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CAPA
Desdobramento da decoração do «ídolo» cilíndrico oculado da Herdade da Cariola. Desenho Guida Casella a partir de fotos VSG.

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Heads & tails: Bell Beakers and the cultural role of Montejunto Mountain (Portugal) during the second half of the 3rd millennium BC

Heads & Tails: Campaniforme e o papel cultural da Serra de Montejunto (Portugal) durante a segunda metade do 3.º milénio a.C.

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ABSTRACT: This study aims to address the role that Montejunto Mountain (Portuguese Estremadura) may have had during the second half of the 3rd millennium BC. To this end, the available set of decorated Bell Beakers was studied, with particular attention to their formal and decorative variability. The materials came from the Walled Enclosure of Pragança, on the NW side of Montejunto and Cave III from Furadouro Valley, located to SE, which allowed to depict patterns and trends that might reflect identitarian and cultural differentiations between the communities that surrounded this landscape marker. Furthermore, non-local influences were also detected in the beaker elements, highlighting that these groups would be an integrant part of wider networks. As such, even based on materials from older excavations, it was perceptible that Montejunto must have had a structural role in the cultural, social and possibly symbolic landscape of the 3rd millennium BC groups.
KEYWORDS: Montejunto Mountain; Bell Beaker; Pragança; Furadouro Valley Caves; Cultural influences.

RESUMO: Este estudo visa abordar o papel que a Serra de Montejunto (Estremadura portuguesa) pode ter tido durante a segunda metade do 3º milénio a.C. Para tal foi estudado o conjunto disponível de Campaniformes decorados, com particular atenção à sua variabilidade formal e decorativa. Os materiais são provenientes do Recinto Murado de Pragança, na vertente NO de Montejunto e da Gruta III do Vale do Furadouro, localizada a SE, o que permitiu compreender padrões e tendências que podem reflectir diferenciações identitárias e culturais entre as comunidades que rodeavam este marcador paisagístico. Além disso, foram também detectadas influências não locais nos elementos Campaniformes, evidenciando-se que estes grupos seriam uma parte integrante de redes de contactos mais vastas. Como tal, mesmo com base em materiaiprovenientes de escavações antigas, é perceptível que o Montejunto deverá ter tido um papel estrutural na paisagem cultural, social e possivelmente simbólica dos grupos do 3.º milénio a.C.
PALAVRAS-CHAVE: Serra do Montejunto; Campaniforme; Pragança; Grutas do Vale do Furadouro; Influências Culturais.

1. INTRODUCTION

Going back to collections of artefacts resulting from early interventions in the development of archaeological science is a challenge. Indeed, the analytical approaches that can be applied are, from the beginning, limited by the lack of detailed data and solid stratigraphic information, forcing mainly morpho-technological analyses. That is exactly the case of the group of materials worked here.

Montejunto Mountain, due to its exceptional impact on the landscape, has attracted attention since the start of national Archaeology. However, many of its collections are not yet studied, which hinders a deeper approach to the diachronic role in this spatial landmark. Even so, it seems clear that Montejunto, by the distinct funerary and non-funerary occupations which were already identified, seems to have functioned as an important structurer of the cultural, social and possibly symbolic landscape (the representation of ideas and myths, that is, an idol or totem).

Moreover, fragmented approaches centred on a single archaeological site can create biases in the complete reading of the mountain. That is why, in this text, Montejunto will be worked as a whole, as a mega archaeological site, with distinct rhythms and practices in its different zones.

To make this work feasible and considering that this paper is based on a thesis presented in 2015 to obtain the Archaeology Bachelor's degree of the Faculty of Arts of the University of Lisbon, only contexts from which decorated Bell Beaker ceramics were collected were considered. This way, it was possible to get a little bit closer to the potential agency that Montejunto had in the second half of the 3rd millennium BC. Simultaneously allowed to characterize the existing Bell Beaker elements, understanding that the different communities that used Montejunto were connected to much wider networks, but that they maintained traces of their own material identities.

Solid data is necessary to understand if some of the ideas raised here find support in the archaeological record. Still, this work shows that returning to old collections with fresh eyes is always a fruitful endeavour.

2. FRAMING MONTEJUNTO MOUNTAIN

2.1. Geographic, administrative and landscape framework

Montejunto is located between the municipalities of Alenquer and Cadaval (Centre of Portugal), within the protected landscape of Montejunto Mountain, with 4800 hectares. It corresponds to a 666m high elevation that extends for 15km long, creating a natural NE-SW "balcony" from which the rest of the Portuguese Estremadura can be glimpsed (fig. 1, a).

It developed in the first phase of the Montejunto massif structuring, during the Cenozoic Era, with particular emphasis on the period from the Miocene to the lower Quaternary. Besides being a boundary between municipalities nowadays, it is also the geological accident that establishes the contact between the Western Lusitanian Basin and the Tagus Basin, standing out from the surrounding plainer landscape, making it a physical and visual landmark.

Due to its alignment, almost coinciding with the Atlantic coastline, about 20 km away, Montejunto constitutes and integrates, on the Montejunto-Estrela axis, an important climatic boundary that separates,

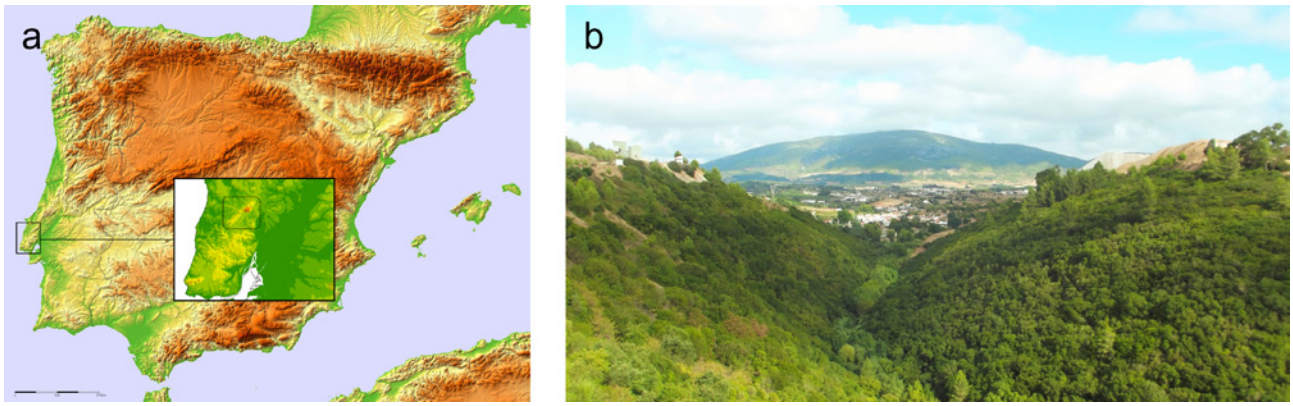

FIG. 1 a) Montejunto Mountain in the Iberian Peninsula. b) SE perspective of Montejunto, taken from the right bank of the Rio de Ota.

meteorologically, Northern and Southern Portugal (fig. 1, b).

From a geological point of view, the territory presents various types of structures, with a particular highlight to the Modern Alluvium, present alongside the main water lines of the region: Real River (to the North), Judeu Creek (to the East) and Ota River (to the South), most of them with their sources in Montejunto. Other formations, the "Montejunto layers" (Choffat 1894), are composed essentially of limestone rocks, but also of other types, like sedimentary or volcanic, with a wide diachrony that goes from the Middle Jurassic to the Cretaceous, creating a great variability in the karst landscape: dolines, caves and fault scarps.

The current vegetation is composed of oaks, chestnuts, holm-oaks, umbrella pines, maritime pines, Kermes oaks and other shrub species, mainly due to human activity over time. The same does not apply to Vale do Furadouro. Here the last traces of small woodlands consisting of chestnut, cedar and, above all, oak trees remain, possibly corresponding to the best approximation to what would have been the primitive vegetation cover of the region during Late Prehistory (with the exception of cedars).

Defining the fauna is also a challenging task. Using Vale do Furadouro as an example, it is assumed, with all due care, that foxes, badgers, hoses, wild cats, and wild boars (Pimenta 2014), still present today, would inhabit Montejunto. Larger species like deer, aurochs and horses should have also been present in this landscape.

2.2. The archaeological research of Montejunto summed up

To sum up the research history of a mountain as densely occupied as Montejunto can be a tricky challenge. Still, by addressing it as a single archaeological site itself, it is possible to not only perform a biographic analysis of it, to understand the materials collected and excavated contexts, but also to honour the researchers and institutions who played an active role in the recognition and valuation of Montejunto natural archaeological site.

As a pioneer institution, the Comissão dos Serviços Geológicos. The first reports of archaeological intervention in Montejunto are dated from 1880 (Gonçalves 1990-1992a), primarily connected with the 9th session of the International Congress of Prehistoric Anthropology and Archaeology. Mainly due to Montejuntos' attractive natural conditions for Human occupation, the initial explorations by Nery Delgado (Gonçalves 1990-1992a), focused on the Fontainhas Cave (Cardoso 1993) and in the first two caves of the Furadouro Valley, without any written records besides the archaeological set in-store at the Geological Museum.

After the 1880 congress, only a few publications mention Montejunto, with a local Cadaval figure standing out: the Primary School Teacher António Maria Garcia (1837-1908) (Vasconcelos 1909), that had close links with the by-then (i.e. 1887-1888) Health Subdelegate, José Leite de Vasconcelos (Coito – Cardoso – Martins 2008; Fabião 2008). Together they were responsible for discovering several caves from where "bones were unearthed" (Castelo-Branco 1962), also with some finds made in "Pragança Castle" (Vasconcelos 1909).

