



SINOS E TAÇAS

JUNTO AO OCEANO E MAIS LONGE.
ASPECTOS DA PRESENÇA CAMPANIFORME
NA PENÍNSULA IBÉRICA

BELLS AND BOWLS
NEAR THE OCEAN AND FAR AWAY.
ABOUT BEAKERS IN THE IBERIAN PENINSULA

VICTOR S. GONÇALVES (Ed.)

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estudos & memórias

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BELL BEAKER CONTEXTS IN PORTUGAL: THE NORTHERN AND THE DOURO REGION BASIN¹

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RESUMO Este texto realizará a síntese dos sítios com cerâmica campaniforme na região norte de Portugal e bacia do Douro, discutindo sumariamente as bases sobre as quais assentam as propostas interpretativas anteriores. Dando particular realce a dois contextos – o do Crasto de Palheiros e o da Pastoria–, bem como a outros que têm datas de C¹⁴, defenderemos que o fabrico, circulação e uso da cerâmica campaniforme corresponde não a um fenómeno unitário, temporalmente curto, mas antes plurifacetado na sua longa duração de c. de 8 séculos (entre c. de 2700 e 2000/1900 a.C.), e, bem assim, das implicações inerentes a essa longa cronologia.

PALAVRAS-CHAVE: campaniforme; Norte e Centro de Portugal; cerâmica; estilísticas locais e regionais.

ABSTRACT This paper will perform the analytical synthesis of the set of sites that have bell beaker ceramics (campaniforme) in northern Portugal and the Douro basin region, briefly discussing the bases on which the previous interpretative proposals rests. With particular emphasis on two contexts – Crasto de Palheiros and Pastoria – as well as others that have C¹⁴ dates, we will argue that the manufacture, circulation, and use of bell beaker ceramics corresponds not to a unitary temporally short phenomenon, but rather a multifaceted one given its long duration of about eight centuries (between about 2700 and 2000/1900 BC). So, our discussion would focus on the interpretative implications that may stem from this long term use.

KEYWORDS: bell-baker; Northern and Central Portugal; local and regional ceramic stylistics.

1. SYNTHETIC APPROACH TO THE BELL BEAKER PROBLEMATIC IN THE NORTH AND CENTER OF PORTUGAL SINCE THE 1980s

It was mainly from the 1980s that different authors, supported by the increase of excavations according to updated methodologies and correlative studies of materialities, have been presenting in a more sustained way interpretative modes for the occurrence of bell beaker ceramics in the north and central Portugal. Given that in many cases they are close in their positions, we will treat them in a summarized way, highlighting the points of approach and divergence.

Susana Lopes, starting from Pastoria's ceramics and metallic artefacts, inaugurates a new way of treating bell beaker ceramics, analysing in detail the forms and contexts of local evolution and transformation of pottery stylistics (in general) in the settlements of Alto Tâmega – Corgo region, where she highlights that the phenomena of communal and extra communal interaction – where traditionally the interpretations of bell beaker ceramics are inscribed – can only be analysed by prior knowledge of other factors, with an emphasis on the economic and social strategies of the different groups and, as well, in the symbolic role of these artefacts (Jorge, 1986: 771-786). In the settlement of Pastoria (see below, point 3.2), the campaniforme/bell beaker is adopted without ruptures in a process of stylistic transformation internal to the region, which already comes from the first half of the 3rd millennium BC., which denotes, in the second half of the 3rd millennium BC., in all the region of Chaves, structural changes due to a greater extralocal and extra-regional interaction. In this case, ceramic stylistics is highlighted as an element that is in the «first line of information exchange» (*Idem*: 786) and she focuses on the particular role of this style in a domestic context.

In the same vein, one of the authors of this text (Sanches, 1997) and A. C. Valera (2000; 2007) tried to understand, in the first case with the study of the Tua sites (with emphasis on Buraco da Pala), in the second, the Alto Mondego region (with emphasis on Fraga da Pena) – the processes of assimilation and regional transformation of the stylistics that have extralocal character (classic campaniforme and their imitations/transfigurations), and the social and political uses that ceramics could have had in each one of those places.

In only two cases – Pastoria and Fraga da Pena – were chemical analyzes of the pottery carried out, which was a significant step forward in addressing the nature of the exchanges, and in Pastoria campaniformes all are of local manufacture following extralocal models (transformed) and, in Fraga da Pena, A. C. Valera emphasizes an extremely important element, which is that at a regional and extra-regional scale both campaniformes and other

local or regional styles circulated (Valera, 2007: 514-519).

Fixing the material manifestation of the campaniforme in both places in the second half of the 3rd millennium BC (although only with C¹⁴ dates in the Fraga da Pena), both authors link it with larger, long-lasting interaction phenomena (beginning at least at the beginning of the 3rd millennium BC), which would have intensified in this period through more standardized forms (in ceramic stylistics, artifacts, ornaments), indicating the emergence of local or regional leaderships (Valera, 2007: 514-519).

On the other hand, Domingos Cruz (1992), on the purpose of the monograph of Mamoa de Chã do Carvalho 1, which contained a campaniforme burial, makes a synthesis of what is known up to then; he is followed by Senna-Martinez (1994) who sees in Central region of Portugal the campaniforme «package» (ceramics, weapons, ornaments) as a materializer of the processes of social complexity, located at the beginning of the 2nd millennium BC. The contribution of Sandra Barbosa is done in order to understand the campaniforme occupation of what was then known in Crasto de Palheiros (its possible functions), making the first regional integration of this site (Barbosa, S. 1999).

João Rebuge develops, in 2004, a major reflection on how the campaniform is traditionally addressed, noting that this tends to be regarded as static and separate materiality in relation both to other materialities, or to individual contexts, both in historical- culturalist approaches as in processual ones. And it follows the perpetuation of circular – analytical interpretative models that limit the introduction of new explanatory ones (Rebuge, 2004) which, in any case, have already begun to emerge, as is deduced from the above discussion.

In 2004 Susana Lopes considers that there is no way to clearly establish a campaniform inner diachrony (in its various styles) in Northern Portugal, but admits, as in 1986, that it may have been a short-lived phenomenon, «somewhere in the 3rd millennium BC.» (Jorge, 2002: 41).

Ana Bettencourt (Bettencourt, 2011), unlike the approaches that put this materiality at the end of the 3rd/2nd millennium BC, situates the use of this ceramic in the 1st half of the 3rd millennium, on the basis of the absolute dates of Crasto de Palheiros Enclosure/precinct, Buraco da Pala rock shelter and ditch Enclosure of Forca. It is important to point out that the author separates chronologically and culturally this period from the following – 3rd quarter of the 3rd/beginnings of the 2nd millennium BC –, taking into account the fact that the funerary contexts of Northern Portugal during this last period do not already contain campaniform ceramics. Referring concretely to: Meninas do Crasto 4, Outeiro

