



NIA

NÚCLEO
DE INVESTIGAÇÃO
ARQUEOLÓGICA

ERA
ARQUEOLOGIA

13

***A*PONTAMENTOS**

de Arqueologia e Património

SET 2019

ISSN: 2183-0924

***A*PONTAMENTOS**

de Arqueologia e Património

13

SETEMBRO

2019

Título: **Apontamentos de Arqueologia e Património**

Propriedade: **Era-Arqueologia S.A.**

Editor: **ERA Arqueologia / Núcleo de Investigação**

Arqueológica – NIA

Local de Edição: **Lisboa**

Data de Edição: **Setembro de 2019**

Volume: **13**

Capa: Imagem aérea de Santa Vitória

(Foto: José Pedro Machado)

Director: **António Carlos Valera**

ISSN: 2183-0924

Contactos e envio de originais:

antoniovalera@era-arqueologia.pt

Revista digital.

Ficheiro preparado para impressão frente e verso.

O uso do acordo ortográfico está ao critério de cada autor.

ÍNDICE

EDITORIAL	07	Nelson Cabaço, Marina Lourenço e Rodrigo Banha da Silva O COMPASSO DO ESPAÇO DE NECRÓPOLE ROMANA DAS PORTAS DE SANTO ANTÃO, LISBOA	47
António Carlos Valera, Ana Catarina Basílio e Tiago do Pereiro O PROJECTO SANVIT: UM NOVO CICLO DE INVESTIGAÇÃO NO RECINTO DE SANTA VITÓRIA (CAMPO MAIOR). OS RESULTADOS DA CAMPANHA DE 2018	09	Rui Pinheiro CASTELO DE MIRANDA DO DOURO. PRINCIPAIS DADOS DE UMA ESCAVAÇÃO ARQUEOLÓGICA NUMA PRAÇA FORTE DO NORDESTE TRANSMONTANO	55
Ana Catarina Basílio e Tiago do Pereiro O SÍTIO CALCOLÍTICO DE CORTE PIORNINHO 3 (SALVADA E QUINTOS, BEJA): NOTAS SOBRE A SUA OCUPAÇÃO E INTEGRAÇÃO NA PAISAGEM PRÉ-HISTÓRICA	19	Filipe Santos Oliveira PRODUÇÃO DE CACHIMBOS DE BARRO NA RUA DAMASCENO MONTEIRO (OLARIAS DE SÃO GENS), LISBOA: UM CONTRIBUTO PARA O SEU ESTUDO	67
Sarah Dalton and Ethan Selby LOOM WEIGHTS FROM CHALCOLITHIC AND EARLY BRONZE AGE PERDIGÕES (ALENTEJO, PORTUGAL)	27	Inês Simão, João Miguez e Ever Calvo TRABALHOS ARQUEOLÓGICOS NA RUA CAIS DO TOJO, Nº48-64, LISBOA. CONTRIBUTO PARA A EVOLUÇÃO DA FRENTE RIBEIRINHA LISBOETA	75
Lúcia Miguel A TRANSIÇÃO BRONZE FINAL – IDADE DO FERRO NA MARGEM DIREITA DO GUADIANA. O CASO DA BASE DE CABANA DA RIBEIRA DE S. PEDRO (BALEIZÃO)	35	Ana Rosa INFRA-ESTRUTURAS PORTUÁRIAS CONTEMPORÂNEAS NA FRENTE RIBEIRINHA DE LISBOA: O CASO DO QUEBRA-MAR IDENTIFICADO EM ALCÂNTARA	85
Lúcia Miguel, Pedro Albuquerque, Lucy S. Evangelista e Marina Lourenço TRABALHOS ARQUEOLÓGICOS NA NECRÓPOLE SIDÉRICA DE MÉRTOLA: RESULTADOS PRELIMINARES DAS SONDAGENS ARQUEOLÓGICAS	41		



EDITORIAL

O “Oásis”

No início de 2019 o Complexo Arqueológico dos Perdigões foi classificado como Monumento Nacional. Trata-se do primeiro recinto de fossos a merecer esta classificação em Portugal. É o mais recente resultado de duas décadas de um programa continuado de investigação liderado pela Era Arqueologia, o qual pôs em evidência a importância e potencial científico e patrimonial do sítio, hoje reconhecido nacional e internacionalmente.

Para este desfecho contribuíram igualmente o Esporão S.A., proprietário de mais de dois terços do sítio, assim como as muitas colaborações com instituições de investigação e ensino superior portuguesas e estrangeiras e o Estado português, através de financiamentos a projectos de investigação desenvolvidos nos Perdigões.

Tendo sido reconhecido numa intervenção de minimização de impactos em 1997, o recinto dos Perdigões é hoje uma reserva arqueológica, um “laboratório” para a investigação das sociedades do 4º e 3º milénios a.C. e um caso de referência na expressão do fenómeno dos recintos de fossos na Península Ibérica.

Um exemplo que urge seguir, num tempo em que a reconversão agrícola do Alentejo está a afectar drasticamente e a um ritmo muito acelerado este e outros tipos de património arqueológico.

António Carlos Valera

LOOM WEIGHTS FROM CHALCOLITHIC AND EARLY BRONZE AGE PERDIGÕES (ALENTEJO, PORTUGAL)¹

Sarah Dalton²

Ethan Selby²

Resumo:

Pesos de tear calcolíticos e do início da Idade do Bronze dos Perdigões (Alentejo, Portugal)

Este artigo foca-se na colecção de pesos de tear provenientes dos Perdigões, recolhidos entre 1997 e 2018. Todos os pesos incluídos na colecção estudada datam ou do Calcolítico ou do início da Idade do Bronze (3º milénio a.C.). Um primeiro foco será na classificação tipológica dos pesos e posteriormente uma análise da sua distribuição no sítio arqueológico.

