### **SPAL** 31.1 (2022) 171-199

ISSN: 1133-4525 ISSN-e: 2255-3924

**FECHA RECEPCIÓN** 06/03/2021

**FECHA ACEPTACIÓN** 10/12/2021

### The prestige-goods model applied to the Iberian Southeast during the Early Iron Age: the Phoenician scarab from Castellar de Librilla

EL MODELO DE BIENES DE PRESTIGIO APLICADO AL SURESTE IBÉRICO DURANTE EL HIERRO ANTIGUO: EL ESCARABEO FENICIO DEL CASTELLAR DE LIBRILLA

### Benjamín Cutillas-Victoria

Grupo de Investigación en Arqueología (E041-02). Universidad de Murcia. C/ Santo Cristo, nº. 1, 30001 (Murcia, Spain).Centre of Excellence in Ancient Near Eastern Empires (ANEE). University of Helsinki. Fabianinkatu 24, 00014 (Helsinki, Finland) benjamin.cutillas@um.es ② 0000-0002-6358-4176 P ABF-7258-2020 (Responsable de correspondencia)

### Vanessa Boschloos

Department of Archaeology, Ghent University.

Campus Ufo, Sint-Pietersnieuwstraat 35. B-9000 Ghent - Belgium. Metropolitan Museum of Art, Department of Egyptian Art. 1000 Fifth Avenue, 10028 New York, NY vanessa.boschloos@ugent.be © 0000-0003-4654-3134 P ABB-2169-2020

### José Baños Serrano

Museo Arqueológico de Los Baños.

Plaza Vieja, nº. 1, 30840 (Alhama de Murcia, Spain)

plazavieja@alhamademurcia.es ② 0000-0002-6004-1619 P AAH-4801-2021

**Abstract:** The establishment of Phoenician colonies in the Iberian Southeast from the 8<sup>th</sup> century BC led to a significant increase in productive and commercial activities with the autochthonous communities. However, prestige goods of high value destined for reduced consumption groups also circulated within these networks. The presence of a scarab found during an archaeological survey in the settlement of Castellar de Librilla (Librilla, Región de Murcia) reveals the inclusion of certain autochthonous elites in these circuits. This paper discusses the context, typological classification and comparative analysis of the scarab to better determine its origin and chronological framework. The incorporation of new archaeometric data through scanning electron microscopy (SEM), focused on the gold bezel setting in which the scarab is set, has been essential to improving our understanding of this piece of personal adornment. The results of the iconographic and microanalytic study point to the exceptional value of this artefact, which make it possible to recognise the participation and agency of the autochthonous elites of Castellar de Librilla in the commercial systems of Mediterranean prestige goods.

**Keywords:** Iberian Peninsula, Early Iron Age, cultural interaction, trade networks, iconography, scanning electron microscopy.

Resumen: El establecimiento de las colonias fenicias en el Sureste ibérico a partir del siglo VIII a.C. provocó un auge importante de las actividades productivas y comerciales con las comunidades autóctonas. No obstante, en este entramado comercial también se dio un tráfico de elementos de prestigio de elevado valor que se encontraban destinados a círculos de consumo muy reducidos. El hallazgo en prospección de un escarabeo en el asentamiento del Castellar de Librilla (Librilla, Región de Murcia) pone de manifiesto la inclusión de determinadas élites autóctonas en estos circuitos. Este trabajo aborda su contextualización, clasificación tipológica y análisis comparativo con la finalidad de determinar la procedencia del escarabeo y su marco cronológico. La incorporación de nuevos datos arqueométricos a través de microscopía electrónica de barrido (SEM), especialmente centrados en las partes de oro, ha sido esencial para mejorar la aproximación sobre este adorno y artefacto de ornamentación personal. Los resultados del estudio iconográfico y microanalítico apuntan al valor excepcional de esta pieza, lo que permite reconocer la participación y capacidad de agencia de las élites autóctonas del Castellar de Librilla en los sistemas comerciales de bienes de prestigio mediterráneos.

Palabras clave: península ibérica, Hierro Antiguo, interacción cultural, comercio, iconografía, microscopía electrónica de barrido.

Cutillas-Victoria, B., Boschloos, V. y Baños Serrano, J. (2022): "The prestige-goods model applied to the Iberian Southeast during the Early Iron Age: the Phoenician scarab from Castellar de Librilla", *Spal*, 31.1, pp. 171-199. https://dx.doi.org/10.12795/spal.2022.i31.07

# The prestige-goods model applied to the Iberian Southeast during the Early Iron Age: the Phoenician scarab from Castellar de Librilla

**SPAL** 31.1 (2022)

171-199

ISSN: 1133-4525 ISSN-e: 2255-3924

### 1. INTRODUCTION

The presence of foreign elements of adornment or personal use in the autochthonous settlements of the Iberian Peninsula has become one of the most complex and thoroughly examined issues of the transition period from the Late Bronze Age to the Early Iron Age. It seems that these artefacts of exceptional value introduced by the Phoenicians during the pre-colonial horizon were aimed at facilitating encounters and establishing relationships with local elites controlling the natural resources. At the same time, the autochthonous leaders increase their power within the local communities (Aubet, 1994), and these material symbols would have justified their social pre-eminence and their ability to control surpluses (Barceló, 1995; Vives-Ferrándiz, 2008).

However, discussion emerged when scholars sought to analyse these exchanges in a broader framework, especially at the level of the socio-economic structuring of local societies, resulting in two opposing viewpoints. On the one hand, scholars have suggested that such goods linked to the notion of prestige acted as a mechanism through which Phoenicians implanted complex social and economic structures among local upper classes in imitation of their own models (Wagner and Alvar, 1989; Aubet, 2005). On the other hand, prestige goods may merely have facilitated contacts with autochthonous societies that were already in the process of transformation and growth, with their own infrastructures and social structures (Ruiz-Gálvez, 1998; González Prats, 2005).

The continuity of the trade in prestige goods beyond the initial phase of Phoenician colonisation contributes to this debate. This then raises the question of whether the goods were offered by the colonial environments to maintain good relations with the autochthonous settlements, or, on the contrary, whether they responded to demands by the local elites directing and structuring the Early Iron Age settlements and territories. The discovery of a red chalcedonic quartz scarab set in gold with clearly Eastern Mediterranean iconographic motifs in a midden at the settlement of Castellar de Librilla is framed in this context (fig. 1).

The aim of this paper is precisely to examine this object of standing and its immediate context as well as the socio-economic and commercial dynamics that made its arrival possible. However, the analysis was undertaken from the perspective of the autochthonous communities, making it possible to evaluate the important role of and developments in the autochthonous societies during this period. Thus, the paper challenges the traditional prestige goods theoretic model, which treats power relations as static and unidirectional rather than continuously renegotiated and bidirectional (Vives-Ferrándiz, 2008; Delgado Hervás, 2013).

### 2. PRESTIGE GOODS IN THE IBERIAN SOUTHEAST FROM THE 8TH CENTURY BC

Prestige goods in Iberia are not a novelty that only emerged during the last period of the Late Bronze Age. The Late Bronze Age and Early Iron Age, however, did constitute an exceptional period for the study of the dynamics that converged around these items because the chronological phases suggest the meeting, coexistence, adoption and adaptation of clearly differentiated cultural elements and languages. In this sense, prestige goods and manufactured objects played an essential part in the transmission processes between Phoenicians and the indigenous population. Nevertheless, it is important to note that the true value of foreign objects is not restricted to just their tangible characteristics and materiality; it encompasses supply and demand and the social meaning behind the object as well (Krueger, 2008).

I he prestige-goods model applied to the II Benjamín Cutillas-Victoria et al. https://dx.doi.org/10.12795/spal.2022.i31.07

### 171-199

ISSN: 1133-4525 ISSN-e: 2255-3924



Figure 1. Location of the settlement of Castellar de Librilla, with indication of some of the main prestige goods identified in the Iberian Southeast (Design: authors. Images: Los Royos -Museo Arqueológico Nacional / Fabián Álvarez Martínez®-; Bajo de la Campana -Museo Nacional de Arqueología Subacuática ARQVA / Bruce Mitchell White®-; La Condomina -Museo de Villena®-; Bay of Mazarrón -José Lajara®-; Castillico del Sabinar -Walker, 1988, p. 102, fig. 2.b-; Baria -Alberto Lorrio Alvarado®-; Fonteta - Museo Arqueológico de Guardamar®-; Les Casetes -José Ramón García Gandía®-; Peña Negra -Museo Arqueológico de Alicante®-. Digital Terrain Model: Spanish National Geographic Institute).

Before continuing, it is essential to consider what scholars mean by the term prestige object and its connotations with respect to the interpretive discourse used to interpret the archaeological record. The notion of prestige and its application in prehistory raises difficulties at a theoretical and methodological level, as it is a problematic and non-static term. Following Pedraza (2017), the use of this category has been related to the symbolic value assigned to certain items that accentuate their objective value, itself determined by the investment of working time during the production processes. However, a series of precepts must also be fulfilled before the artefact can be considered a prestige good, such as the rarity of the materials used, the complexity of the manufacturing process or its place of origin (Pedraza, 2017, p. 16).

It is precisely this intangible and mutable value that highlights the fact we are faced with a series of social productions symbolising a specific ideology and, in the hands of the elites, serving as a legitimising element of social power (Krueger, 2008, p. 9). These last attributions may explain the importance of prestige goods among the communities of Iron Age Europe, causing scholars to propose the existence of a demand for and a specific trade developed around such products. The identification

## The prestige-goods model applied to the Iberian Southeast during the Early Iron Age: the Phoenician scarab from Castellar de Librilla Benjamín Cutillas-Victoria *et o*

https://dx.doi.org/10.12795/spal.2022.i31.07

**SPAL** 31.1 (2022)

171-199

ISSN: 1133-4525 ISSN-e: 2255-3924 of certain processes led Frankenstein and Rowlands (1978) to define a theoretical position focused on the existence of an economy of prestige goods based on prior anthropological studies and Wallerstein's conception of world systems (1974). They suggest that, through the prestige goods obtained via exogenous commercial relationships, the upper classes could achieve a dominant position by reinforcing their hierarchy and status (Frankenstein, 1997).

However, the prestige-goods economy model has not been exempted from criticism. Other scholars have pointed out that, in some cases, these types of goods have been studied as exceptional objects and rarely related to other relevant aspects of the archaeological record that help identify possible changes in local communities or their role in shaping local politics (Sanmartí, 2009, p. 50). Likewise, critical views have questioned related perspectives defined as *top-down* models, which assign a greater role to elites and foreign merchants in the processes of social and economic change during the period, relegating ordinary people to a passive role (Delgado Hervás, 2018, p. 144).

These last positions are the ones that we consider most constructive when undertaking a reading of the social and cultural dynamics that occurred around prestige goods in the Iberian Southeast during the first half of the first millennium BC. Finds such as the Castellar de Librilla scarab should be understood as a social product, contextualising both their meaning within the local communities that adopted them as items associated with their own social orders and recognising the commercial connections and economic and social relationships that allowed for their arrival (Vives-Ferrándiz, 2005, p. 74). This requires not only an exhaustive knowledge of the characteristics of each item, its origin, iconography, meaning and composition, but also interpreting them within these changing scenarios. Autochthonous communities exercised an agency in the processes for selective incorporation that conditioned the configuration of the hybrid identities that occurred during the period.

In the Iberian Southeast, different prestige goods have been found along the coast and in the inland regions, and in various formats and manifestations. Without attempting to exhaustively list them, some stand out: alabaster vases, such as at Baria and Fonteta (López Castro, 2001-2002; González Prats, 2014a); faience objects like the water bottle from Les Casetes (García Gandía, 2009); ostrich eggs, combs, appliques and plates of ivory and bone, such as those documented at Fonteta (González Prats, 2014b); ceramic assemblages from the Central and Eastern Mediterranean, whether related or not to the consumption of wine (Rouillard *et al.*, 2007; González Prats, 2014a; González Prats, 2014b); bronze elements of exceptional quality, such as the *thymiaterion* or the bronze hand identified among the cargo from Bajo de la Campana (Polzer, 2014; Pinedo Reyes, 2018); or the sculptures from El Macalón (fig. 2, b) (Chapa *et al.*, 2019).

Despite the nature of these elements, scholars should apply the label of prestige good with caution. For the present case, the value of, for example, Greek ceramics, ostrich eggs or alabaster vessels among the Phoenician communities seems evident. However, such objects have not been found in great numbers in local communities in the Southeast. With the exception of the alabaster vase from tomb 5 at the Collado and Pinar de Santa Ana necropolis (Hernández Carrión and Gil González, 2001-2002) (fig. 2, a), no other alabaster elements have been detected among the pre-coastal or inland communities; this is also the case for ostrich eggs, only identified in the necropolis of Les Casetes (García Gandía, 2009; Ruiz et al., 2020). With respect to ceramics, this absence is in relation to Greek imports, posited as a facilitator of links with autochthonous aristocracies and yet practically absent from autochthonous repertoires (Vives-Ferrándiz, 2005, p. 163).

https://dx.doi.org/10.12795/spal.2022.i31.07

### **SPAL** 31.1 (2022)

171-199

ISSN: 1133-4525 ISSN-e: 2255-3924



**Figure 2.** Different manifestations of prestige goods from the Iberian Southeast: A) detail of the alabaster vase found in the necropolis at Collado y Pinar de Santa de Jumilla -Museum 'Jerónimo de Molina' of Jumilla©-; B) sculpture from El Macalón -authors©-; C) Centauro de Los Royos bronze sculpture -Museo Arqueológico Nacional / Fabián Álvarez Martínez©-; D) silver ring with a steatite scarab, Bay of Mazarrón - Museo Nacional de Arqueología Subacuática ARQVA / Bruce Mitchell White ©-).

