

# ALTO DA MADORRA (MACEDO DE CAVALEIROS, PORTUGAL) – BRIEF REMARKS ON CHALCOLITHIC’S DECORATED POTTERY

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## ABSTRACT

The Alto da Madorra archaeological site was identified during the environmental impact survey for the construction of IP2 highway in 1996, and was subsequently subjected to an emergency intervention in 1997 by a team from the company Arqueohoje, led by Luis Gomes. The outcome of this intervention was published in 1997 and brought forward some preliminary considerations on the observed stratigraphy and the materials collected (Carvalho et. alli, 1997). These materials were later handed over to the custody of Associação Terras Quentes. A first study was conducted by Bruno Rebelo in 2011, focusing on a small sample of ceramic materials, also published (Rebelo, 2011).

The objectives of this article are to draw up a more detailed study on all ceramic and to characterize the site chronologically and culturally.

## RESUMO:

O Alto da Madorra foi identificado através do Estudo de Impacte Ambiental para a construção do IP2 em 1996, tendo sido posteriormente sujeito a uma intervenção de emergência em 1997 por uma equipa da empresa Arqueohoje, dirigida por Luís Gomes. Dessa intervenção resultou uma publicação de síntese dos trabalhos com apresentação da estratigrafia e estruturas encontradas bem como algumas considerações preliminares sobre o espólio recolhido (Carvalho et. alli, 1997). Os materiais foram, mais tarde, entregues à guarda da Associação Terras Quentes. Um primeiro estudo foi elaborado por Bruno Rebelo, em 2011, incidindo sobre uma pequena amostra dos materiais cerâmicos no âmbito de um trabalho de final de licenciatura, também esse publicado (Rebelo, 2011).

Pretende-se aqui elaborar um estudo mais detalhado sobre o conjunto cerâmico, procurando caracterizar o sítio em termos cronológicos e culturais.

**GEOGRAPHIC SETTING**

The site is located in the Carrapatas parish, Macedo de Cavaleiros county, in northeast Portugal. Its geographical coordinates are 41° 30' 49" Lat. N. e 02° 08' 49" East of Lisbon. It is located at the "top and south/southeast slope of a small hill, conic, whose maximum elevation is 563.2 m, having a reasonable visual domain, especially to south and southeast" (Carvalho *et al.*, 1997: 97) (Figure 1).

**THE ARCHAEOLOGICAL SITE**

Alto da Madorra was primarily identified on an environmental impact study for the edification of IP2-EN216 – Vale Pradinho/EN 102 – Vale Benfeito freeway.

Given the obvious dispersion of surface findings, several sampling surveys were opened over the hillock, in order to assess the state of conservation of the site and determine its extent. The higher levels were destroyed by intense

agricultural activity, but there were still archaeological levels preserved.

Two sectors of intervention, designated A and B, were therefore assigned for the areas that revealed those archaeological levels.

Sector A features low stratigraphic depth and is difficult to characterize due to accumulation of stone elements that define depressions in the outcrop. Two grooves dug into the ground were identified there and interpreted as a possible wind containment structure, as well as a further layer of occupation.

Sector B showed better preserved archaeological levels, including structures and stratigraphy with anthropogenic outlines. In the west area a combustion structure with a sub-ellipsoidal plant set in a depression bounded by rocky outcrops and stony medium-sized blocks of schist and quartz was identified. Some artifacts were associated with this structure, "...about one hundred ceramic fragments corresponding to about a dozen containers, as well as two polishers and a fragment of