Abstract:

This article focuses on the collection of loom weights excavated from Perdigões, from 1997 to 2018. All the loom weights included in this date to either the Chalcolithic or Early Bronze age (3rd millennium BC). Primary focus shall be on the typology and design of these weights, as well as their distribution and location around the site.

1. Introduction

The site of Perdigões, located in the Alentejo region of southern Portugal, is comprised of a series of ditched enclosures, combining to provide evidence of an occupation that lasted until the end of the third millennium BC. Since its emergence in the late Middle Neolithic, around 3500-3400BC, the site saw varying stages of construction resulting in a diverse range of overlapping negative structures and contexts. (Valera, *et al.* 2014).

Specifically, this study will focus upon the loom weights and their distribution in the contexts that have been excavated related the Chalcolithic and Early Bronze age periods of the site's long-term activity. Loom weights are found in contexts relating to all periods of the site's occupation, but the far greater majority tend to be from the Chalcolithic period. At Perdigões, the Chalcolithic extends roughly between 2900-2200BC, whilst the Early Bronze Age is dated between 2200-2000BC. Variations in the distribution of loom weights can be used to expand information on textiles and manufacturing changes and on the depositions using these materials.



Figure 1 – Location of analysed sectors over Geophysics map of Perdigões.

¹ Work done in the context of an internship at ERA Arqueologia S.A., between June 2018 and January 2019.

² Students of Archaeology at the Bradford University.

Perdigões occupies over 16 hectares (Lago, *et al.*, 1998: 46) but most of the site remains unexcavated. The materials included in the following study originate from four sectors of the site of Perdigões. This meant the larger area was narrowed down to the sectors I, O, P and Q (Figure 1).

The sectors in question differ notably from each other in both size and composition. Sector P is comprised of two ditches whilst sectors I and O contain a combination of several pits and one or two ditches. Each of these sectors are focused around the interior ditches that form the internal enclosures. Every structure within these sectors is comprised solely of negative structures. Sector Q differs dramatically from the others included within this study due to the inclusion of a number of structures ranging from Chalcolithic huts to cremation deposits. It must also be noted that sector Q covers a much larger area than I, O and P, (Figure 1) and during the third millennium is not focussed around any major ditch, though a number of negative structures can be found within the sectors limits. These differences between sectors must be taken into account in the analysis of the results.

2. Methods for typological classification

Classification and the creation of a typology for the loom weight assemblage followed the criteria of previous studies in the site (Basílio, 2018). Firstly, each weight was recorded as a plaque or crescent. The next process of classification was to separate the weights further, each individual categorised into fragmented sample or an end piece and recording the number of perforations. The type and section shape of the loom weight was categorised, with plaques being recorded as either rectangular, square or oval and their cross-sectional shape segregated between rectangular and sub-rectangular. Meanwhile, any loom weight classed as a crescent shape was categorised as either a rounded or flattened type with a cross-sectional shape of oval, flattened or circular. Both the edges and corners of the weights were categorised as either angled or rounded, however some of the incomplete individuals were listed as having undetermined corners, commonly due to them being a 'middle' piece with both ends missing. Similarly, some samples were fragmented to the point of having both the edges and the corners indeterminable.

Measurements of all the weights were taken, the thickness (T) and the width (W), once recorded, were inputted to the formula $T/W \times 100$ to determine the ratio and create a potential for a standardised pattern. The length and weight of an individual were only collected from complete loom weights.

The material and clay consistency was analysed, whether the internal material of the weight had a medium consistency, or if it was compact with small plastic elements, or finally if the structure was more friable with rough plastic elements that tended to be unbundled.

Similar to this was the study of the individual's clay texture. This was categorised as either homogenous with small well distributed plastic elements, linear organisation of elements, granular and lastly, if it is sandy with non-homogenous distribution and a high proportion of plastic elements. The

internal plastic elements and inclusions were then recorded, the most common being Feldspar, Mica and Quartz. The properties of the average plastic elements were recorded, which included the size, <1mm, <3mm, <5mm or >5mm. As well as this the proportion of plastic elements were estimated, weak (<15%), medium (<30%) and strong (>30%).

The weights were also classified in terms of their firing and appearance. The colour of the surface and the interior was recorded as either oxidant and red or reduced and black. If the surface differed from the interior this was also noted.

The external condition was either good, signs of erosion or intense erosion which was normally judged by the visibility and texture of plastic elements through the surface. Treatments such as polishing or the use of a slip layer was also recorded. Finally, any individuals with decoration on the surface were separated and described.

3. Typological characterization

Taken, the assemblage of loom weights was classified in 14 types, the first 6 corresponding to plaques, 7 to crescents and 1 parallelepipedic (Figure 2).

