

A NEW FRAGMENT OF A HISPANO-CHALCIDIAN HELMET FROM CASTILLEJO (PROV. SORIA) IN THE RGZM

We present a new fragment of a Hispano-Chalcidian helmet recovered from the materials deposited by A. Schulten in the Römisch-Germanisches Zentralmuseum in Mainz (RGZM), that came from Castillejo (Garray, prov. Soria/E), the site of one of the principal Roman camps built for the siege of Numantia. It was identified¹ during a review of the RGZM collections before undertaking a comprehensive study to analyse all the pre-Roman finds excavated by A. Schulten around the Celtiberian city².

The study of the complete piece, for the moment in the catalogue of the Hispano-Chalcidian series, while permitting an archaeo-metallurgical approach to the group, requires some general chronological considerations and, ultimately, means reflecting on the possible pre-Roman occupation of Castillejo, as A. Schulten suggested³. Objects from various periods, from the Late Chalcolithic to the Iron Age and even from the early Roman Empire⁴ were found at the site, which appears in the specialised bibliography as Castillejo or El Castillejo.

DESCRIPTION OF FRAGMENT INV. NO. O.18477 AND ITS TYPOLOGICAL AFFILIATION

The fragment was identified in July 2014 while reviewing the materials from Schulten's excavations around Numantia deposited in the RGZM storerooms. Nevertheless, the piece was not unrecorded, as A. Schulten

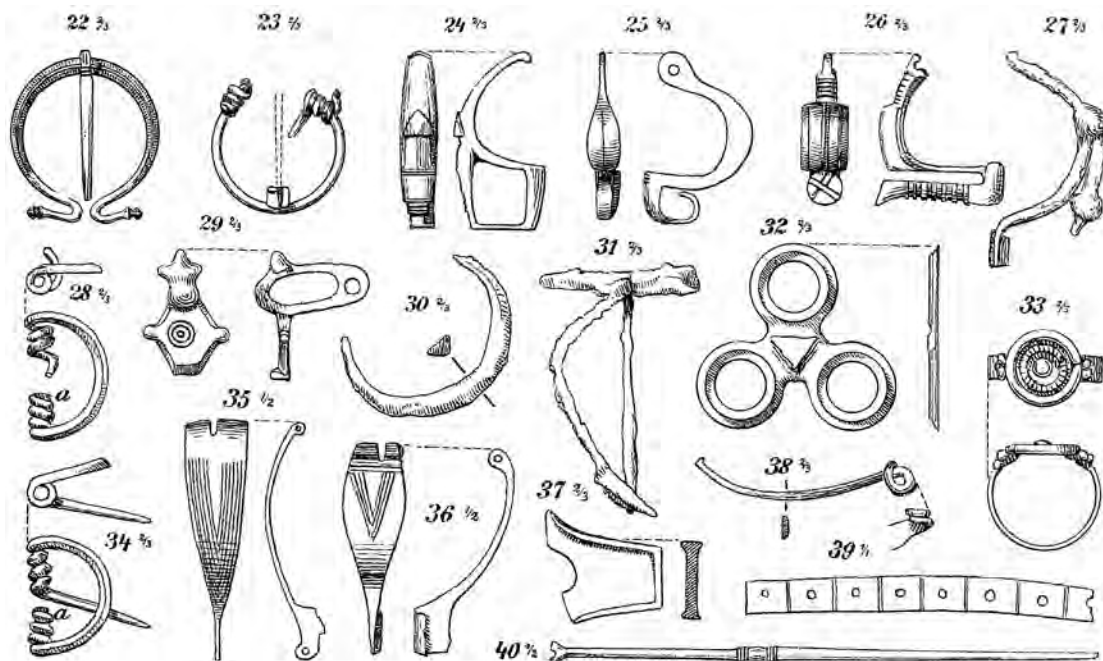


Fig. 1 Finds from the Numantine camps, with the fragment of a helmet analysed (37), which came from Castillejo (Garray, prov. Soria/E). – (After Schulten 1927, pl. 45).