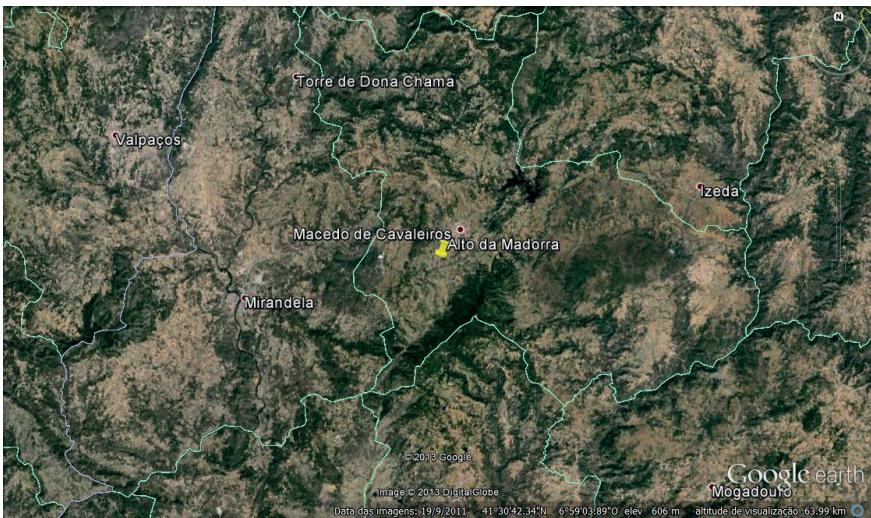


Figure 1 – Localization of Alto da Madorra.

pestle..." (*Idem*: 101) and two charcoal concentrations. These anthracological samples cover some stone elements and ceramic containers that broke in situ, leading the authors to propose the possible existence of a timber structure that was burned and destroyed in this area of the habitat (*idem*: 102). It was also indicated the possibility that the combustion area presented two distinct zones of use – a domestic area and another for waste dump.

### LITHIC ASSEMBLAGE

Brief notes on the lithic assemblage should be made. Twenty-one polished stone artifacts were recovered and none of knapped stone. Those are generally well preserved and, in some cases, still complete. Several morphological categories were present: an axe, two adzes and a hammer, which are traditionally used to work with wood; five grinds-tones; eight complete pebbles, four of which have two polished surfaces that might have been used as polishing stone or flatters. The most frequent raw material is amphibolite, but schist and granite were also used.

### THE POTTERY SAMPLE

The analytical criteria used were previously published elsewhere (Luís, 2010); the typological table was built according to the one created by Sena-Martinez (1989), adapted in Luís (2010).

The ceramic sample is composed by 137 classifiable fragments out of 1100 that come from surface recoveries and from the two excavated surveys described before. Several sherds allowed collage, and in one case, it was possible to reconstruct almost the whole recipient, suggesting good preservation conditions.

72 classifiable fragments were recovered in Sector A, of which 32 constitute the minimal number of individuals (MNI). The recipients demonstrate well finished pastes, with few visible non-plastic elements and their firing process is mostly oxidant, resulting in orange tonalities (Luís, 2013). For Sector B, 48 of the total fragments were considered, of which 19 constitute the MNI. As Sector A, the recipients show good quality pastes as well as predominant oxidant firing (*Idem*).

The amount of recognizable ceramic types identified is low, only 23%, due to the fragmentary state of the set. The typological table is not very diversified (Figure 2) revealing open vessels - bowls, with the sub-types 2.4 (deep hemi-ellipsoidal bowl) and 2.5 (spherical cap bowl); and closed vessels - spherical vessels (Type 5); globular vessels (type 6) with two subtypes (6.1 – globular with vertical neck; 6.4 – globular with strangled neck); flattened ellipsoidal vessels (Type 8); and deep vessels with straight walls (Type 13). In sector A there were identified 2 spherical cap bowls; 5 spherical vessels and 4 globular vessels with vertical neck and 1 globular with strangled neck, revealing a predominance of closed vessels. Almost every one of these vessels allows the calculation of the main diameter, set between 14 and 22 centimeters, revealing recipients with a considerable capacity, probably for the storage and consumption of liquids. In Sector B, 11 fragments allowed morphological characterization, whit bowls (one vessel for each subtype), spherical vessels (three), globular vessels (two of each subtype) and a very deep vessel with straight walls. As seen in Sector A, the closed pots are also predominant. The diameters are comprehended between 13 and 21 centimeters, except for one that has

30 centimeters, being thus a very large vessel. (Luís, 2013).

In this sample, 89 fragments were decorated (40 in Sector A and 43 in Sector B), always on the outside of the container, except for a single specimen with decoration on the lip. Simple incision is the predominant technic in Sector A, followed by incision and printing combined. A different preference appears in Sector B, where the most frequent technique is combed incision, followed by simple incision. Dragged puncture or *boquique* was also identified in some fragments from Sector A.