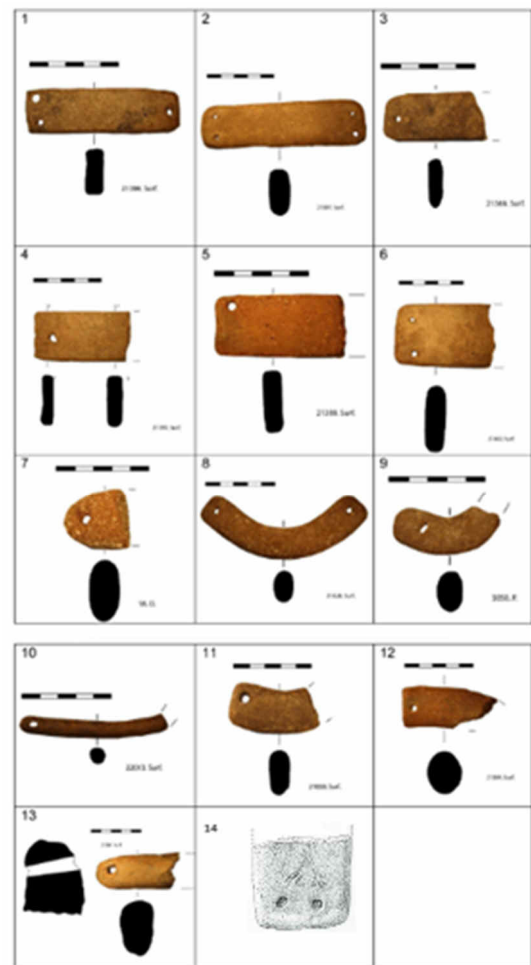


Figure 2 – Typologies and styles of weights included within the Perdigões collection, based on major attributes: Shape of weight (Plaque or Crescent); Perforations (Number and position); Shape of the end; Cross-sectional shape.

- 1 – The only rectangular plaque loom weight to have three perforations.
- 2 – This plaque loom weight has four perforations, and the corners are notably rounded
- 3 – Broken plaque loom weight with only a single perforation at the surviving end. Edges are uneven but rounded
- 4 – Broken plaque loom weight with again only a single perforation. Unlike 'picture 3' the angles at the surviving end are very 'sharp' and square
- 5 – Plaque loom weight that's perforation is off centre, very close to the corner of the individual. Only one other weight has this attribute and they both have similar sub rectangular cross sections and rounded corners.
- 6 – Broken Plaque weight including two perforations. Square and angled end but the cross section structure is more similar to that of an oval loo weight.
- 7 – Broken Crescent loom weight that has an extremely rounded end but shows heavy sign of deterioration or erosion.
- 8 – Complete Crescent loom weight including two perforations, one at either end. Whilst the angled corners and profile view of the weight appear very rectangular the cross section is oval.
- 9 – Broken Crescent loom weight fragment with rounded end and a single perforation. The direction of the break suggests the piece was unusually curved or hooked.
- 10 – Very thin broken crescent weight with a rounded cross section. Thinnest collected piece not too heavily fragmented for assessment.
- 11 – Broken crescent loom weight with a misaligned perforation (Similar in placement to that of Picture 5). Flattened cross section indicated by visible angles in the individuals curvature.
- 12 – Broken crescent weight with an unusually flat end compared to a rounded oval cross section.
- 13 – Broken crescent loom weight with unusual placement of the perforation. Unlike every other sample collected the perforation, rather than passing through the piece at the thinnest face/direction, this individual's perforation was through the wider side of crescent. Such a placement of the perforation was unique in the Perdigoës collection.
- 14 – Bronken parallelepipedic weight, of rectangular shape, with two perforation in the top and with an anthropomorphic decoration.

The majority of the assemblage was highly fragmented, leading to difficulty in ascertaining whether fragments was theorised to the same weight. Therefore, the information collected on the thickness and width could potentially be used to counter this issue. The intention was to find groupings and patterns between weights with similar proportions, as well as to discount unsuitable possibilities when attempting to match fragments from a single individual weight. However, the data failed to reveal any distinct

patterns or groupings in the proportions of either plaques or crescents.

Once all clearly affiliated pieces had been combined, and in some cases remounted, the next task became the narrowing of the assemblage size. 5261 individuals made up the initial count after the data had been collected, incorporating all sectors and surface contexts. This does not reflect an accurate estimate for the minimum number of loom weights included in the sample with the data from central fragments being highly inconclusive. Such pieces can be from the same complete weight or be unrelated to perforated samples found in similar contexts. All 'middle' pieces were discounted from further analysis, along with all samples collected from surface contexts. The reason for the elimination of all surface context weights was due to ploughing of the area. During the initial ploughing of Perdigoës loom weights and other materials were brought to the surface, and were later collected in early field walking and preliminary examination of the site. Whilst such pieces had their locations recorded it is impossible to state whether the individuals discovered location has any similarity to its original deposition. In a number of cases deeper ploughing reached geological material and significant contexts, cutting through such structures. Once all weights of these categories were removed the remaining assemblage numbered 2193 individuals.

The basic division of the assemblage into crescent weights and plaque weights, including all individuals, regardless of quality or location revealed that 73% were crescents whilst the remaining 27% were plaques. This compares directly to the similar study undergone for the Neolithic loom weights in which 89% were found to be crescents whilst only 11% were classified as plaques. The far simpler size of this study must be mentioned as the total count of the entire Neolithic study reached only thirty-three (Valera, 2018).

3. Distribution by sector and within sectors

34% of all individuals studied originated in contexts within sector Q, and this number increases to 69% once both the surface finds and internal segments were removed. This is possibly due to previously mentioned scale difference between sector Q and the other sectors. However, it can be theorised that the cause of this higher concentration may be due to the analysed sector having shown the most evidence for a higher density of occupation.

Table 1 – Distribution of Plaque and Crescent by Sector.