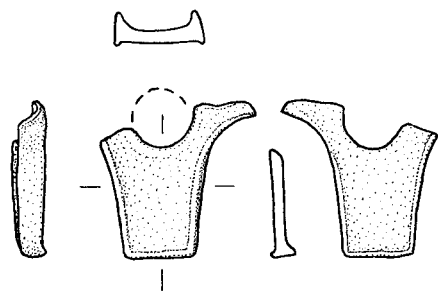


Fig. 2 The fragment of the Castillejo helmet studied here. – (Drawing M. Weber, RGZM).



Fig. 3 The fragment of the Castillejo helmet studied here: the outside (a) and the inside (b). – (Photos R. Müller, RGZM).

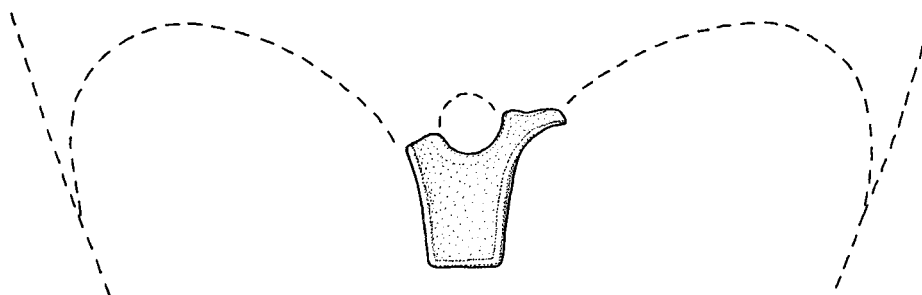


Fig. 4 Suggested reconstruction of the fragment of the Castillejo helmet. – (Drawing M. Weber, RGZM).

had published it as an indeterminate fragment⁵, mistakenly presenting it as a horizontal piece, which had prevented it from being correctly identified until now (fig. 1).

The fragment is identified as the nose-guard of a helmet, with thickened edges, the edge of the left side of the opening for the face and the base of a hole in the crown designed for fixing a ring to hold in place the helmet's removable decorative *lophos*⁶ (figs 2; 3a-b). The dimensions of the piece are: 15 mm high from the centre of the base to the beginning of the hole in the crown and 10 mm wide at the base of the nose-guard. The sheet metal is 2 mm thick, while the rim is up to 5 mm thick in places. The metal was cleaned after the piece was discovered, but not treated in any other way to preserve it until now. Nevertheless, it is in good condition, with no corrosion or modern fractures.

The fragment is easily recognisable as part of a Hispano-Chalchidian helmet because this is the only type of helmet from the Iberian Peninsula that has a nose-guard (fig. 4)⁷ and a structure to hold the crest⁸. Unfortunately, it has not been possible to find a correlation between the length and breadth of the nose-guard, or between its dimensions and the position of the holes for holding the crest in place. The absence of a correlation between the curvature of the holes for the eyes and the nose-guard would be less unusual, since helmets were made individually by craftsmen and adapting them for the wearer would result in slight variations to a basic pattern (fig. 5). In any case, the dimensions of fragment O.18477 are similar to those of most known examples, although a rim is only documented on some of these pieces.

ANALYTICAL CHARACTERISATION OF HISPANO-CHALCIDIAN HELMETS

The fact that most of the helmets comprising the Hispano-Chalchidian series are in private hands has restricted the possibility of analysing them using archaeo-metallurgical techniques. So the only data we