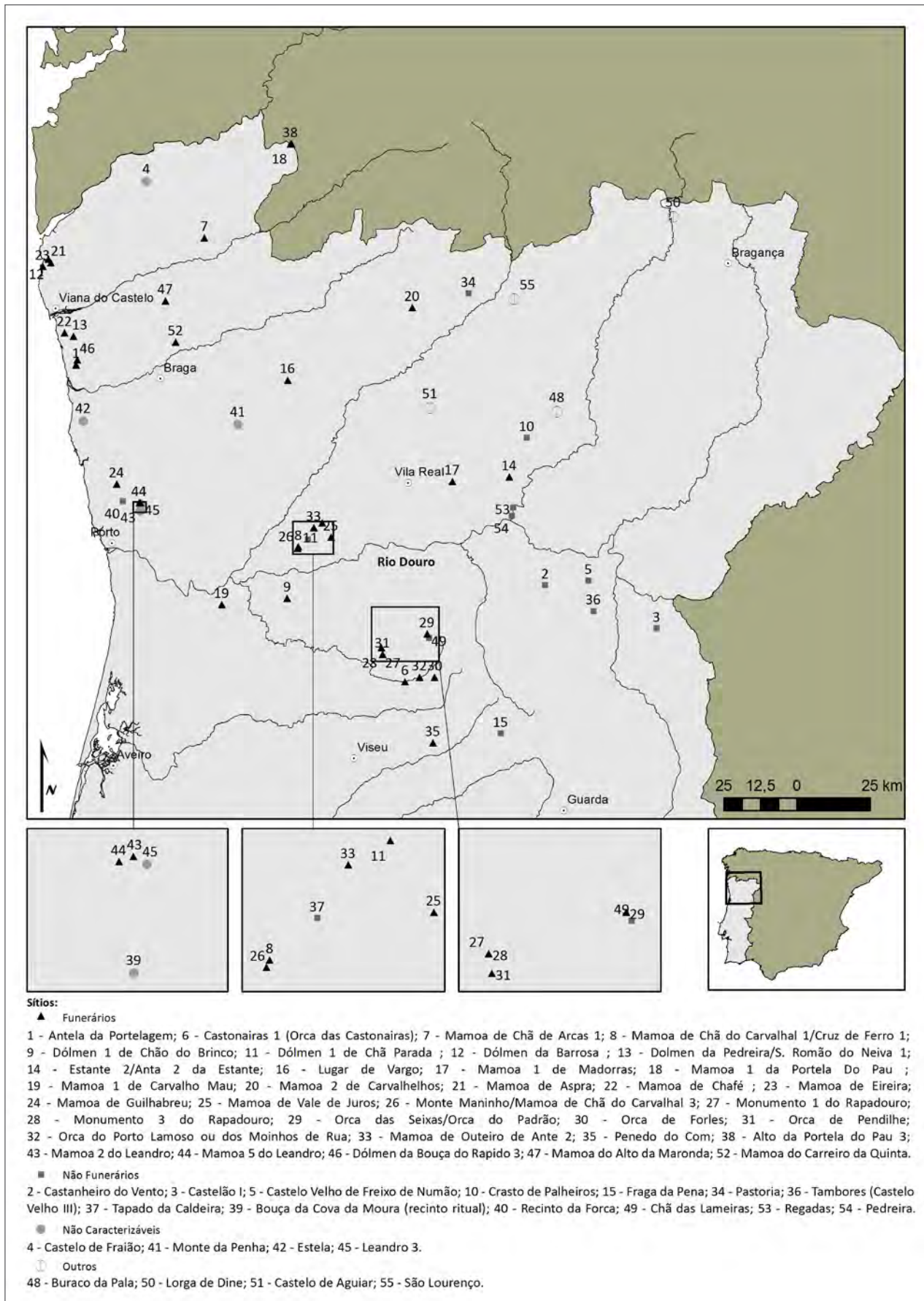


FIG. 1 Map of the North of Portugal and Douro basin showing archaeological sites having bell beaker (campaniform) ceramics. Triangles – funerary sites; squares – non funerary sites; full circles – non characterizable sites; circles – other sites.

dos Gregos 1, Quinta da Água Branca, Sítio do Vale Fereiro and funerary pit graves of Boucinhas/Regueiras.

The present text seeks to synthesize what is known up to now and to briefly discuss (using statistics) the claims on which the already listed interpretative proposals are based on. Giving particular emphasis to two contexts (as there are texts size limitations) – Crasto de Palheiros and Pastoria –, we will defend that the manufacture, circulation and use of campaniform ceramics corresponds not to a unitary phenomenon but rather to a multifaceted and differentiated one, which has varied expression according to the regions, in the line of S. Jorge, S. Barbosa, J. Rebuje and A. Valera (Jorge, 1986; *idem*, 2002; Barbosa, 1999; Rebuje, 2004; Valera, 2006). Besides that we add to our discussion their long duration of about at least eight centuries with the interpretative implications that may stem from this long term use.

2. WHAT THE STATISTICAL TREATMENT OF SITES BY CATEGORIES AND THEIR GEOGRAPHICAL DISPERSION CAN DEMONSTRATE

Our approach focuses on the North and Center of Portugal, being the area covered by the basin of the river Douro one that allowed us to use the south basin of this river as to outline the limits of this study. However, in the general analytical charts we also include Fraga da Pena site because it is located on the *plateaux* that establishes the connection between the hydrographical basins of the Douro and the Mondego rivers.

It is a relatively extensive region that includes very diverse ecosystems, but which can roughly be divided into two areas: the shoreline, atlantic, of smaller extent, demarcated from the interior, continental, by the alignment of mountains that follow in a barrier (generally orientated from NE to SW), that includes Serra do Gerês, Alvão-Marão (North of the Douro), and Caramulo-Montemuro (South of the Douro). This defines a very narrow coastal area encompassing the basins of (lower) Minho, Lima, Cávado, (low) Tâmega (low) Douro and (low) Paiva. And an extensive interior region, or *hinterland* that gradually associates orographically and climatically to the Meseta region (in Spain), both also marked by the Douro basin.

However, and without appealing to any geographic determinism, nor to the predetermination of dominant interaction circuits depending on the courses of the rivers or mountain passes, the prehistoric settlement of the areas that we consider here to be already *hinterland*–Alto Tâmega, Serra da Padrela and Alto Paiva – show evidence, since the 4th millennium BC, both in megalithic monuments, as in other materialities (including rock art), of a clear interaction with either more coastal groups and more interior ones. This bar-

rier makes and breaks up, depending on specific facets of the communities that were addressed. The campaniform pottery configures only one of these aspects, to be discussed in this text. We chose the statistical approach of the set of different sites because it seems to us that this is still the one method that allows us to configure the campaniform question within the constraints of the investigation, and thus to admit that these conclusions are extremely provisional.

The 55 known sites with campaniform pottery – Table 1 and Fig. 1 –, were divided into the following 3 primary categories. Funerary: dolmens, miscellaneous mamoas (barrows)/*tumuli* /*cairn* – 33 cases. Non-funerary: settlements; walled enclosures; ditch enclosures; caves/rock shelters; sites that are difficult to characterize – 18 cases. Other – refers to 4 sites that do not have what we call classical campaniform, but local or regional stylistics (and/or forms) articulable with bell beaker models (or campaniform-related).

We would not need statistics to conclude that as excavations increase, particularly in open and enlarged areas, so does the number of sites that reveal having campaniform ceramics, and, for that reason, in the last decades those have increased exponentially. 78% of the cases are in fact known through excavations and the remaining 22% correspond to findings through field surveys. On the other hand, such excavations and subsequent complete studies of the ceramic collections have allowed us to equate stylistics and forms that cross those characteristics of the campaniform, creating «hybrids», these are named, from S. Jorge (1986) imitations, or local styles of imitation, and so we also keep the term.

The first perception is that funerary sites represent about 65% of the cases, indicating, at first reading, that it would be in these burial rituals that this materiality of exogenous origin, or manufactured according to exogenous and broad models, circulated. However, the statistics also indicate here that as excavations increase in the area within the settlements, this difference tends to be diluted, since only 72% of the non-funerary sites were excavated, compared to 83% of a funerary kind. We cannot, therefore, lightly say that campaniform ceramics affect mainly funerary contexts, but rather that it runs through several situations, but the rate of findings remaining very low on all sites and, in most cases, where there are extensive excavations, such ceramics appear in spatially well-defined areas, such as Crasto de Palheiros, Pastoria and Regadas.

The same can be said when we internally contrast the 3 classes of funerary sites, where 73% are dolmens with orthostatic chamber and/or corridor (in second or later reutilizations), with subcircular and low *tumuli* (mamoas/barrows), holding only 9%. Mamoas/barrows in general, whose data comes mainly from surveys, rep-