Pragança was officially discovered in 1893, making it one of the first of its kind (the Portuguese Estremadura "Fortified settlements") to be recognised. The earliest archaeological excavation, with proper records, took place on September 30th, 1893, under Vasconcelos' supervision (Gonçalves 1990-1992b; Costa – Galante 1995; Figueiredo – Melo – Araújo 2007; Melo *et al*. 2007; Martins 2011).

In the following year (1894), Maximiano Apolinário (Vasconcelos 1908; Cardoso – Carreira 2003) excavates two new caves in the Furadouro Valley, namely caves III and IV (Costa – Galante 1995), mapping the caves in a very detailed publication in *O Arqueólogo Português*.

After this early and apogee phase, there is a decrease in the research activity until the 1930s, with occasional reports of some finds like the cave of Curral das Cabras Gafas in 1908 (Pimentel 1908). In this same decade, Leonel Trindade, inspired by its recognition of Castro do Zambujal, briefly investigates the Pragança area (Gonçalves 1990-1992a). However, one of the most recognised sets from Pragança, the Pragança treasure, was only discovered in 1934.

Recent scientific production can be traced to 1962, with the publication of Fernando Castelo-Branco entitled "Pragança was a Castro?" (Castelo-Branco 1962), which questions the existence of, or not, walls in that settlement. Following this work, between 1988 and 1990, research has mainly focused on the Pragança site, with punctual reviews of the cave materials, being

conducted by Ludgero Marques Gonçalves (Gonçalves 1990-1992a; 1990-1992b), whose exhaustive and comprehensive works are responsible for safeguarding many of Montejunto materials, being an important reference to the work here presented.

21st-century publications focus especially on the large group of metallic artefacts (Melo *et al*. 2007), with the ceramics briefly mentioned in studies relating to settlements in the Pragança vicinity signed by João Luís Cardoso. A master thesis, focusing on the Bronze age materials from this archaeological site has also been recently presented (Caria 2021).

2.3. Bell beakers shortly reviewed

Bell Beakers have been discussed at least since the beginning of the 20th century. Within this long research history, it is possible to identify a cyclicity in the debated issues, with a continuous search for the origin and diffusion processes of both "beaker materials" and "beaker people" (Clarke 1976; Harrison 1980).

Recent research has switched from a pan-European scale of analysis to more regionalised approaches, seconding the role of the "Bell Beaker funerary package" (Sherratt 1987). In sum, questioning the established narrative in which Bell Beakers elements are part of a Pan-European phenomenon led by elites that instrumentalise beakers as means of social differentiation, spreading through migrations or interaction networks between "chiefs". Contrarily, newer research trends prioritise evidence that comes from settlements, emphasising that the Bell Beaker phenomenon has multiple trajectories and rhythms marked by the local/regional social and identitarian constraints (Linden 2004; 2007; Prieto Martínez 2008; Valera – Rebuge 2011; Garrido Pena 2014; Valera – Mataloto – Basílio 2019). This means that this phenomenon is now understood as a set of shared techniques, practices, ideas and social developments, expressed through polythetic and plural assemblages (Linden 2004; Garrido Pena 2014), highly determined and shaped by the regional social trajectories, which justifies the different social roles and agencies the materials can acquire (Valera – Mataloto – Basílio 2019).

A change in the study scale has also impacted the Portuguese publications, which traditionally have overvalued the funerary role of Bell Beaker elements. Still, a recent work clearly showed that the agency of these artefacts is far more complex (Valera – Mataloto – Basílio 2019), with frequent identification of elements of the so-called "beaker package" in settlements, ditched and walled enclosures, pit fields, huts or and associated with "industrial/production" contexts (Valera – Rebuge 2011; Mataloto 2017; Valera – Basílio 2017). In these sites, the new beaker elements are absorbed, reinterpreted and reintroduced into the pre-existing practices, apparently not causing abrupt changes in the ongoing social trajectories of the second half of the 3rd millennium BC (Valera – Basílio 2017).

Particularly focusing on Portuguese Estremadura, this is the richest area regarding Bell Beaker shapes and typologies, with 146 sites with decorated beakers identified so far (Valera – Mataloto – Basílio 2019). The motifs depicted in the vessels' surfaces are mostly done through the imprinting of combs or matrixes, forming patterns ascribed to the International style, mostly, followed by the Geometric Dotted patterns of the Palmela Group (Soares – Silva 1974-1977; Harrison 1977; Valera – Mataloto – Basílio 2019).

With an even distribution between funerary and non-funerary sites, which brings the decorated sherds from this region both closer and apart from what can be understood as the "funerary facet" of the Bell Beaker Phenomenon, both the pots and the decorative motifs might have multiple social roles and imputed

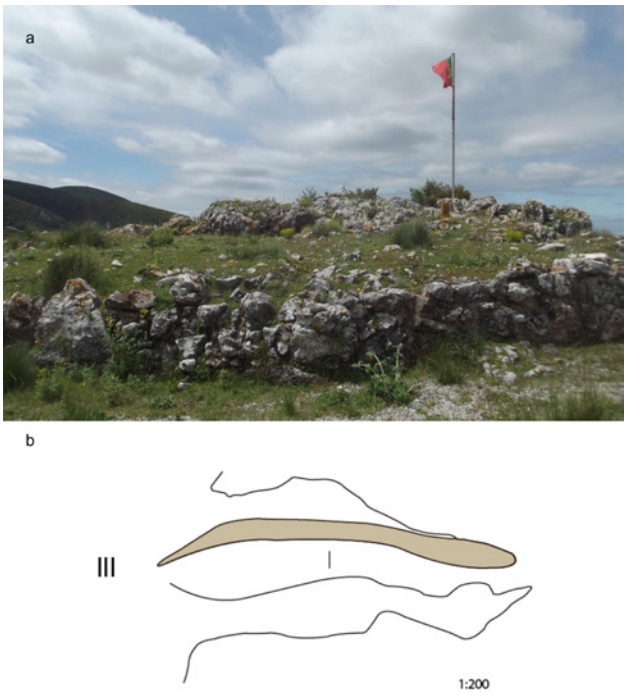

FIG. 2 a) Pragança's "wall". b) Profile of Cave III of Furadouro Valley (adapted from Apolinário 1897).

connotations (Rogers 1983). This means that in this area of Portugal the processes of social resistance, adaptation and transformation coexist with what can be seen as direct adaptation, creating plural agencies linked with the bell beaker vessels, motifs and techniques (Valera – Mataloto – Basílio 2019).

In line with the previous, but due to a lack of contextual information, it is not possible to fully assign the chosen case studies to a specific site "category", as explained below.

3. CASE STUDIES: PRAGANÇA AND THE CAVES

Montejunto is home to numerous caves and sites with prolonged human occupations. Nonetheless, this broad scenario becomes more restricted when only Bell Beaker decorated ceramics are concerned since they could only be found in a single "habitat" (Pragança) and two caves, one of them in the Furadouro Valley, and the second one close to Pragança.

Nonetheless, from the minimum number of 43 caves/cavities/algars already identified in Montejunto, several of them have traces of human activity throughout history, meaning that this mountain has a very high occupation density, mainly during Prehistory. Still, due to its geological complexity, many contexts might be hidden, being the most notorious example the Middle Neolithic burial in Bom Santo Cave (Carvalho *et al*. 2019).

3.1. Pragança

The archaeological site of Pragança is located on the NW slope of Montejunto, in the present-day municipality of Cadaval (fig. 2, a). At its highest point, it reaches about 334 meters in height, developing in an area with limestone scarps and small cavities. Culturally is usually connected to the walled enclosure phenomenon (a concept defined by Jorge 2005 that aims to be neutral, not assigning any functionality to the existing architectures) due to the presence of a single face wall, with a sub-circular 15 metres long and 10 metres wide shape, forming a small embankment, also delimited by the natural cliff (Gonçalves 1990-1992b), like what has been noted in other sites (Texugo *et al*. in press).

Its entrance takes advantage of the natural slope, and it heads north, replicating the narrow entrances of the other regional walled settlements (Gonçalves – Sousa – Costeira 2013). Besides that, it also matches the usage of the pre-existing geological substratum (Gonçalves 1990-1992b; Gonçalves – Sousa – Costeira 2013; Texugo *et al*. in press), also replicating the significant visual and landscape "control".

Still, Pragança's positioning might be underlined as a "problem", especially due to the exposure that it has to northerly winds, making it a very difficult site to inhabit or to visit. The apparent lack of structures indicating a more permanent occupation of the space (like huts) might relocate the habitat to a lower and more protected area, possibly under the current village of Pragança (that named the archaeological site). Adding to that, the wall's dimensions (15 metres long and 10 metres wide) do not seem entirely correct *in loco*, pointing to an enclosure with much smaller dimensions.

Regarding chronology, Pragança's first occupations can be traced back to the Late Neolithic, similarly to what occurred in Olelas, Penedo do Lexim or Ota (Gonçalves – Sousa – Costeira 2013). Still, the materials assignable to this period are scarce in Pragança, being difficult to discern whether there is a continued onwards occupation or if it has temporal hiatuses like those detected in Leceia (Cardoso 2006). The most significant structure, the wall, seems to have been built during the regional Chalcolithic (Gonçalves 1990-1992b; Gonçalves – Sousa – Costeira 2013), contemporaneous with the appearance of similar structures in other regional habitats (Gonçalves – Sousa – Costeira 2013).

Bell beakers also tend to be present in most of these types of walled enclosures (Valera – Mataloto – Basílio 2019). However, in Pragança, and in many of its counterparts, due to the lack of contextual information and mainly due to the disrupted nature of the context, depositional associations or patterns are currently inaccessible. Nevertheless, the possible misinterpretation of Pragança's functionality, as a walled enclosure, opens and enlarges the interpretative readings that can be done regarding the site and the roles that the decorated Bell Beaker might have.