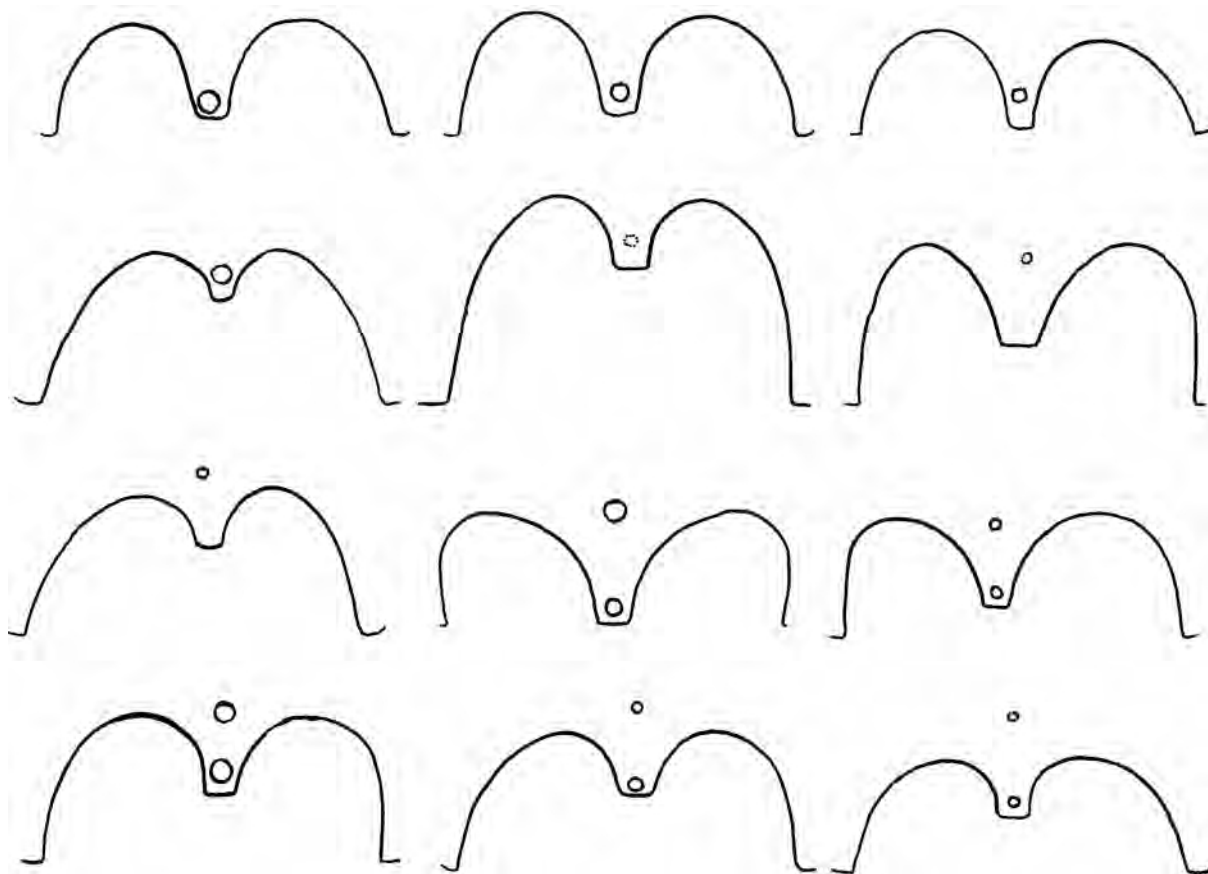


Fig. 5 Variations between the curvature of the holes for the eyes and the nose-guard from different Hispano-Chalchidian helmets. – (Drawing M. Weber, RGZM).

have at present come from the examples found in burial 201 of the La Osera necropolis (Chamartín de la Sierra, prov. Ávila/E), from the old Várez Fisa collection, from the helmet discovered in the »Fuentona« (Muriel de la Fuente, prov. Soria/E), and now the one from Castillejo. The first two are in the Museo Arqueológico Nacional (MAN) in Madrid, the one from Muriel de la Fuente is in the Museo Numantino of Soria and the last one is in the RGZM collection.

The analysis of the Castillejo fragment⁹ shows that it was made from a binary bronze (84 % Cu, 15 % Sn), similar to the composition of other examples analysed, like the *calota* of the helmet from Muriel de la Fuente, although the piece in the RGZM collection contains a significant percentage of lead (1%), but much lower than that in the *lophos* supports, which is over 8% in the exemplar from La Osera and 11% in that from Muriel de la Fuente (**tab. 1**).