ARCHAEOLOGICAL SITE	MUNICIPALITY	TIPOLOGY	BELL BEAKER TYPE	BIBLIOGRAPHIC REFERENCES
Mamoa 1 da Portela do Pau	Melgaço	Dolmen without corridor	Maritime: linear; geometric	Jorge <i>et al.</i> , 1997
Mamoa 3 da Portela do Pau	Melgaço	Tumulus without megalithic structures	Geometric	Jorge <i>et al.</i> , 1997
Dólmen da Barrosa	Caminha	Corridor dolmen	Pontilhado geométrico (?)	Jorge, 1986; Cruz, 1992
Mamoa de Aspra	Caminha	Mamoa/tumulus	Maritime: banner; geometric	Cruz, 1991
Chã de Arcas 1	Arcos de Valdevez	Mamoa/tumulus	Maritime: linear	Jorge, 1986; Cruz, 1992
Dólmen da Pedreira/ S. Romão do Neiva 1	Viana do Castelo	Corridor dolmen	Maritime	Bettencourt, 2009
Mamoa de Eireira	Viana do Castelo	Corridor dolmen	Marítimo: banner	Cruz, 1992; Bettencourt, 2011
Mamoa de Chafé	Viana do Castelo	Dolmen without corridor	Marítimo: banner	Jorge, 1986; Cruz, 1992; Silva, 2003
Mamoa do Carreiro da Quinta	Vila Verde	Dolmen without corridor (?)	Geometric	Sampaio <i>et al.</i> , 2013
Alto da Maronda	Vila Verde	Mamoa/tumulus	Maritime: geometric	Bettencourt, 2011
Antela da Portelagem	Esposende	Corridor dolmen	Geometric	Bettencourt, 2009; Bettencourt, 2010
Bouça do Rápido 3	Esposende	Corridor dolmen	Maritime	Bettencourt, 2009
Lugar de Vargo	Fafe	Funerary ???	Geometric	Bettencourt, 1991/92
Mamoa de Guilhabreu	Vila do Conde	Mamoa/tumulus	Maritime: linear	Jorge, 1986; Cruz, 1992
Mamoa 2 do Leandro	Maia	Corridor dolmen	Maritime: banner	Valera & Antunes, 2008; Bettencourt 2010
Mamoa 5 do Leandro	Maia	Corridor dolmen	Geometric	Bettencourt 2010; Bettencourt, 2011
Chã do Carvalhal 1	Marco de Canaveses	Mamoa /tumulus with chamber of cist type	Maritime; geometric; incised; Palmela; undecorated	Jorge, 1986; Cruz, 1992
Dólmen 1 de Chã Parada	Baião	Corridor dolmen	Maritime: linear;geometric	Jorge, 1986; Cruz, 1992
Mamoa de Vale de Juros	Baião	Dolmen without corridor	Geometric	Cruz, 1992; Carneiro <i>et al.</i> , 1987
Mamoa de Outeiro de Ante 2	Baião	Dolmen without corridor	Geometric	Jorge, 1986; Cruz, 1992
Monte Maninho/Mamoa de Chã do Carvalhal 3	Baião	Dolmen without corridor (?)	Geometric	Cruz, 1987
Mamoa 1 de Madorras	Sabrosa	Corridor dolmen	Maritime: linear; geometric [Ciempozuelos/Palmela (?)]	Jorge, 1986; Cruz, 1992; Gonçalves & Cruz, 1994
Mamoa Estante 2	Alijó	Mamoa /tumulus (with chambre of cist type?)	Maritime or geometric (?)	Nunes, 2003
Mamoa 2 de Carvalhelhos	Boticas	Mamoa/tumulus	Incised	Jorge, 1986; Cruz, 1992
Mamoa 1 de Carvalho Mau	Castelo de Paiva	Mamoa/tumulus	Maritime or Geometric (?)	Silva, 1995
Orca de Seixas	Moimenta da Beira	Corridor dolmen	Maritime: banner	Cruz, 2001:185
Monumento 1 do Rapadouro	Vila Nova de Paiva	Mamoa /tumulus with chambre of cist type	Geometric	Cruz, 2001: 183-185,196
Monumento 3 do Rapadouro	Vila Nova de Paiva	Mamoa /tumulus with chambre of cist type	Linear	Cruz, 2001
Castonairas 1 (Orca das Castonairas)	Vila Nova de Paiva	Corridor dolmen	Maritime: linear; undecorated	Senna-Martinez & Pedro, 2000; Cruz, 2001:185

TABLE 1.1. Archaeological sites having bell beaker (campaniforme) ceramics in northern Portugal and the Douro basin. Mamoa = barrow.

ARCHAEOLOGICAL SITE	CONCELHO	TIPOLOGY	BELL BEAKER TYPE	BIBLIOGRAPHIC REFERENCES
Dólmen 1 de Chão de Brinco	Cinfães	Corridor dolmen	Maritime	Senna-Martinez & Pedro, 2000
Orca de Pendilhe	Vila Nova de Paiva	Corridor dolmen	Geometric	Cruz, 2001:185
Orca do Porto Lamoso or dos Moinhos de Rua	Vila Nova de Paiva	Corridor dolmen	Maritime: banner, linear	Cruz, 2001; Gomes & Carvalho, 1993
Orca de Forles	Satão	Corridor dolmen	Maritime: banner	Cruz, 2001:185,
Penedo do Com	Penalva do Castelo	Corridor dolmen	Maritime: banner	Gomes & Carvalho, 1993
Castelo de Fraião	Valença	Settlement (?)	Maritime: linear (?)	Almeida <i>et al.</i> , 1995
Monte da Penha	Guimarães	Settlement (?)	Geometric	Sampaio <i>et al.</i> , 2009; Bettencourt, 2011
Estela	Póvoa do Varzim	Settlement	undecorated	Bettencourt, 2011
Bouça da Cova da Moura	Maia	Megalithic(?) Precinct	Geometric; incised	Bettencourt, 2010a; Bettencourt <i>et al.</i> , 2012
Leandro 3	Maia	Settlement (?)	Geometric	Bettencourt, 2011
Forca	Maia	Ditched enclosure	Corded (AOC)	Bettencourt, 2010a; Bettencourt, 2011
Tapado da Caldeira	Baião	Settlement	Maritime: linear; geometric; incised (Ciempozuelos)	Jorge, 1980; Cruz, 1992
Pedreira	Alijó	Settlement	Maritime: banner	Inédito. Information by Joana Castro Teixeira
Regadas	Alijó	Settlement	Maritime: banner	Inédito. Information by Joana Castro Teixeira
Pastoria	Chaves	Settlement	Maritime: linear; geometric; local styles; undecorated	Jorge, 1986; Cruz, 1992
Crasto de Palheiros	Murça	Walled Enclosure/precinct	Maritime: linear and internacional; geometric; incised; corded (AOC)	Sanches (ed.), 2008; Barbosa, 1999
Chã das Lameiras	Moimenta da Beira	Settlement	Maritime: banner; geometric	Cruz, 2001:388 and Fig. 56 of vol. II
Tambores (or Castelo Velho III)	Vila Nova de Foz Côa	Settlement (?)/ Walled precinct (?)	Maritime: linear; Incised	Museu do Côa, on line
Castanheiro do Vento	Vila Nova de Foz Côa	Walled Enclosure/precinct	Maritime: linear	Jorge <i>et al.</i> , 2002
Castelo Velho de Freixo de Numão	Vila Nova de Foz Côa	Walled Enclosure/precinct	Corded (AOC)	Jorge, 2002
Castelão I	Figueira de Castelo Rodrigo	Settlement (?)/precinct (?)	Incised	Museu do Côa, on line
Fraga da Pena	Fornos de Algodres	Walled Enclosure/precinct	Maritime; printed with cane; printed with nail; printed with spatula; undecorated	Valera, 2007
Buraco da Pala	Mirandela	Others – rock shelter	Bell beaker forms and local styles	Sanches, 1997
Lorga de Dine	Vinhais	Others – cave	Local styles	Sanches, 2017 (in press)
Castelo de Aguiar	Vila Pouca de Aguiar	Others – Settlement	Local styles	Jorge, 1986
S. Lourenço	Chaves	Others – Settlement	Local styles	Jorge, 1986

TABLE 1.2. Archaeological sites having bell beaker (campaniforme) ceramics in northern Portugal and the Douro basin (second part). Mamoas=barrow.

resent 12% of the cases, but they do not allow us to go beyond the observation that they will be funerary, not being aware at all of their chronology since both in the North and in the Center of Portugal and Galicia they are constructed mamoas/*tumuli* in all sizes throughout the 4th millennium BC, and mamoas/*tumuli* progressively lower and smaller (with or without orthostatic structures inside) throughout the 3rd and early 2nd millennium BC (Cruz, 1992: 97-98; *idem*, 2001: 307-310).

If the marked disproportion between dolmens and small *tumuli* (to adopt Domingos Cruz's denomination because he refuses to speak of «megalithism» in the North and Center from the end of the 4th millennium BC), is extremely significant, this fact shows a certain preference for the appropriation of the traditional monuments that refer to long-established ancestral territories and ontologies. However, this finding, which we intuit is close to reality, must be considered. Except in regions where systematic excavation of complete funerary necropolis are carried out, as is the case, for example, of Serra da Aboboreira (Aboboreira mountain) or of the Alto Paiva region (Fig. 1), where smaller monuments are also excavated, then the proper opposition can be made. In fact, Mamoia de Chã de Carvalhal 1 shows a typical bell beaker burial, revealing coherence between ceramic stylistics and «campaniform» metals – 10 (or 11) campaniform vessels, 5 Palmela type arrowhead and 2 daggers, both in copper (Cruz, 1992) – which highlights perfect consonance of constructive local traditions related to the Neolithic, with models of innovative artefacts, with wide regional and extra-regional circulation of the 2nd half of the 3rd millennium BC.

Within the set of archaeological sites, in principle, non-funerary, 36% are open settlements, 28% are enclosures (walled and ditched), 28% could not be characterized by lack of excavations (and we must add up to this group 9% in cave/rock shelter). Anyway, it appears that the diversity is great and although walled enclosures seem to be rarer than open settlements, these data, though impressive (for the small amount under analysis), point us to the conclusion that (during that which we believe was the long duration of the bell baker) this pottery does not denote situations or unitary social practices, but rather the contrary, that this would relate to a wide range of factors inherent to different local settlement networks, ie, to the variable role that certain material items would assume.

The geographical dispersion of archaeological sites with bell baker/campaniforme tends to be regular. Therefore, the map of Fig. 1 clearly reveals that it is mainly due to the development of research projects, on the one hand, and the geographical incidence of small and large rescue archaeological works, on the other, that new identifications are made. However, in the eastern

territory of the Tua River, despite a great number of excavations, no campaniforme pottery has been identified until now, only hybrids/imitations, in Lorga de Dine (along with some metallic artefacts)(Sanches, 2017, in press), and metal artefacts frequently associated with bell beaker (dagger, arrowhead in copper and bone ring, in the caves of Ferreiros/Monte Pedriço – M. do Douro) (Sanches, 1992), which are not the subject of this study.