3.2. Curral das Cabras Gafas cave and cave III of Furadouro Valey

Montejunto natural caves are, as noticed in Pragança, very stirred contexts not only due to natural and anthropic processes (bioturbation, climate, fauna, collapsing of cave walls and so on) but also due to the

intense chronological overlap that their materials allow glimpsing. This might justify the so far reduced presence of Bell Beaker decorated vessels in Montejunto, that could have been obliterated from the caves, since they have only been found in two natural cavities: Furadouro, namely cave III and from a total of seven and Curral das Cabras Gafas cave, in the vicinity of Pragança.

Regarding cave III of Furadouro, it was integrally excavated down to the bedrock (Gonçalves 1990-1992a). It is in the Furadouro Valley area, on the SE slope of Montejunto, where the Ota River is born, parallel to it, in the East wall/left margin of the spring. Currently, the cave can only be accessed through climbing, something which in Apolinário's (the excavator of the cave) time would not have happened (Apolinário 1897), showing the number of alterations the landscape underwent throughout time (fig. 2, b).

Contextual information is completely absent, even though a general profile of the cave with brief stratigraphic information was drawn (Apolinário 1897), with several caves being excavated simultaneously. Mixtures that occurred are, as such, understandable, with cases of vessels from cave III being stored as materials originally from caves I and II.

By the generic observation of the remains of the understudy cave III of Furadouro, its occupation would have begun during the mid-to late-Chalcolithic extending up to the Bronze Age, possibly the Late Bronze Age. Nevertheless, the nature of the cave's occupation is unclear due to the absence of secure stratigraphic data, being possibly related to funerary depositions or other social rites

As for Curral das Cabras Gafas, it seems to only have a single occupation dated from the second half of the 3rd millennium BC. Its location is currently unknown, also because there are no local toponyms with a shared or similar name, with the last reference to its existence dating from 1908 by Pimentel (1908). Due to some references (Pimentel 1908), it is known that it would be located near the walled enclosure of Pragança, on the NW slope of Montejunto. Caves also located near Pragança are Salvé-Rainha and Fórnea, none of which seem to have been occupied during the specific period under study.

A brief note goes to Fontainhas cave, also in the NW slope of Montejunto, that has been referenced as having a decorated sherd of a geometric dotted vessel. This same fragment was not found in the materials accessed.

4. APPROACHING A FRAGMENTED COLLECTION

Studying the uncontextualized ceramic remains of an archaeological site is an attempt to compare, identify and integrate them into a cultural environment of local, regional or international scales, either using the shape or decorative motifs. This data is usually applied in the construction of chronostratigraphic sequences, in which the Bell Beaker elements are chronologically attributed to the second half of the 3rd millennium BC (Silva 2017; Valera – Mataloto – Basílio 2019)-– although the discussion about a possible antiquity of the Bell Beaker in Estremadura continues (Cardoso 2017; Kunst 2017), most of the dated closed contexts seem to strengthen its appearance only in the second half of the millennium. As such, by choosing them as the focus of research, it is possible to reduce the biases created by the absence of secure contexts and by 19th and early 20th centuries selection criteria, that value decorated fragments over undecorated ones.

64 decorated sherds were analysed in the National Museum of Archaeology reserves. All were studied traditionally and integrally (morphology, clay, decoration, and dimensions, among others) based on previous studies done by António Valera (2007), Victor Gonçalves (1989), Ana Catarina Sousa (2021) and Joaquina Soares (2013). A new variable was added, considering the shape and the type of matrix used to imprint the Bell Beaker decorations.

Regarding shapes, a formal table was created from scratch, partially based on what was regionally known (Sousa 2021). Some of the uncommon shapes were challenging to name largely because it tends to be a link between the name and the function, which was avoided in the present work.

In the decorative examination, there is a clear lack of a common "language" in Iberian sites (Jeunesse 2015). Still, and based on existing systematizations (Linden 2004; Barnabeu Aubán *et al*. 2011), it was possible to put together a descriptive table suitable for Montejuntos' contexts that combines both the technique used to create the decorative motifs and the already known decorative Bell Beaker decorative groups (fig. 3).

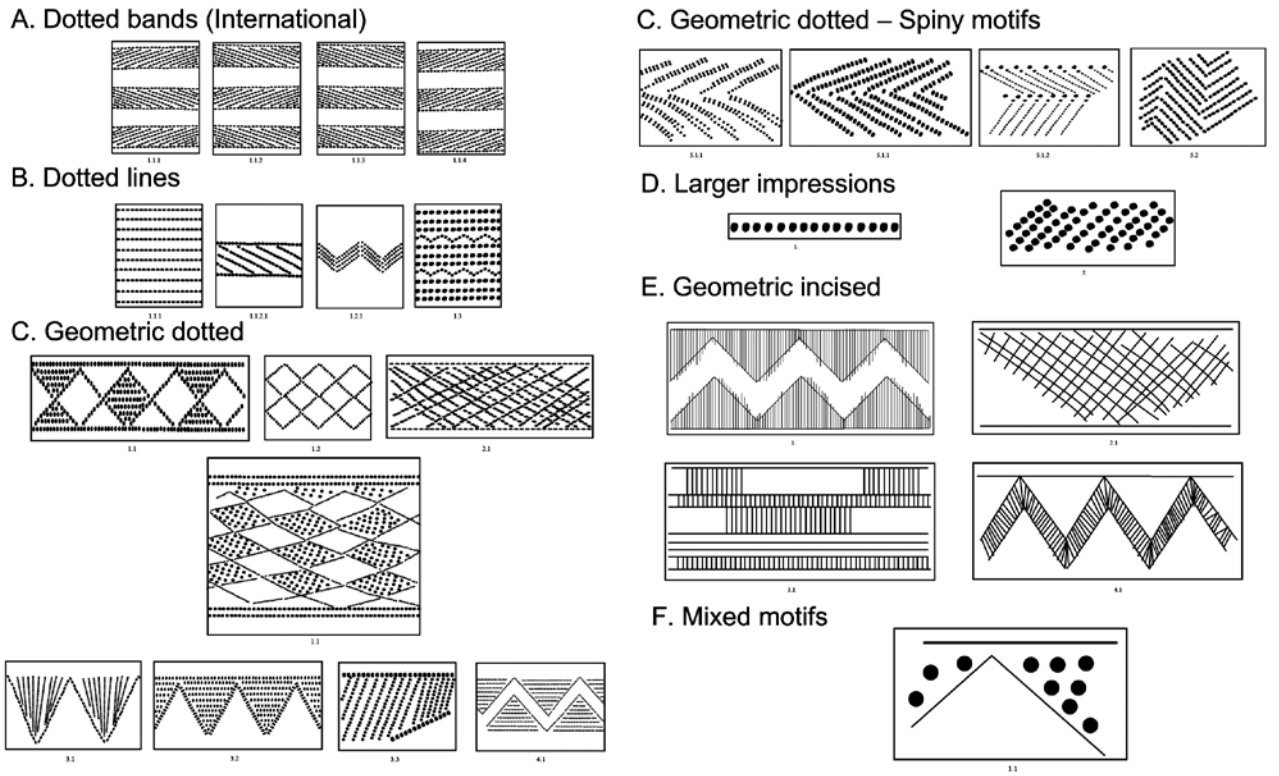

FIG. 3 Decorative motifs found in Pragança and Cave III of Furadouro.

TABLE 1 MNI IN RELATION TO THE DECORATIVE MOTIFS AND CONTEXTUAL ORIGINS

	PRAGANÇA	CURRAL CABRAS GAFAS	GRUTA III FURADOURO	TOTAL
A. Dotted Bands	3	1	1	5
B. Dotted Lines	9			9
C. Geometric Dotted	31		2	33
D. Larger impressions	2		0	2
E. Geometric incised			3	3
F. Mixed Technique	3			3
TOTAL	**48**	**1**	**6**	**55**

5. BELL BEAKER EXPRESSIONS AT MONTEJUNTO

In the highly fragmented set of 64 decorated Bell Beaker sherds studied in this paper, 57 of them proceed from Pragança, six from Cave III of Furadouro Valey and one from Curral das Cabras Gafas. Regarding the minimum number of individuals, done by combining morphologies, shapes and decorations, Pragança concentrates a minimum of 48 vessels, while the number in the caves is substantially lower, with six containers from Furadouro and one from Curral das Cabras Gafas. Still, the caves' sherds are better preserved, which was already expected considering the reduced human activity that the caves seem to have when compared to an open-air site, with intensive constructive dynamics, like seems to be the case of Pragança.

One of the most recognisable traits of the Bell Beakers ceramics is the traditional S-shape that the vessels usually present. Still, besides the possible similarities and correspondences, the dissonances or the presence of odd elements is equally important, as it might reflect local/regional patterns and different social contacts/networks. By using the 29 rim fragments, it was possible to access that the Montejunto assemblage is mostly composed of open vessels. Those can be grouped into five large morphological categories, that mostly replicate the regional morphologies (Cardoso 2017; Sousa 2021): Plates (type 1), bowls (type 2), Globulars (type 3), S-shaped vessels (type 4) and "Bomb-shaped beakers" (type 5) (fig. 4).

Nonetheless, some behaviours must be highlighted. Firstly, the strongest parallels for the ceramic set found in Pragança are the sites that are located on the NW side of Montejunto, namely, from the closest to the most distant, Outeiro de São Mamede in Bombarral (Cardoso – Carreira 2003) and Outeiro da Assenta in Óbidos (Cardoso – Martins 2009). This suggests that there might have been a cohesive cultural homogeneity on this side of the mountain, which will be more accentuated with the decoration data.