The XRF analyses carried out by the project »Arqueometalurgia de la Península Ibérica«¹⁰ have confirmed the use of binary bronzes for making the laminate elements such as the crown, lateral supports and hinges (Muriel de la Fuente), a detail also confirmed by an analysis of the piece from Los Canónigos (Arcas de Villar, prov. Cuenca/E)¹¹, and the ternary bronzes for the *lophos* support (Muriel de la Fuente and La Osera¹²). In the helmet from Muriel de la Fuente a similar composition is observed in the five laminate areas sampled, corresponding to the crown and the neck-guard, the side support for holding adornments in place and the hinge for fixing the cheek piece, with an average value of 85.3 % Cu, 12.7 % Sn, 0.65 % As and 0.28 % Pb. It is therefore a binary bronze. The *lophos* support is, however, made from a different alloy, a ternary bronze with 73.6 % Cu, 13.5 % Sn and 11.3 % Pb.

	description	analytic id.	Cu	Sn	Pb	Fe	As	Ni	Sb	Zn	Ag	Au	others
<i>El Castillejo</i>													
	nose protection		83.8	14.9	0.7	nd	0.1	0.07	nd	nd	nd	nd	nd
<i>La Osera burial 201</i>													
MAN 1986/81/2/201/14	lophos	PA22100	58.10	29.00	8.86	3.66	0.31	nd	nd	nd	nd	nd	nd
MAN 1986/81/2/201/14	calota	PA22100c	51.10	26.60	6.77	15.08	0.36	nd	nd	nd	nd	nd	nd
MAN 1986/81/2/201/14	calota	PA22100d	60.00	24.20	4.62	10.52	0.57	nd	nd	nd	nd	nd	nd
MAN 1986/81/2/201/18	calota	PA22102	75.60	5.30	18.30	0.21	nd	nd	0.52	nd	nd	nd	nd
MAN 1986/81/2/201/6	ring	PA22127p	80.90	16.60	1.04	0.41	0.89	0.08	nd	nd	nd	nd	nd
<i>Muriei de la Fuente</i>													
Museo Numantino 77/6	calota	PA22128A	84.65	14.17	0.42	nd	0.76	nd	nd	nd	nd	nd	nd
Museo Numantino 77/6	lophos	PA22128B	73.57	13.54	11.13	1.77	nd	nd	nd	nd	nd	nd	nd
Museo Numantino 77/6	neck-guard	PA22128C	85.46	13.32	0.31	0.10	0.80	nd	nd	nd	nd	nd	nd
Museo Numantino 77/6	decoration element	PA22128D	83.61	11.63	0.20	3.90	0.66	nd	nd	nd	nd	nd	nd
Museo Numantino 77/6	hinge	PA22128E	86.48	12.35	0.28	0.46	0.43	nd	nd	nd	nd	nd	nd
Museo Numantino 77/6	sheet	PA22128F	86.13	11.81	0.19	1.27	0.59	nd	nd	nd	nd	nd	nd
<i>Várez Fisa</i>													
MAN 1999/99/168	left check guard	PA22085	64.50	nd	0.61	0.09	nd	0.05	nd	34.60	nd	nd	Cr
MAN 1999/99/168	neck-guard	PA22085B	66.40	nd	0.31	nd	nd	0.04	nd	33.20	nd	nd	Cr
MAN 1999/99/168	lophos	PA22085C	63.80	0.88	2.74	0.39	nd	0.53	nd	31.50	nd	nd	Cr
MAN 1999/99/168	ring	PA22085D	20.80	5.15	59.60	1.74	nd	nd	nd	1.50	nd	nd	Cr
MAN 1999/99/168	calota	PA22085E	61.70	nd	0.75	nd	nd	0.03	nd	29.90	nd	nd	Cr

Tab. 1 Composition analysis on Hispano-Chalchidian helmets.

