could have been common practice, a period of time aimed for ritual and funerary practices. In this regard, in cases where death of another person or even another family member occurred during this period, it would be natural to use the same structure for inhumation, with the repetition of the deposition of grave goods and of the ritual feasts.

Also noteworthy is the fact that the anthropological data and the stratigraphic data shows that decomposition occurred in an open space which indicates that the funerary chamber was not filled.

Regarding the pits located at the base of the antechambers of hypogea 57 and 55 –a characteristic that can be seen in hypogea of other cemeteries, especially Montinhos 6 (Baptista *et al.*, 2012)–, their functionality is of difficult inference, since it only occurred in two type A hypogea at Outeiro Alto 2 and there were no elements inside the pits that provided information about its function. Despite these misgivings, these pits are probably an integral part of the rest of the structure, since the excavation of the pit is synchronous with the construction of the hypogea. In the interior of the pits there were only some wall fragments of handmade pottery, and both pits only had one fill. The same can be generically applied to the pits that were found at the bottom of the type B hypogea 46 and 64.

Given the data that has been obtained from various hypogea cemeteries, with the exception with what was said about the orientation of the hypogea of Outeiro Alto 2, it seems safe to state that the orientation of these structures and the individuals buried in them do not follow any patterns or rules. However, the individuals seem to be placed with their backs towards the entrance most of the time.

How do we interpret the diversity of practices that are observable in these cemeteries, diversity that manifests itself in the recorded structures –pits and the different types of hypogea–, and in the way they were utilized –individual and collective use–, and in the difference of grave goods in the same type of structure? Chronological? Social? Regarding these issues, the dating of the evidence through radiocarbon is of essential importance, as it can disclose if there is a chronological significance in the use of the pits and the hypogea, and among the different types of hypogea from Outeiro Alto 2. The correct perception of the sequence of burials is fundamental for the formulation of interpretational inferences, since the dates obtained are still extremely limited –of particular interest is the verification if the type A hypogea are synchronous with the type B hypogea



and compare this data with the data of other known hypogea cemeteries—. Regarding the use of pits we know that the Horta do Albardão 3 (Santos *et al.*, 2009) and Casarão da Mesquita 3 (Santos *et al.*, 2008; Alves *et al.*, 2010) in Évora region, the radiocarbon dating of remains points towards the end of the Bronze Pleno do Sudoeste, which is the second half of the II<sup>nd</sup> millennium B.C.; while at the cemetery of Torre Velha 3 (Alves *et al.*, 2010) dating of the pits have not been done yet.

Regarding hypogea, the only radiocarbon dates available are the ones from Torre Velha 3 (Alves *et al.*, 2010) and Belmeque (Soares, 1994) which points to the use of these structures to the period between the second and the beginning of the third quarter of the II<sup>nd</sup> millennium B.C. which is also, with great probability, the same time Outeiro Alto 2 was occupied.

Assuming that some of these structures were contemporary, particularly the type A and B structures, the biggest difference regarding grave goods (Fig. 23) is the total absence of meat offerings in the type B hypogea, which can be found in all type A hypogea, with the exception of hypogea 55. In fact, of the type A hypogea, this structure was the one that presented the smallest amount of grave goods, where only a ceramic bowl was found. In the remaining hypogea of that type there seems to be a certain homogeneity in the quantities and types of goods that were included, although the hypogea 62 seems to stand out due to the quantity of offerings it contains –3 pottery vessels, a bronze or copper dagger with rivets, and a meat offering (Fig. 24)– and due to its size –the antechamber had a mean length of 5,1 m, 2,86 m in width, 1,14 m in depth, while the funerary chamber had a maximum diameter of 2 m e 1,4 m in depth–.