3. CONTEXTS CHOSEN FOR DISPLAY: CRASTO DE PALHEIROS ENCLOSURE AND PASTORIA SETTLEMENT

3.1. CRASTO DE PALHEIROS

The Crasto de Palheiros site (Palheiros, Murça – V.^a Real) was excavated since 1995 and has several publications, we will be highlighting for the purposes of this text, the following: Barbosa, S., 1999; Amorim, 1999; Sanches (ed.), 2008; Barbosa, H., 2015; Sanches, 2016.

This site, located in the Mirandela basin, at a short distance from the Buraco da Pala rock shelter, consists of a bizarre hill with quartzite escarpments, that was transformed into a precinct/walled enclosure during the beginning of the 3rd millennium BC through powerful embankments in stone and clayey earth, over which walls in perishable materials were built (Crasto I). The Upper (or Interior) Enclosure, outlined by outcrops, a perishable wall and powerful embankment, is topographically superimposed on the Lower (or Outer) Enclosure, because the latter surrounds the former (Sanches, 2016: Fig. 2 to 6). It is in the Upper Enclosure that the classic bell beaker ceramics are found. The hill also has, in its north and northwest side, occupations that extend themselves outside the Outer Embankment, but these are still poorly known. Thus, what is considered here is only the top of the hill, which has durable structures (the enclosure surrounded by embankments) and not the entire area occupied in Prehistory².

In the Upper Enclosure, two areas were excavated: one in the eastern part – PSL – Upper Eastern Platform, and the other in the northern area – PSN – Upper Northern Platform (in this one the excavation was incomplete) (Fig. 3 and 5). In the Lower Enclosure two areas were excavated too: one in the eastern area and the other in the northern area, allowing to confirm that (i) in the latter there are remains of the so-called «domestic occupations» under the Lower/Outer Embankment, and (ii) that the different sections of this outer Embankment were not coetaneous in their construction. Although stratigraphically it is not possible to establish a real diachrony between the creation of the Upper Enclosure and that of the Lower Enclosure in its eastern zone, the ceramic stylistics (forms and decorations) – which

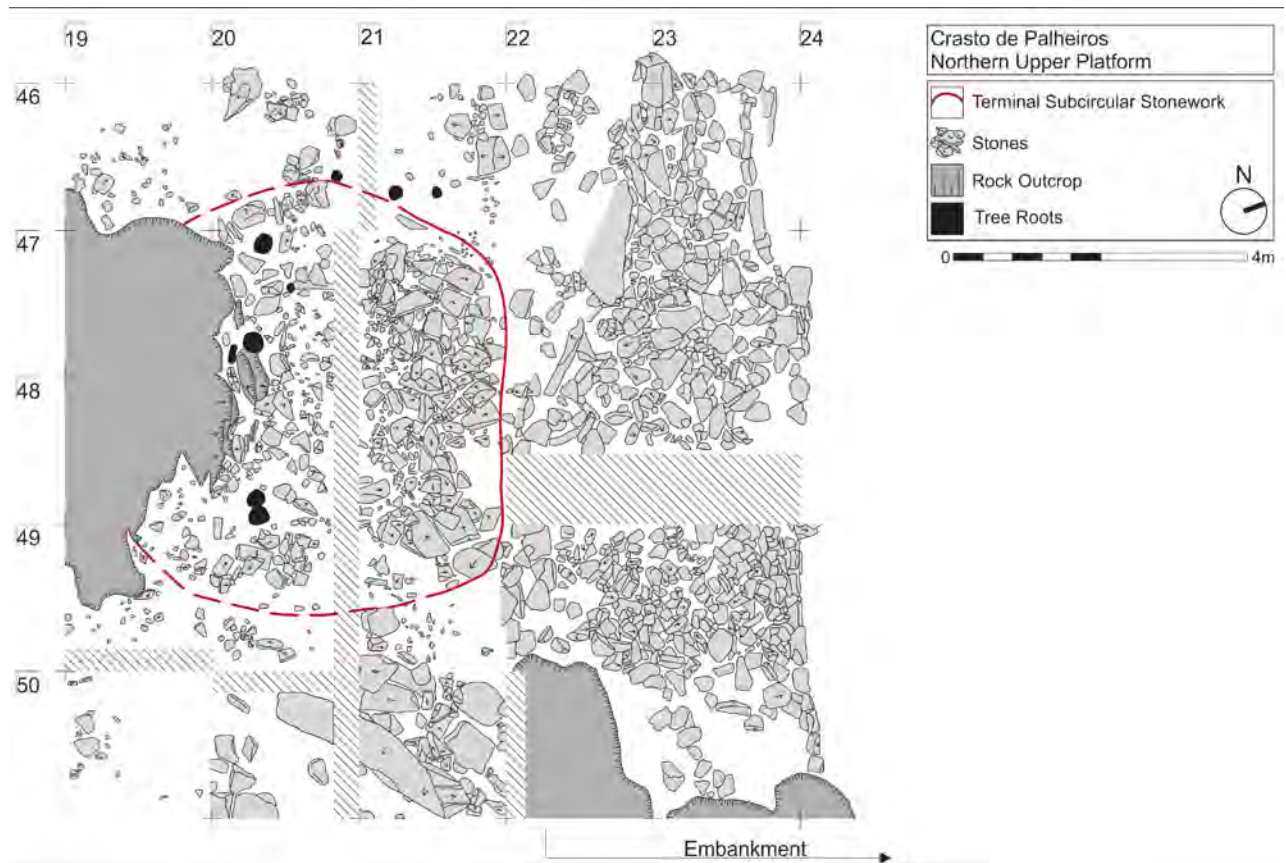


FIG. 2 Crasto de Palheiros Upper Northern Platform (PSN). We point out the approximate contour of the condemnation structure – Upper sub circular Terminal Structure (ETS). On the right side the Embankment is already observable.



FIG. 3 Upper sub circular Terminal Structure – ETS (see Fig.2). We have highlighted its outline and, in the centre, the area below which we have found the sub circular Stone Structure (EP2 [39]).

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47/21

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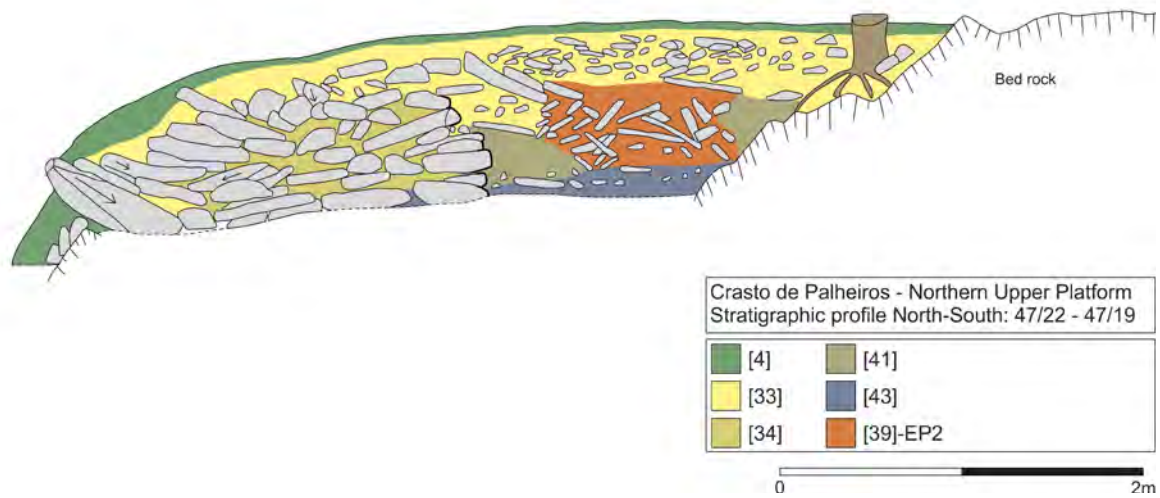


FIG. 4 Stratigraphic profile N-S of the Upper sub circular Terminal Structure: [33]+[34] – ETS– terminal condemnation; [41] stratigraphic context of use of [39]; [39] – the sub circular Stone Structure 2 – [EP2] having, at least, 2 condemnations; [41] occupation level (not fully excavated).



FIG. 5 Sub circular Stone Structure (EP2) at the end of the excavation. We have highlighted the area from which the coal that resulted in the dating of C¹⁴ Ua-22284 was collected.

is more conservative in layer 2 of the PSL (and in PSN [43]) (Fig. 4) –, suggest that the Upper Enclosure was built before the Lower Enclosure, although the C¹⁴ dates did not allow such clear discrimination (layer 2 had no charcoal to date). The dates of the Lower Enclosure in its eastern zone – and also in the northern zone, that is, when this latter area wasn't yet architecturally circumscribed – are already published (Sanches (ed.), 2008: 45). They allow us to suppose an absolute contemporaneous use of the Upper Enclosure and of the Lower Enclosure in their Eastern area, prior to the condemnation of any of them, in the period between about 2740 and 2480 BC. But they also admit that the Upper Enclosure has had slightly earlier condemnations than the Lower.