The helmet in the MAN, which belongs to the old Várez Fisa collection, is different, since it needs to be thought of either as a piece that has been much altered by restoring and reassembling parts of it with metal resins, or as a forgery or modern copy of an original that has not been identified. It is made from a brass alloy, with more than 30 % Zn. Taking into account that the zinc in patina suffers a process of loss, the values obtained should be assumed to be lower than those of the original alloy used. Therefore, a modern alloy of around 35 or 40 % Zn has been used. The only part that is different is the ring, which is in fact a leaded bronze with a high lead content. In this case the presence of a certain amount of zinc could be explained by contamination in the area of analysis because this was carried out on part of it that was close to the rest of the helmet. The presence of chrome is also notable, which must have been used to give the piece its patina.

CONTEXT

The Castillejo hill is situated approx. 1 km to the north of La Muela de Garray, the site of the ancient city of Numantia, on a broad plain irrigated by the river Duero and numerous streams that favoured the constant presence of settlements before Romanisation¹³. It is a small hill with a flat summit (1043 m) that has a gentle slope to the North, which becomes pronounced on the West and South¹⁴, making it an isolated and easily defensible position¹⁵ (fig. 6).

A. Schulten was the first to carry out archaeological excavation on the hillock, as part of his work to identify the various camps cited by the sources in relation to Scipio's siege of Numantia¹⁶. In the course of his excavations at Castillejo, A. Schulten identified the remains of three Roman camps and his interpretation is currently accepted as valid. According to him the most recent one, located in, was that of Publius Cornelius Scipio Aemilianus¹⁷. A double wall was built around the city from the Castillejo and Peña Redonda camps, linking them, five others and two castles used in the siege of the city of Numantia¹⁸. In addition, A. Schulten identified two other camps in Castillejo, apart from the one attributed to Scipio (134-133 BC). These were superimposed on each other and on the basis of historical criteria a chronology was proposed for each of them: the oldest¹⁹ was attributed to the consul Claudius Marcellus (152-151 BC), while the one after it²⁰ was identified as with the camp of Quintus Pompeius (141-140 BC)²¹. However, this sequence is open to dispute, and is considered unsatisfactory in the light of the material record preserved. In this respect, F. Morales Hernández²² points out that both the numismatic finds studied by H. J. Hildebrandt²³ and the lamps studied by M. V. Romero Carnicero²⁴ relate to Scipio's occupation, which suggests that the earlier Roman occupations »left barely any remains apart from the buildings themselves«²⁵.

However, A. Schulten revealed the abundant presence of »prehistoric« pottery, representing both »the Neolithic layer and the Hallstatt layer«, and Celtiberian finds (»Iberian« in Schulten's terminology) that he associated with »a later Iberian colony«, although the occurrence of indigenous pottery would also have been recorded in the camps²⁶.

More recent studies, like those of F. Morales Hernández²⁷ in »Carta Arqueológica de la Altiplanicie Soriana«, and J. J. Fernández Moreno²⁸ on the prehistoric finds from La Muela de Garray, have provided information about periods of pre-Roman occupation in Castillejo, confirming a prehistoric phase relating to the Late Chalcolithic and Early Bronze Age²⁹, and a protohistoric phase, relating to an Early Iron Age occupation³⁰, which in this part of the Meseta would have developed between the 8th and early 4th centuries cal BC³¹.

With regard to subsequent Celtiberian occupation, the scarce material recovered in surveys, limited to a few sherds of wheel-turned pottery that can be identified culturally with Arevaci productions³², includes an outstanding bowl with raised foot that has its closest parallels in Late Celtiberian contexts. This has led F. Morales Hernández to assume that Castillejo was occupied in the first half of the 1st century BC by a