These observations are essential for understanding the agency of local communities and the study of prestige goods for personal use. In this sense, some objects do appear in certain autochthonous settlements without alterations, which implies the transmission and adoption of such objects and perhaps the cultural transfer of their related practices, too. This is the case with bronze objects, such as the belt clasps from El Bolón (Poveda, 1994-1995), Fonteta (González Prats, 2014a) and Peña Negra (Graells and Lorrio Alvarado, 2017) and the buckle from Castillico del Sabinar (Walker, 1988); with various gold objects, such as the possible diadem identified among the treasure found at Peña Negra (González Prats, 1978) or the arracada de Villena (Soler, 1990); with bracelets or pendants containing glass paste beads, such as those identified in Peña Negra and Les Moreres (González Prats, 1983; González Prats, 2002); or, with objects having high symbolic value due to their function, morphology and content, such as scarab-shaped seals.

Initially dismissed as mere trinkets accompanying trade commodities because of their wide distribution throughout the Mediterranean region, scarabs are now fully recognised by scholars for their magical value: it has been argued that enough evidence exists to indicate that the magical beliefs expressed by and inscribed on Egyptian and Egyptianizing amulets were basically understood in the West at the time (Padró, 1995, pp. 191-192, 195-201; Schweizer, 2014).

## The prestige-goods model applied to the Iberian Southeast during the Early Iron Age: the Phoenician scarab from Castellar de Librilla Benjamín Cutillas-Victoria *et al.*

https://dx.doi.org/10.12795/spal.2022.i31.07

**SPAL** 31.1 (2022)

171-199

ISSN: 1133-4525 ISSN-e: 2255-3924 So far, the scarabs identified in the Iberian Southeast have been found in colonial settings and in the main local settlement of Peña Negra. The first category includes two 'blue paste' scarabs, two white faience scarabs and one cornelian scarab in a silver mount from Fonteta (Escolano Poveda, 2010), a silver ring (fig. 2, d) with a steatite scarab from the Bay of Mazarrón (Azuar and Pérez, 2008, pp. 118-119) and a faience scarab in a gold mount from Baria (Almagro-Gorbea and Lorrio Alvarado, 2015). Peña Negra has yielded six scarabs in white faience in the so-called treasure from Sector 4N, together with a hawk-shaped amulet and other items, such as the aforementioned diadem, silver chain necklaces, glass paste beads, an iron knife and bronze tweezers (González Prats, 1978; Padró, 1996; Escolano Poveda, 2010). To these can be added a later hellenising green jasper scarab in a metal bezel from the necropolis of El Molar (Padró, 1983, pp. 122-127). When adopting a macroscale approach, this distribution could reflect the existence of a differential order between Phoenicians and local aristocracies.

However, the finding of a scarab in a gold mount at Castellar de Librilla requires a precise characterisation of this item, placing it in its proper sociocultural context and linking it to a general review of such prestigious goods from the central sector of the Iberian Southeast during the Early Iron Age.

### 3. THE SETTLEMENT OF CASTELLAR DE LIBRILLA

Within the dynamics of territorial and urban restructuring that took place in the Iberian Southeast during the Late Bronze Age (Molina González, 1978; Jover *et al.*, 2016), the creation of new main settlements stands out. Since the 9<sup>th</sup> century BC, sites such as Peña Negra in Crevillente (González Prats, 1983; Lorrio Alvarado *et al.*, 2016), Santa Ana in Jumilla (Ros Sala, 1990; Hernández Carrión and Gil González, 2001-2002) and Santa Catalina del Monte in Murcia (Ros Sala, 1986-1987), reorganised their local productive and economic systems to amplify the capacities and possibilities of the region in the years preceding the Phoenician colonisation. In this context of intensifying contacts and exchanges with the Atlantic, Central Mediterranean and peninsular trade networks, Castellar de Librilla appeared in the pre-coastal basin of the Guadalentín-Segura rivers and at the entry to the Rambla de Las Moreras.

Both traditional and new archaeological data (Ros Sala, 1989; Cutillas and Ros Sala, 2020) reveal an initially dispersed occupation pattern around the natural spring of Castellar, which preceded the subsequent phase of urban expansion and demographic increase after the consolidation of the Phoenician-western colonies in the region (Rouillard *et al.*, 2007; González Prats, 2011; García Menárguez and Prados, 2014; Ros Sala Sellés, 2017). This dynamic of development continued until the 7<sup>th</sup> century BC, the period when the settlement achieved its maximum point of growth. The site plan (fig. 3) reveals that the main part of the settlement was located on the east side, and several urban areas, fortifications and productive workshops have been identified along a chronology that extends up until the 4<sup>th</sup> century BC. On the opposite side of the Rambla de Algeciras, the synchronous occupation was concentrated at Cabezo de la Fuente del Murtal, although this elevated area is better known for the fortified structures located on top of it (García Blánquez, 1996; Lomba and Cano, 2002).

The appearance of fortresses and walled structures in the Iberian Southeast between the end of the 7<sup>th</sup> century and the 6<sup>th</sup> century BC reveals constant territorial tensions between the settlements. This situation affected both the autochthonous (Lorrio

### The prestige-goods model applied to the Iberian Southeast during the Early Iron Age: the Phoenician scarab from Castellar de Librilla https://dx.doi.org/10.12795/spal.2022.i31.07 Benjamín Cutillas-Victoria *et al.*

**SPAL** 31.1 (2022)

171-199

ISSN: 1133-4525 ISSN-e: 2255-3924 Alvarado *et al.*, 2016; Sala Sellés *et al.*, 2020) and western Phoenicians settlements (Rouillard *et al.*, 2007, p. 126; González Prats, 2011, p. 23) and, probably, such conditions worsened after 550 BC, when an important shift in the overall dynamics occurred in the region. From this date onwards, trade systems declined in the Iberian Southeast, resulting in the progressive abandonment of the autochthonous and colonial environments, such as Fonteta (Rouillard *et al.*, 2007), Peña Negra (Lorrio Alvarado *et al.*, 2016; Almagro-Gorbea *et al.*, 2021), and Almadenes (Sala Sellés *et al.*, 2020); or in the weakening and contraction of others, like Bahía de Mazarrón (Ros Sala and Cutillas, 2020) and Santa Catalina del Monte (Ros Sala, 1986-1987).

In the case of Castellar de Librilla, the main consequence of this phenomenon was the abandonment of the more elevated sectors on the summits and, shortly thereafter, of the fortress of Cabezo de la Fuente del Murtal. However, during the course of the second half of the 6<sup>th</sup> and beginning of the 5<sup>th</sup> century BC the lower sectors next to the stream, the intermediate heights and the artisanal neighbourhood continued to be inhabited. A process of urban remodelling began, which included the construction of a new defensive system. Nevertheless, the settlement was not restricted exclusively to this side of the Rambla de Algeciras; also ascribed to the late 6<sup>th</sup> and 5<sup>th</sup> centuries are the Iberian tower and part of the structures detected in the NE sector of Cabezo de la Fuente del Murtal, the excavation of which began in 2018.

This new phase of the site reveals the recuperation and continuity of a settlement that maintained its power and control over its immediate territory in a clear demonstration of the resilience exercised by one local community.



Figure 3. Protohistoric settlement of Castellar de Librilla: A) settled areas of Castellar de Librilla and Cabezo de la Fuente del Murtal (MDT: Spanish National Geographic Institute); B) photographs of Early Iron Age structures from Sector 13 -authors®-; C) aerial view of Cabezo de la Fuente del Murtal fortress (Alhama de Murcia Town Hall®).

### The prestige-goods model applied to the Iberian Southeast during the Early Iron Age: the Phoenician scarab from Castellar de Librilla Benjamín Cutillas-Victoria *et o*

https://dx.doi.org/10.12795/spal.2022.i31.07

**SPAL** 31.1 (2022)

171-199

ISSN: 1133-4525 ISSN-e: 2255-3924

### 3.1. Sector CLI-13 and the midden

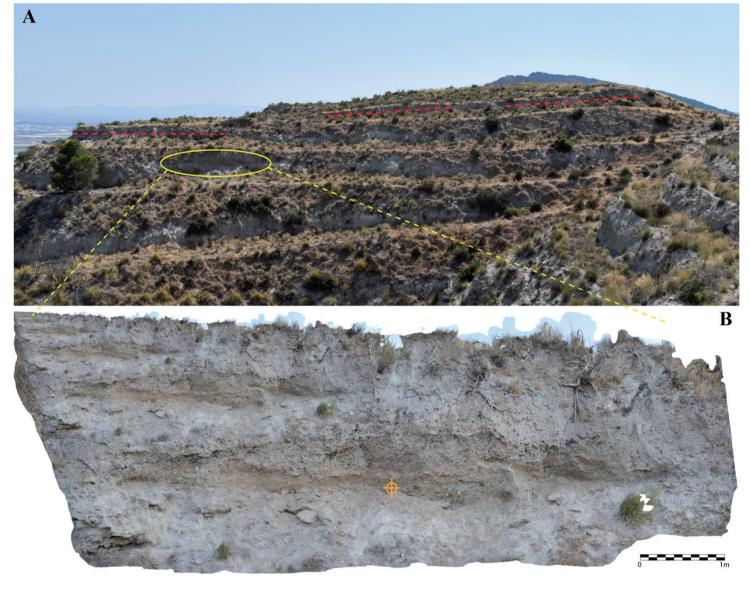
Of the three flat-topped peaks that form the upper part of Sierra del Castellar, the highest corresponds to the area defined as Sector 13 (Cutillas and Ros Sala, 2020). With a difference of more than 150 metres in relative height with respect to the natural water spring, the identification of numerous walled sections shows the effort put into urban development in this part of the settlement. The main characteristic of the occupation of these sectors is the visible control of the middle basin of the Segura river and the Guadalentín valley, becoming a geostrategic space of territorial and probably political significance. Nevertheless, the identification of new structures and abundant archaeological material in the lower terraces suggests that the upper part of the site would not only have consisted of fortified enclosures, but that the terracing of the slopes also allowed for additional building activities. Regarding the chronological context of the upper part of the settlement, the materials identified thus far point to it being occupied throughout the 7th century and the first half of the 6th century BC, synchronous with Castellar phases III and IVa (Ros Sala, 1989; Cutillas and Ros Sala, 2020).

This urban planning suggests an image of dense settlement, where Sector 13 would be defined as a singularised and strongly fortified space. The prolonged use of this area is also confirmed by the identification of an important midden -sectioned in profile during the mechanical terracing work carried out in Sierra del Castellar in the 1970s- the dimensions of which reach at least seven metres in length and one metre in depth (fig. 4, b). However, the erosive processes that made it possible to locate this exceptional number of structures and objects (Cutillas and Ros Sala, 2020) also pose the main risk to the conservation of this site and its archaeological record. For this reason, it was decided to continue fieldwork with a new survey project to monitor the state of preservation of the structures and the possible geomorphological transformation of the area.

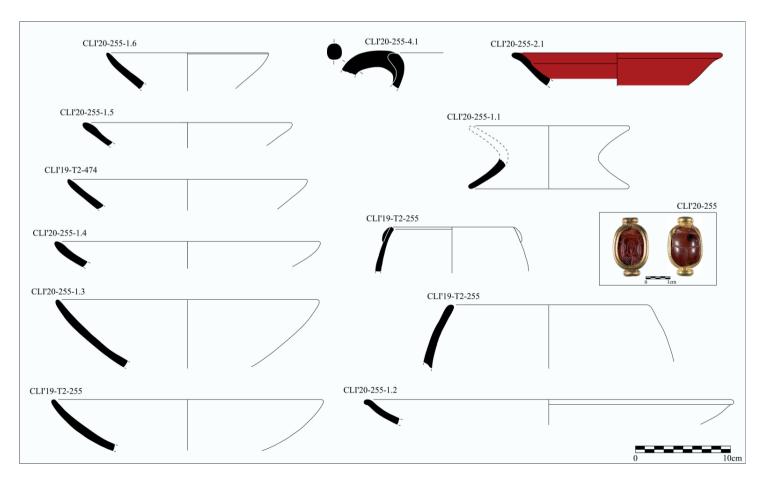
Precisely during one of the archaeological monitoring operations, a small drop in the height of the surrounding soil and material was encountered in the central part of the midden. The documentation of new remains has helped complete the ceramic assemblage unearthed in this same area in 2019 (fig. 5), especially in the case of wheel-made and grey ceramic plates, although a plate painted in red was also found. More exceptional, however, are the individuals CLI'20-255-1.1 and CLI'20-255-4.1. The first has been recognised as a biconic support in grey ceramic destined for tableware as an auxiliary vessel; it has parallels in the industrial sector of Castellar de Librilla, chronologically dating back to Phase IVa (Ros Sala, 1989, p. 356) as well as Fonteta III, with a specific chronology of between 670 and 635 BC (González Prats, 2014a, pp. 429-430). The second individual is more problematic. Its profile may resemble a jug with a single handle connected to the same edge -or dipper juglets- while its dimensions are larger than the examples documented in other contexts, such as at Teatro Cómico in Gadir (Torres Ortiz et al., 2014, p. 70), Cerro del Villar (Aubet et al., 1999, pp. 171-172) and Fonteta (González Prats, 2011, p. 420). At any rate, its probable provenance is the area around Málaga based on its macroscopic characterisation; its untreated finishing has led to the tentative suggestion that it served as a jug to transport certain select liquids in small quantities.