Sector	Total	Crescent (%)	Plaque (%)
O	48	87	13
I	163	58	42
P	79	80	20
Q	655	73	27

Subdividing each sector into the various negative structures and features revealed a higher number of variations and possible patterns than the earlier, simpler, breakdown. The structures of sector I and P, which consist solely of ditches reveal potential similarities. The percentage of loom weights

identified as crescents within ditches 3, 4 and 7 were found to be 73%, 85% and 79% respectively.

The structures within sector O, whilst comprising both ditches and pits, were found to consistently remain akin to the data showing the same low number of plaques compared to crescents (Figure 3).

Sector Q differs from the other analysed areas of the site, due to the aforementioned significantly larger assemblage excavated within this sector. Due to this, and a larger number of structures and associated contexts, every context was grouped into 5 separate categories for analysis. These groups can be seen in the graph displaying the data for the sector (Figure 3).

Low plaque counts match with the majority of previous structures, the notable exception being the contexts found within the limits of the two hut structures. The larger plaque count compared to the number of excavated crescents, with only 32% of the individuals classified as crescents, differs from the majority of previous finds.

Both the contexts relating to the early bronze age and those found in and around pit 40 contained larger counts of weights than any previous structure but this may be accounted for in the large number of contexts included in these groupings or the greater area covered within each sample. The early Bronze Age grouping having a plaque comparison of 27% and pit 40's similar count of 33% undoubtedly contributes heavily to the overall count of both the sector and the site.

Further analysis was carried out upon the plaques included in the collection from throughout Perdigoões. The focus of this study was based upon the number of perforations found on all individuals, carrying out comparisons and examining relationships between sectors and structures, similar to the earlier analysis between plaques and crescents. Crescents were excluded from this study due to the absence of any variation between the number of perforations identified. All complete specimens were discounted from the study, regardless of type or perforation number, to ensure a standardised assemblage.

Early analysis showed sectors I, P and O to offer limited plaque counts, as evidenced in earlier studies. The larger assemblage from Sector Q however, offered the potential for a detailed examination.

The contexts relating to the early bronze age differs from its neighbours, whilst the three most numerous plaque groupings display a tendency towards single perforations at either extremity, the bronze age contexts offer a significantly more drastic variance. Only 12% of the individuals excavated within these structures had two perforations, a significantly smaller count than the other structures within sector Q (Figure 4).

Mentioned previously, both contexts relating to Huts or those found in and around pit 40 revealed a similar relationship between perforation counts, with single perforation weights appearing more frequently than those with two. These examples both lack the more dramatic difference displayed in the Early Bronze Age contexts.

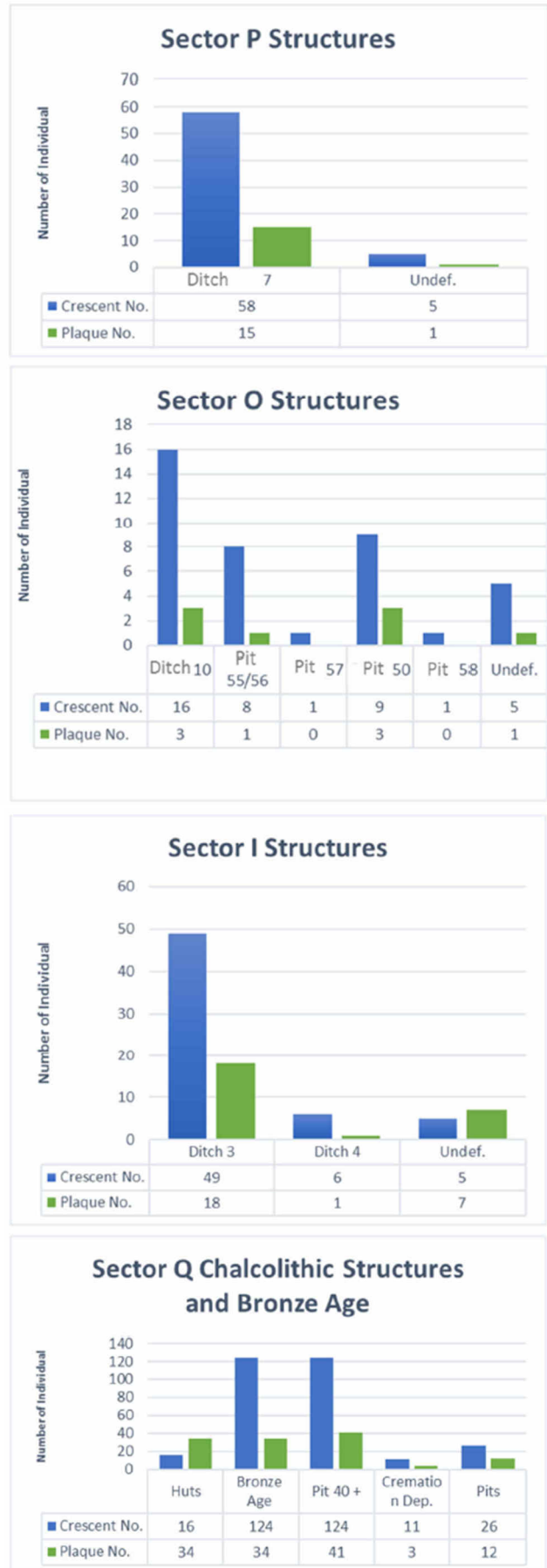


Figure 3 – Distribution by structures and chronology within sectors.