The analysis of motifs allowed for the creation of three main groups attending to two fundamental criteria - the technique of execution and the stylistic similarities of the motifs themselves (Figure 3). Thus, the first group consists of the “combed” decorative motifs that appear under four general types: concentric semicircles (1-a); jagged lines (1-b); bands of parallel wavy lines, in only a band along the edge or in several bands along the container (1-c); and also parallel horizontal lines bands (1-d).

The second group is structured around a central motif, the triangle. The triangles are defined by two incised lines and filled using different techniques and tools thus creating distinct motifs / styles – skewed prints obtained with a side puncture, arranged in parallel lines (2-a); rectangular/square impressions placed in parallel lines (2-b), horizontal lines of *boquique* (2-c); circular impressions in parallel lines (2-d); prints of small dots, in parallel lines (2-e).

The third group includes varied decorative motifs that rarely repeat themselves, including: rectangular impressions with rounded corners, bonded to each other (3-a), two incised lines (small flutes?) with circular impressions between them (3-b); parallel lines forming *metopes* of *boquique* (3-c); small irregular

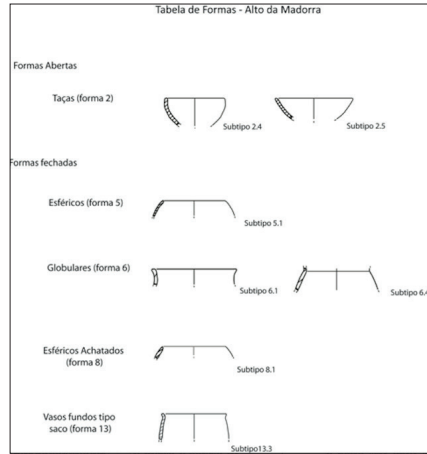


Figure 2 – Typological table of Alto da Madorra.

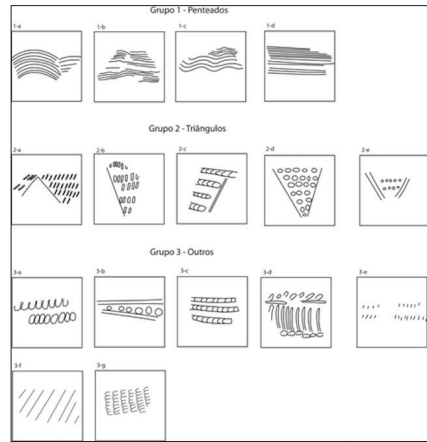


Figure 3 – Table of decorative motifs from Alto da Madorra.

impressed round dots above a band of thin vertical incisions (3-d); small impressed round dots on thin parallel lines, sometimes forming *metopes* (3-e); oblique incised lines (3-f); bands of impressions obtained with a side puncture interrupted by burnishing, forming *metopes* (3-g). These motifs may be part of the filing of triangles; simply given the small size of most fragments they could not be identified.

In sector A, the motifs present are 1-b, 1-c, 2-a, 2-b, 2-d, 2-e, 3-a, 3-b, 3-c, 3-d, 3-e; clearly dominating motifs based on simple impressions, 3-a (which may possibly be part of the fill of a triangle similar to 2-b), and, in smaller frequency, 3-e. The triangles can also be seen in 9 of the fragments.

In sector B the dominant motifs group is the first, the comb decorated ceramics, in which 1-c is absolutely dominant with 15 fragments, but also represented are the motifs 1-a, 1-b and 1-d, as well as the organizations 3-c and 3d with three fragments each. The triangles are not significant here, only three fragments on display.

## DISCUSSION

The Alto da Madorra ceramic set is guided by the simplicity of the formal repertoire, using forms abundantly reproduced in various contexts of neo-Chalcolithic periods. These types are based on spheres and segments of spheres and only using composite forms in the case of globulars. For these reasons, they constitute weak chronological and cultural markers.

The repertoire of techniques and decorative motifs is not abundant but denoted an intention to various techniques within different styles, thus achieving different decorative motifs. The strong presence of combed ceramics seems to be the main feature of the set, especially in the Sector B, alongside the remarkable presence of different arrangements of triangles filled with impressions of different matrices. These three elements comprise indicators of a human community within the in the third millennium BC in which the presence of combed pottery seems to point to its second half.

In Eastern Trás-os-Montes and neighboring regions the presence of

combed ceramic and filled triangle decoration is quite frequent, but few sites allowed for a chronological sequence based on absolute dating.