Finally, the most surprising piece from this context and proposed chronological period was a scarab that stands out for its exceptional state of preservation and its material value. Its stratigraphical position and its morphology and iconography justify the detailed study of this find.

### 171-199



**Figure 4.** A) North slope of Sector 13 at Castellar de Librilla, with built structures (in red) and the midden (in yellow); B) detailed photogrammetry of the midden and marker, indicating the position of the scarab.



**Figure 5.** Archaeological assemblage identified in the area of the midden of Sector 13 at Castellar de Librilla during the field survey done in 2019 and 2020.

### 171-199

ISSN: 1133-4525 ISSN-e: 2255-3924

### 4.1. The gold mount

4. SCARAB CLI'20/255

The scarab is mounted in a solid gold setting, the dimensions of which are 20.6 x 12.6 x 5.5 mm. The high oval bezel, with circular appendices on its longitudinal extremities where the ring hoop would have been inserted, allows the scarab to rotate as part of a swivel ring or pendant, with the inscribed side turned inwards. The bezel is still in excellent condition. There are different ways to attach this type of bezel to a piece of jewellery (Lagarce, 1976; Quillard, 1987: *tableau récapitulatif* V and XI, in which she classifies parallels for the Castellar de Librilla mount as rings; Boardman, 2003, p. 8). The gold band covering the sides is decorated with a braided motif using a filigree technique, and it is composed of three parallel twisted strands framed by two plain gold wires. Each strand is formed by two intertwisted gold wires, but they are placed in alternating directions (*"tresses contrariés"*).



Figure 6. Mounted scarab CLI'20/255 (photograph by Jesús Gómez Carrasco and drawings by Benjamín Cutillas).

### 4.1.1. Typology and parallels

Cornelian and sard scarabs in gold mounts have also been documented in other Iberian contexts, the most remarkable of which come from the Treasure of Aliseda (Mélida, 1921, nr. 13; Nicolini, 1990a, nr. 121), from Cádiz (Nicolini, 1990a, nr. 124; Perea, 1991, p. 245), from the Tomb of the Warrior in Málaga (Ortiz García and Jiménez Higueras, 2018), from Almuñécar-Puente de Noy (Nicolini, 1990a, nr. 120; Padró, 1995, nr. 24.31) and from Baria (Almagro-Gorbea and Lorrio Alvarado, 2015, nr. 1).

### The prestige-goods model applied to the Iberian Southeast during the Early Iron Age: the Phoenician scarab from Castellar de Librilla https://dx.doi.org/10.12795/spal.2022.i31.07 Benjamín Cutillas-Victoria *et*

**SPAL** 31.1 (2022)

171-199

ISSN: 1133-4525 ISSN-e: 2255-3924

In addition to the aforementioned mounted scarabs from Aliseda, Cádiz and Almuñécar, multi-strand decorations similar to those found at the Castellar de Librilla are attested on another bezel from Aliseda (Mélida, 1921, nr. 14; Nicolini, 1990a, nr. 122) and on mounts from Pancorvo (Mancebo and Ferrer, 1992) and Trayamar (Quillard, 1987, p. 168, pl. XXXVIII: 3; Nicolini, 1990a, nr. 119). Their presence is not limited to the peninsula, though, with more parallel finds having been documented at Aïn Dalhia Kebira (Morocco) (Ponsich, 1967, p. 82, fig. 25), Carthage (Culican, 1973, pl. IV: C; Quillard, 1987, nrs. 257-261, n. 877 and 884; and possibly also Vercoutter, 1945, nrs. 377 and 533), Tharros (Quattrocchi, 1974, nr. 126, 382) and Conca (Campania) (Hölbl, 1979, p. 154 n. 74, nr. 679, taf. 97:6) (and to these can also be added Nicolini, 1990a, nr. 123, 125). Parallel finds from Eastern Mediterranean and Western Asian sites include mounts discovered in Eretria (Euboea) (Bérard, 1970, pp. 14-16, pl. 11, figs. 46-47), Ialysos (Rhodes) (Jacopi, 1929, p. 269, fig. 267), Kourion (Cyprus) (Marshall, 1907, nr. 696; for Cyprus, see also the braided bands on mounts from the Cesnola Collection at the Metropolitan Museum of Art, acc. nrs. 74.51.4157, 74.51.4185, 74.51.4204), Zincirli (Turkey) (von Lushan, 1945, Taf. 45: m), Byblos (Lebanon) (Dunand, 1937, pl. CXXXVI nr. 1171; possibly also Dunand, 1950, pl. CXCIX nr. 11791), Nirmud (Iraq) (Mallowan, 1966, pp. 114-115), and Tanis (Egypt). Indeed, a mounted pendant dating back to the reign of Psusennes I (c 1039-991 BC) and a gold bracelet imitating a scarab finger ring from the mummy of Sheshong II (c 890 BC), both found at Tanis, show mounts decorated with parallel strands of twisted gold wire (Andrews, 1991, figs. 130 and 164).

The number of parallel strands varies, ranging from two (e.g. Cádiz, Aliseda, Carthage) to three (e.g. Castellar de Librilla, Carthage, Conca) and even up to four (e.g. Almuñécar, Pancorvo, Carthage), but this style of decoration does not seem to constitute a chronological marker. While most of the enumerated examples are in gold, some bezels were reportedly made of silver or electron. Most hold a scarab or scaraboid in semi-precious stone, such as jasper, cornelian, lapis lazuli or agate, and occasionally 'faience' scaraboids are set in this type of mount as well. The enclosed scarab(oid)s or stone seals are of a diverse nature; they can be of Egyptian, Mesopotamian, Levantine or Etruscan origin, thus attesting to the wide distribution and popularity of the twisted strand decoration. Quillard (1987, pp. 168-169) enumerated swivel ring mounts from sites in the Central and Eastern Mediterranean region, but these mounts do not necessarily display the twisted strand decoration (plain sides and spiral decorations or granulation decorations are also included). The fact that most publications do not show side views of a mount further impedes the study of the distribution of this type of mount.

As regards the chronological horizon, B. Quillard dates the seven Carthaginian mounts that she catalogued to the (second half of the) 7<sup>th</sup> and 6<sup>th</sup> centuries BC (Quillard, 1987, pp. 167-170, type A1, *tableau récapitulatif* XI) and notes that gold twisted strands still decorated non-rotating bezels in the 4<sup>th</sup> and 3<sup>rd</sup> centuries BC (Quillard, 1987, p. 170, nr. 321). A 7<sup>th</sup>-century date is also indicated by the contexts of the Trayamar and Nimrud mounts. The earliest examples, however, are Egyptian mounts from the late 2<sup>nd</sup> and early 1<sup>st</sup> millennium BC (late 18<sup>th</sup> to early 22<sup>nd</sup> dynasty), pointing to an Egyptian origin for the twisted-strand decoration (Nicolini, 1990a, p. 350 n. 6, with more references cited there). The bezel ring type itself moreover originated in Egypt (Quillard, 1987, pp. 78, 170).

One important technological detail is that the strands can be formed in two ways. The first type of decoration involves intertwisting two wires ("fils tressés", cf. Perea, 1991, p. 174, fig. 11:5), which is an Egyptian technique that was adopted by the Phoenicians in the early 7<sup>th</sup> century BC (Nicolini, 1990a, p. 353). Examples of these Phoenician mounts are the cited finds at Nimrud and Kourion. The Trayamar mount is metallurgically of local origin, and

### The prestige-goods model applied to the Iberian Southeast during the Early Iron Age: the Phoenician scarab from Castellar de Librilla Benjamín Cutillas-Victoria *et al.*

https://dx.doi.org/10.12795/spal.2022.i31.07

**SPAL** 31.1 (2022)

171-199

ISSN: 1133-4525 ISSN-e: 2255-3924 therefore, it is considered to be an Iberian 'orientalising' adoption of the technique introduced by Phoenicians in South-West Iberia (Nicolini, 1990a, p. 353). The second technique consists of twisting a single (flattened or square) strand of wire ("fil tors", cf. Perea, 1991, p. 174, fig. 11:10 and fig. 13). The latter type of strand can be observed, for example, on the mounts from Almuñécar, Aïn Dalhia Kebira, Tharros and several of the Carthaginian finds (Quillard, 1987, p. 81 nrs. 257, 258, 261, though Nicolini, 1990a, p. 355 n. 40 says that all Carthaginian parallels have the square "fil tors"), and it seems to be a Western Mediterranean attempt at imitating the Egyptian twisted wire decoration (Nicolini, 1990a, pp. 350, 353). At the same time however, Nicolini made no firm statements as to the origin of the "fil tors ibérique" -whether Phoenician or Etruscan (Nicolini, 1990b, pp. 81-82). Unfortunately, whether the wire is cylindrical or square cannot be established for each find due to a lack of detailed photography, but the Castellar de Librilla mount was visibly formed according to the Eastern Mediterranean technique. The Aliseda, Pancorvo, Conca and Byblos mounts with braided decoration are the closest parallels to the bezel, although not all were executed at the same level of workmanship. Nicolini also considers the mounts of the two parallel finds from the Aliseda treasure to be of mediocre quality (Nicolini, 1990a, pp. 354-356), especially when compared to more elaborate mountings, such as the aforementioned scarab ring from Cádiz, which is additionally decorated with granulation. Based on the available illustrations, the Pancorvo mount seems to be of excellent workmanship. In her description of one of the Aliseda mounts, Perea (2007, p. 184) considers it to be the work of Phoenician goldsmiths, active in the Iberian Peninsula or elsewhere in the Mediterranean, whereas Nicolini (1990a, 350) considers most of the Iberian finds -except for those at Aliseda- to be of local manufacture.

### 4.1.2. SEM analysis and microanalytical study of the gold

The scarab has been analysed without previous preparation or cleaning using an ApreoS field emission scanning microscope (Thermo Fisher, MA-USA) under high vacuum conditions. The observations were made at a voltage of 20 kV and a working distance of 10 mm, taking images simultaneously via secondary (ES) and backscattered (ER) electrons. The microanalyses were carried out using an EDAX octane plus (AMETEK) X-ray energy dispersive spectrometer (EDS). We had practiced first in several areas of the gold parts to obtain a precise image of the composition of this material, contrasting some results with others and thus avoiding the distortion or imprecision that could result from a single and semi-quantitative microanalysis.

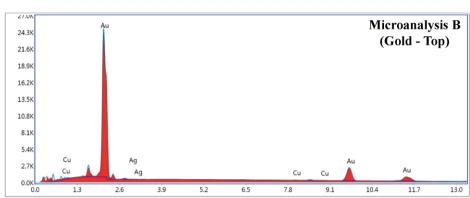
Regarding the microanalytical study of gold, the results of the XRF analysis revealed an alloy quite homogeneous and extremely rich in gold that exceeds 99% of the total composition in the different sampled areas of the artefact (fig. 7). Despite the superficial enrichment that gold undergoes at the post-depositional state (Perea *et al.*, 2010, p. 15), it can be said that the presence of Au and Cu is for the most part residual since this distribution is repeated throughout the artefact, both in the solid parts and in the lateral band (fig. 7). Thus, these percentages in the alloy reveal the purity of the raw material used to make the mount for the scarab. When compared with other objects located in the Iberian Peninsula and analysed at a microanalytical level with similar techniques (Ortega-Feliu *et al.*, 2007; Perea *et al.*, 2010), only three other pieces have been identified that exceed 99% gold in their composition: two of them are part of the Treasure of Aliseda, specifically the spherical pendant with granules, AUALS-36 (Perea *et al.*, 2010, p. 97), and the oval seal

### 171-199

ISSN: 1133-4525 ISSN-e: 2255-3924 ring with rider, AUALS-52 (Perea *et al.*, 2010, p. 97); the third is an open earring with rhomboid section, -AUCEB-18-, from Cortijo de Ébora (Perea *et al.*, 2010, p. 237).

In the regional context of the Iberian Southeast, this piece has the highest purity of gold of provenanced finds analysed to date, both from autochthonous and Western Phoenician sites. The percentages of gold in the Baria scarab mount (Almagro-Gorbea and Lorrio Alvarado, 2015, p. 69) and from the assemblage of gold artefacts identified as funerary equipment in Les Casetes (Perea and García Gandía, 2009) are quite different, with a lesser purity than the gold present in the alloy of the Castellar de Librilla scarab mount.





| Id | Microanalysis | Au    | Ag   | Cu   |
|----|---------------|-------|------|------|
| A  | Gold - Top    | 99.42 | 0.17 | 0.42 |
| В  | Gold - Top    | 99.48 | 0.19 | 0.32 |
| С  | Gold - Bottom | 99.37 | 0.31 | 0.31 |
| D  | Gold - Bottom | 99.06 | 0.37 | 0.57 |
| Е  | Gold - Side   | 99.20 | 0.19 | 0.60 |

**Figure 7.** Microanalysis carried out on the Castellar de Librilla scarab mount, including the results obtained from each analysis and its position with respect to the piece as well as EDS spectra of point B.