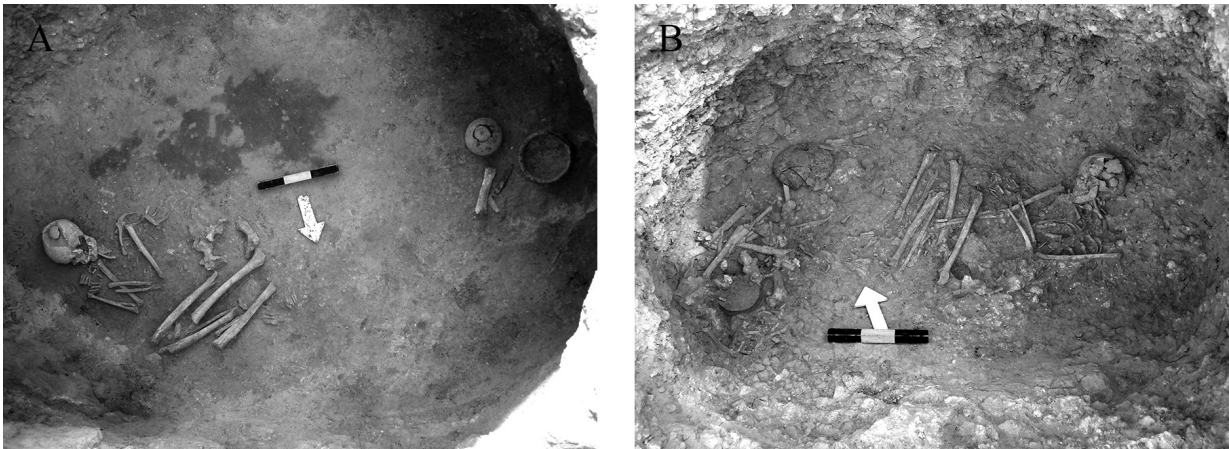


FIG 23. A. Individual exhumed in hypogeaum 68 and funerary offerings: two ceramic vessels, a copper or bronze knife with rivets, a copper or bronze awl and meat offering. B. Individual and ossuary exhumed in hypogeaum 46. Funerary offerings consist of four ceramic vessels, two of them covering the other two.

There does not seem to be any differentiation in the type and quantity of grave goods based on gender, even though the number of undetermined gender is still significant, a matter that should be resolved once the anthropological study is conducted. The two type A hypogea that contain the most diversified and larger amount of grave goods, 62 and 68, correspond respectively to burials of a male and a female.

Regarding the pottery, the most recurring vessel is the sharp inflection vase, present in almost

all the structures and in all its variants, except in type C hypogea where there is no pottery. Worthy of note is the graphite that was used on a sharp inflection vase, prior to the firing stage, from hypogea 46, something that is not usually associated to the Middle Bronze Age of the Southwest. The strangled neck vases, with a slightly inflected mouth –which can be inserted in form 3 of the Argaric pottery typology (Schubart, 2004)– and the sharp inflection vessels with a small striped handle, Vicente Lull's form 5 (1983) and



FIG. 24. *Funerary offerings exhumed in hypogeum 62; there was also a meat offering with anatomical connection.*

Schubart's form 5b (2004), seem to be exclusive to type B structures, with the exception of the aforementioned hypogea 52. On the other hand, vessels with an S profile or with a strangled neck occur only in type A hypogea, just as pots with flaring mouths, small vessels with lower inflection and handle, the copper or bronze daggers and knives. Awls occur in type A, B and C hypogea.

Generically, the metal artifacts and pottery from Outeiro Alto 2 can be associated to what is already known about the Southwest Bronze, with parallels to the Atalaia cemetery (Schubart, 1965), the cist cemeteries of the Serpa municipality (Soares, 1994, 2000), and the cemeteries from the Sines area (Silva and Soares, 1981, 2009), among other sites.

Considering the hypothetical contemporaneity between type A and B structures and based on the observable differences in several aspects between these two, one can propose the existence of social differentiation between the people from one type of hypogea and another. However, until these finds are dated through radiocarbon, we cannot reject that these differences as merely chronological.