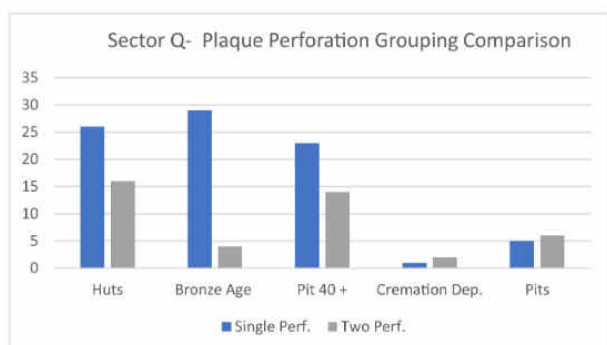


Figure 4 – Distribution of plaques with different number of perforations by context in Sector Q.

Possibly, this difference observed in Early Bronze Age weights corresponds to some changes in terms of manufacturing.

The next stage of research was studies focused upon the distribution of loom weights, regarding their deposition within a single structure. Four structures were selected for analysis, ditches 3 and 4 from sector I, ditch 10 from sector O, and finally ditch 7 from sector P. All the selected structures were analysed through the sequence of filling, from bottom to top, using the recorded Harris matrices for refined analysis.

Ditch 3

The primary observations evident in ditch 3 are the concentration of weights found in the surface contexts and the near complete lack of individuals found in lower levels. During excavation two completely different processes of filling were detected (Valera, 2008). The distribution of the loom weights confirms those observations and show that they were not part of the selected materials that integrated the horizontal and intentional depositions of the bottom half of the ditch (Figure 5).

Ditch 4

The section excavated in Ditch 4 is just a few meters from the one excavated in Ditch 3. Whilst the small sample size of the ditches included in this study, the weights from Ditch 4 show a similar distribution pattern and were closely grouped in three adjoining layers in the top of the stratigraphic sequence and showed a total absence elsewhere in the ditch.

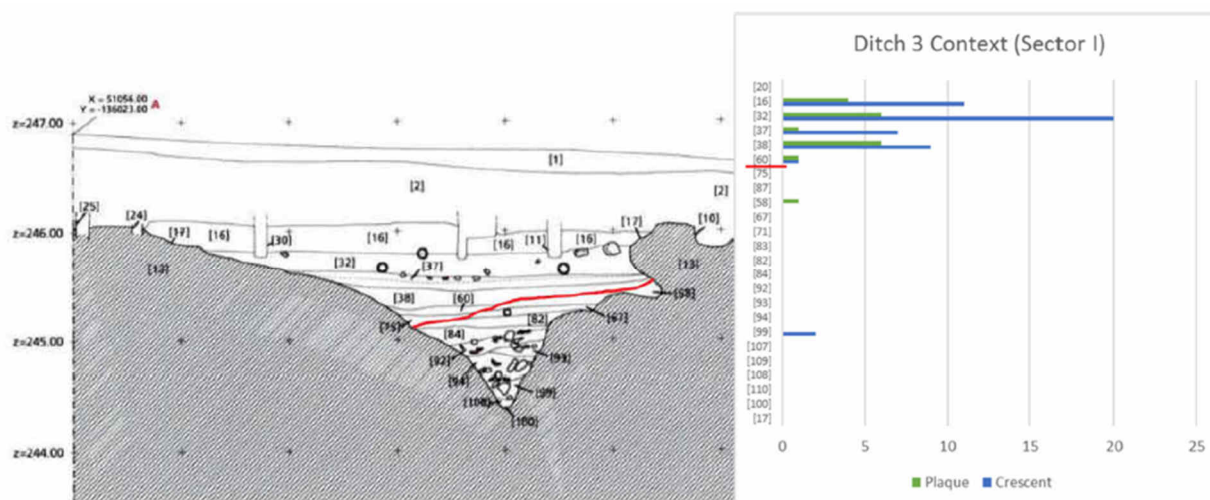
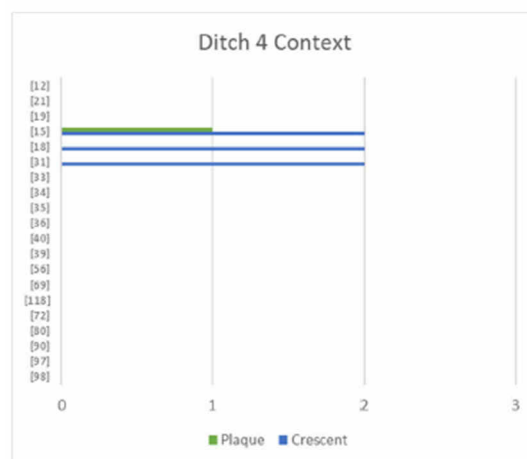
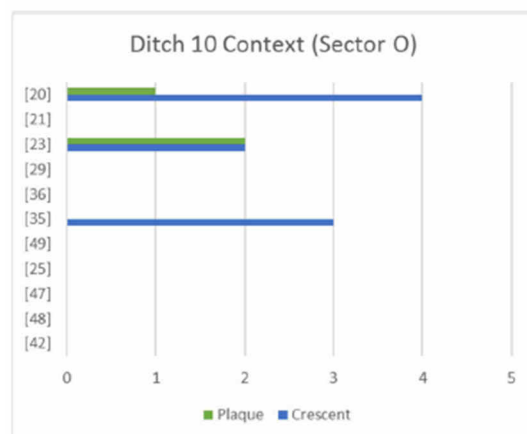


Figure 5 – Distribution of loom weights inside Ditch 10, Ditch 4 and section of the stratigraphy inside Ditch 3 (after Valera, 2008) and distribution of loom weights along that stratigraphy. The red lines mark the detected change in the filling stratigraphy.