Lsec: 30.0 0 Cnts 0.000 keV Det: Octane Plus De

### 4.2. Description of the scarab

The scarab from Castellar de Librilla is carved from a dark red microcrystalline, chalcedonic quartz with a brownish undertone, which can be identified as cornelian or sard, and measures 15 x 10 (x approx. 6.5) mm. Its translucence makes it possible to discern a perforation hole running longitudinally through the object. The back is decorated with deep and broad incisions, whereas the underside shows a superficial and fine style of engraving.

As regards the choice of material, red chalcedony (cornelian or sard) is particularly prevalent in scarab production during the time of the Egyptian New Kingdom and in the Phoenician world during the Iron Age II period (Keel, 1995, pp. 144-145). Cornelian has a medium to dark orange-red colour, while the term sard is used when the red tends towards brown (Aston *et al.*, 2000, pp. 26-27). Geological sources for this popular semi-precious stone have been identified in the Eastern Mediterranean (Egypt, Anatolia) and Western Asia (Arabian Peninsula, Iran). Since none of the sources are located in the Western Mediterranean, as was noted in the case of the Etruscan scarabs in cornelian (Hansson, 2013, p. 928), red chalcedony finds in the West were either imported or carved from raw material supplied from Eastern sources. The durability and material value of semi-precious stone certainly played a role in Antiquity, but another -and, according to some scholars, the primary- factor for its use was its colour. Cornelian, in Egypt at least

# The prestige-goods model applied to the Iberian Southeast during the Early Iron Age: the Phoenician scarab from Castellar de Librilla

**SPAL** 31.1 (2022)

171-199

ISSN: 1133-4525 ISSN-e: 2255-3924 from the end of the Bronze Age, could be heated to intensify the reddish tone of the already attractive orange-red colour of the stone, and this reddening procedure was also possible for sard (Ziegler, 1999, p. 24; Aston *et al.*, 2000, p. 27). For the ancient Egyptians, red hues held ambivalent connotations. On the one hand, red colours were associated with the desert and the god Seth, while on the other they were associated with blood and the glow of the rising and setting sun. Consequently, it could have a negative signification (danger, destruction) as well as a positive one (power, vitality, strength, live-giving) (Pinch, 1996, p. 184; Schenkel, 2019, pp. 38-40).

### 4.2.1. Typological features

The back of the scarab (fig. 6) presents the anatomical details of a sacred dung beetle: its protonum and elytrae are well defined. One line separates the pronotum from the wings and a double line separates the wing cases. The head's outline is not incised, but its semi-circular shape is formed in relief, while the eyes or 'horn' are not represented. The baseline of the head is not formed by a continuous incision. The outward tapering clypeus is raised above the head plates and formed by two oblique incisions. The gold mount does not make it possible to determine whether the clypeus is serrated nor to describe the manner in which the legs of the scarab are carved. The back is not elaborately decorated and rather plain, as seen on other hardstone scarabs of varying origin and date, for example on Phoenician scarabs (e.g. Almagro-Gorbea et al., 2009, pp. 87-88, fig. 19) or on late New Kingdom Egyptian scarabs (e.g. Keel, 2010a: Der el-Balah 17, Beth Shemesh 181). This combination of features of the wings and head is not indicative of a particular period or region. We refrain here from using the typology proposed by Jean Vercoutter (1945), which is commonly referred to when reporting Iberian scarab finds, because it is outdated and the features of many scarabs, like this one, do not correspond to any of his types. Furthermore, his categories are based on Carthaginian finds, among which not all types of (1st millennium BC) scarabs are represented.

### 4.2.2. Base design

The design on the base of the Castellar de Librilla scarab is incised in a linear style, combined with hatched decorations (figs. 6 and 8). It is a tripartite register composition with Egyptian motifs in vertical layout, proportionally divided in such a manner that the central section warrants the most attention. Exact parallels bearing this combination of signs and symbols cannot be cited here, but the individual elements are well represented on seal-amulets from Egypt, the Levant and elsewhere in the Mediterranean.

The upper register shows a recumbent lion or, less likely, a sphinx facing right and lying on a horizontal divider line. Both animals have been well documented on Egyptian seal-amulets as the uppermost motif in vertical tripartite compositions (see also Hölbl, 1986, pp. 243-245). Unless a royal beard or crown are discernible, the animal is winged or holds a vase in its front paws, it can be difficult to identify it with certainty as a sphinx (human or falcon-headed). If not the royal beard of a sphinx, the frontal protruding end of the head on our scarab represents the mouth of a lion. In either case, the recumbent animal has an apotropaic function in this composition. It serves here not as a solar symbol but as a reference to the pharaoh and the ruler's divine power (de Wit, 1951; Hornung and Staehelin, 1976, pp. 126-127, 143), as indicated by the royal nature of the other elements in the composition.

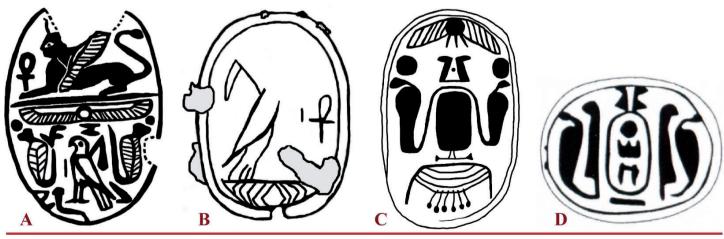
https://dx.doi.org/10.12795/spal.2022.i31.07

### **SPAL** 31.1 (2022)

### 171-199

ISSN: 1133-4525 ISSN-e: 2255-3924 The earliest examples of the sphinx at the top of a vertical design date to the New Kingdom (*c* 1550-1070 BC), when this hybrid creature is seen lying on a single horizontal line (Jaeger, 1982, pp. 1185-1193). The motif became popular again during the 22<sup>nd</sup> (*c* 945-715 BC) and 25<sup>th</sup> dynasties (*c* 747-656 BC), continuing until the beginning of the Late Period (*c* 664-525 BC), but on the majority of these early 1<sup>st</sup> millennium BC examples the field divider is either absent (*e.g.* Griffith, 1923, pl. XLII nr. 20; Newberry, 1935, pl. CCXLIX nr. 2644; Brunton, 1948, pl. LXII nr. 38; Jaeger, 1982, §1420, n. 968; Buchner and Ridgway, 1993, fig. 8 nrs. 654-14 and 654-15; Jaeger, 1993, nr. 57; Keel, 1997, Akko 250) or else the animal is lying on a double line (*e.g.* Vercoutter, 1945, nr. 376; Feghali Gorton, 1996, 82 nr. 13). The latter seems to be limited to the beginning of the Late Period, as indicated by the typological features of such scarabs.





**Figure 8.** Underside of the scarab photographed under raking light (photograph by Jesús Gómez Carrasco) and selection of design parallels (not to scale). From left to right: (a) Phoenician-Israelite scarab inscribed with the name Yzbl (drawing by Vanessa Boschloos after Avigad and Sass, 1997, nr. 740); (b) silver scarab from an 8<sup>th</sup> century BC burial in Rashidiye (drawing by Vanessa Boschloos after Doumet, 1982, pl. XIX nr. 117); (c) 6<sup>th</sup>-4<sup>th</sup> century BC Phoenician scarab from Ibiza (drawing by Vanessa Boschloos after, 2003, pl. 3 nr. 2/19); (d) 9<sup>th</sup>-8<sup>th</sup> century BC Phoenician scarab from Tyre (Boschloos, 2014, pl. 3.2).

171-199

ISSN: 1133-4525 ISSN-e: 2255-3924 The lion in a recumbent position at the top of the design is also very popular on 25<sup>th</sup> and 26<sup>th</sup> dynasty scarabs, without divider line (*e.g.* on the Pancorvo scarab: Mancebo and Ferrer, 1992, p. 315), but also on the Petrie scarab (1896, pl. XXIV nr. 62; Griffith, 1923, pl. XXI nr. 20; Buchner and Ridgway, 1993, fig. 1 nr. 243-16) or, on 26<sup>th</sup> dynasty scarabs, on a double field divider (*e.g.* Petrie 1886, pl. XXXVII nr. 131; Vercoutter, 1945, nrs. 247, 452; Forgeau, 1986, nr. 11; Jaeger, 1993, nr. 1; Keel, 1997: Akhzib, 130). The recumbent lion or hybrid creature in the upper register is, however, not limited to the Egyptian glyptic repertoire; it has been discovered in several instances on Phoenician, Hebrew and Aramaic seals as well (fig. 8a; Avigad and Sass, 1997, nrs. 740, 1151, 1171, 1174) in register layouts from the late 9<sup>th</sup>-7<sup>th</sup> centuries BC, though the overall register division differs (see also Gubel, 1993, pp. 116-118).

In vertical compositions, like the examples cited above, a nb basket (Gardiner sign V30) was often placed underneath. It is an omnipresent sign on Egyptian and Egyptianizing seal-amulets, and it can be read as a hieroglyph either meaning 'lord' or 'all/every' (Keel, 1995, pp. 171 §458). Another semi-circular motif encountered underneath compositions, though less frequently, is the hieroglyph for gold (nbw, Gardiner sign S12). The lower section on our scarab, however, shows an exceptional motif: an interpretation of the hieroglyph for an alabaster basin, hb (Gardiner sign W3), primarily used in Egyptian script to express words pertaining to celebration, such as 'festival' or 'feasting'. It can easily be distinguished from the nb by its diamond-shaped centre and, in contrast nb, hb is extremely rare on Egyptian seal-amulets. It predominantly appears in a more elaborate hieroglyphic form, combining the basin with the bipartite booth sign (Gardiner sign W4), and more specifically during the New Kingdom as part of a royal epithet pertaining to the hb-sd or jubilee of the pharaoh. The motif appears sometimes on seal-amulets (e.g. Budge, 1896, nr. 398; Hall, 1913, nr. 1819, 2117, 2118; Jaeger, 1982, 285 n. 98, 287 n. 123; and also on Petrie Museum UC 12307 and UC 12901, and on Brussels Art & History Museum E.06327). Attestations of the simple, basket-shaped form are even more rare. The only examples known to us are situated in the Central Levant. The hb basin appears in the shape of a frieze on a Phoenician scarab from the late 8th century BC at the Bibliothèque nationale de France (Gubel, 2012, pp. 28-29, fig. 17), and a silver scarab with openwork legs, discovered in an urn burial from the early 8th century at Rashidiye, near Tyre (Doumet, 1982, pl. XIX nr. 117) (fig. 8b), shows an hb basin underneath a falcon with flail. The scarab was examined by Vanessa Boschloos in Beirut, where it is kept in storage at the National Museum/DGA. Though the upper part of the design has been damaged, the hb below it is clearly visible. Scarabs in silver are extremely rare, with the oldest ones dating to the early Middle Kingdom, a handful of exemplars known from the New Kingdom and a few dated to the late Iron Age II-III (Hornung and Staehelin, 1976, p. 22; Ward, 1992, n.7; Keel, 1995, p. 139). The design on the Rashidiye scarab corresponds closely to the design on a Phoenician scarab of cornelian found at Akhzib (Keel, 1997: Akhzib nr. 116), and it is reminiscent of Egyptian New Kingdom models (cf. Newberry, 1907, pl. VIII lower row; Matouk, 1977, 390 nr. 896; Keel, 1997: Akko nr. 66). Another possible reference to the *hb* sign is the basket-shaped motif decorated with opposite hatching, leaving an empty triangle in the centre, and which should not be confused with the motif of the winged sun disk. It only appears on scarab-shaped seals at a later date in the Levant (e.g. on a scaraboid in Aramean style: Parayre, 1993, fig. 31) than in Egypt (Petrie, 1906, pl. XXXIII nr. 40; Engelbach et al., 1915, pl. XVII nr. 27), suggesting that its origin and meaning must be sought in an Egyptian context.

The central section of the composition features an Egyptian cartouche flanked by aroused cobras, or *uraei*. In ancient Egypt, their use as a royal symbol dates back to the

https://dx.doi.org/10.12795/spal.2022.i31.07

### **SPAL** 31.1 (2022)

171-199

ISSN: 1133-4525 ISSN-e: 2255-3924 most ancient representations of the pharaoh. On the Castellar de Librilla scarab, the cobra on the right is wearing the Red Crown of Lower Egypt, while the one on the left is wearing the White Crown of Upper Egypt, thus further solidifying the reference to the king. Pairs of uraei on either side of a cartouche, in vertical layout, appear in exceptional circumstances on scarabs before the 18th dynasty (c 1550-1295 BC) (e.g. Keel, 1997: Tell el-Ajjul nr. 326), when they became the central element in royal name seals. They appeared as an oft-recurring theme throughout the Ramesside dynasties, and again during the 25th dynasty (Jaeger, 1982, pp. § 1062, 1229-1230; Lohwasser, 2014, pp. 180-181). The motif's reference to royal authority is evident in an Egyptian context. Placing a cartouche between pairs of uraei is not without parallels in Egyptianizing iconography outside Egypt, but in such cases it is more often associated with solar than with royal motifs, with numerous examples dating to between the Middle Bronze Age and the 5th-4th century BC (e.g. fig. 8c; Gubel, 1993, fig. 7; Nicolini, 1990a, 358 nr. 124; Boardman, 2003, 27 nrs. 2/15-2/20, pls. 2-3; Boschloos, 2014, pl. 3.2). The cartouche, however, can easily be reduced to a mere oval encompassing non-royal names, pseudo-inscriptions or pseudo-signs, for example in early Canaanite (Keel, 2010b: Tell el-Far'a Süd 56) and Phoenician glyptic traditions (Gubel, 1993, pp. 121-122, figs. 19, 20, 60).