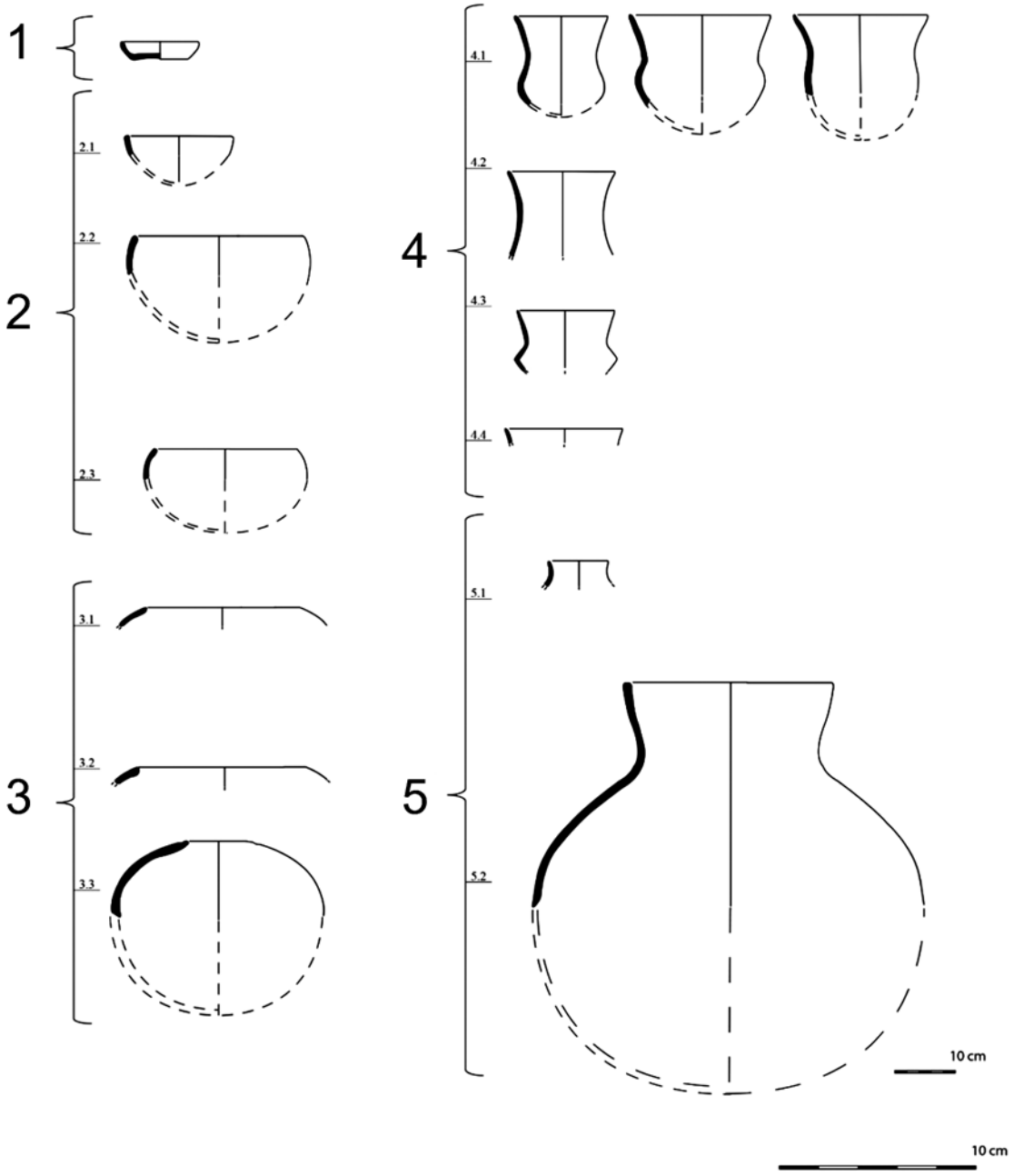

FIG. 4 Morphologies of the vessels identified in Pragança and Cave III of Furadouro.

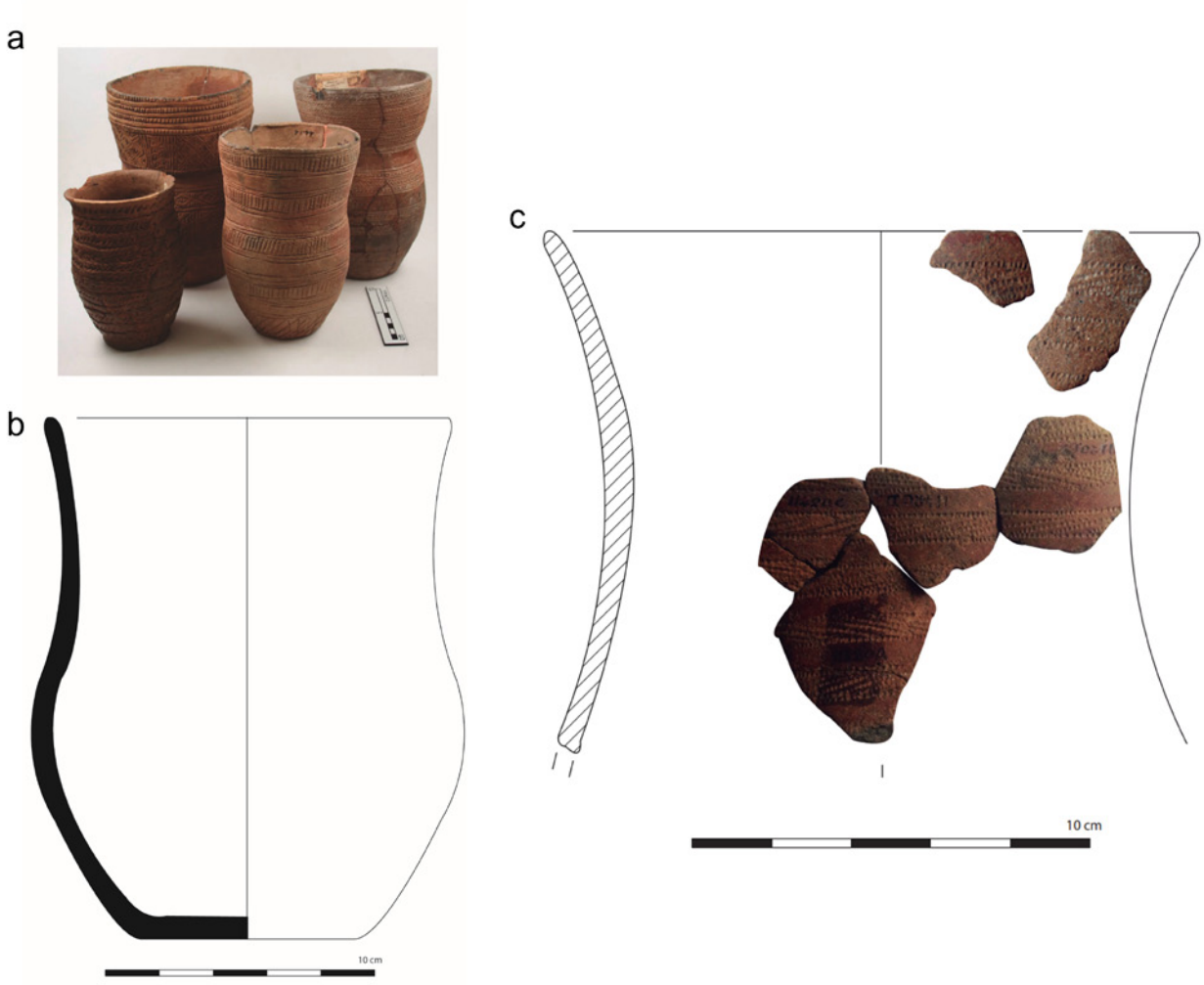

FIG. 5 Examples of elongated S-shaped vessels: a) British Beakers (from Kohring 2011); b) Fraga da Pena (from Valera 2007) and c) Curral das Cabras Gafas.

Secondly, the S-shaped vessels recovered in the caves. Based on the regional parallels, like the necropolis of Verdelha dos Ruivos (Zbyszewski *et al*. 1981; Cardoso 2017) just a few kilometres south of Furadouro Valley, the presence of Palmela bowls with decorated rims would be expected at Montejunto. However, any of the studied materials presented this decorative trait, besides the vessel attributed to shape 5.2.

Thirdly, brief comments on two sub-morphologies.

A shape that proved to be different is the number 4.2, the single elongated S-shaped vessel from Curral das Cabras Gafas that, due to its dimensions seems to suggest non-local influences. It is only preserved in its upper part, hampering a possible reconstruction, decorated with International motifs. Nonetheless, it is deeper than the traditional Iberian beakers, shallower with sharper S-profiles, reducing the number of available parallels. One of them comes from the Penha Verde site with the same type of decoraton -– dotted bands – and once again without its lower half preserved (Harrison 1977: 130; Cardoso 2010-2011). Still, the most suitable matches arethe "clssic" forms of the European Bell Beakers (Kohring 2014), characterised by their larger vessels in which the new Bell Beaker decorations are drawn (Kohring 2014). These vessels have a much silkier and harmonious profile, replicating what occurs in the element from the Curral das Cabras Gafas cave (fig. 5).

The large vessel 5.2, from Cave III of Furadouro Valley, has even fewer parallels. It corresponds to a large container in which incised geometric motifs were drawn, shaped like a pitcher without any preserved handler, with neck strangulation and a volume that reached a minimum of 25 litres. Fragments that might belong to similar pots, with comparable decorative motifs, come from Ponte da Lage cave, Oeiras (Harrison 1977: 112, fig. 44, 208), Montes Claros settlement, Lisbon (Harrison 1977: 118, fig. 48, 276), Cova da Moura cave, Torres Vedras (Harrison 1977: 147, fig. 64, 961) or, already in Spain, in the Basque Country, from

San Martin de la Guardia (Harrison 1977: 172, fig. 74, 1349), from Tarragona at Cova Josefina de Escorbalbou (Harrison 1977: 208, fig. 90, 1799) and from the Cuevas de Arbolí (Harrison 1977: 212, fig. 93, 1859 and Fig. 97, 1886). Many of these vessels could contain between 5 and 25 litres (Garrido-Pena *et al*. 2011), matching the size of the exemplar found at Cave III. Nonetheless, this vessel shape is not common in Peninsular contexts, meaning that its nomenclature is not defined, traditionally being associated with "storage vessels" (Basílio 2019; Garrido Pena – Flores – Herrero 2019) (fig. 6).