Indeed, in the Upper Enclosure the two dates whose context is trustworthy (undisturbed) gave the following results. CSIC 1280–4087 ± 34 BP – 2860-2495 AC (cal 2σ): this sample comes from the upper half of the occupation layer [20], a restricted area with a hearth and a polygonal structure filled with sterile sediments, a slab with cups and a little vase buried upright in the soil and covered with clay (Barbosa, S. 1999: Fig. 9; Sanches, 2016: Fig. 7). The carapace of condemnation sealed this layer. The 60 fragments of bell beaker ceramic come from that stratigraphic unit [20]³ and also from layer 1, ie, from an area of 88 m². Layer 1 was the name given to the layer in the area where it was not overlain by the stone's intentional «sealing», and [20] when the layer already had it. A fireplace, other structures and remains of consumption of domestic animals, cereals and legumes are found in this layer 1 (and also in layer [20]).

In PSN, only the upper levels were excavated, and those were disturbed by the occupation of the Iron Age (Crasto III), and by the erosion, except for an area of 20 m² (Fig. 2 to 5), following the identification of a sub circular «sealing» structure (carapace), similar to a barrow or *tumulus*, formed by slabs of different sizes, clayey earth, ceramic fragments, percussion artefacts, quartzite flakes and pebbles, mill stones – which we named the Terminal Circular Structure – ETS (Fig. 2 and 3).

Digging deep into this limited area allowed us to understand that this was really the condemnation structure of this very narrow zone, which is drawn on a narrow platform outlined by a stone alignment built over the Enbankment. Between that and the rock outcrop it draws up an occupation layer [41] that surrounds and follows a stone subcircular structure [EP2 = 39], that we have found already condemned (Fig. 4 and 5). From its interior were exhumed ceramic fragments, among which an incomplete broken recipient (with bell-shaped profile and decorated by comb according to the [I2/metope] organization). Burned sediments [of 41] surrounded and are contemporaries of this subcircular structure (Fig. 4 and 5) and it was from them that we

obtained the date: Ua-22284: 4035 ± 45 BP-2850 to 2469 BC (2σ cal.).

The bell beaker ceramics come from the upper (revolved) stratigraphic units but mainly from the condemnation stratigraphic units we designate [33] (+ [34]), and from the level of occupation stratigraphically related with [41] and [39] (Fig. 4).

On both platforms, beaker/campaniform correspond to the terminal moment of occupation, but while here, in PSN (northern area) it is dominantly related to condemnation and, to a lesser extent, with occupation, in PSL (eastern area) no fragment was exhumed in the condemnation level (carapace), but only in the occupation layer that underlies it ([20] and [cam.1]).

Copper metallurgy, although not very expressive, is indicated in both areas by casting remains, spike/rivets, tiny deformed plates, slag, 2 axe fragments, and in PSN also by crucible fragments (not yet analyzed).

The bell beaker also appears in its version of the maritime complex and of the geometric group (which is quite diversified), and a much eroded fragment, that seems corded, has been collected in the PSN (Figure 6, no. 3; 5 to 8). We must hold in high account the type 8 containers – bell-shaped with a simulation of carena, that are similar to the Acebuchal «cup» –, that are systematically related with an extremely standardized incised decoration [I1a] (see decorative organizations in Sanches (ed.), 2008). They have just as good or better careful surface treatment than the classic campaniforme, although they have dark brown oxidizing cooking surfaces, as opposed to the reddish brown campaniformes (Fig. 6, no. 1 and 2; Fig. 7, no. 8). They also relate, in at least one case, to the organization V3, which replicates, in its combed printed version, the bell decorative bands, thus being similar in shape and decoration to the Pastoria container (Fig. 8, no. 8). In these containers, the form [8] and the decorative organization itself [I1a] – which is incised –, should be valued, as this is also very rare. Actually, the vertical panels of alternating crosslinked with space voids, join sometimes in a star design at the bottom of the container. This decorative organization (which we call the «imitation» of incised campaniforme) is also associated with little closed globular vessels, small bowls and high bowls (Fig. 6, no. 1), setting up a formal panoply similar to that of the group of bell beakers forms. However, while the latter set – which we call the exceptional ceramics of the Crasto, but which we could also name as its incised tableware – is found in all the excavated areas (always in very small percentages), the printed maritime and geometric styles are confined to the Upper Enclosure. In the Upper Enclosure, and particularly in the PSL, type 8 containers added to the campaniformes represent about 10% of the total. In this proportion, 5,4% are

bell beaker, and 4,6% are type 8 containers. Likewise, it is also worth comparing the dimensions since these type 8 pots look like drinking glasses, ranging in size from 0,47 and 1,164 liters, being the bell-shaped variation in PSL greater: between 0,94 and 5,75 liters. Neither of them have any traces of being used over a fire.

The beaker set consists of 60 fragments, of which a minimum of 14 and a maximum of 18 containers were reconstituted in the PSL area (plus 4 fragments associated with the Ciempozuelos complex, see note 2) (Fig. 7, no. 5 to 7). And 69 fragments in the PSN area, but the fragmented state of the latter only allow us to advance that they can belong to 25 different containers, although only 9 small size forms have been clearly identified (all of these fit in the PSL typology: Fig. 8, no. 8).

Considering the fragmented state of the ensemble, it is observed that the decoration is evenly distributed between the maritime and the geometric complex, but in the PSN group the decoration is more baroque than that observed in the PSL (Fig. 6, no. 3). On the other hand, it is worth pointing out that this is the site in the North of Portugal that displays more quantity of «classic» bell beaker. But statistics can also aid in a better understanding of the actual weight of the bell beaker ceramic within the set of decorated ceramics (since no smooth fragments were identified). In the eastern area (PSL) it represents 5,2% and in the northern area, in the contexts that integrate the Upper Terminal Structure (PSN), it is slightly higher: 7.4%. They are nonetheless sufficiently low, which gives it an exceptional character and neither the context in which they are found nor the quality of most of their pastes or surface treatment, allow us to assume that they could be used routinely.

In addition to the incised campaniform [I1a], the styles that translate local bell beaker decorative versions, especially the additive combed bands [V5], are distributed throughout all areas of the Crasto too. As well as the metopes drawn through comb incision given that both are found with some frequency associated with carefully crafted containers. This fact actually discriminates the context of use of the printed («classic») bell beaker in the Crasto, but these contexts must have been varied since in the eastern area of the Enclosure its use could be performed commensality, and in the northern area the fragments seems to be (dominantly?) object of intentional deposition – as fragments that would refer to other practices and/or as construction material. This occurs mainly in the Upper Terminal Structure that seals the central part of the platform, as was verified by the fragmentation and conservation studies of its ceramics – that shows rare remounted fragments–, that are aspects of a more enlarged and accomplished study but whose results we won't expose due to length requirements.

To conclude, and thus to give more credibility to the old dates associated with bell beaker in the Upper Enclosure, we add that, in the Lower Enclosure a bell-shaped pot was exhumed in the stratigraphic level [112], with the following date: Ua-18528: 4060 ± 50 – 2860-2472 cal BC. And another one comes from the basis of [109.1] level, but where the charcoal sample was designated as [109.2] (Barbosa, H., 2015) (Table 2). The result of the latter sample is as follows: Ua-22212: 4065 ± 45 BP–2859-2475 cal. BC.

3.2. PASTORIA

It is an open settlement in Redondelo-Chaves (V.^a Real), Alto Tãmega that was excavated and published monographically by Susana Lopes (Jorge, 1986), and this is the publication on which we will base our exposition. The settlement with about 0,4 hectares extends along diverse slope platforms, the excavated one being the widest among them, which is outlined in a spur (Local 3 – South of the forest road).

The classic bell beaker ceramics – 2 decorated pots (of a geometric decoration) – and 1 without any decoration, have a very angular profile, and come from the 2nd and last occupation level of Local 3 (140 m²), which also provided 1 pricker, 1 chisel and 1 curved knife, all made out of arsenical copper. But the 54 bell beaker fragments (some of which from the superficial layer) allowed to observe 5 decorative variants within the maritime and geometric dots.

Susana Lopes spatially and chronologically relates this 2nd occupation of Local 3 with the occupation of Local 2 in the northern area of the forest road, areas that primitively would have been a continuous space. From the latter comes an Acebuchal type container («bowl») with a combed additive decoration [V-1.i] (Fig. 8, no. 8) and, in ancient findings, an arsenical copper dagger was recovered too.