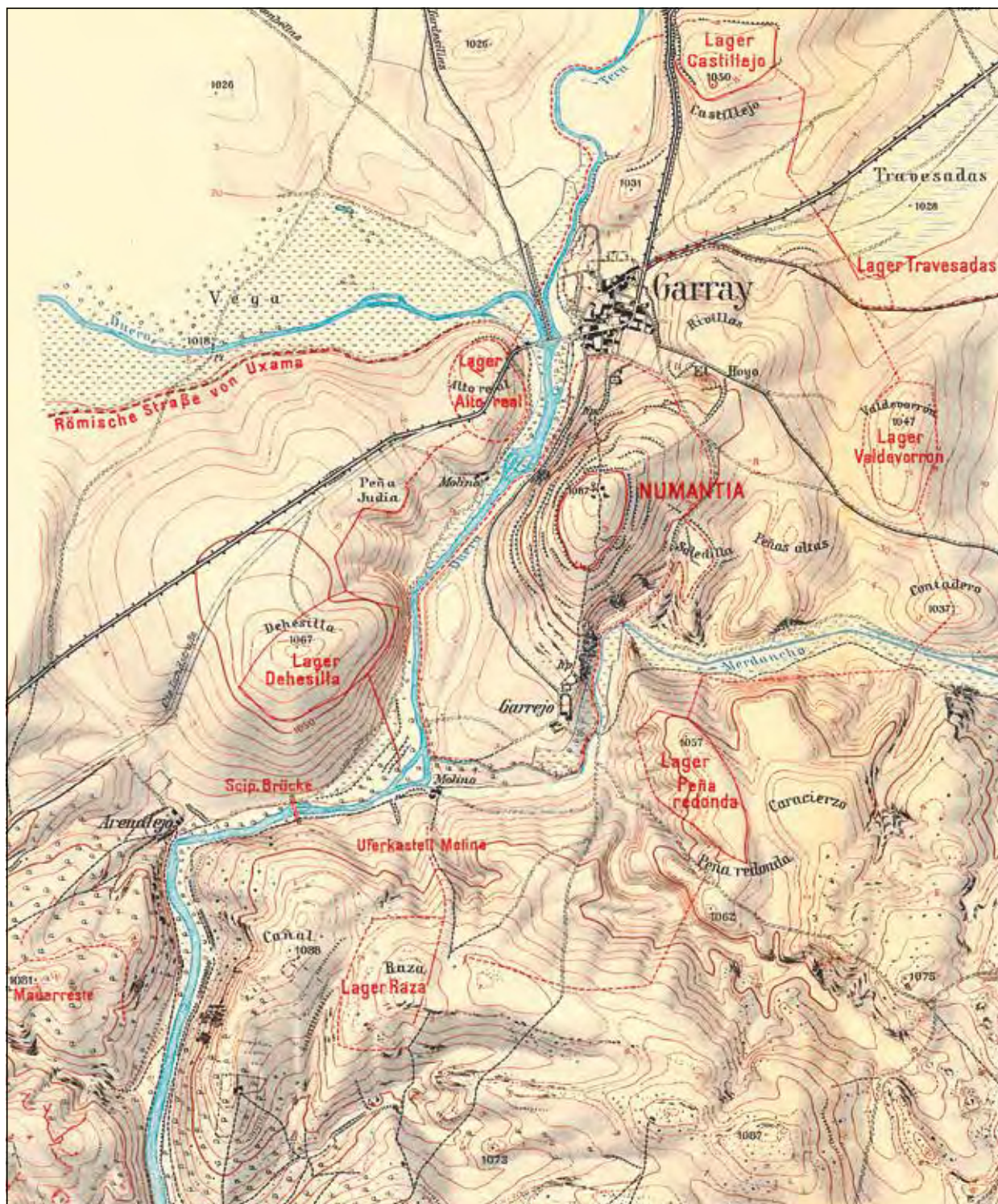


Fig. 6 Numantia and Scipio's siege camps. – (After Schulten 1914, map 5).

community related with the »later Iberian colony« referred to by A. Schulten³³. Another singular find is that of a hand-made ceramic cup that F. Morales Hernández³⁴ attributed to the Early Iron Age, proposing a chronology of the first half or mid-5th century BC, although in another work he identified the decorative motifs as zoomorphic figures seen from above and proposed a mid-1st century chronology³⁵, consistent



Fig. 7 Disc cuirass from Castillejo. – (Photo R. Müller, RGZM). – Scale 1:2.

with the type of representations characteristic of Arevaci-Vaccean iconography dated to between the 2nd century BC and 1st century AD³⁶.