Summing up, regarding the morphological analysis, the detected diversity in which Bell Beaker motifs were represented only highlights that this decoration can be an agent not only in the "traditional" S-shaped vessels but also in other already existing morphologies, as is the case, for example, of the globular pots, usually decorated with the regional "Acacia leaf" patterns.

5.1. An approach to manufacturing groups?

Conventionally, when a Bell Beaker set is addressed, there are some pre-existing biases regarding the type of manufacture behind the decorated sherds. A good example is the clay treatment since decorated Bell Beaker elements tend to be made with the most purified clay of the ceramic sets, with a generally standardised reddish surface colouring.

This behaviour does not match the major characteristics detected in the vessels studied, since the set shows a tendency towards semi-compact clays (30 fragments) with abundant and large non-plastic elements (21 out of 30 fragments), followed by compact

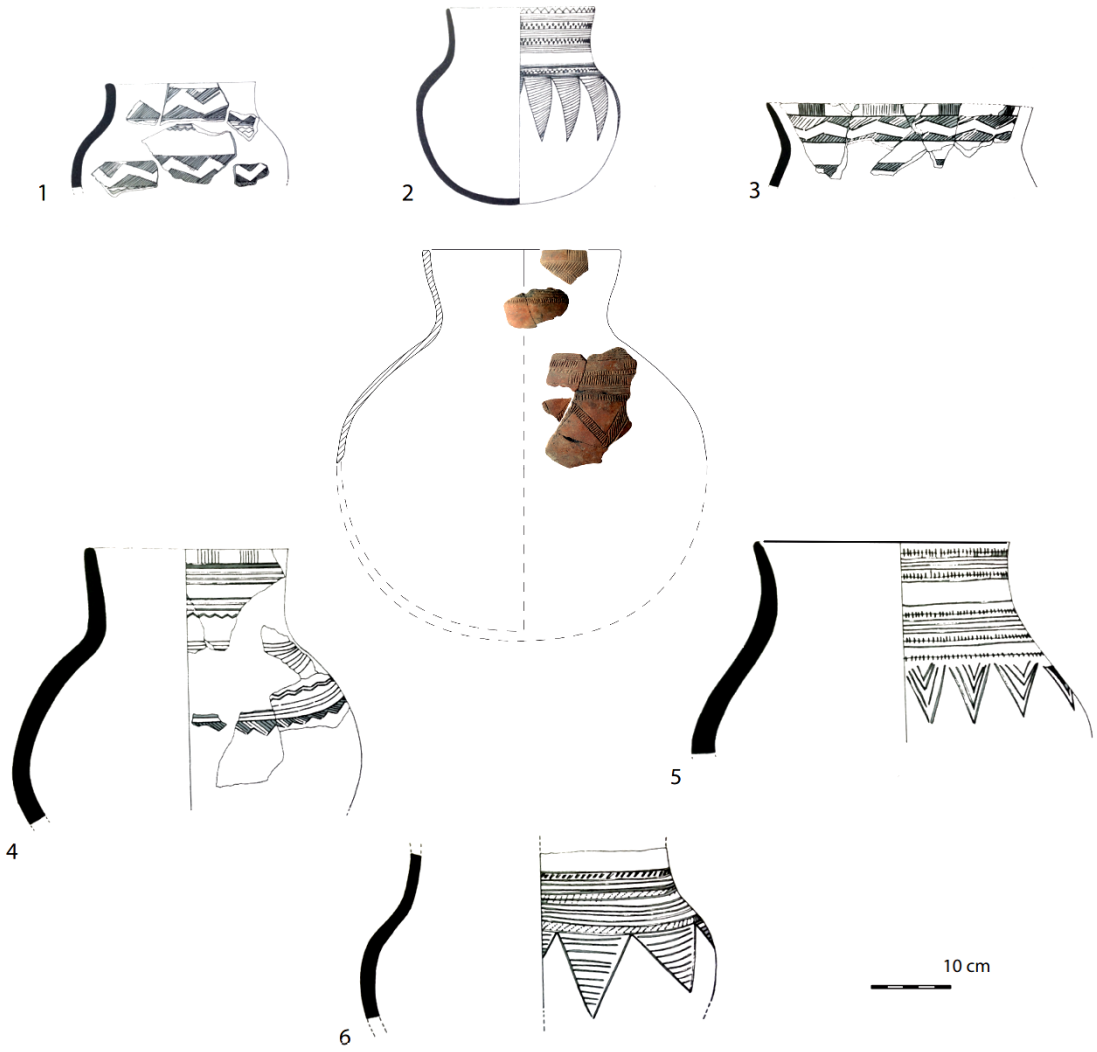

FIG. 6 Morphological comparison between pitchers: 1) Ponte de Laje (Harrison 1977, p. 112. Fig. 44); 2) Cuevas de Arbolí (Harrison 1977: 217, Fig. 97); 3) Montes Claros (Harrison 1977: 118. Fig. 48); 4) Cova da Moura (Harrison 1977: 147, Fig. 64); 5) Cova Josena de Escorbalbou (Harrison 1977: 208, Fig. 90); 6) Cuevas de Arbolí (Harrison 1977: 212, Fig. 93).

exemplars (29 elements), where non-plastic elements are mostly rare and thin (18 out of 29 fragments). As for the surface treatments, most of the sherds preserved a watery glaze on their external surfaces (33 fragments), followed by the smoothed surfaces (25 specimens). On the internal surfaces, this situation is inverted, with internal smoothing dominating (42 pieces), quite typical of Bell Beaker elements (Gonçalves 2009).

Nevertheless, in an attempt to identify the existence of possible patterns, methods based on the works of Bishop, Rands and Holley (1982) and P. Stienstra (1986), to create manufacturing groups, were tested in this set. By using descriptors such as the homogeneity of the paste, the presence of non-plastic components and the firing environments of the sherds, it was concluded that the ceramic assemblage is mostly heterogeneous with only two possible groups: the first one grouping the sherds from the caves, and the second corresponding to the elements with "spiny" decoration.

In the first case, the seven vessels from the caves were made with high-quality, compact clays, with rare fine-sized non-plastic elements, with most of them with oxidising cooling. This grouping might support the funerary character of the caves since the vessels found in funerary contexts tend to be better preserved, generally speaking, with greater care in their manufacture.

The second set, the "spiny" decorated sherds, whose decorative specificities will be further discussed, show a technological unity composed of 22 fragments with semi-compact clays and abundant large-sized non-plastic components. The firing is varied but majorly forms darker smoothed surfaces.

All the remaining elements, from Pragança, are extremely heterogeneous, without any visible or depictable pattern.

5.2. Decorations

The understudy set is composed of 100% of decorated elements, which makes it impossible to calculate their representation and proportion in relation to a larger set, even if the expected would be a reduced representativeness (Sousa 2021). A total of 6 decorative groups were defined, unfolding in several as open as possible variants, to allow the introduction of new elements, without stagnating their applicability to other contexts. The names used for the different types of decoration were adapted from the various works (Gonçalves 1965; Harrison 1977; Valera – Filipe 2004; Cardoso 2014a; Case 2014; Salanova 2014a;), with some references adjusted to the specific contexts of Pragança and its northern influences (Valera 2007).

Decorative Group A - dotted bands, International motif, is the third-largest group, being exclusively present on the S-shaped vessels, with only the exception of the plate from Pragança (fig. 7). Six fragments were ascribed to this group, with a minimum number of five vessels, two of them coming from the caves. Even though it is one of the most represented groups, in absolute terms, its relevance is significantly lower than the Geometric Dotted group, a pattern that also occurs at some settlements in the vicinity of Pragança, such as Outeiro da Assenta, (Cardoso – Martins 2009), Outeiro de São Mamede (Cardoso – Carreira 2003; Cardoso – Martins 2009), or in Freiria (Cardoso – Cardoso – Encarnação 2013), Penedo do Lexim (Sousa 2021). The numbers increase mostly in sites located in the SE side of Montejunto, like Moita da Ladra (Cardoso – Caninas 2010), Leceia (Cardoso 2014b) and the large assemblage of Penha Verde (Cardoso 2010-2011; Cardoso 2014b) (fig. 3, a).

The decorative group B - Dotted Lines, is usually mixed with group A, even though here is presented in a separated way to facilitate the analysis (fig. 3, b). It is composed of nine fragments, with a minimum number of eight vessels. It has not been possible to associate a specific shape to it, but it has a great diversity of decorative motifs, being the simplest lines parallel to the rim - like a Bell Beaker sherd from Ota (Harrison 1977) or to an almost complete specimen from Cau del Molí, Tarragona (Harrison 1977) – and the most complex zigzagging lines, in association with dotted or isolated lines, which may be connected to the 'vegetal' motifs more common in the Ciempozuelos-type Bell Beaker (Valera 2015). This group is more represented at Pragança and in the caves than group A, going against what occurs at Leceia (Cardoso 2014b), Moita da Ladra (Cardoso – Caninas 2010) or Penha Verde (Cardoso 2010-2011; Cardoso 2014b), again in the SE of Montejunto, possibly reflecting culturally differentiated environments (fig. 8).