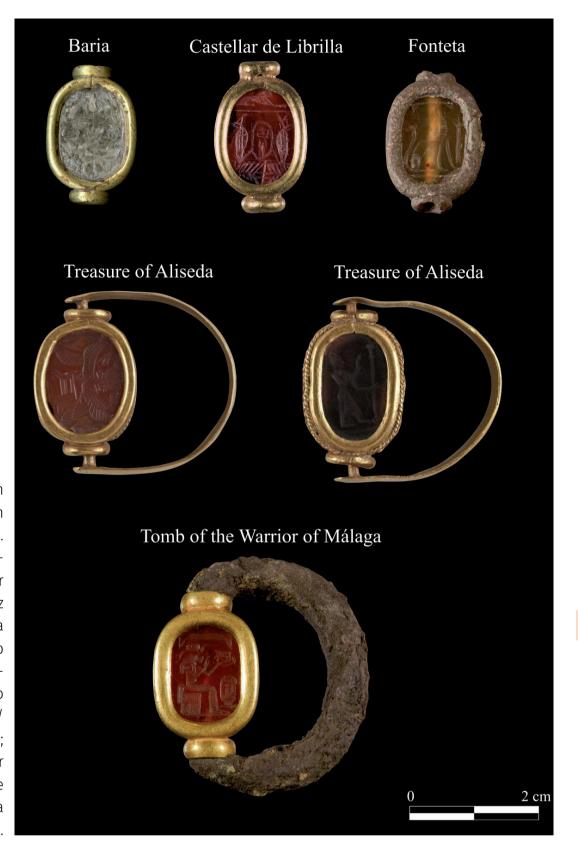
The cartouche encloses hieroglyphs forming a pseudo-royal name, Mn.j{j} (Gardiner signs Y5 and M17), placed underneath a sun disk (Gardiner sign N5). The name Mn.j is mentioned in Egyptian documents, but not before the New Kingdom. A scarab assigned to the 18th dynasty is considered to contain the earliest mention of the name (Hayes, 1959, 127 on MMA 26.7.150), but its date has been questioned (Heagy, 2014, 61 n. 5). Inscriptions of the type  $mn.jj / mnjj r^c / mnjs r^c / r^c-mnjj$  have been documented on Egyptian scarabs from the Third Intermediate Period to the Late Period (e.g. Petrie, 1917, pl. VIII nrs. 1-2, pl. LIII nr. 25C.21; Jaeger, 1982, fig. 22; Keel, 2017: Jerusalem nr. 27) as well as on Phoenician scarabs from the 9<sup>th</sup>-8<sup>th</sup> centuries BC (*e.g.* fig. 8d; Boschloos, 2014, pl. 1:3, 3:2, 6:4, 7:4). Their meaning on Egyptian seal-amulets probably differs from the intended meanings on non-Egyptian scarabs because Phoenician craftsmen favoured placing them inside an oval or cartouche, like on the Castellar de Librilla scarab, whereas the Egyptians did not. It either fills the entire surface of the seal or it is placed next to a cartouche containing the throne name of Thutsmose III. If an oval surrounds the mnjj  $r^c$  inscription, closer examination will often immediately reveal that the two 'reed signs' are connected at their bases. Unless the object is examined first-hand, mnjj rc inscriptions can be mistaken for those forming the name of Pharaoh Menkaure / Mykerinos,  $(Mn-k3.w-r^c)$ , with the raised arms k3 (Gardiner sign D28) being confused with the pair of reeds, j (Gardiner sign M17) (see, e.g. Keel, 1997: Akko nr. 48). However, according to Kitchen, the cartouche seems to have lost most of its original significance in Phoenician artistic expressions (Kitchen, 1986, p. 40). Contrary to its Egyptian counterpart, it normally does not feature proper names but 'simply garbled phrases from formal speeches of the gods used in innumerable standard scenes of pharaoh and his gods, and sometimes including deities' names' (Kitchen in Herrmann and Laidlaw, 2009, pp. 161, also 162-164, 196-197).

In older Egyptological literature, *mn.jj / mnjj r*<sup>c</sup> was read as the name of Menes, the legendary founder of the Egyptian 1<sup>st</sup> dynasty (end of the 4<sup>th</sup> millennium BC) (Vinson, 2001; Heagy, 2014), the name of a king called Ra-meny or Khmuny, or an abbreviated version of the throne name for Thutmose III, *Mn-\begin pr-r*<sup>c</sup> (von Beckerath, 1969, p. 59; Jaeger, 1982, p. 286 n. 108). There is now a consensus among scholars that it more likely represents an inverted writing of the name Amun (*Jmn*), or Amun-Re in those cases where a sun disk was added (Hornung and Staehelin, 1976, pp. 44-45; Keel, 1995:

171-199

ISSN: 1133-4525 ISSN-e: 2255-3924

Figura 9. Detail of main scarabs referred to in the text (Design: authors. Images: Baria: Alberto Lorrio Alvarado©; Castellar de Librilla: -Jesús Gómez Carrasco©-; Fonteta -Museo Arqueológico de Guardamar®-; Treasure of Aliseda – Museo Arqueológico Nacional / Arantxa Boyero Lirón©-; Tomb of the Warrior in Málaga -Museo de Málaga / David García González®-).



p. § 625). E. Hornung concludes that "Damit bildet dieser "Königsname" eine Brücke zwischen der Königsherrschaft von Göttern und der Herrschaft von irdisch-historischen Königen" (Hornung and Staehelin, 1976, p. 45), making it a mythical, 'ideal' name with strong beneficent and sacred power, but without historical foundation. It is tempting to associate the pair of uraei wearing the red and white crowns on the Castellar de Librilla scarab with the achievements assigned to Menes ('king something'), the name given to the ruler or rulers who unified Lower and Upper Egypt and founded Memphis and who were celebrated from the time of the New Kingdom onwards. While the inscription on our scarab cannot be mistaken for an Egyptian royal name, such as Menkheperre or Menkaure, the overwhelmingly royal nature of the chosen motifs -recumbent lion, crowned uraei, cartouche and jubilee hieroglyph- excludes an inverted writing of the name Amun-Re. It is also noteworthy that parallels for the mn.jj cartouche flanked by uraei can only be found in Phoenician corpora, examples of which were cited above. To

### The prestige-goods model applied to the Iberian Southeast during the Early Iron Age: the Phoenician scarab from Castellar de Librilla https://dx.doi.org/10.12795/spal.2022.i31.07 Benjamín Cutillas-Victoria *et al.*

**SPAL** 31.1 (2022)

171-199

ISSN: 1133-4525 ISSN-e: 2255-3924 conclude, this Phoenician interpretation of an Egyptian multifunctional 'name' seemingly acknowledges its original, Egyptian royal connotations.

### 5. DISCUSSION

The quality of this artefact and its exceptional nature within the framework of Early Iron Age settlements of the Iberian Southeast can be observed through its material, technical and stylistic characteristics. The analysis of typological and iconographical elements made it possible to define its chronology and propose its origin. Both the scarab and the gold bezel in which it is mounted reveal the handiwork of Phoenician craftsmen. Detailed analysis of the composition decorating the underside of the scarab identifies it as a Phoenician interpretation of design elements that were originally developed in Egypt during the New Kingdom. The combination of details, such as the single line divider and the corrupt jubilee sign with the *mnjj*  $r^c$  cartouche, must be placed in the 8<sup>th</sup> century BC, or in the late 8<sup>th</sup> to early 7<sup>th</sup> century BC at the latest. Based on the chronological development of the type of gold setting, the scarab was mounted in its present bezel in the (late) 7<sup>th</sup> century BC.

This period overlaps with the late 7<sup>th</sup> century - early 6<sup>th</sup> century BC date of the ceramic assemblage identified in the midden of Sector 13 (Cutillas and Ros Sala, 2020, pp. 86-87). This also corresponds to the dates proposed for similar scarab finds in the Iberian Peninsula, as is the case for the scarab from Baria, which has been assigned to the 7<sup>th</sup> century BC (Almagro-Gorbea and Lorrio Alvarado, 2015, p. 71); the exemplars from the Treasure of Aliseda (Almagro-Gorbea *et al.*, 2009, pp. 86-87) and the scarab from Pancorvo (Mancebo and Ferrer, 1992, p. 313), dated to the end of the 7<sup>th</sup> century BC or the beginning of the next; and, from the 6<sup>th</sup> century BC, the ring from the Tomb of the Warrior in Málaga (García González *et al.*, 2018), the scarab of glass paste from Fonteta (Escolano Poveda, 2010, p. 101) and various Egyptianizing scarabs from Ibiza (Boardman *et al.*, 1984).

Attention must be given to the quality of the gold with which the mount was manufactured, with a purity exceeding 99% according to non-destructive microanalysis (Perea *et al.*, 2010), and which in this respect hardly has any parallels among other jewels corresponding to this period. The exceptional quality of the object is furthermore underscored by the semi-precious stone used for the scarab it holds as well as its iconographical content. The royal nature of the selected symbols -recumbent lion, crowned *uraei*, cartouche, jubilee hieroglyph- stands out compared to the few specimens identified in the Iberian Peninsula that bear isolated attestations to this set of iconographic elements. Only one other scarab with a cartouche and in this class of materials has been found, in the Tomb of the Warrior in Málaga, which possibly displays the praenomen of Necao I (Ortiz García and Jiménez Higueras, 2018, p. 254), while the recumbent lion has only been found on the scarab from Pancorvo (Mancebo and Ferrer, 1992, p. 315) and a possible *uraeus* in the upper register of the scarab from Baria (Almagro-Gorbea and Lorrio Alvarado, 2015, p. 68).

Regarding the function of this scarab, comparison with other items identified in the Iberian Peninsula allows us to consider, with some certainty, its use as a tilting element incorporated into a ring or pendant. Although we do not know the type of ring linked to the three comparable scarab finds -at Castellar de Librilla, Fonteta and Baria- it could have been made of silver, such as those from the Tomb of the Warrior in Málaga (Ortiz

https://dx.doi.org/10.12795/spal.2022.i31.07

### **SPAL** 31.1 (2022)

171-199

ISSN: 1133-4525 ISSN-e: 2255-3924 García and Jiménez Higueras, 2018) or Bajo de la Campana (Azuar and Pérez, 2008), or even of gold, like the items from the Treasure of Aliseda (Mélida, 1921; Perea, 2007; Almagro-Gorbea and Dávila, 2016) (fig. 8). In this way, this scarab would have been part of a larger piece destined for personal use and adornment that, due to its tangible and intangible characteristics, would have been adapted to the canons that have been identified as typical of prestigious goods (Pedraza, 2017) and would have been closely linked to a certain individual and probably his/her lineage.

With this set of observations, different questions can be raised regarding the presence of a jewel of this type in one of the main autochthonous settlements of the Iberian Southeast. What kind of individual would it have been associated with? What would have been its internal function? How did it arrive at Castellar de Librilla, and when?

The identification of a scarab with these characteristics in the pre-littoral zone of the region implies a significant find when considering the role of local communities in the larger context of relations between them and the Phoenicians. However, it is necessary to emphasise that, in this particular case, we have a direct association with the archaeological record for the midden of Sector 13 at Castellar de Librilla. This sector is entirely connected with the urban plan of the settlement, and two options have been proposed regarding its functionality: it was an area destined either for the construction of a fortress that would have taken advantage of its ideal location or for the construction of residences for local elites (Cutillas and Ros Sala, 2020, p. 88), as has been proposed in the case of Sector III at Peña Negra (Lorrio Alvarado *et al.*, 2016, p. 39). The scarab mounted in a solid gold setting could reinforce this last hypothesis, although this question will not be resolved until this sector and the midden are fully excavated.

Regarding the owner of the mounted scarab, it must have belonged to one of the main aristocrats of the city. Such objects were restricted to the upper classes both in Phoenician colonial settlements and in the autochthonous settlements, and their link to the notion of prestige is evident due to the value of the materials, the specialised nature of the work when preparing it and its iconographic codes.

In relation to other finds of this type of scarab in the Iberian Peninsula (fig. 9), the archaeological records that are best known are the Treasure of Aliseda (Mélida, 1921; Rodríguez et al., 2020), the small treasure of Peña Negra (González Prats, 1978) and the Tomb of the Warrior in Málaga (García González et al., 2018). In the case of the first two, they represent intentional concealments made by a member of a powerful family capable of hoarding these prestigious objects. For the Málaga burial, this type of scarab is associated with a funerary architecture of notable importance and the trousseau of an individual linked to military power, as evidenced by the weapons and objects of exceptional value that it accompanied at the site. Although the latter find may have belonged to a foreign individual (García González et al., 2018), the concealments at Aliseda and Peña Negra allow for an interesting debate on emulation and the value of such prestige goods for local communities as symbols of power and legitimating elements filtered through non-native codes and images.