Ditch 10

The samples from this ditch are, once again, limited but show similar patterns to the previously mentioned examples. The initial infilling of the structure is comprised by the layers below [35], which represents a recutting and the first stage of the ditch second period of depositions. All weights, regardless of typology, were found within this second stage.

Ditch 7

Differing significantly from the previous examples, ditch 7 offered varying loom weight numbers that persisted throughout the structure (Figure 6). The crescent count falls as the depth increases. Potentially this accounts for the decrease in the number of crescents found, due to shrinking and more restricted contexts. Changes in the shape of the ditch do not account for any consistency evident in plaque numbers, regardless of the location of their context.

From this distribution analysis some main points can be underlined:

- the comparisons between crescents and plaques found within the different sectors show now significant differences, regardless of the assemblages and areas sizes.
- Combining data from each of the numerous ditches, regardless of original sector, shows a clear pattern within the significant preponderance of crescent weights over plaques. This relationship appears consistent, regardless of the varying sample sizes displayed.
- The only contexts within the studied sectors to contain a higher number of plaques than crescents remained those associated with the hut structures in sector Q. With 68% of the 50 excavated individuals classified as plaques it is highly unlikely that the contexts are simply discounted as anomalous.
- Detailed analysis of ditches and the contexts within offer different possibilities for evidencing changes in depositions of loom weights over time. Whilst ditches 3, 4 and 10 evidence a clear change between the early filling phases with almost no loom weights and later filling where these materials became part of the depositions, the same cannot be said of ditch 7. Explanation of this seemingly varying tradition can be found in the theory that the interior of ditch 7 only began to experience refilling of material at similar time that the other structures were undergoing their final stages of deposition, an hypothesis that find some support in the existing absolute chronology for these structures, for the lower contexts inside ditches 3 and 10 seem to be older than the initial filling of Ditch 7.

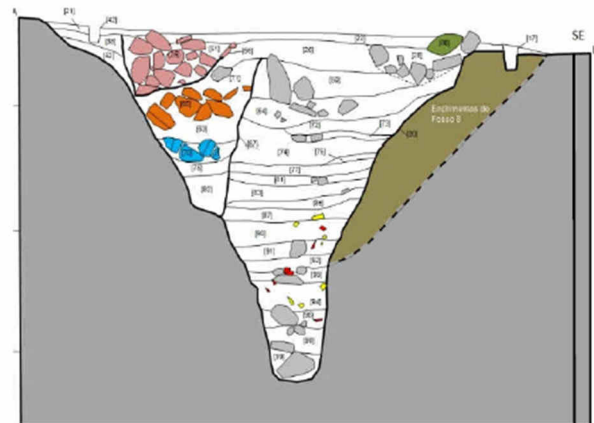
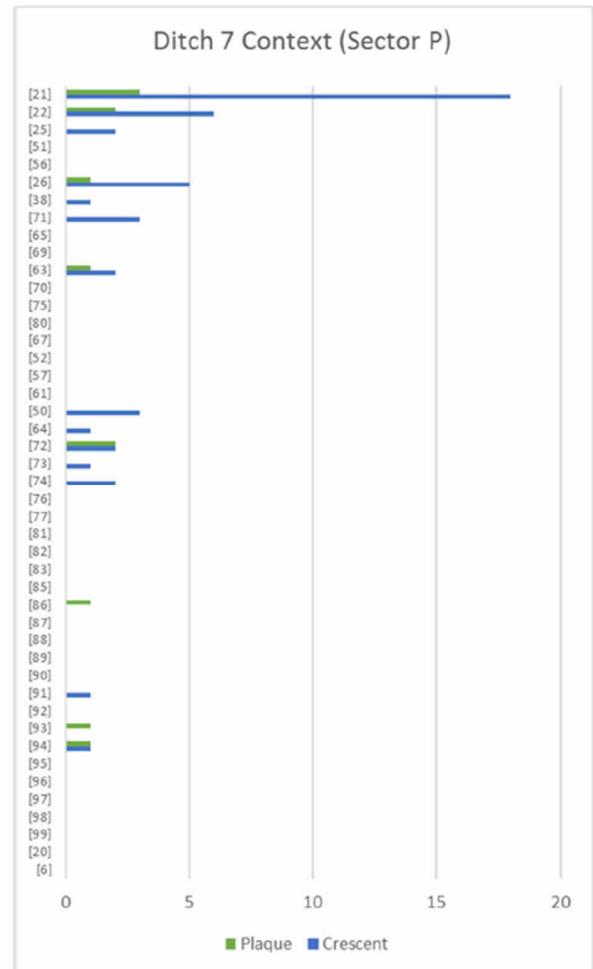


Figure 6 – Distribution of plaques within Ditch 7 and section of the stratigraphic sequence (after Valera, 2015).

- The clear decline in use of plaques including two perforations is noted in the Early Bronze Age in Sector Q. The lack of two perforations indicates a change, either in the techniques in use or simply the preferred style of loom weights. Due to the sector Q Bronze Age structures also containing a

high percentage of crescent weights in relation to that of plaques; the small number of plaques containing these double perforations becomes an incredibly small part of the assemblage. Meanwhile the previous contexts in and around the hut structures in the same Sector, despite the unusually high number of plaques recorded earlier, provide a collection of plaques including both single and double perforations. Whilst single perforations are the more common in the structure, the numbers are comparable enough to indicate that neither design was favoured.