Although this flood of new data on the Southwest Bronze has changed our perception of

the occupational density of this territory<sup>7</sup>, the knowledge we have obtained about these societies continues to be mainly based on the data obtained from the cemeteries. Regarding Outeiro Alto 2, not only do we not have any record of settlements in the proximities, there are also no concrete elements that we can associate to the existence of domestic structures from that period –for example, we are referring to post holes, fireplaces, “cabin clay”, or any other positive structures. The fills of the deposits of the several negative structures ascribed to the Bronze Age are characteristically absent in finds, with some exceptions where very fragmented sherds of pottery were found. However, in nucleus D, in the NE extremity

of the site, aligned with a platform where no archaeological work was done, the reality differs significantly. In the fills of pits 1 and 2, the first of which has been already mentioned since it was reused as a funerary structure –several sherds of pottery were exhumed, pottery that had forms that differ from the ones identified as grave goods in the hypogea –pottery–. These sherds also denote a finishing treatment that is less careful than the ones found in the funerary spaces, and that also contains more impurities and coarser and more quantity of inclusions. There were also some granitic quern stones.

Thus, we consider that these elements could represent evidence of a settlement in the immediate area associated to the Outeiro Alto 2 cemetery, possibly, in the N/NE platform of the mound. A geophysical survey of the terrain could, eventually, disclose more information.

The site of Ourém 7 in Brinches, Serpa, excavated by the first author of this paper, has revealed some elements that indicate the location or the relative proximity of a Bronze Age settlement

<sup>7</sup> Cf. n. 2.



that could have been associated to the hypogea cemetery that was identified here. In Ourém 7, within a pit, there were traces of carbonized cereal grains, cabin clay, mammal bones, traces of charcoal, fragment of grinding stones, cooked nodules of clay, large storage vessels, strangled neck bowls and a possible ceramic base (Fig. 25). Close to this pit there was also a negative structure to which functionality has not been ascribed, although it can be associated to a settlement. It is a ditch that had an average width of 20 to 30 cm, it was dug to 1,30 m in depth and it went deeper, and it extended to beyond the excavation area, which measured 3 m in length. The characteristics of this ditch seem to

point, with some doubts, that it could be used to install a palisade. However, the fill is comprised of only one deposit, without any evidence of wood or any other artifacts, which makes it impossible to provide a chronological frame and an accurate inference as to its functionality.

Regarding hypogea cemeteries of the left bank of the river Guadiana, we have yet to fully comprehend how these cemeteries were marked in the landscape or if there was actually any attempt to do so, since there is not any physical element associated to these spaces. In the Argaric settlements in the Southeast of the Peninsula, and of the Upper Guadalquivir it was common