Amongst the artefacts published by A. Schulten as coming from Castillejo it is worth mentioning some outstanding Celtiberian pieces, such as a bull's head belonging to the rear finial of a Celtiberian *simpulum*³⁷, similar to Martín Valls' type I³⁸, also of late chronology, since they would still be in use at the beginning of the 1st century AD³⁹, as well as others whose pre-Roman chronology seems beyond doubt, such as a ribbed disc cuirass (see below), classified as *Nicht bestimmbares* (indeterminate), and the fragment of a helmet that we are looking at here.

The disc cuirass comes from room P of the camp attributed to Marcellus⁴⁰ (RGZM inv. no. O.18438; **fig. 7**)⁴¹. The main problem with this disc is the late chronology ascribed to it (2nd century BC), contrary to the general chronology of peninsular and Mediterranean disc cuirasses, which had usually disappeared by the end of the 4th century BC⁴². Furthermore, its only parallel (recovered from Samnite burial 1 at the necropolis of loc. Troccola de Pietrabbondante in Isernia, prov. Molise/I) is dated to the 5th century BC⁴³, and suggests that the piece in question is an import from the Italic Peninsula⁴⁴. This would allow this exemplar to be seen as evidence of interaction between the Celtiberian and the southern Italic world, which fits fairly well with

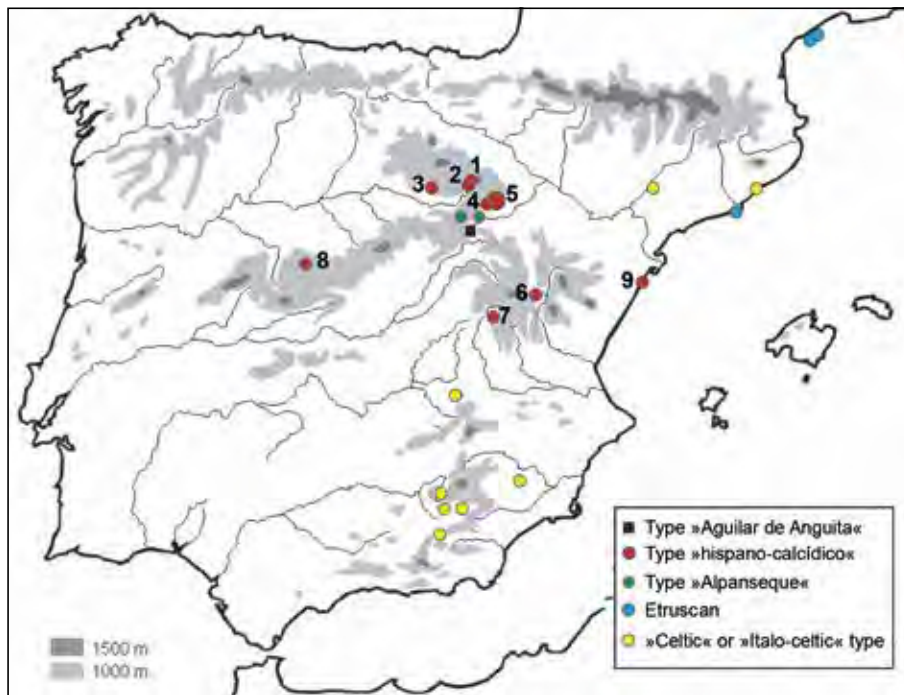


Fig. 8 The distribution of Hispano-Chalcidian helmets and other Iron Age models dated between the 5th and 3rd centuries BC (excluding Montefortino helmets). – 1 Castillejo (prov. Soria). – 2 Numancia (prov. Soria). – 3 Muriel de la Fuente (prov. Soria). – 4 Deza (prov. Soria). – 5 Aranda de Moncayo (prov. Zaragoza). – 6 El Alto Chacón (prov. Teruel). – 7 Los Canónigos (prov. Cuenca). – 8 La Osera (prov. Ávila). – 9 Piedras de la Barbada (prov. Castellón). – (Map R. Graells i Fabregat).