Although the whole site has a domestic character, the detailed description of how the oldest occupation was sealed in a restricted area [c. 4] and prepared the «floor» for the most recent occupation [c. 3 and 2] through a dense stone filling – which included mills and many other archaeological material –, presents some similarities with the «sealing» materialized in the Terminal Structure of the Upper Platform of the Crasto de Palheiros.

Other aspects of this Local 3 indicate that this was a particular area, of which we highlight the existence of central structures flanking/circumscribing an area with broken pots «in situ» (Jorge, 1986: 463-506, 548-552, 855), which reveals us intentional depositions as well. In addition to stone mills, arrowheads (in shale, flint and corneal), axes and adzes, the remaining pottery is highly decorated (80%) and, within the whole, a

high percentage of decorations is related to the beaker sequence in its additive/international version (especially decorative organization IV and V), but there are also, although rare, decorative organizations inspired by the Ciempozuelos style.

Within the level of ceramic stylistics, the campaniforme still coincides with the «overcoming of morphological regionalism observed in the previous phase» (JORGE, 1986: 544) thus, to a dominant Atlantic interaction, but where the central Iberian interaction is still present. The chemical study of campaniform pastes led to the conclusion that they come from local manufacturing. The settlement does not have absolute dates,

but Susana Lopes proposes the approximate period between 2000-1900 BC (non calibrated), based on the internal evolution of ceramics, on the typology of metals, on bell beaker ceramics and on C¹⁴ of Castelo de Aguiar II settlement (Table 2). (Jorge, S., 1986: 559). In calibrated chronologies the settlement would date from the the second half of the 3rd millenium BC.

Finally, in our oppinion, it is possible that this platform of the Pastoria also configures a particular space within the whole area of the settlement (that is incompletely excavated). Pastoria settlement although well studied, deserves that its data should be revised in the light of new paradigms.



FIG. 6 Crasto de Palheiros's ceramics. 1 –semi spherical bowl –, and 2 – type 8 recipient –, both having a [I1a] decorative organization; 3 – fragments of the bell beaker recipients (maritime and geometric) of the Upper Northern Platform (PSN).

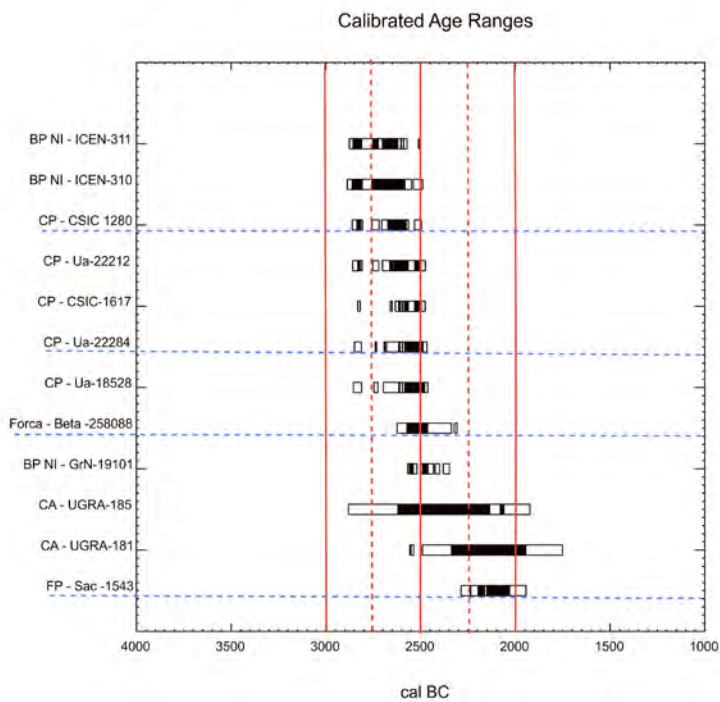


TABLE 2. Graphical representation of C^{14} dating (cal 2σ BC), of the following sites: BP – Buraco da Pala rock shelter; CP – Crasto de Palheiros enclosure; Forca – enclosure; CA – Castelo de Aguiar settlement; FP – Fraga da Pena enclosure. Highlighted through horizontal dashed lines are the datings from context directly related to bell beaker ceramics (maritime groups, geometric and corded ware). (Calibration acc. Reimer *et al.*, 2013).

4. DISCUSSION AND CONCLUSIONS

Faced with the data set out above, and with the support of Table 2, the following can be put forward.

In the North of Portugal and the Douro basin, the bell beaker ceramics can be chronologically framed between around 2800/2700 and 1900/1800 BC or, if we want to restrict the date ranges in its statistical overlap, between 2700-1900 BC (Table 2), being that these dates come mainly from the dating of enclosures: Forca, in the coastal area north of the Douro; Crasto de Palheiros (in Tua's basin) and Fraga da Pena (Alto Mondego), in the *hinterland*. The corded bell beaker is present in Forca (coastal), in Castelo Velho F. Numão, and in Crasto de Palheiros (in the *hinterland*), but it is only dated by C^{14} in the first enclosure, and certainly also in Crasto de Palheiros. This reveals that, like the maritime and geometric (and even local versions of incised bell beaker), it circulates in the north of Portugal at an early date and/or approximately the same period of the other local styles. In fact, the contact networks on a peninsular scale during the 3rd millennium BC, must have been varied because we know that in the Meseta, in the settlements of the region of Ávila there are in the first half of the 3rd millennium BC (Eg. in Aldeagordillo, dated by C^{14}) bell shaped vessels (but not bell beaker). Some of them

have symbolic decoration and others have «designs» related to it (solar and animal/cervid figures) (Fabián, 2006: 58-63). Actually, this symbolic iconography is incisively marked on the Serra de Passos (Mirandela) rock shelter paintings, in a ceramic vessel that comes from level I of Buraco da Pala rock shelter (Sanches, Morais & Teixeira, 2016) and in another pot exhumed in the Eastern Superior Platform (PSN) of Crasto de Palheiros. It is relevant to consider the absolute chronology of this level I of Buraco da Pala (before 2500 BC) (Table 2) as it displays in this chronology such bell beaker imitations, in the form of additive comb decoration, of bell beaker-like forms and, although rare, of type 8 vessels («bowl» Acebuchal) with the [IIa] decorative organization (Fig. 8, no. 4 to 7). In the Chaves region the metope decorative organization (and additive decoration, in general) becomes more significant in the first half of the 3rd millennium BC (in Vinha da Soutilha), which reveals close connections with Estremadura-Portugal in that period (Jorge, 1986: 781-786).

In the current state of knowledge about the chronology of the bell beaker culture in Estremadura and Alentejo, J. L. Cardoso recently argued, based on C^{14} , in stratigraphies and typological sequences of ceramics, that bell beaker/campaniforme pottery can be dated, at least, from the 2nd quarter of the 3rd millennium BC (Cardoso, 2014). Hence, we consider settled, just as that researcher, that the same ancient chronologies should not be a surprise in northern Portugal, region which, as mentioned above, for a long time displays (Eg. in Vinha da Soutilha I and II, whose chronology does not exceed the middle of the 3rd millennium BC) close relationships, especially in pottery stylistics, with Estremadura. Furthermore, in this Workshop Ana C. Sousa also referred that in Casal do Cordeiro (Estremadura) the campaniform would be dated as being part of the 2nd quarter of the 3rd millennium BC (see text inserted in this volume), outlining it in that extended region as a long-term phenomenon. In our region, besides the Atlantic networks, those with the *hinterland* (particularly with the interior region of the Iberia) must be considered since the beginning of the 3rd millennium BC.

A closer look at these settlements of the 1st half of the 3rd millennium reveal that the bell beaker ceramics circulates in contexts with little developed copper metallurgy (simple instruments such as axes, prickers, little amorphous plaques), along with, of course, other objects of exception, such as variscite stone adornments, flint artefacts (cloths in wool and linen?) and, perhaps, other ceramic vessels. It is not possible to know the exact dates, within the 3rd millennium BC, for the occurrence of copper artefacts in the walled enclosures of V.^a N.^a de Foz Côa, but the symbolic («oculado») vessel of Castelo Velho, recovered in the same ambi-