4. A brief regional contextualization

For the inner Alentejo region there are already some available data regarding loom weights from the 3rd millennium BC, cases such Porto Torrão (Valera, Filipe, 2004), Castelo de Pavia (Teles, Rocha, 2017), Alto de Brinches (Costeira, 2013) or the several contexts excavated in the left bank of the Guadiana river in the Alqueva rescue program (Gomes, 2013). However, only for the walled enclosure of S. Pedro a collection comparable to Perdiggões in terms of size was studied (Costeira, 2017).

At S. Pedro, 3526 weights were analysed, 63% of which were categorised as crescents and 35% as plaques (Costeira, 2012). This relationship offers parallels with the results taken from Perdiggões, with the previously mentioned overall crescent ratio recorded as 73%. The predominance of crescents, but also with a good representation of plaques, was also detected in an assemblage from Porto Torrão (Valera, Filipe, 2004) and in the sites of the Mourão area (Gomes, 2013). The opposite picture, though, is provided by Castelo de Pavia, where the plaques are clearly predominant (Teles, Rocha, 2017).

In the S. Pedro study there was also a focus in the perforations of the plaques. 48% of the individuals found had 2 perforations, whilst 52% had just a single perforation, comparing with the plaques of Perdiggões for the Chalcolithic phase. The assemblage from this site was also found to contain 2 fragments including three perforations at each extremity. (Fig. 9) Such a piece appears highly unusual, with none appearing within the Chalcolithic finds from Perdiggões.

Similarly, infrequent was the number of complete individuals found to have variations between the perforation count at either end of the weight. Both the Perdiggões and Sao Pedro collections included just a single case of this type.

One the other hand, whilst the data on measurements of the collection of Perdiggões failed to provide any clear pattern or grouping of proportions, the ranges and averages offer the possibility of comparison. The range in data from plaques, either from thickness varying between 0.44cm and 3.6cm, or from width varying between 1.16cm and 6.74cm, match with finds from Sao Pedro's collection (Costeira, 2012: 30). In fact, in general terms, being the two largest collections of loom weights studied so far in Alentejo, the Perdiggões and S. Pedro assemblages present grate affinities, indicating a same technological ambience.

5. The rarity of decoration

Contrary to what happens in the loom weight plaques of Portuguese Estremadura, the decorations of loom weights in Alentejo is extremely rare. This idea is given by the largest studied collection of Perdiggões and S. Pedro, where amongst the thousands of exemplars only 4 and 5 were respectively documented.

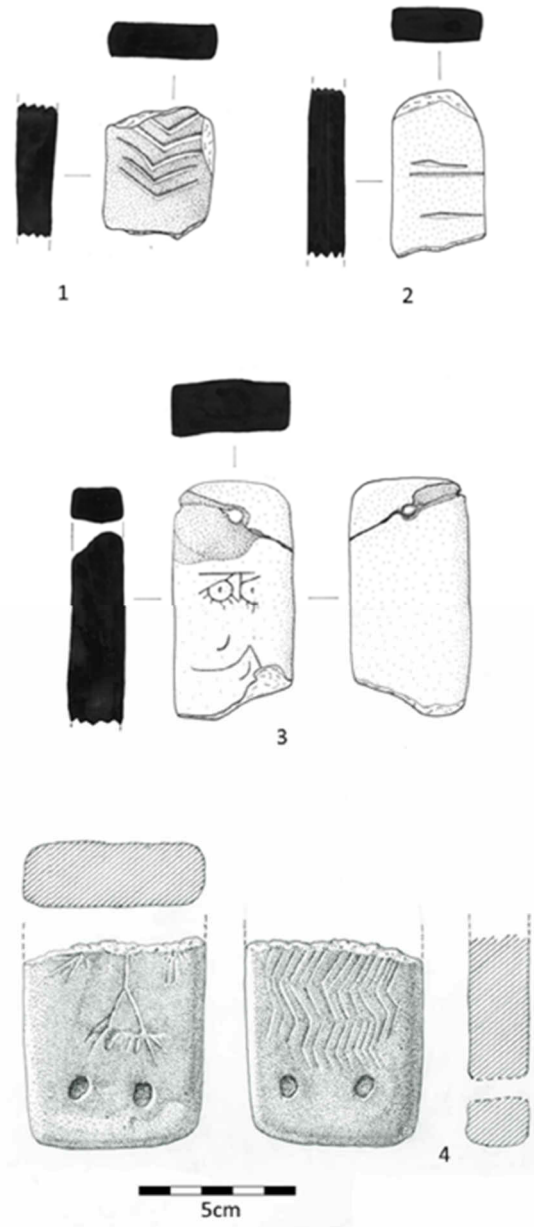


Figure 7 – Decorated loom weights from Perdiggões enclosure. 1. To 3. after Lago *et al.*, 1997; 4. After Milesi *et al.*, 2013.

The four decorated plaques at Perdigões came all from the surface or superficial layers, and present the following decorations (Figure 7):

1. Corresponds to a middle part of a plaque decorated with incised lines forming a spine;
2. Corresponds to another middle part of a plaque decorated with incised parallel lines;
3. Half of a plaque with symbolic decoration: eyes, eyebrow and possible representation of the facial tattoo;
4. Half of a parallelepipedic weight, with part of an anthropomorphic representation in one side (hands, part of the torso, legs and feet) and the zigzag hair in the other.

6. Final remarks

In conclusion, Perdigões can be split into two clear periods when considering loom weights use: the Neolithic (not considered in this paper) that presents a reduced use of this type of materials (Valera, 2018) and the Chalcolithic and Early Bronze Age, where these artefacts became more common, suggesting a significant increase of fabrics manufacturing activity.