A great number of the sherds, 37 fragments or 58% of studied materials, belong to decorative group C. Geometric Dotted. Bowls and globular vessels can

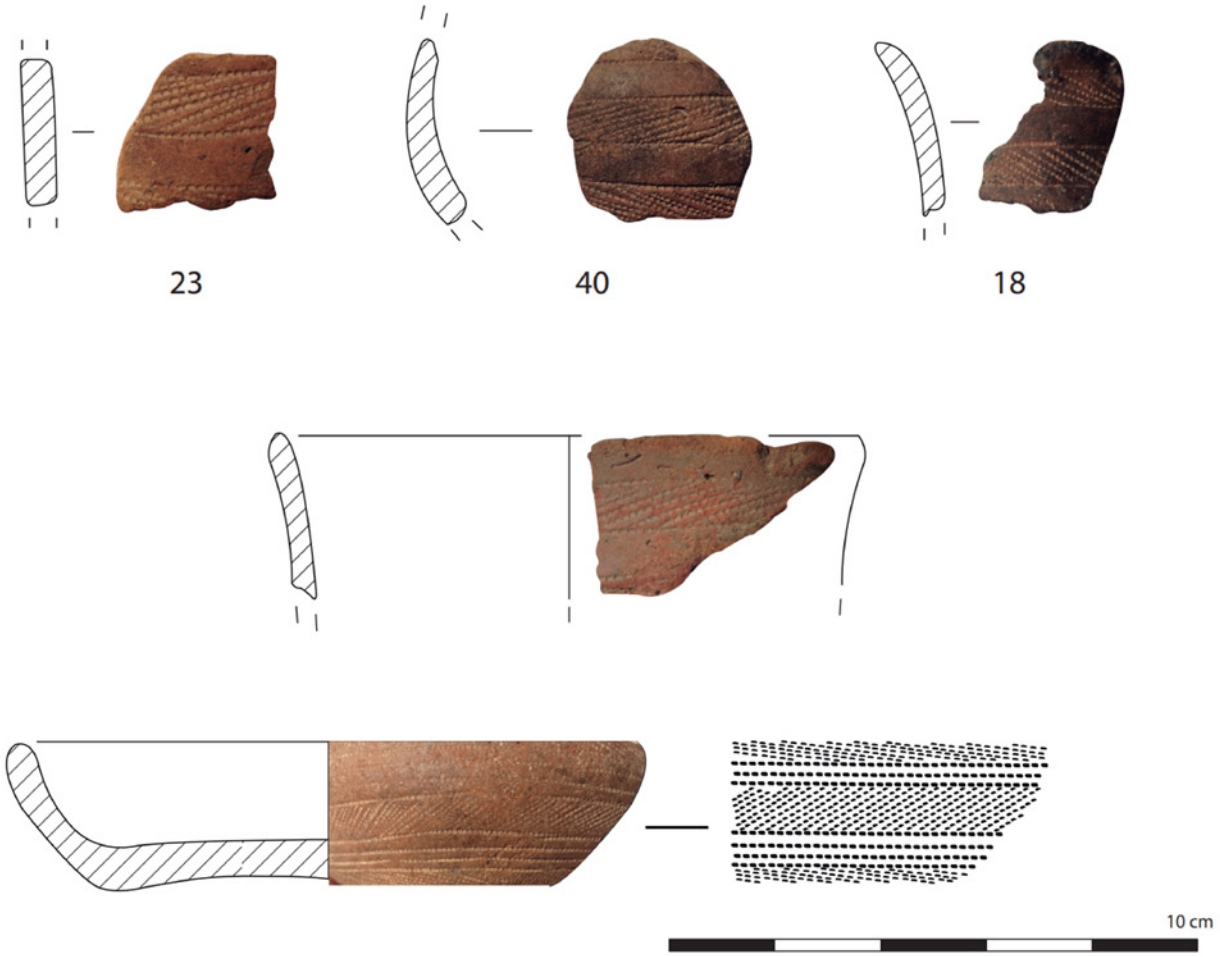

FIG. 7 Sherds with Dotted bands from Pragança.

be exclusively associated with this group, with two-shouldered sherds also included (fig. 3, c). Some of the portrayed motifs are already present in ceramics from the first half of the 3rd millennium BC (Sousa 2021), and have some affinities with the patterns drawn in the Acacia Leaf decorations. They are mostly present in contexts closer to the actual Lisbon area, at Penedo do Lexim (Gonçalves – Sousa 2006; Sousa 2021), Leceia (Cardoso 2006) and Penha Verde (Cardoso 2010-2011), but also closer to Setúbal at Castro da Rotura (Gonçalves 1965; Gonçalves – Sousa 2006), while in settlements like Outeiro da Assenta or Outeiro de São Mamede, NW of Montejunto, these motifs are residual (Cardoso – Carreira 2003). At cave III of Furadouro a globular with a re-entrant rim, a clear regional shape usually linked with the Acacia leaf patterns, was detected, but this time with geometric motifs exclusively done by comb-printing. This may be a sign of formal resistance, which may also be related to the maintenance of the vessel functionality, but that, simultaneously, expresses the adaptation of novelties due to the combination between an old shape/motif done with different techniques (Valera – Mataloto – Basílio 2019). The third variant, the dotted pending triangles have a greater incidence and parallelism with Northern Portugal (Valera 2007), although still part of the Geometric Dotted ceramics. Nine fragments have this type of decoration, all from Pragança (with a minimum number of nine vessels), that could be seen as symbolic decoration. However, due to the reduced sherd size and the lack of secure contexts, they were included in this bigger decorative group.

Variant C.5 is one of the most complexes of the present work. The 22 sherds decorated with this motif are technologically homogeneous, being only applied in bowls with darker surfaces. It was first referred to very briefly by N. Aberg in 1921 (Gonçalves 1971) but it is only Marques Gonçalves that reflects on the possibility of the existence of a local decorative expression (Gonçalves 1991), later explored in the study of the

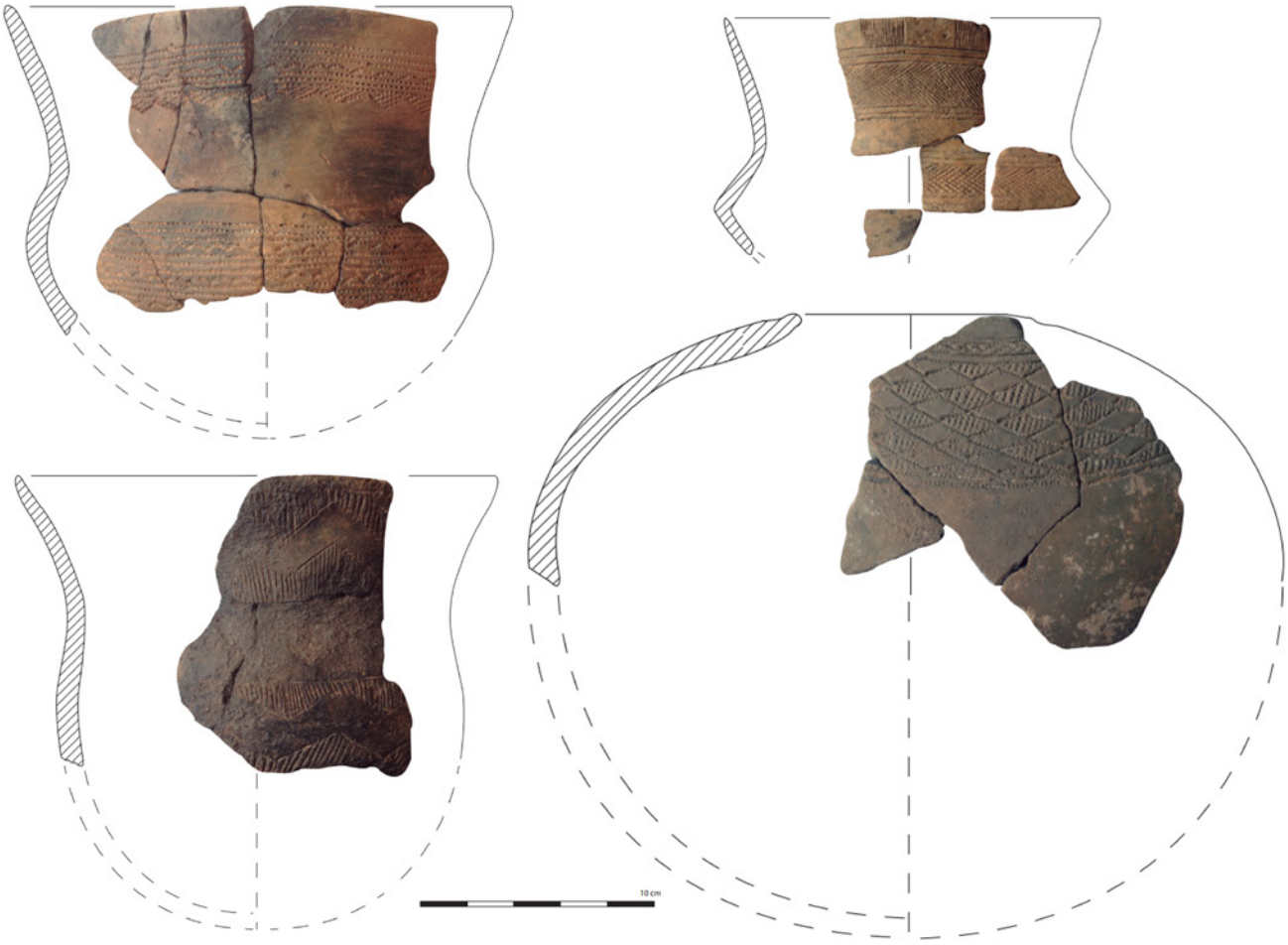

FIG. 8 Vessels from Cave III of Furadouro.

Prehistoric settlement of Outeiro da Assenta, as the first Bell Beaker productions (Gonçalves 1991; Cardoso – Martins 2009) – "Grupo da Assenta" (Cardoso – Martins 2009) (fig. 3; fig. 9).