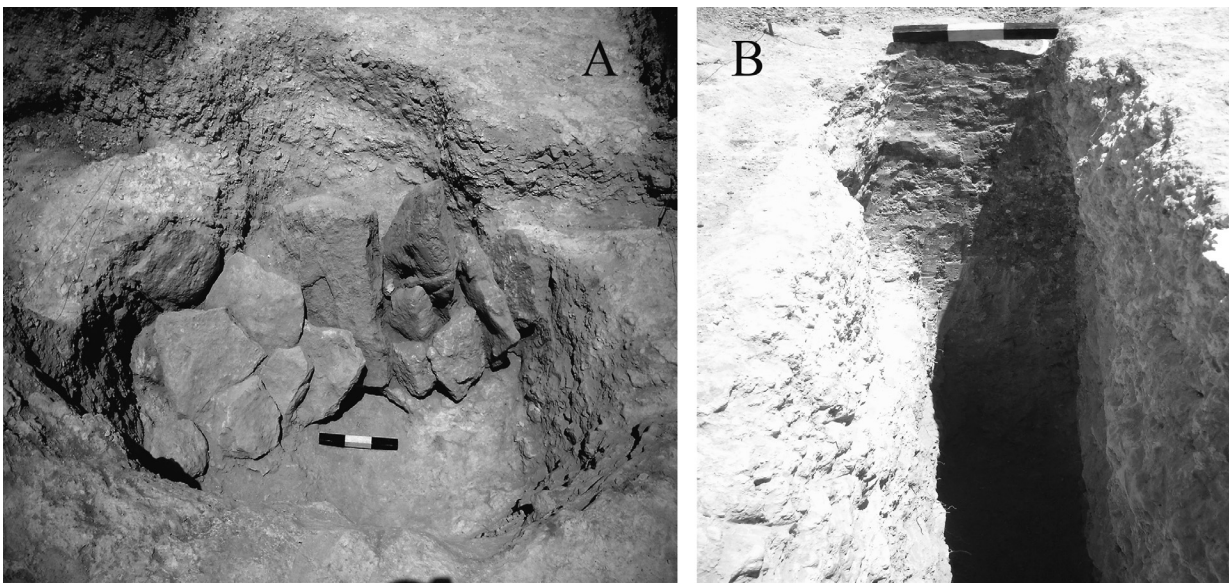


FIG 25. A. Bronze Age hypogea excavated in the site Ourém 7. B. Negative structure of undetermined chronology and functionality excavated in the site Ourém 7.

to have the funerary structures under the domestic areas, which allows us to establish a direct relationship between the world of the living and the world of the dead within a particular family, and also allowing us to understand why and how a certain grave contains exceptionally richer artifacts than other, even though there are some “niches” found outside the settlement (Castro Martínez *et al.*, 1993-94; Cámara *et al.*, 1996; Aranda and Esquivel, 2006).

Although in very bad state of preservation, 5 of the type A hypogea and the type D pit contained

meat offerings. With the exception of this last structure and in hypogea 5, there were large faunal remains of animals of larger bearing, identified in hypogea 62 and 65 (Fig. 26) as “radius diaphysis of an undetermined animal of large bearing” (Costa and Cabaço, 2012)<sup>8</sup>, with a big possibility of them belonging to bovines. In pit 1 of type D

<sup>8</sup> In addition *cf.* Valera, A. and Costa, C.: “Animal limbs in funerary contexts in southern Portugal and the segmentation problem”. In *10th international meeting of the ASWA, from June 28 to June 30, 2011*. Brussels-Belgium: Royal Belgian Institute of Natural Sciences (RBINS), in press.



FIG 26. Detail of the meat offering in hypogeum 65, with anatomical connection.

structures and in hypogea 5 there were faunal remains of animal of medium bearing and undetermined size, which could possibly be sheep.

Although the faunal remains and its ritual purposes at Outeiro Alto 2 are very scarce, in part due to the bad state of preservation, we can safely conclude that there seems to be the same practice here as there was in Torre Velha 3 (Alves *et al.*, 2010) and Montinhos<sup>9</sup> as they follow the same patterns.

In fact, in the sites previously referred, above all we observe the presence of faunal remains of domesticated animals, mainly bovines and sheep, always the distal part of the front leg (radius or cubit) and with a clear tendency to include right side members, in the case of Torre Velha 3 (Alves *et al.*, 2010), or to left side members, like in Montinhos<sup>10</sup>. The presence of these elements and patterns seem to indicate some kind of commensality ritual in the funerary world of the Southwest Bronze, with analogies to the Argaric world (Aranda and Esquivel, 2006).

And to conclude, the study and analysis of the metal finds, the dating through radiocarbon of several contexts, the analysis of the fatty clays used to cover the slabs that sealed the entrance of

<sup>9</sup> Costa, C. and Baptista, L.: "The participation of faunal remains in Bronze age funerary practices in Southern Portugal. Montinhos 6 as a case study". Comunicação apresentada no 1 Congresso Internacional de Zooloquia em Portugal, 2012, in press.

<sup>10</sup> *Ibidem*.

the funerary chambers, and the anthropological study of the osteological remains exhumed at Outeiro Alto 2, studies that are still in a preliminary stage, will certainly provide more information regarding this important site of the Middle Bronze Age of Southwest Iberia.

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