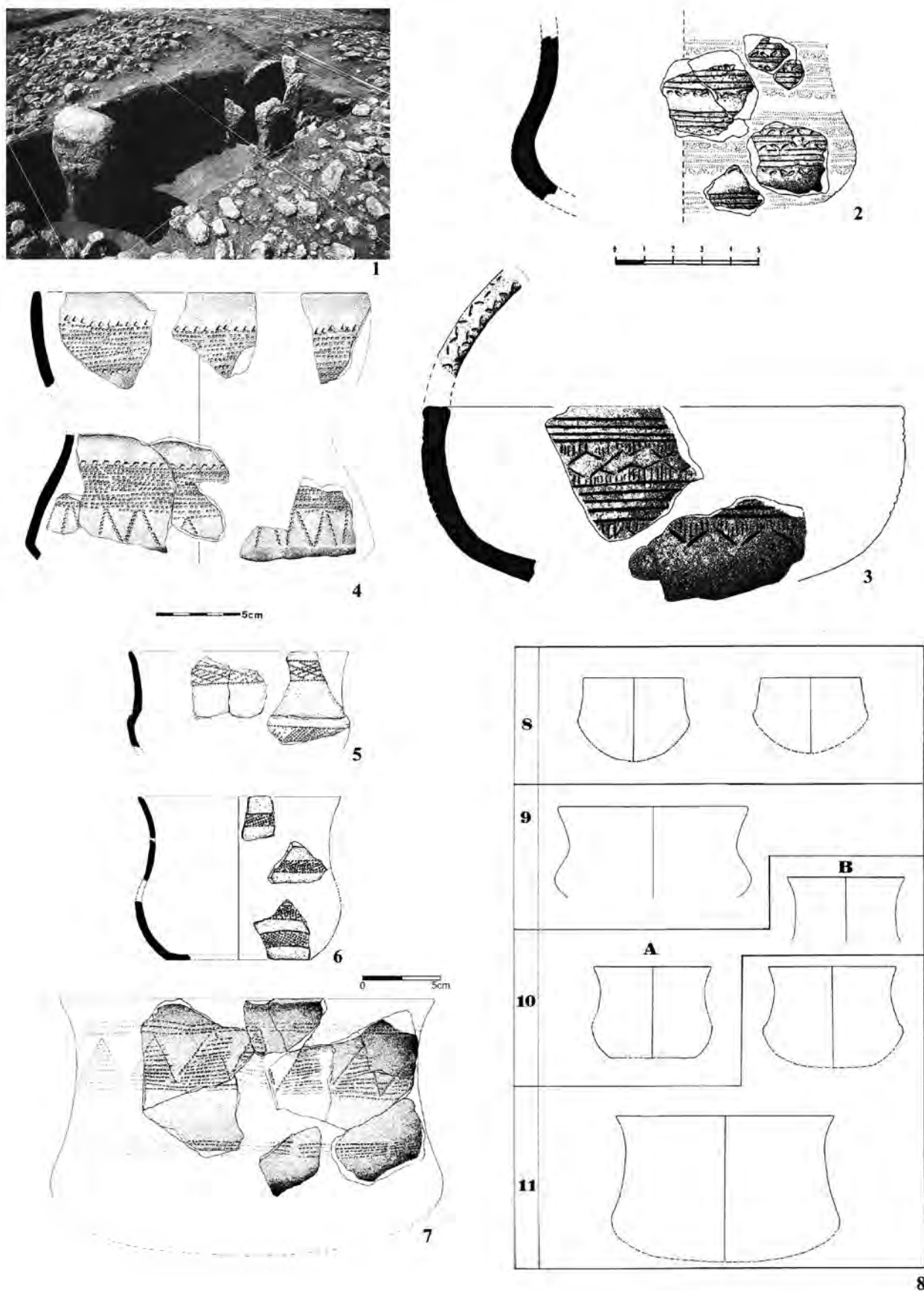


FIG. 7 1 – Central area of Chã de Carvalhal 1, having a chamber and a monolith, from where the bell beaker ceramic was collected; 2 and 3 – ceramics of the same monument; 4 – bell beaker recipient from Pastoria; 5 to 7 – ceramics of the Upper Eastern Platform of Crasto de Palheiros (PSL); 8 -Table of bell beaker forms from Crasto de Palheiros. (1 to 3 acc. Cruz, 1992; 4 acc. Jorge, 1986; 5 to 7 acc. Barbosa, S., 1999 and Sanches (ed.), 2088).

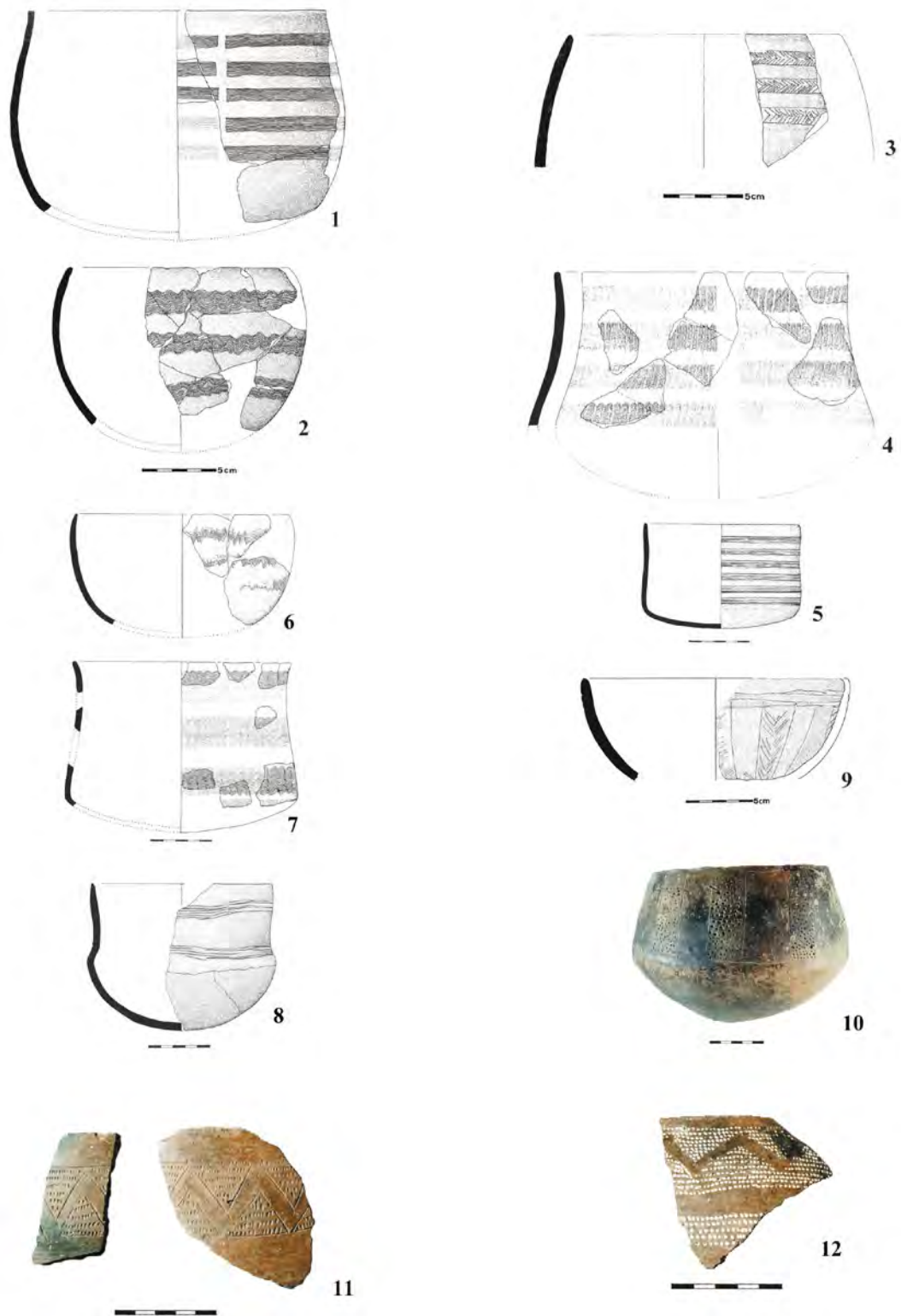


FIG. 8 Ceramics that mimic the bell beaker decoration (bell beaker imitations). 1 to 3 – Castelo de Aguiar settlement; 4 to 7 – Buraco da Pala rock shelter; 8 to 9 – Pastoria settlement; 10 to 12 – Lorga de Dine cave. (1, 2, 3, 8, 9, acc. Jorge, 1986; 4 to 7 acc. Sanches, 1997; 10 to 12 – photos by Manuel Santos – D. Diogo de Sousa Museum).

ence of the corded fragment (Jorge, 2002), can point out to ancient chronologies.

Other exceptional sites, like Buraco da Pala (level I) (Table 2 and Fig. 8, no. 4 to 7), or Lorga de Dine⁴ (Fig. 8, no. 10 to 12) (this cave doesn't have C¹⁴ dating), exhibit bell beaker imitations in their ceramics, along with a metallurgy still not standardized: axe and tuyere in copper, beads and a small plaque in gold at Buraco da Pala; and small axe, chisel and picker in Lorga de Dine⁵. However, it is still premature to settle fine chronologies that join, without any doubt, formally more complex metallurgy with bell beaker pottery as if it were a unitary «package» in its materiality and in the phenomena of social complexity on a regional scale. In addition, the polymetallic character of this metallurgy of the beginning of the 3rd millennium BC shows, in the case of Galicia, that the exploitation of a great diversity of «mines» is not compatible with large-scale exchange of metal objects (Comendador Rey, 1998:227). It is therefore admissible that, in the case of metals, the exchange networks were territorially more circumscribed. Circular reasoning should, therefore, be the subject of reflection and consideration.