The incorporation of such goods must be understood as a consequence of the dynamics of cultural encounter that intensified from the 8<sup>th</sup> century BC onwards with the installation of the Phoenicians and the introduction of foreign materials, products and practices to the Iberian Peninsula. The arrival of new iconographic languages has been analysed as one of the most important results of this complex phenomenon. If new codes are not reproduced automatically in local products, such as pottery or goldsmithing, then technical, typological and iconographical hybridisation can be observed, but in

## The prestige-goods model applied to the Iberian Southeast during the Early Iron Age: the Phoenician scarab from Castellar de Librilla Benjamín Cutillas-Victoria *et al.*

https://dx.doi.org/10.12795/spal.2022.i31.07

**SPAL** 31.1 (2022)

171-199

ISSN: 1133-4525 ISSN-e: 2255-3924 the case of certain prestige goods the original form was generally accepted. This situation can be noted for most jewellery and personal adornment items in general, and for bezel mountings with scarabs in particular.

The autochthonous aristocracies decide to adopt a new oriental iconographic language that they could incorporate as their own in its original form, adding it to other traditional elements or even endowing themselves with a completely new aesthetic, as is evident in tomb 5 of the necropolis at Collado y Pinar de Santa Ana (Hernández Carrión and Gil González, 2001-2002). Through processes of differentiation and exclusivity, they could reinforce their social status and consolidate their power, especially in the face of the very resources that they needed to mobilise to achieve it. However, this reality is only one part of the social and ideological patterns embraced by such elites, because, although foreign elements and their related practices were adopted, a certain local agency can be observed in more everyday spheres, such as the ceramic assemblages identified in the midden of Sector 13 at Castellar de Librilla. In this sense, we hardly find material differences with what has been documented in other sectors of the settlement (Ros Sala, 1989), highlighting the importance of these transversal approaches and top-down models (Delgado Hervás, 2013) for understanding everyday life as a crystallisation of the identity of these communities.

This local agency must be accounted for when approaching these Iberian communities, thereby making it possible to assess the different modes of interaction, emulation and hybridisation that took place between Phoenicians and the autochthonous population (Vives-Ferrándiz, 2005). Such local agency carries with it the demand for this type of prestige goods, making it possible to maintain and boost a prestigious goods trade capable of connecting different parts of the Mediterranean. The arrival of these distinguished items from distant ports attests to this fact, and their identification in cargos, such as at Bajo de la Campana (Polzer, 2014; Pinedo Reyes, 2018), gives us an idea of the nature of this specialised trade. However, the coexistence of such products and the exceptional nature of the items lead us to suggest that the trade of prestige goods was but another aspect of the overall economic and commercial dynamics of the time. Prestige goods constituted a limited, but significant, part of all trade and cannot be disconnected from larger economic and commercial realities, but neither did they determine the entire system of socio-economic and cultural development as strictly as the economy of prestige goods suggest.

### 6. FINAL REMARKS

Fieldwork in the protohistoric settlement of Castellar de Librilla continues to reveal the potential of this site and the importance of this settlement during the Early Iron Age. The arrival of a piece of jewellery of remarkable quality and with few parallels at the peninsular level, at least in terms of the purity of its gold, point to the significant participation of the autochthonous elites in Mediterranean trade routes that are not restricted exclusively to raw materials and mineral resources. The trade of prestige goods not only reached the peninsular coast and its Phoenician colonial settlements, but also found customers among the autochthonous elites and aristocracies. However, these exchanges cannot only be framed in terms of how such items facilitated relationships and alliances, as has been proposed for the pre-colonial horizon and the first phase of the Phoenician colonisation (Aubet, 1994; López Castro *et al.*, 2017).

171-199

ISSN: 1133-4525 ISSN-e: 2255-3924 Late in the 7<sup>th</sup> century BC, or else in the following century, relations between western Phoenicians and autochthonous aristocracies were consolidated, though not without tension, but nonetheless well documented after more than a century of coexistence. Not surprisingly, autochthonous societies were also capable of developing agency, demanding these types of luxury objects for themselves as a matter of personal and social prestige. In this way, the elites of the autochthonous settlements participated in the dynamism of the trade of restricted-use goods, which, although limited in number, did find their own routes and spaces in the trade transactions.

Consideration of autochthonous agency and the existence of horizontal relation-ships shifts the focus of attention to the dynamic aspects of Early Iron Age communities (Vives-Ferrándiz, 2005; Dietler, 2009), allowing for a more precise approach to their evolution without denying the extent to which the Phoenicians impacted their development. In this sense, the transmission by the Phoenicians of new ideals and symbols linked to power would already have been a reality among the autochthonous aristocracies. This would explain the selective demand for certain prestige goods as a way of crystallising this new ideological pattern of emulating Phoenician elites and the process of hybridisation, and it makes more concrete an important part of the ideological system and means of legitimating power built and perpetuated by these elites, or at least their ways of representing and distinguishing themselves.

### Funding and acknowledgements

This work was developed in the framework of the research project ALAFMET: Alfarerías autóctonas y fenicias en el SE ibérico. Una mirada arqueométrica supported by Fundación PALARQ. The chemical analyses presented were carried out in the Microscopy Laboratory of the Scientific and Technical Research Area of the University of Murcia. We want to highlight our collaboration with the archaeologists Óscar González Vergara, Alberto López López, Ana María García Sánchez and Laura Luna Barba, and especially with the members of the ACUDEAL Association and graduates in history, Fernando José Barquero Caballero and Salvador García Brocal. The research by Vanessa Boschloos (Metropolitan Museum of Art and Ghent University) is supported by a fellowship from the Andrew W. Mellon Foundation. Vanessa Boschloos also wishes to thank Amelie Beyhum, Roald Docter, Hendrik Hameeuw, and Jan Driessen for helping her gain access to certain references when libraries were inaccessible due to the pandemic, and to Eric Gubel for insightful discussions. We are deeply grateful to the researchers and institutions that have allowed us to use their images.

### **BIBLIOGRAPHY**

Almagro-Gorbea, M., Arroyo, A., Corbí, J.F., Marín, B. and Torres Ortiz, M. (2009) "Los escarabeos de Extremadura: une lectura socioideológica", *Zephyrus*, 63, pp. 71-104.

Almagro-Gorbea, M. and Dávila, A.F. (2016) "El escarabeo de amatista del Tesoro de Aliseda ¿Una joya regia?", in *Homenaje a la profesora Concepción Blasco Bosqued*. Madrid: Universidad Autónoma de Madrid, pp. 181-190.

Almagro-Gorbea, M. and Lorrio Alvarado, A. (2015) "Nuevas joyas feno-púnicas de Villaricos", *Rivista di Studi Fenici*, 43, pp. 67-90.

## The prestige-goods model applied to the Iberian Southeast during the Early Iron Age: the Phoenician scarab from Castellar de Librilla Benjamín Cutillas-Victoria *et al*

https://dx.doi.org/10.12795/spal.2022.i31.07

**SPAL** 31.1 (2022)

171-199

- Almagro-Gorbea, A.J., Lorrio Alvarado, A. and Torres Ortiz, M. (2021) "Los focenses y la crisis de c. 500 a.C. en el Sureste: de La Fonteta y Peña Negra a La Alcudia de Elche", *Lucentum*, 40, pp. 63-110. https://doi.org/10.14198/LVCENTVM.18058
- Andrews, C. (1991) Ancient Egyptian Jewelry. London: British Museum.
- Aston, B.G., Harrell, J.A. and Shaw, I. (2000): "Stone", in Nicholson, P.T. and Shaw, I. (eds.) *Ancient Egyptian Materials and Technology*. New York: Cambridge University Press, pp. 5-77.
- Avigad, N. and Sass, B. (1997) Corpus of West Semitic Stamp Seals. Jerusalem: Keterpress.
- Azuar, R. and Pérez Bonet, M.A. (dirs.) (2008) *Museo Nacional de Arqueología Subacuática AR-QUA. Catálogo.* Madrid: Ministerio de Educación, Cultura y Deporte.
- Aubet, M.E. (1994) Tiro y las colonias fenicias de Occidente. Barcelona: Bellaterra.
- Aubet, M.E. (2005) "El Orientalizante: un fenómeno de contacto entre sociedades desiguales", in Celestino, S. and Jiménez, J. (coords.) El período orientalizante: actas del III Simposio Internacional de Arqueología de Mérida. Mérida: CSIC, pp. 117-128.
- Aubet, M.E., Carmona, P., Curià, E., Delgado Hervás, A., Fernández Cantos, A. and Párraga, M. (1999) Cerro del Villar. I, El asentamiento fenicio en la desembocadura del río Guadalhorce y su interacción con el hinterland. Sevilla: Junta de Andalucía.
- Barceló, J.A. (1995) "Sociedad y economía en el Bronce Final tartésico", in *Tartessos. 25 años después*, 1968-1993. Jerez: Universidad de Cádiz, pp. 561-589.
- Bérard, C. (1970) Eretria III. L'Hérôon à la Porte de l'Ouest. Bern: Francke.
- Boardman, J. (2003) Classical Phoenician Scarabs. A Catalogue and Study. BAR International Series 1190. Oxford: Archaeopress.
- Boardman, J., Astruc, M. and Fernández, J.H. (1984) Escarabeos de piedra procedentes de Ibiza. Madrid: Museo Arqueológico Nacional.
- Boschloos, V. (2014) "Tyre, Achziv and Kition. Evidence for a Phoenician Iron Age II Scarab Seal Workshop", in Lohwasser, A. (ed.) *Skarabäen Des 1. Jahrtausends*. Fribourg/Göttingen: Academic Press Fribourg/Vandenhoeck & Ruprecht, pp. 5-36.
- Brunton, G. (1948) Matmar (British Museum Expedition to Middle Egypt 1929-1931). London: Bernard Quaritch.
- Buchner, G. and Ridgway, D. (1993) *Pithekoussai. I, La Necropoli: Tombe 1-723 Scavate del 1952 al 1961.* Roma: Bretschneider.
- Budge, E.A. (1896) Some account of the collection of Egyptian antiquities in the possession of Lady Meux, of Theobald's Park. London: Harrison & Sons.
- Chapa, M.T., González Reyero, S. and Alba, M. (2019) "Los leones de El Macalón (Nerpio, Albacete): monumento, ideología y control territorial en la formación del mundo ibérico", *Complutum*, 30 (2), pp. 367-390. https://doi.org/10.5209/cmpl.66338
- Culican, W. (1973) "Phoenician Jewellery in New York and Copenhagen", Berytus, 22, pp. 31-52.
- Cutillas, B. and Ros Sala, M.M. (2020) "Asentamientos polinucleares y resiliencia urbana entre el Bronce Final y la Edad del Hierro en el Sureste ibérico: nuevos datos a partir del Castellar de Librilla", Complutum, 31 (1), pp. 71-96. https://doi.org/10.5209/cmpl.71650
- Delgado Hervás, A. (2013) "Households, Merchants, and Feasting: Socioeconomic Dynamics and Commoners' Agency in the Emergence of the Tartessian World", in Berrocal, M.C., García Sanjuán, L. and Gilman, A. (eds.) *The Prehistory of Iberia. Debating Early Social Stratification and the State.* New York: Routledge, pp. 311-337.
- Delgado Hervás, A. (2018) "Dinámicas económicas y grupos domésticos en áreas de contacto del Suroeste ibérico (siglos X-VIII a.C.) una perspectiva desde abajo", in Rodríguez, A, Pavón, I. and Duque, D. (eds.) Más allá de las casas. Familias, linajes y comunidades en la protohistoria peninsular. Cáceres: Universidad de Extremadura, pp. 139-170.
- De Wit, C. (1951) Le rôle et le sens du lion dans l'Égypte ancienne. Leiden: Brill.
- Dietler, M. (2009) "Colonial encounters in Iberia and the Western Mediterranean: an explanatory framework", in Dietler, M. and López-Ruiz, C. (eds.) *Colonial Encounters in Ancient Iberia. Phoenician, Greek and indigenous relations*. Chicago: University of Chicago Press, pp. 3-48.
- Doumet, C. (1982) "Les tombes IV et V de Rachidieh", *Annales d'Histoire et d'Archéologie*, 1, pp. 90-148.