The broader data analysed remains highly inconclusive in terms of spatial distribution of loom weights as a whole or of their main categories (plaques and crescents). The sectors are showing some variation but not enough points of reference for a site the size of Perdigões. Any pattern in the distribution of weights throughout the site as a whole would require data from more sectors.

However, two tendencies were detected. First, the differences between the Chalcolithic data and the limited contexts relating to the early Bronze Age support the argument for established some changes in loom weight style regarding the number of holes in plaques. Secondly, in the earlier contexts of depositions inside ditches during the Chalcolithic loom weights seem to be rare, while becoming more frequent in the later phases of infilling, suggesting either an increase in the manufacturing activity in the second half of the 3rd millennium BC and/or a change in the selection of objects that were incorporated in the ditch fillings.

Bibliographic References

- BASÍLIO, A.C. (2018), *Dinâmicas ocupacionais na 2ª metade do 3º milénio a.C. nos Perdigões: continuidades e descontinuidades*, Tese de mestrado apresentada à Universidade do Algarve, Policopiado.
- COSTEIRA, C. (2012), Placas e Crescentes. Análise de um Conjunto de Componentes de Tear do Sítio arqueológico de S. Pedro (Redondo) 3º milénio a.n.e., *Arqueologia & História*, 64-65, p.23-37.
- COSTEIRA, C. (2013), Os componentes de tear do sítio arqueológico do Alto de Brinches 3 (Serpa, Baixo Alentejo), *VI Encuentro de Arqueologia del Suroeste Peninsular*, p.596-624.
- GOMES, S. (2013), "Tecelagem e pesca: os pesos", In: A.C. Valera (Coord.), *As comunidades agropastoris na margem esquerda do Guadiana. 2ª metade do IV aos inícios do II milénio AC*, *Memórias d'Odiara*, 6, 2ª Série, EDIA/DRCALEN, p. 211-228.
- LAGO, M, DUARTE, C, VALERA, A, ALBERGARIA, J, ALMEIDA, F, CARVALHO, A. F, (1997), *Povoado Pré-Histórico dos Perdigões*

(*Reguengos de Monsaraz*). *Relatório final dos trabalhos de salvamento arqueológico*. Policopiado.

MILESI, L.; CARO, J. L.; FERNANDÉZ, J. (2013), "Hallazgos singulares en el contexto de la Puerta 1 del complejo arqueológico de Perdigões, Portugal", *Apontamentos de Arqueologia e Património*, 9, p. 55-59.

TELES, L.; ROCHA, L. (2017), Os Componentes de Tear no Castelo de Pavia, *Arqueologia Em Portugal, Associação Dos Arqueólogos Portugueses*, p.661-669.

VALERA, A.C., (2008), Recinto Calcolítico dos Perdigões: Fossos e Fossas do Sector I, *Apontamentos de Arqueologia e Património*, 3, p.19-28.

VALERA, A.C. (2015), *Projecto "Temporalidades, arquitecturas e práticas ritualizadas nos Perdigões (Reguengos de Monsaraz) – TEMPERD_2."*, *Relatório de Progresso: campanha de 2015*. Policopiado.

VALERA, A.C. (2018), *Os Perdigões Neolíticos Gênese e Desenvolvimento (de meado do 4º aos inícios do 3º milénio A.C.)*, *Perdigões Monográfica*, I, Lisboa.

VALERA, A.C.; FILIPE, I. (2004), "O povoado do Porto Torrão (Ferreira do Alentejo): novos dados e novas problemáticas no contexto da calcolitização do Sudoeste peninsular", *Era Arqueologia*, 6, Lisboa, *ERA Arqueologia/Colibri*, p.28-61.

VALERA, A.C.; SILVA, A.M.; MÁRQUEZ ROMERO, J.E. (2014), "The temporality of Perdigões enclosures: absolute chronology of the structures and social practices", *SPAL*, 23, p.11-26.

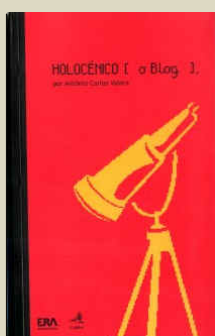
OUTRAS PUBLICAÇÕES DA ERA ARQUEOLOGIA

Série ERA Arqueologia

Oito volumes publicados entre 2000 e 2008



Livro de fotografias de Manuel Ribeiro sobre os moinhos de água de Alqueva

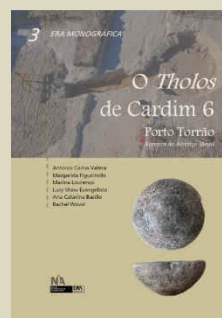
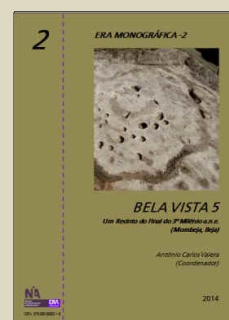
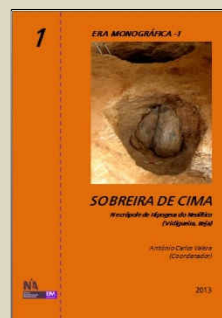


“Holocénico [o blog]” de António Valera

Textos sobre produção de conhecimento, património, arqueologia e o seu ensino e profissão.

Série ERA Monográfica

Três volumes publicados



ERA Arqueologia S.A.
Calçada de Santa Catarina, 9C
1495-705 Cruz Quebrada
- Dafundo

www.era-arqueologia.pt
geral@era-arqueologia.pt
nia@era-arqueologia.pt