The use and definition of the term "Grupo da Assenta" was deliberately not used, since it is not illustrative of the decorations that is describing (it only refers the name of a site without mentioning the motifs that is naming). As such, the term "spiny", or in Portuguese "Espinhado", was adapted to name this type of decoration, as it is more neutral but simultaneously more inclusive and flexible. According to the data available so far, the reference made by Marques Gonçalves, in 1991, about the possible existence of "a cultural specificity of its own" in the NW side of Montejunto, seems to be correct. In sites like Chibanes, Castro da Rotura, Olelas, Pedra de Ouro and Vila Nova de São Pedro this type of motif has not been identified so far or is scarce (Gonçalves 1971; Gonçalves 1991; Silva – Soares 2012). At Leceia there are possibly three fragments (Cardoso 2006), at Penha Verde one (Cardoso 2010-2011), at Penedo do Lexim a vase from a private collection (Sousa 2021) and a fragment from the most recent interventions (with simple morphology, depurated clay with an oxidant firing and smoothing on both surfaces), at Ota one exemplar (unpublished information). From the NW side, ten fragments from Outeiro de São Mamede (Gonçalves 1991; Cardoso – Carreira 2003) and the obvious Outeiro da Assenta where 22 fragments were found (Gonçalves 1991; Cardoso – Martins 2009), showing the greater incidence of this decorative type in this part of the mountain, mainly, but not exclusively, in simple morphology vessels.

Group D. Larger Impressions and group F. Geometric motifs with mixed technique are residual groups in the set under study (fig. 3). On the other hand, the decorative organisation E. - Incised Geometric Motifs - was created since it resorts to a different production technique – incision. A highlight goes to motifs E.3.1, with the appearance of vertically organised motifs in

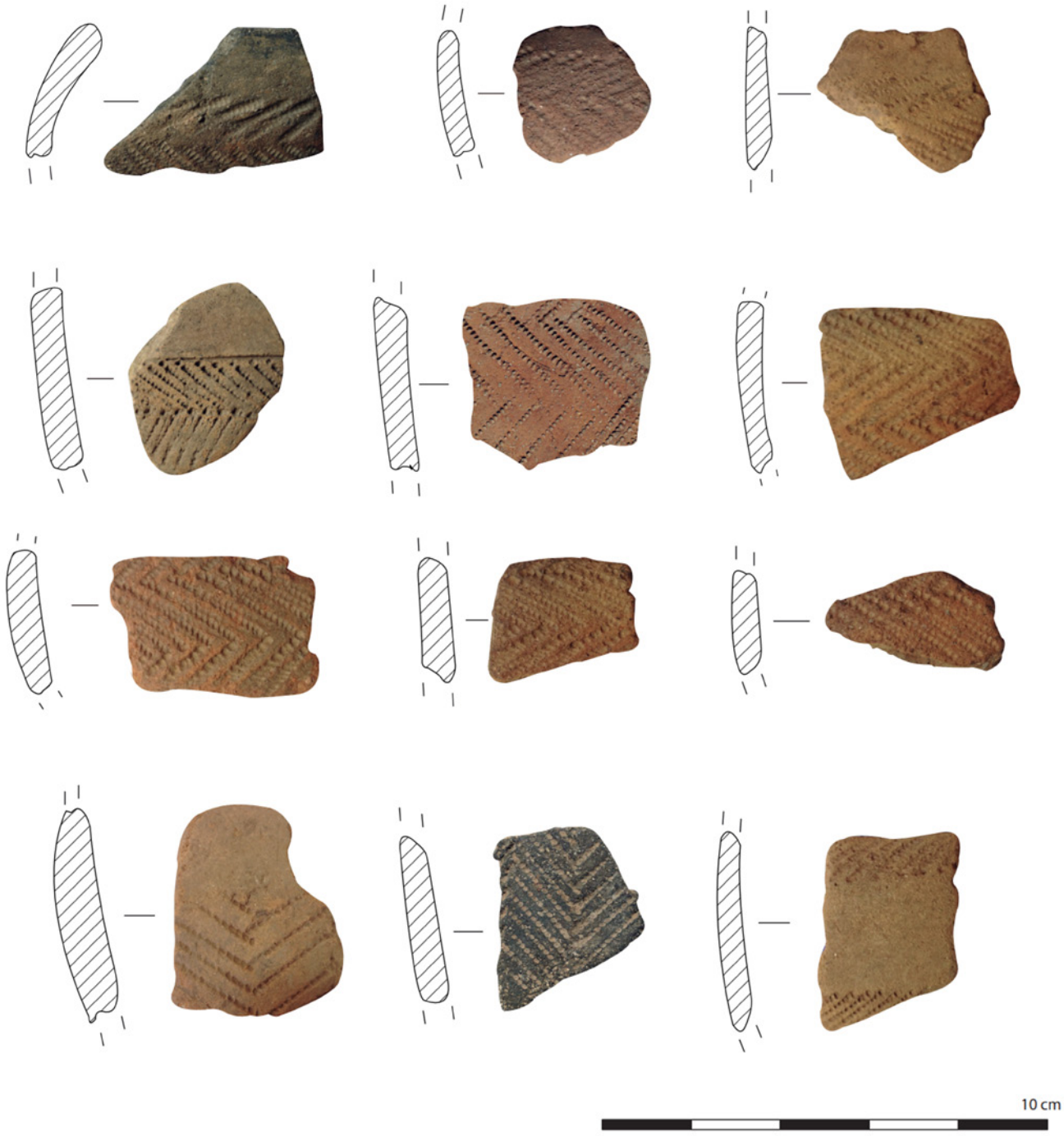

FIG. 9 Sherds with spiny motifs from Pragança.

association with horizontal lines, that appear in the pitcher vessel 5.2. from Gruta III of Furadouro, with an analogous decoration on the vase with the same shape from Cova da Moura (Harrison 1977: 147, fig. 64, 961). The remaining motifs have cultural affinities with the Palmela decorations, although they can't be directly connected.

12 fragments had traces of white inlay, present in all the decorative groups, except for D. Large imprints.

5.3. Matrices and "teeth"

The study of the matrixes and application techniques to produce the Bell Beaker or other motifs- more commonly called comb - is poorly developed in Portugal, largely related to the question of the preservation of these materials - usually made of bone, and ivory (Cardoso 2003) or even wood. The places where these tools are mostly found in the Portuguese Estremadura are funerary contexts, like the set of combs from

the Furninha Cave in Peniche, in which any beaker elements were found (Cardoso – Carvalho 2010/2011). Here, three combs with poorly preserved "teeth" in polished bone were recovered (Cardoso – Carvalho 2010/2011), still, some combs were also found in Castro do Zambujal, Tholos do Pai Mogo, Abrigo das Carrascas and Gruta da Marmota (Gonçalves 1972; Spindler 1981), that might help think about how this type of tools might have looked like and have been used to produce beaker motifs (fig. 10).

The combing technique was not unknown to the 3rd millennium BC populations, having its genesis in the Late Neolithic (Gonçalves 1971; Cardoso – Martins 2009), nevertheless, its usage was generalised with the Bell Beaker motifs. In the case of the combs used for Pragança and the Caves, the analysis consisted in trying to understand how many combs were used - the use of two combs was only detected in three fragments - and how many "teeth" the comb that made the motif had, as well as the type of matrix used in the "teeth" of the comb.

59 fragments were studied. On 18 of these, it is possible to suggest a number of "teeth" ranging from five (associated with the oblique filling of the bands) to 18 (in the drawing of the linear motifs). This exercise has a somewhat fragile basis, resulting only from the observation of small patterns on the fragments, and may, in the future, suffer alterations.

As for the matrix/shape of the "teeth", four types were noted - circular, quadrangular, rectangular and double. The circular matrix is the dominant one, in 28 fragments, followed by the rectangular matrix, with 14 records. The double matrix will only appear in one fragment.

Making a small balance of the set, the Bell Beaker materials from Montejunto are very heterogeneous. Even though numerically reduced, they allowed reflecting on local/regional realities while at the same time enabling the study of broader cultural influences and networks.

6. POSSIBLE REGIONAL ROLE(S) OF MONTEJUNTO DURING THE SECOND HALF OF THE 3RD MILLENNIUM BC

Studying Bell Beaker elements necessarily implies dealing with narratives highly influenced and marked by the historical-culturalist ideas, which still today structure many of the concepts used. A good example is "Bell Beaker Folk" which even though erased from scientific papers, is still credited and upheld by some researchers (Soares 2013). The most recent approaches, more holistic ones, have been valuing the consciousness and will that both prehistoric women and man had, alongside the recognition of their greater mobility, and of the complex relationship that they had with the space surrounding them (Valera 2015; Valera – Basílio 2017; Valera – Mataloto – Basílio 2019). Nonetheless, there are research topics that keep reappearing, such as the origin of the phenomenon or if there is a chronological sequence associated with the different decorative groups (Gonçalves 1965; 1971; Ferreira – Silva 1970) and how they interact with the local pre-existence (Amaro 2010/2011; Valera – Basílio 2017; Valera – Mataloto – Basílio 2019).