The Buraco da Pala shelter, in Mirandela, stands as a key site for the understanding of the regional pre-historical communities diachrony, for it provided a stratigraphical sequence with several moments of occupation between the Early Neolithic and Chalcolithic periods, each with its own cultural and material elements and respective absolute dates (Sanches, 1997). The most similar layer of occupation to our own set is Nivel I, where combed incision decoration motifs are predominant just as in Alto da Madorra's Sector B; simple impression and triangles are also recurring decoration motifs. The closest matching decoration motifs sets are: I1-g metopes albeit in this case trough dragged punching (Sanches, 1997, vol II:132); II1-d, II1-e, triangles with various fillings (*Idem*:133); III2, punching sequences (*Idem*: 134); V2-a, V2-b, V2-c, V2-d, V2-e, parallel lines, waving line bands and concentric semi-circles, all by means of combed incision (*Idem*: 135); and finally V3, with several types of metopes using combed incision (*Idem*: 136); The Bell Beaker replication shapes and decorative styles present in Nivel I of Buraco da Pala are completely absent from Alto da Madorra. Just as absent are the other types of complex and symbolic organizations known for this occupational level (*Idem*: 137-138). The dates obtained for this context place it between 2800 and 2500 b. C. (Sanches, 1997:126).

Castro de Palheiros (Murça) reveals an intense occupation during the third millennium, evident in the complex architectonic structure (such as terraced areas, platforms, wood constructions, etc.) spread across several (re) constructive phases, taking advantage

of the excellent natural background of the location and in addition bestowing monumentality and visibility to it (Sanchez, 2008). Therefore, as site implementation goes, it represents a completely different settlement type from the more straightforward Alto da Madorra with its simpler structures. Although, it is important to attend to the presence of a large diversity of organized combed decorations - in straight and wavy bands and metopes; in triangles filled with incised lines and dots sequences; and several sequences of imprinted matrixes - circular, sub rectangular, pointy and dragged punching (Sanchez, 2008: 182-183). Similarly to Nivel I of Buraco da Pala, the decorative panoply from this site is much richer and diverse from what its briefly stated here, were we merely highlight the common traits with Alto da Madorra. In Castro de Palheiros, combed pottery is more frequent, whereas “the most recurrent Early Chalcolithic background organizations in Eastern Trás-os-Montes: II (triangles), III1 and III2 mainly with punching decoration (incision and/or combed printing), sustain a certain prevalence on both sites” (*Idem*: 127).

Filled triangles decorative organizations and combinations of combed motifs were also identified in the Chaves/Vila Pouca de Aguiar habitat sites (Jorge, 1986), although in most cases, none of those motifs are dominant. Subsequently, for the latest levels of Vinha da Soutilha's (Chaves) Sectors A and B, there are occurrences of decorative organizations such as: XIV (combed incision motifs), II (filled triangles), IV (punching sequences) and VII (combed once more) (*Idem*, p. 129-139), more alike those identified in Alto da Madorra. For S. Lourenço (Chaves), we draw attention to the decorative organizations of the earliest Sector II: II (filled triangles), V and VI (combed incision motifs), and III (punching sequence) (*Idem*, p. 363-367). In Pastoria (Chaves), the most

frequent organizations are the IV and V (combed motifs) and II (filled triangles) for Locais 1, 2 and 4 (*Idem*: 431-440), and, for the earliest phase on Local 3, the organizations IV, V; and II, showing a great diversity of solutions for each of them (p. 483-491). Finally, in Castelo de Aguiar (Vila Pouca de Aguiar), its latest phase of occupation, dated, generally in the second half of the third millennium, presents the single case where combed motifs are the predominant decorative style, although with several diversity and decorative sub types, such as: I, IV and V (combed motifs), II (punching sequences) and III (filled triangles) (*Idem*: 597-605).