https://dx.doi.org/10.12795/spal.2022.i31.07

### **SPAL** 31.1 (2022)

### 171-199

- Dunand, M. (1937) Fouilles de Byblos, 1926-1932. Tome I Atlas. Paris: Geuthner.
- Dunand, M. (1950) Fouilles de Byblos, 1923-1938. Tome II Atlas. Paris: Geuthner.
- Engelbach, R., Murray, M.A., Petrie, H. and Petrie, W.M.F. (1915) *Riqqeh and Memphis*. Egyptian Research Account 25. London: Bernard Quaritch.
- Escolano Poveda, M. (2010) "Entalle basculante con representación de Seth-Ba'al", in Olcina, M. and Ramon, J.J. (eds.) *Objetos egipcios en Alicante*. Alicante: MARQ, pp. 100-101.
- Escolano Poveda, M. (2012) "Egipto en la península ibérica: análisis de siete amuletos del yacimiento fenicio de La Fonteta (Alicante)", in Del Vais, C. (eds.) *Epi oinopa ponton. Studi sur Mediterraneo anitco in ricordo di Giovanni Tore*. Oristano: S'Alvure, pp. 579-586.
- Feghali Gorton, A. (1996) Egyptian and Egyptianizing Scarabs. A Typology of Steatite, Faience and Paste Scarabs from Punic and Other Mediterranean Sites. Oxford: Oxford University School of Archaeology.
- Forgeau, A. (1986) "Scarabées, scaraboïdes et cônes", in Laffineur, R. (ed.) *Amathonte III. Testi-monia 3. L'Orfèvrerie.* Paris: Recherche sur les Civilisations, pp. 135-176.
- Frankenstein, S. (1997) Arqueología del colonialismo. El impacto fenicio y griego en el sur de la península ibérica y el suroeste de Alemania. Barcelona: Crítica.
- Frankenstein, S. and Rowlands, M. (1978) "The internal structure and regional context of early Iron Age society in South-Western Germany", *Institute of Archaeology Bulletin*, 15, pp. 73-112.
- García Blánquez, L.A. (1996) "El Cerro de la Fuente del Murtal, Alhama de Murcia (1º campaña 1991): poblado fortificado del período de transición Bronce Final / Hierro Antiguo en el eje de poblamiento Segura-Guadalentín (Murcia)", Memorias de Arqueología de la Región de Murcia, 5, pp. 65-85.
- García Gandía, J.R. (2009) *La necrópolis orientalizante de Les Casetes (La Vila Joiosa, Alicante)*. Alicante: Universidad de Alicante.
- García González, D., López Chamizo, S. and García Alfonso, E. (eds.) (2018): La Tumba del Guerrero. Un enterramiento excepcional en la Málaga fenicia del siglo VI a.C. Sevilla: Junta de Andalucía.
- García Menárguez, A. and Prados Martínez, F. (2014) "La presencia fenicia en la península Ibérica: El Cabezo Pequeño del Estaño (Guardamar del Segura, Alicante)", *Trabajos de Prehistoria*, 71 (1), pp. 113-133. http://dx.doi.org/10.3989/tp.2014.12127
- Gardiner, A. (1927) Egyptian Grammar. Oxford: Cambridge University Press.
- González Prats, A. (1978) "El tesorillo de tipo orientalizante de la Sierra de Crevillente", *Ampu-rias*, 38-40, pp. 349-360.
- González Prats, A. (1983) Estudio Arqueológico del poblamiento antiguo de la Sierra de Crevillente (Alicante). Alicante: Universidad de Alicante.
- González Prats, A. (2002) La necrópolis de cremación de Les Moreres (Crevillente, Alicante, España) (s. IX-VII a.C.). Alicante: Universidad de Alicante.
- González Prats, A. (2005) "El fenómeno orientalizante en el Sudeste de la península ibérica", in Celestino, S. and Jiménez, J. (coords.) El período orientalizante: actas del III Simposio Internacional de Arqueología de Mérida. Mérida: CSIC, pp. 799-808.
- González Prats, A. (ed.) (2011) La Fonteta. Excavaciones de 1996-2002 en la colonia fenicia de la actual desembocadura del río Segura (Guardamar del Segura, Alicante). Alicante: Universidad de Alicante.
- González Prats, A. (ed.) (2014a) La Fonteta, 2. Estudio de los materiales arqueológicos hallados en la colonia fenicia de la actual desembocadura del río Segura (Guardamar del Segura, Alicante). Tomo 1. Alicante: Universidad de Alicante.
- González Prats, A. (ed.) (2014b) La Fonteta, 2. Estudio de los materiales arqueológicos hallados en la colonia fenicia de la actual desembocadura del río Segura (Guardamar del Segura, Alicante). Tomo 2. Alicante: Universidad de Alicante.
- Graells, A.J. and Lorrio Alvarado, A. (2017) *Problemas de cultura material: broches de cinturón decorados a molde de la península ibérica* (s. VII-VI a.C.). Alicante: Publicaciones de la Universidad de Alicante.
- Griffith, F.L. (1923) "Oxford Excavations in Nubia", *Annals of Archaeology and Anthropology*, 10, pp. 73-171.

## The prestige-goods model applied to the Iberian Southeast during the Early Iron Age: the Phoenician scarab from Castellar de Librilla Benjamín Cutillas-Victoria *et al*

https://dx.doi.org/10.12795/spal.2022.i31.07

**SPAL** 31.1 (2022)

171-199

- Gubel, E. (1993) "The Iconography of Inscribed Phoenician Glyptic", in Sass, B. and Uehlinger, C. (eds.) Studies in the Iconography of Northwest Semitic Inscribed Seals. Orbis Biblicus et Orientalis 125. Fribourg: Academic Press, pp. 101-129.
- Gubel, E. (2012) "Decoding Phoenician Art: Pharaoh Triumphant", Rivista di Studi Fenici, 40 (1), pp. 21-38.
- Hall, H.R. (1913) Catalogue of Egyptian Scarabs, etc. in the British Museum. Volume I. Royal Scarabs. London: Trustees of the British Museum.
- Hansson, U.R. (2013) "Engraved Gems", in Macintosh, J. (ed.) *The Etruscan World*. London/New York: Routledge, pp. 928-942.
- Hayes, W.C. (1959) The Scepter of Egypt II: A Background for the Study of the Egyptian Antiquities in the Metropolitan Museum of Art: The Hyksos Period and the New Kingdom (1675-1080 B.C.). Cambridge: The Metropolitan Museum of Art.
- Heagy, T.C. (2014) "Who Was Menes?", Archéo-Nil, 24, pp. 59-92.
- Hernández Carrión, E. and Gil González, F. (2001-2002) "Encachados tumulares del Bronce Final / Hierro Antiguo en la necrópolis del Collado y Pinar de Santa Ana (Jumilla, Murcia)", *Anales de Prehistoria y Arqueología*, 16-17, pp. 73-94.
- Herrmann, G. and Laidlaw, S. (2009) *Ivories from Nimrud VI. Ivories from the North West Palace* (1845-1992). London: British Institute for the Study of Iraq.
- Hölbl, G. (1979) Beziehungen der Ägyptischen Kultur zu Altitalien. Leiden: Brill.
- Hölbl, G. (1986) Ägyptisches Kulturgut im Phönikischen und Punischen Sardinien. Leiden: Brill
- Hornung, E. and Staehelin, E. (1976) Skarabäen und andere Siegelamulette aus Basler Sammlungen. Mainz: Philip von Zabern.
- Jacopi, G. (1929) *Scavi nella necropoçli di Jalisso 1924-1928*. Bergamo/Rodi: Instituto Storico-Archaeologico.
- Jaeger, B. (1982) Essai de classification et datation des scarabées Menkhéperrê. Orbis Biblicus et Orientalis-Series Archaeologica 2. Fribourg: Fribourg Academic Press.
- Jaeger, B. (1993) Les scarabées à noms royaux du Museo Civico Archeologico de Bologna. Bologna: Comune di Bologna.
- Jover, F.J., Lorrio Alvarado, A. and Díaz, M.A. (2016) "El Bronce Final en el Levante de la península Ibérica: bases arqueológicas y periodización", *Complutum*, 27 (1), pp. 81-108. http://dx.doi.org/10.5209/CMPL.53218
- Keel, O. (1995) Corpus der Stempelsiegel-Amulette aus Palästina/Israel. Von den Anfängen bis zur Perserzeit. Einleitung. Orbis Biblicus et Orientalis-Series Archaeologica 10. Fribourg/Göttingen: Academic Press/Vandenhoeck & Ruprecht.
- Keel, O. (1997) Corpus der Stempelsiegel-Amulette aus Palästina/Israel. Von den Anfängen bis zur Perserzeit. Katalog Band 1. Orbis Biblicus et Orientalis-Series Archaeologica 13. Fribourg/Göttingen: Academic Press/Vandenhoeck & Ruprecht.
- Keel, O. (2010a) Corpus der Stempelsiegel-Amulette aus Palästina/Israel. Von den Anfängen bis zur Perserzeit. Katalog Band I1. Orbis Biblicus et Orientalis-Series Archaeologica 29. Fribourg/Göttingen: Academic Press/Vandenhoeck & Ruprecht.
- Keel, O. (2010b) Corpus der Stempelsiegel-Amulette aus Palästina/Israel. Von den Anfängen bis zur Perserzeit. Katalog Band III. Orbis Biblicus et Orientalis-Series Archaeologica 31. Fribourg/Göttingen: Academic Press/Vandenhoeck & Ruprecht.
- Keel, O. (2017) Corpus der Stempelsiegel-Amulette aus Palästina/Israel. Von den Anfängen bis zur Perserzeit. Katalog Band V. Orbis Biblicus et Orientalis-Series Archaeologica 35. Fribourg/Göttingen: Academic Press/Vandenhoeck & Ruprecht.
- Kitchen, K.A. (1986) "Egyptianizing Features in the Nimrud Ivories. Synoptic Notes", in Herrmann, G. (ed.), *Ivories from Nimrud IV. Ivories from Room SW 37 Fort Shalmaneser*. London: British School of Archaeology in Iraq, pp. 37-42.
- Krueger, M. (2008) "Pasado, presente y futuro de la economía de bienes de prestigio como modelo interpretativo en arqueología", *Arqueología de Ponent*, 18, pp. 7-29.
- Lagarce, E. (1976) "Remarques sur l'utilisation des scarabées, scaraboïdes, amulettes et figurines de type égyptien à Chypre", in Clerc, G., Karageorghis, V., Lagarce, E. and Leclant, J. (eds.)

## The prestige-goods model applied to the Iberian Southeast during the Early Iron Age: the Phoenician scarab from Castellar de Librilla Benjamín Cutillas-Victoria *et al*

https://dx.doi.org/10.12795/spal.2022.i31.07

**SPAL** 31.1 (2022)

171-199

- Fouilles de Kition II. Objets égyptiens et égyptisants. Nicosia: Department of Antiquities of Cyprus, pp. 167-182.
- Lohwasser, A. (2014) "Neue Skarabäen mit *mn-ħpr-r* aus der 25. Dynastie", in Lohwasser, A. (ed.) *Skarabäen Des 1. Jahrtausends.* Fribourg/Göttingen: Academic Press Fribourg/Vandenhoeck & Ruprecht, pp. 175-197.
- Lomba, J. and Cano, M. (2002) "El Cabezo de la Fuente del Murtal (Alhama): Definición e interpretación de una fortificación de finales del siglo VII a.C. e inicios del VI en la rambla de Algeciras (Alhama de Murcia, Murcia)", Memorias de Arqueología de la Región de Murcia, 11, pp. 165-204.
- López Castro, J.L. (2001-2002) "Vasos de alabastro de Abdera y Baria", Ocnus, 9-10, pp. 137-153.
- López Castro, J.L., Pardo, C. y Moya, L. (2017) "¿Fondos de cabaña o depósitos rituales? Sobre un tipo de contextos materiales del Bronce Final y comienzos de la Edad del Hierro en el sur de la península ibérica. El depósito de Cortijo Riquelme (Almería)", Zephyrus, 80 (2), pp. 69-91. https://doi.org/10.14201/zephyrus2017806991
- Lorrio Alvarado, A., Pernas, S. and Torres Ortiz, M. (2016) "Puntas de flecha orientalizantes en contextos urbanos del Sureste de la península ibérica: Peña Negra, La Fonteta y Meca", Cuadernos de Prehistoria y Arqueología de la Universidad Autónoma de Madrid, 42, pp. 9-78. http://dx.doi.org/10.15366/cupauam2016.42.001
- Mallowan, M. (1966) *Nimrud and its Remains*. London: British School of Archaeology in Iraq. Mancebo, J. and Ferrer, E. (1992) "El escarabeo de Pancorvo, Sevilla", *Spal*, 1, pp. 313-320.
- Marshall, F.H. (1907) Catalogue of the Finger Rings, Greek, Etruscan, and Roman. In the Departments of Antiquities, British Museum. London: British Museum.
- Matouk, F.S. (1977) Corpus du scarabée égyptien. Tôme deux. Analyse thématique. Beyrouth: Imprimerie catholique.
- Mélida, J.R. (1921) Tesoro de Aliseda. Noticia y descripción de las joyas que lo componen. Madrid: Museo Arqueológico Nacional.
- Molina González, F. (1978) "Definición y sistematización del Bronce Tardío y Final en el Sudeste de la península ibérica", *Cuadernos de Prehistoria y Arqueología de la Universidad de Granada*, 3, pp. 159-232.
- Newberry, P.E. (1907) Scarab-shaped seals. Catalogue général des antiquités égyptiennes du Musée du Caire nrs. 36001-37521. London: Archibald Constable and Co.
- Newberry, P.E. (1935): "Appendix I", in Gjerstad, E., Lindros, J., Sjöqvist, E. and Westholm, A. (eds.) *The Swedish Cyprus Expedition. Finds and Results of the Excavations in Cyprus 1927-1931. Vol. II.* Stockholm: Swedish Cyprus Expedition, pp. 825-830.
- Nicolini, G. (1990a) Techniques des ors antiques: la bijouterie ibérique du VII au VI siècle. Paris: Picard.
- Nicolini, G. (1990b) "Bijouterie ibérique et bijouterie punique: quelques rapports typologiques et techniques", Bulletin de la Société nationale des Antiquaires de France, pp. 76-85.
- Ortega-Feliu, I., Gómez-Tubío, B., Ontalba, M.A.; Respaldiza, M.A., De La Bandera, M.L. and Ovejero, G. (2007) "Gold and electrum jewellery in the strategic área of Gadir in Phoenician period", *Beam Interactions with Materials and Atoms*, 260, pp. 329-335. https://doi.org/10.1016/j.nimb.2007.02.077
- Ortiz García, J. and Jiménez Higueras, A. (2018) "El anillo con escarabeo de la Tumba del Guerrero de Málaga", in García, D., López, S. and García, E. (eds.) La tumba del guerrero. Un enterramiento excepcional en la Málaga fenicia del siglo VI a.C. Sevilla: Junta de Andalucía, pp. 251-260.
- Padró, J. (1980) Egyptian-type documents from the Mediterranean littoral of the Iberian Peninsula before the roman conquest. I Introductory survey. Leiden: Brill.
- Padró, J. (1983) Egyptian-type documents from the Mediterranean littoral of the Iberian Peninsula before the Roman conquest. II. Study of the material. From Western Languedoc to Murcia. Études Préliminaires aux Religions Orientales dans l'Empire Romain, 65/2. Leiden: Brill.
- Padró, J. (1995) New Egyptian-type documents from the Mediterranean littoral of the Iberian Peninsula before the roman conquest. Barcelona/Montpellier: Université Paul Valéry/Université de Barcelone.