6.1. From Curral das Cabras Gafas to the "world"

What Montejunto decorated Bell Beakers have shown is that there is a coexistence, in Pragança, between Bell Beaker patterns and subjects that use the local forms (bowls) as a canvas for motifs that resemble the previous Acacia leaf organisation, but done with techniques that suggest some "beaker influence" (Spiny motifs). This highlights what can be seen as a process of reinterpretation and internal negotiation of the Bell Beaker precepts, that seem to have been adapted and applied to the local communities' practices and rites, coexisting with the previous

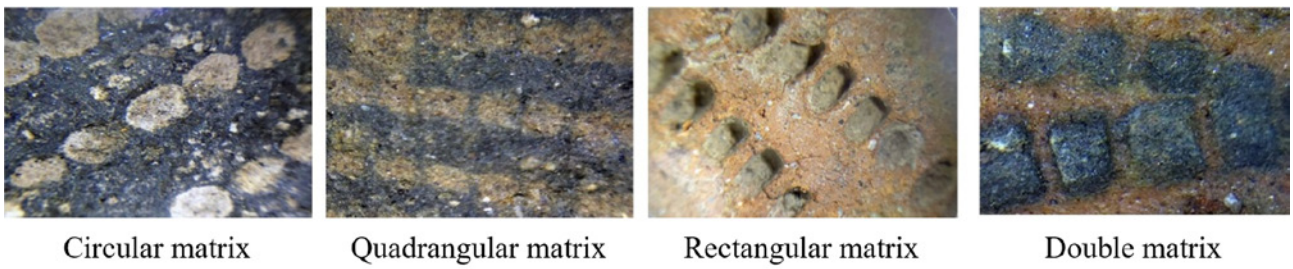

FIG. 10 Types of comb matrix identified.

in-use materials. As such, the beaker introduction would not mark a period of rupture and total change at the ideological, social and spatial level, but instead, an introduction that partially maintains the funerary Bell Beaker practices, while simultaneously ascribing other roles to these vessels and motifs (which justify its presence in a non-funerary site like Pragança), as suggested for other Portuguese regions (Valera – Basílio 2017; Valera – Mataloto – Basílio 2019). In this sense, it is not possible to note the shifts of the previously existing social canons seen in other European areas (Linden 2004), to which the local/regional Montejunto networks seem to have been connected (fig. 11).

What the available archaeometry regional studies highlight is that the quarries used to produce the traditional S-shaped decorated Bell Beakers are the same ones that were earlier used (Amaro 2010/2011; 2013). This means that some ceramics might have travelled but mainly the ideas and the people, mostly from 2500 BC onwards (Valera – Mataloto – Basílio 2019), strengthening the European influences that the vessel from Curral das Cabras Gafas seems to suggest.

As previously noted, this type of vessel has some parallels in Northern Italy and Mediterranean France, and some formal affinity can also be seen with sherds from the present-day Czech Republic (Linden 2004; Kohring 2014; Salanova 2014) (fig. 5). The *begleitkeramik*, also known as "accompanying" ceramics, usually, as the name implies, accompanies decorated Bell Beakers. Some of these vessels can be decorated, but generally, the decorations are technically simpler, with small imprints or strings near the rim (Linden 2004; Jeunesse 2015). Other vessels, that share the same elongated shape as the vessel from Curral das Cabras Gafas have been found, namely at Tomb 4 of Perdigões (Basílio 2019). However, due to its International decoration, the exemplar from Curral das Cabras Gafas remains isolated.

6.2. Montejunto as a cultural and identitarian boarder

According to the current knowledge, Bell Beaker decorated vessels, traditionally understood as rare elements, even though not extremely common in national sites, are more widespread, being equally present in funerary contexts and habitats, from northern to southern Portugal (Valera – Mataloto – Basílio 2019). Still, to get closer to the meanings and roles that these decorations and vessel shapes have, different study scales scale could be pursued. On the one

FIG. 11 Military cartography 1: 25,000 nº 350, 351, 362 and 363, with the main river springs. 1 – Furadouro valley and 2 – Pragança.

hand, on a broader scale, the existence of a "European identity", caused and derived from the recognised social networks (Linden 2004), possibly materialised in vessels like the one from Curral das Cabras Gafas. However, this bigger narrative obliterates the local and regional dynamics, which have unparalleled reactions when in contact with the Beaker phenomenon, according to their own socio-economic and symbolic development. As such, even though these motifs and shapes can represent a common language, message or idea, their meaning can only be grasped according to the context in which they are acting.

A good example concerns two ceramic fragments from the Ciempozuelos decorative group, in which naturalistic and more schematic representations of the same decorative pattern were identified, being understood as portraying agricultural activities (Valera 2015), showing that a gradual schematisation of the motifs and symbols can occur. Could this be the case with the spiny motifs? Are they a sign of an early adaptation of the beaker ways of doing into the local matrix or the evidence of a later simplification of the Beaker iconography?

Due to the lack of stratigraphic and chronological data, these questions will remain unanswered. However, what is clear, is that Montejunto works as a cultural border between the NW and SE sides of the Mountain. This role is evidenced by the behaviour detected in the sherds with spiny decoration, which have significantly higher relevance in the contexts with human activity from the second half of the 3rd millennium BC located at NW off the elevation while being scarcely present in the southern sites. More than just a cultural border, Montejunto can also be understood as a structurer of identities of the communities that surround it. Even though fitting and replicating the general characteristics of the Chalcolithic Portuguese Estremadura in a broader scale of analysis, the groups of the understudied area have their particularities, as only highlighted by Pragança and its large set of spiny decorated sherds.

6.3. A meeting place at Montejunto?

Pragança is not only singular because it has the largest set of spiny decorated sherds identified so far, but also due to its architecture and its classification as a walled enclosure. This designation was promptly questioned in 1962 by Fernando Castelo-Branco, mainly due to the generalised lack of contexts, the reduced size of the enclosure formed by the alleged wall, the absence of structures that could be classified as huts and also due to the exposure to climatic forces and the highly visible implantation position that Pragança has.

If the lack of structures that indicate any type of permanent occupation (Gonçalves 1990/1992b; Gonçalves – Sousa 2006) could be explained by the reduced sedimentation, soil rummaging, the early interventions or even the perennial nature of these structures, the remaining problems don't seem to have an explanation. The small enclosure formed by what seems to be a wall is closer to what has been found in Ota, with embankments that use the bedrock to enlarge the available flat areas (Gonçalves – Sousa – Costeira 2013; Texugo *et al*. in press), than to what is known in any other walled enclosure (Gonçalves – Sousa – Costeira 2013). Adding to that, the existence of votive materials, like the cylindrical idols, the decorated sherds that could be read as having symbolic motifs and the metallurgic richness (Gonçalves 1990-1992b), not addressed in this work, seem to suggest that, at least at some point, Pragança's role could have been somehow connected to more social and symbolic practices – a possible gathering place, like what still happens today, in the two churches located on top of Montejunto.

This idea can also help explain the heterogeneity of manufacturing methods and possible provenances found in some of the decorated sherds from Pragança. Even though further petrographic studies would be needed, due to Pragança's location it is expected that a large availability of clay sources exists, according to the Geological Map. Could this suggest that the Montejunto communities used different clay sources or that Pragança served as a place of confluence of materials and reunion for the different local/regional communities?

This hypothesis does not exclude that, through time, Pragança might have had different functionalities, corroborated by the internal rhythms and social dynamics inferable from the materials from the distinct chronologies. Nonetheless, sites exclusively dedicated to the management of the different social identities should have existed not only in the south of Portugal but also in the study area.

Still, newer and contextualised data would be required, having into consideration that walled sites like Pragança, Olelas (Gonçalves 1990/1992b), Pedra d'Ouro (Branco 2007) or Ota (Texugo *et al*. in press) have a low sedimentation rate and are simultaneously affected by high exposure to meteorologic agents that hamper the archaeological record.

7. FINAL REMARKS: A CULTURAL AGENT

Humans are, par excellence, social and, inherently, cultural beings. As nowadays, people have not just existed, they also generated and discarded materialities, built and altered places. Just as today, to a different extent, Prehistoric communities might not have understood space as something that is simply physical and exists by itself, fostering interactions with the landscape in a way that today is not experienceable, due to dogmas and concepts that are very well structured and socially/universally accepted and applied (Valera 2008).

Nonetheless, after what was presented, it seems that Montejunto Mountain has worked as a "landscape designer" at least during the 3rd millennium BC, being a visual and physical marker, that directly acts in Nature, whether the fauna or flora and in climate, generating and accentuating different environments in each of its sides. This duality will be materialized in distinctive cultural behaviours, and possibly distinct identities in which Montejunto functions as a boundary.

The presence of regional decorations, like the spiny motifs, alongside the traditional Bell Beaker grammars, might illustrate (without chronological corroboration) a phase where cultural and technological innovations coexist with previous realities (two sides of the same "coin" or "heads or tails"), without originating significant modifications in the materials and the archaeological record (Fokkens 2012). This dichotomy highlights different contacts and influences, as suggested for the elongated S-shaped vessel from Curral das Cabras Gafas, with the NW side with a higher diversity of Peninsular and extra-peninsular contacts, contrasting with the SE part, in which the similarities between the sites allow to think of a "unified" region, with shared usages and roles ascribed to the Bell Beaker elements, from which Cave III of Furadouro seems to be part.

Even though the number of Bell Beaker sherds studied is rather small when compared with other sites, such as Porto Torrão (Valera – Filipe 2004), it allowed understanding of general trends that otherwise would go unnoticed, but most importantly helped to approach the role that this mega archaeological site had in the 3rd millennium BC landscape.

The question concerning the main functionality of Pragança still needs empirical data and confirmation. Even though the identified indicators point to a reality that, so far, has not been identified in Portuguese Estremadura, still waiting to be discovered.

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POLÍTICA EDITORIAL

Objectivos

A Ophiussa – Revista do Centro de Arqueologia da Universidade de Lisboa foi iniciada sob a direcção de Victor S. Gonçalves em 1996, tendo sido editado o volume 0. A partir do volume 1 (2017), a Revista Ophiussa converte-se numa edição impressa e digital da UNIARQ – Centro de Arqueologia da Universidade de Lisboa (ISSN 1645-653X / E-ISSN 2184-173X).

O principal objectivo desta revista é a publicação e divulgação de trabalhos com manifesto interesse, qualidade e rigor científico sobre temas de Pré-História e Arqueologia, sobretudo do território europeu e da bacia do Mediterrâneo.

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A revista divide-se em duas secções: artigos científicos e recensões bibliográficas. Excepcionalmente poderão ser aceites textos de carácter introdutório, no âmbito de homenagens ou divulgações específicas, que não serão submetidos à avaliação por pares. Isentas desta avaliação estão também as recensões bibliográficas.

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