On the other hand, the cluster of sites attributed to the third millennium in the Fornos de Algodres region, may contribute to this discussion (Valera, 2007). The associated presence of combed and filled triangles decorated pottery is present at the Malhada site, the latest rather diverse and the first not so much, and another type of decorative organization, with spine motifs, although on a lower number (*Idem*: 144-149). Here we find several types of printings and metopes similar to the Alto da Madorra site. The radiocarbon and thermo luminescence dates for this artifacts point to middle of the third Millennium (approximately 2800-2300 b.C.) (*Idem*:163). The Fraga da Pena site displays a modest set of decorative motifs that includes spines, triangles and combed patterns just as in Malhada's site, but also exposes several recipients and decorations characteristic of the bell beaker assemblage (*Idem*: 234-243). The dates obtained for Fraga da Pena point to the transition between the third and second millenniums (*Idem*: 252).

In Castanheiro do Vento (Vila Nova de Foz Côa) combed pottery is the main decorative technique throughout all the Chalcolithic settlement, delivering a large variety of organizations (Carneiro, 2011a). Although, and according to available

data, filled triangles are residual and were only identified in the oldest levels of occupation, those prior to the construction of the complex stone structures (Carneiro, 2011b), dating somewhere between c.2800-2400/2300 cal b.C (Idem:215).

Similar decorated pottery was also found on several sites in the Spanish Meseta, such as Las Pozas (Casaseca de las Chanas, Zamora) (Val Recio, 1992).

While not thoroughly, we made an effort to synthesize the key archaeological sites in Oriental Trás-os-Montes and nearer vicinities where the filled triangles/combed decoration association is present. These sites exhibit similar decorative styles within a somewhat large geographical area, in some cases among other rather regional styles as the ones in the Chaves region, and in other cases alongside wide-ranging motifs such as the Bell Beakers, that are present on several of the sites mentioned above (i.e. Abrigo do Buraco da Pala in Mirandela and Malhada in Fornos de Algodres). On the other hand, regarding the typologies of such sites, we observe some diversity - a number of settlements with vast chronological occupations and stone structures of varied degrees of complexity and monumentality (such as Crasto de Palheiros or Castanheiro do Vento), and others with simpler wooden structures and feeble visibility, such as Alto da Madorra itself or the Chaves/Vila Pouca de Aguiar cluster. The differences that perhaps wander are due to the amount of decorated material found and the different solutions encountered, that might be explained with the extension of the sites and the excavated area.

These decorative similarities, on a so vast area comprising such different habitat strategies, allows for the assumption that the transmission and perpetuation of messages through decorated pottery may obey rigid models of motifs reproduction and long range techniques. There seems to be no space for creativity or for the free-

dom to “decorate” according the “will” of each community, merely adapting and combining the same old motifs and techniques already mastered and mixing them altogether.

Alongside this stylish continuity, the scarce absolute dates for these sites do not yet allow for a whole understanding of the chronological evolution for the triangle/combed decorative association. Through the information available for Buraco da Pala, it is considered that the filled triangles and the punching sequences are the eldest (Levels II e III – Sanches, 1997, vol II: 142-144), that may even date back to the late 4th millennium (Idem, vol I: 108) and only from the second quarter of the 3rd millennium combed motifs were added, at least for the Mirandela sub-region (possibly extrapolated for Eastern Trás-os-Montes?). And, as Sanches pointed out, it seems the around the middle of the third millennium the decorative organizations with combed incision became more complex, including the metopes (1997, vol I: 183), as the ones seen in Alto da Madorra.

However, the available information and the scarcity of excavated contexts still don't suffice to answer this question. The understanding of the evolution of the decorative motifs within the third millennium will require, above all, the association of stratigraphic sequences and absolute dates. On the other hand, we decided to consciously isolate one analysis variable, but it's still needed to correlate other materials and archaeological data in order to outline assemblage visualization.

Lastly, the discovery, in the middle of the 20th century, of two Carrapatas type halberds (typically incorporated in the Early Bronze Age), in the Carrapatas Parish (Bártholo, 1959) has allowed for the possibility of local manufacture, and for the fact that this artifacts may be associated with a local settlement. The location of the Alto da Madorra settle-

ment, in the same parish, and according to local sources, in the vicinity where the halberds were found, sparked the interest regarding this site. As stated earlier, we have no knowledge that Alto da Madorra stretched beyond the millennium edge, nor are we aware of any metallurgic production hints or preserved evidences. With the data gathered so far, Alto da Madorra does not solve or contribute to the questions regarding metallurgy and their respective communities. Early Bronze contexts in, this and other areas, of Trás-os-Montes, are still to be categorized. Hopefully, future investigation may shed light on these questions.

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