There are no absolute dates for the reuse of megalithic monuments, therefore their second or third use can go through the 3rd millennium and even the beginning of the 2nd millennium BC, as mentioned above. However, due to the fact that most of the funerary sites are still in the dolmens (in the regions where they exist), such preference allow us to think that these communities and their leaderships still refer socially to traditional territories and kinship structures of ancestral identification (Bueno; Barroso; Balbin, 2010). Despite this, this period demonstrates an increase in all the economic activities of agropastoral and artisanal basis, and, also, the increase of the exchange of raw materials or rare artifacts (variscite, flint, etc.). Indeed, the relation of the funerary phenomenon with the domestic/dwelling one, ie, the organization of the settlement in all its aspects during the 3rd millennium BC (and beginning of the 2nd), still has many possibilities to be explored, and the one which would attribute to dolmens «powers more focused on local character» (Bueno, 2010:71), would be one of the hypotheses to explore.

Although the division between the 1st half and the 2nd half of the 3rd millennium BC is purely formal, it is still the one that best seems to accommodate the data, especially the metallic one and/or its iconographic representation (in the form of weapons). Thus, in the second half of the 3rd millennium BC, the campaniform is still in use, both in funerary contexts, as exemplified by the Mamoá Chã de Carvalhal 1, Orca de Seixas (and maybe Rapadouro 3 and Estante 2), as in settlements (Pastoria and possibly Regadas). However, in this period it is also associated with copper (and gold) artifacts,

formally more standardized, exhumed in Pastoria (knife, dagger, chisel, picker), Chã de Carvalhal 1 (two daggers and five Palmela arrowheads), and Orca de Seixas (axe, Palmela arrowhead in copper and a wrist guard). We will not mention other types of burial that, although having metals, do not have bell beaker ceramics, but we must emphasize that in this period, and if we refer to the entire Northwest of the Iberian Peninsula, the funerary diversity is very striking in terms of structures (where there are already clear incinerations, such as the one at the cist of Agro de Antas-Toques, Coruña), as artifacts (Bettencourt, 2010).

The phenomena of deposition of vessels (and/or fragments) were observed in Fraga da Pena (Valera, 2007) and in Crasto de Palheiros (of bell beaker/campaniforme and of other typologies), Pastoria (Jorge, 1986) and Castelo Velho (only of other typologies) (McFadyen, 2016 and bibliography cited there), revealing that the deposition of complete or partial units (of ceramics and other «artifacts») is not exclusive of burial places. This points, during the 3rd and beginning of the 2nd millennium BC, to analogical communities that incorporate the social and territorial senses into their various arenas of community negotiation. It is probable that the high ceramic fragmentation and the «orphan fragments» that seem to be an apurage of this set of sites of the North of Portugal (and of other peninsular and European regions), indicates not only the circulation of pots as units, but of their fragments as well, meaning that each fragment is not just related to the object from which it came from but «is in fact the object in itself». However, «fragmentation» and «deposition» has not univocal readings (McFadyen, 2016). In any case, in quantitative terms, bell beaker pottery is extremely rare, even in widely excavated sites (settlements and enclosures), and it tends to focus on specific areas, which really points, whatever its chronology, to its particular character, although this «statute» could have been shared, in different degrees, with other materialities.

In the 3rd millennium along with the dolmens and cists with *tumulus*, new arenas of social performance are emerging – rock shelters, walled and ditched enclosures, specific areas within open settlements, such as Pastoria or Regadas – in a diversification that seems to indicate alternative or complementary situations of power negotiation (of gender, age, ethnic, or other) where leadership continues to be bestowed and renewed by communities (in a narrower or broader sense). The situations of intracommunity and extracommunity commensality, with their rules of access, would configure social distinctions where the power of some leaders could emerge and consecrate. Likewise, such powers could be manifested in situations of destruction of wealth – such is the case that we believe

occurred in the Buraco da Pala rock shelter (Sanches, 2016) – or of continued work, for centuries, as one that would require the construction and permanent remodeling and maintenance of walled enclosures.

We believe that in Crasto de Palheiros the incised bell-shaped panoply and, also that of good manufacture – with stylistics within the very formalized combed technique –, would configure, in the Lower Enclosure (and perhaps at certain times of the year also in the Upper Enclosure) situations of food and beverage sharing with a relatively free access to certain types of negotiations. These situations would occur during the routine management of community life of people living in the outlying settlements of Crasto de Palheiros like Navalho and Mãe d'Água in Mirandela, and of Salto and Estirada in Murça, for example (Sanches, 2016). In the Upper Enclosure, an area naturally exposed by topography, but hidden by walls and other structures, the ceremonial consumption of certain beverages and food, with particular «table ware» – the «classic» bell beaker – could support this need for more restricted access to commensality practices, because these were related to the regional management of the territory, where exchange/gift-giving (including marriage exchanges) and the external recognition of different confrontational leaderships was becoming necessary (Sanches, 2016).

In conclusion, we reject the simple diffusion and incorporation schemes, not because simplicity is not elegant, but because, whether shorter or longer chronologies are chosen, we still do not have enough archaeological tools (a detailed description of archaeological processes) which, by anthropological support, would enable us to access more conceptual models.

The short chronologies, to be confirmed (and nothing indicates that this can happen), have the possibility of formulating models more propitious to the conjunctural transformations and to the greater valorization of bell beaker ceramics as a «social actor» or as an agent capable of catalyzing, or even triggering, socio-political changes, in accordance with the regional ontological and organizational background. Such models even admit differentiated systems of identification and use (in the dolmens, in the settlements, etc.).

If we accept that bell beaker ceramics extend over long term chronologies, the contexts and practices of their circulation and incorporation diversify exponentially, meaning that the bell beaker phenomena in itself can no longer be treated in the same way unless we can stipulate, in this *long durée*, more short periods of time. But in the long-term case, having something that apparently remains through time (the ceramic decoration), this stabilization may have multiple explanations. The simplest one is that this means nothing more than the long-term maintenance of the long-established-

mainstream foreign exchange networks, in which new products are incorporated, such as arms (Palmela arrowheads, daggers, etc.), to speak only of those that are more extended from the geographical point of view.

But there are others, of course.

As a final observation, and as a complementary explanation both to the short, but especially to the long duration, we believe that bell beaker ceramics can be simultaneously understood within formal mechanisms – as an agent that performs an action – and within iconic mechanisms, in the sense in which, iconographically, they would report qualities (contents) of other entities, being able to transform themselves into those other entities, which opens up enormously the semantic field of the analogies (Descola, in line). In this sense, both formal similarity and local fabrics, as well as transfigurations/imitations, would reveal that something resembling appearance would ultimately refer to very diverse realities, functions, and mechanisms of use in other spheres, as indeed happens with all the materialities. Basketry, patterns of fabrics – indicated by frequent loom and spindle weights –, and, above all, the increasing importance that personal clothing gains in the 3rd millennium BC – visible in steles and statues menhirs, for example (Bueno, 2010, Cruz and Santos, 2010) –, could be some of the iconic elements of reference both for ceramic decoration in general (decorated with metopes, triangles, wreaths, etc.), as well as for the bell beaker and for those ceramics that «imitate» them. As a whole these would broaden that universe of analogies which, combining ontology and praxis, would compel us to study them together.

Finally, following our previous exposition, the study of bell beaker in the Northern and Douro basin regions in Portugal can't be treated as an autonomous research program, but rather as one that would focus on the aspects of the manufacture and use of different materialities that integrate the material and conceptual «building» of the agro-pastoral communities of the 3rd and beginning of the 2nd millenium BC.

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NOTES

- 1 The authors are part of the Research Project UID/HIS/04059/2013 (FCT) and this work was supported too by FEDER through the COMPETE 2020 ((POCI-01-0145-FEDER-007460).
- 2 Crasto also has a well-preserved occupation of the Iron Age (Crasto III), which visibly affected the Chalcolithic occupation layers, but the hill kept its main topographical features. Therefore, this attests to the substantive and long-lasting architectural transformation operated in Prehistory.
- 3 From this layer [20] come three incised ceramic fragment associated with the Ciempozuelos complex (Xc, Xe1, Xe2); and from [cam. 1] came 1 excised-like fragment (X1a). Thus it sums 4 fragments in the PSL (Sanches (ed.), 2008, Fig. II.24).
- 4 This cave would have had funerary functions along with others more difficult to characterize, even so those should not have been «domestic» (Sanches, 2017, in press).
- 5 According to the inventory of the archaeological materials of Lorga de Dine excavations, carried out by the Portuguese Society of Speleology and integrated in the D. Diogo de Sousa Museum (Braga).

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