## The prestige-goods model applied to the Iberian Southeast during the Early Iron Age: the Phoenician scarab from Castellar de Librilla Benjamín Cutillas-Victoria *et o*

https://dx.doi.org/10.12795/spal.2022.i31.07

**SPAL** 31.1 (2022)

171-199

- Padró, J. (1996): "Els escarabeus de la Serra de Crevillent", Fonaments, 9, pp. 219-232.
- Parayre, D. (1993) "À propos des sceaux ouest-sémitiques: le rôle de l'iconographie dans l'attribution d'un sceau à une aire culturelle et à un atelier", in Sass, B. and Uehlinger, C. (eds.) Studies in the Iconography of Northwest Semitic Inscribed Seals. Orbis Biblicus et Orientalis 125. Göttingen: Vandenhoeck & Ruprecht, pp. 27-51.
- Pedraza, P. (2017) El concepto de prestigio en arqueología prehistórica. Madrid: CSIC.
- Perea, A. (1991) Orfebrería prerromana. Arqueología del Oro. Madrid: Caja Madrid.
- Perea, A. (2007) "L'ofèvrerie phénicienne: techniques et ateliers en Méditerranée extrême-occidentale", in *La Méditerranée des Phéniciens de Tyr à Carthage*. Paris: Somogy, pp. 181-185.
- Perea, A. and García Gandía, J.R. (2009): "Análisis MEB de la orfebrería fenicia de Les Casetes (Villajoyosa, Alicante)", in Saiz, M.E., López, R., Cano, M.A. and Calvo, J.C. (coords.) VIII Congreso Ibérico de Arqueometría. Teruel: Seminario de Arqueología y Etnología Turolense, pp. 177-192.
- Perea, A., García-Vuelta, O. and Fernández Freire, C. (2010) El Proyecto Au. Estudio arqueométrico de la producción de oro en la península ibérica. Bibliotheca Praehistorica Hispana XXVII. Madrid: CSIC.
- Petrie, W.M.F. (1886) Naukratis. Part I. 1884-5. London: Trübner.
- Petrie, W.M.F. (1896) Koptos. London: Bernard Quaritch.
- Petrie, W.M.F. (1906) Hyksos and Israelite Cities. London: School of Archaeology.
- Petrie, W.M.F. (1917) Scarabs and Cylinders with Names. Illustrated by the Egyptian Collection in University College, London. London: Bernard Quaritch/Constable.
- Pinch, G. (1996) "Red Things: The Symbolism of Colour in Magic", in Davies, W.V. (ed.) *Colour and Painting in Ancient Egypt.* London: British Museum, pp. 182-185.
- Pinedo Reyes, J. (2018) "Comercio fenicio a través de los datos proporcionados por el yacimiento subacuático de El Bajo de la Campana. Estudio preliminar", in Ros Sala, M.M. (coord.) *Phicaria VI. Navegar el Mediterráneo*. Mazarrón: Universidad Popular de Mazarrón, pp. 99-116.
- Polzer, M. (2014) "The Bajo de la Campana shipwreck and colonial trade in phoenician Spain", in Aruz, J., Graff, S.B. and Rakic, Y. (eds.) Assyria to Iberia at the dawn of the Classical Age. New York: The Metropolitan Museum of Art, pp. 230-242.
- Ponsich, M. (1967) *Nécropoles phéniciennes de la región de Tanger*. Tanger: Éditions marocaines et internationales.
- Poveda, A.M. (1994-1995) "La fase del Hierro Antiguo y la influencia fenicia en la cuenca interior del Vinalopó (Alicante)", *Alebus*, 4-5, pp. 50-71.
- Quattrocchi, G. (1974) *I gioielli feznici di Tharros nel Museo nazionale di Cagliari*. Roma: Consiglio nazionale delle Richerche.
- Quillard, B. (1987) Bijoux carthaginois. II. Porte-amulettes, sceaux-pendentifs pendants, boucles, anneaux et bagues: d'après les collections du Musée National du Bardo et du Musée National de Carthage. Louvain: Université Catholique de Louvain.
- Rodríguez Díaz, A., Pavón, I. and Duque, D.M. (2019) El Tesoro de Aliseda, cien años después. En el laberinto de sus historias. Barcelona: Bellaterra.
- Ros Sala, M.M. (1986-1987) "El poblado de Santa Catalina del Monte: una aproximación a la urbanística del siglo VI a.C. en el ámbito territorial del eje Segura-Guadalentín", *Cuadernos de Prehistoria y Arqueología*, 13-14, pp. 77-88.
- Ros Sala, M.M. (1989) Dinámica urbanística y cultura material del Hierro Antiguo en el valle del Guadalentín. Murcia: Universidad de Murcia.
- Ros Sala, M.M. (1990) "Datos para una definición del Bronce Final Pleno en el Altiplano Yecla-Jumilla: las cazuelas carenadas de Coimbra del Barranco Ancho (Jumilla)", *Trabajos de Prehistoria*, 47, pp. 351-362.
- Ros Sala, M. M. (2017) "Nuevos datos en torno a la presencia fenicia en la Bahía de Mazarrón (Sureste Ibérico)", in Prados, F. and Sala Sellés, F. (eds.) *El Oriente de Occidente. Fenicios y púnicos en el área ibérica*. Alicante: Universidad de Alicante, pp. 79-104.
- Ros Sala, M.M. and Cutillas, B. (2020) "De Fenicios a Púnicos en la Bahía de Mazarrón: el registro de las ánforas T-11 en el promontorio costero de Punta de los Gavilanes", in Celestino, S. and

# The prestige-goods model applied to the Iberian Southeast during the Early Iron Age: the Phoenician scarab from Castellar de Librilla

**SPAL** 31.1 (2022)

171-199

ISSN: 1133-4525 ISSN-e: 2255-3924

- Rodríguez, E. (eds.) *Un viaje entre el Oriente y el Occidente del Mediterráneo*. Mérida: Mytra, pp. 801-816.
- Rouillard, P., Gailledrat, E. and Sala Sellés, F. (2007) *L'établissement protohistorique de La Fonte-ta (fin VIIIe VIe siècle av. J.-C.)*. Madrid: Casa de Velázquez.
- Ruiz, D., Velázquez, M.J. and Le Meaux, H. (2020): "La necrópolis de Les Casetes (Villajoyosa, Alicante). Un material fenicio inédito: los huevos de avestruz", in Celestino, S. and Rodríguez, E. (eds.) *Un viaje entre el Oriente y el Occidente del Mediterráneo*. Mérida: Mytra, pp. 1307-1314.
- Ruiz-Gálvez, M. (1998) La Europa atlántica en la Edad del Bronce. Un viaje a las raíces de la Europa occidental. Barcelona: Crítica.
- Sala Sellés, F., López Precioso, J., Noval, R., Cañavate, V., Carratalá, I., Fernández Molina, S., Perdiguero, P. and Rosell, P. (2020) "Los Almadenes (Hellín, Albacete) o la meta de un sistema productivo y comercial del siglo VI a.C. a través del rio Segura", in Celestino, S. and Rodríguez, E. (eds.) *Un viaje entre el Oriente y el Occidente del Mediterráneo*. Mérida: Mytra, pp. 837-848.
- Sanmartí, J. (2009) "Colonial Relations and Social Change in Iberia (7<sup>th</sup> to 3<sup>th</sup> centuries BC)", in Dietler, M. and López-Ruiz, C. (eds.) *Colonial encounters in Iberia: Phoenician, Greek, and indigenous relations*. Chicago: Chicago University Press, pp. 49-88.
- Schenkel, W. (2019) "Colours as viewed by the Ancient Egyptians and the explanation of this view as seen by academics studying colour", in Warburton, D. and Thavapalan, S. (eds.) *The Value* of *Colour. Material and Economic Aspects in the Ancient World*. Berlin: Topoi, pp. 35-54.
- Schweizer, B. (2014) "Skarabäen und andere Ägyptiaka in kulturellen Kontexten der italischen Halbinseln und des ägäischen Raums des 8. Und frühen 7. Jhs. V. Chr. Bemerkungen zur Rezeption aus der Perspektive der Klassischen Archäologie", in Lohwasser, A. (ed.) *Skarabäen des 1. Jahrtausends*. Fribourg/Göttingen: Academic Press Fribourg/Vandenhoeck & Ruprecht, pp. 125-146.
- Soler García, J.M. (1990) "La arracada de la Condomina", Revista de Villena, 40.
- Torres Ortiz, M., López Rosendo, E., Gener, J.M., Navarro, M.A. and Pajuelo, J.M. (2014) "El material cerámico de los contextos fenicios del Teatro Cómico de Cádiz: un análisis preliminar", in Botto, M. (ed.) Los Fenicios en la Bahía de Cádiz. Nuevas investigaciones. Pisa-Roma: Fabrizio Serra Editore, pp. 51-82.
- Vercoutter, J. (1945) Les objets égyptiens et égyptisants du mobilier funéraire carthaginois. Bibliothèque Archéologique et Historique XL. Paris: Geuthner.
- Vinson, J. (2001) "Menes", in Redford, D.B. (ed.) *The Oxford Encyclopaedia of Ancient Egypt. Volume 2.* Oxford: Oxford University Press, pp. 377-378.
- Vives-Ferrándiz, J. (2005) Negociando encuentros: situaciones coloniales e intercambios en la costa oriental de la península ibérica. Barcelona: Bellaterra.
- Vives-Ferrándiz, J. (2008) "Negotiating colonial encounters: hybrid practices and consumption in Eastern Iberia (8<sup>th</sup>-6<sup>th</sup> centuries BC)", *Journal of Mediterranean Archaeology*, 21 (2), pp. 241-272. https://doi.org/10.1558/jmea.v21i2.241
- Von Beckerath, J. (1969) "Zu den Namen des kuschitischen Königs Pi'ankhy", Mitteilungen des deutschen archäologischen Instituts Abteilung Kairo, 24, pp. 58-62.
- Von Lushan, F. (1945) Ausgrabungen in Sendschirli V: Die Kleinfunde von Senschirli. Berlin: De Gruyter.
- Wagner, C.G. and Alvar Ezquerra, J. (1989) "Fenicios en Occidente: la colonización agrícola", Rivista di Studi Fenici, 17 (1), pp. 61-102.
- Walker, M.J. (1988) "El Castillico de El Sabinar de Moratalla: un poblado fortificado preibérico", *Anales de prehistoria y Arqueología*, 4, pp. 101-110.
- Wallerstein, I. (1974) The Modern World System: Capitalist, Agriculture and the Origins of the European World-Economy in the Sixteenth Century. New York: Academic Press.
- Ward, W.A. (1992) "A Silver Scarab from Ibiza", Rivista di Studi Fenici, 20, pp. 67-82.
- Ziegler, N. (1999) "L'Égypte pharaonique: l'exemple des bijour du Sérapéum, in Caubet (ed.) *Cor-naline et pierres précieuses. La Méditerranée, de l'Antiquité à l'Islam.* Paris: La Documentation française/Musée du Louvre, pp. 15-41.

The prestige-goods model applied to the Ibel Benjamín Cutillas-Victoria et al. https://dx.doi.org/10.12795/spal.2022.i31.07

171-199

ISSN: 1133-4525 ISSN-e: 2255-3924

### Authors' contribution

- Conception and design, data analysis and interpretation, drafting and critical revision, data collection, final article approval, provision of comparison materials: BCV, VB, JB.
- Obtaining funding: BCV, JB.
- Laboratory analysis: BC.
- Graphic design: BCV, VB.