Fig. 9 Various Hispano-Chalcidian helmets: 1-3 Aranda de Moncayo (1. 3 photo H. Born; 2 after Graells/Lorrio/Quesada 2014, fig. 40). – 4 MAN Madrid, Várez Fisa collection (Photo F. Quesada).

what is observed for the creation of Hispano-Chalcidian helmets (see below). In any case, this disc cuirass certainly allows the consistent presence of pre-Roman artefacts in Castillejo to be proposed.

The fragment of a helmet, in keeping with what has been said so far, conforms to pre-Roman finds and falls within the usual area of distribution of this type of helmet (see below). Both aspects emphasise its Celtiberian character, although the chronology of the piece and, as we shall see, that of the type of helmet,

should be reconsidered to take into account the deficiencies of the find's historic and archaeological context.

HISPANO-CHALCIDIAN HELMETS AND THEIR CHRONOLOGY

The group of Hispano-Chalchidian helmets relates to a type that can be characterised as exclusively Celtiberian. Their distribution is concentrated mainly in the Celtiberian area, with few exceptions outside the culture's heartland (**fig. 8**)⁴⁵. The combination takes its name from where it was produced (ancient Hispania) and the model that inspired its shape (Chalchidian helmets) adopting the formula used for the Italic versions of Chalchidian helmets (the so-called Italic-Chalchidian helmets). The current catalogue consists of 33 examples (counting the one from Castillejo), a common denominator being considerable morphological variation amongst them, which has been interpreted as the result of being made individually for each wearer (**fig. 9**)⁴⁶. In any case, they all have the same predetermined design: a *calota* with nose-guard, neck-guard and holes for the ears and eyes; articulated cheek pieces; an edge reinforced with strips fixed to the front; and a complex structure of decoration on the *calota* consisting of lateral appliques to hold removable elements and the vertical *lophos* (with pivot and two rings).

The Italic influences that shaped helmets of this type are evident and crucial for interpreting the chronology of the type. Thus, the nose-guard is related with the series of Chalchidian helmets, from which it also takes the long neck-guard. The curve of the crown, the application of strips for reinforcement and the articulation of cheek pieces would seem to display a southern Italic influence, while the pivot seems to be Apulian. This combination of adoptions situates the prototypes between the 5th and 4th centuries BC, a chronology that fits with that of Hispanic mercenary presence in the south of Italy, suggesting that this dynamic is the origin of this model of helmet.

It now remains to discuss the chronology of the group, which is certain for its initial phase, since we have reliable archaeological contexts, and problematic for the time when they disappeared. If we look at the older examples of the Hispano-Chalchidian helmet, including those that came from the necropolis of Los Canónigos, burial 3⁴⁷, Aranda de Moncayo, tomb 2 (prov. Zaragoza/E)⁴⁸ and La Osera, burial 201⁴⁹, and the one recovered from water in Muriel de la Fuente⁵⁰, we see that they can be dated to the second half of the 4th century BC, a phase when Hispanic mercenaries had been completely integrated into international circuits and had fought in Mediterranean conflicts for almost two centuries, during which time this type of armour would have taken on its distinctive form.

At the other end, it has been suggested that the final chronology for the group dates to the 2nd century BC on the basis of two singular finds that are not without problems: the cheek piece from the settlement of Alto Chacón (prov. Teruel/E)⁵¹ and the fragment of a cheek piece and a helmet from burial 39 of Numantia⁵², to which we could now also add the fragment from Castillejo, if only on the basis of the find place.

The characteristics of the exemplars from Alto Chacón and Numantia allow them to be clearly differentiated from other Hispano-Chalchidian helmets, although the fragmentary nature of both pieces prevents us having a complete picture of their morphology and the extent of their modifications:

- The Alto Chacón cheek piece clearly differs from the other helmets of the series in terms of its shape, decoration and finish, so it would seem to be a marginal example, a development of the main series (dated between the end of the 4th and mid-3rd century BC), and in any case it appeared as material to be recycled.
- The piece from Numantia (**fig. 10a-b**) comes from a closed funerary context dated from the topographic position of the burial within the necropolis and not on the basis of typological criteria. Because it was

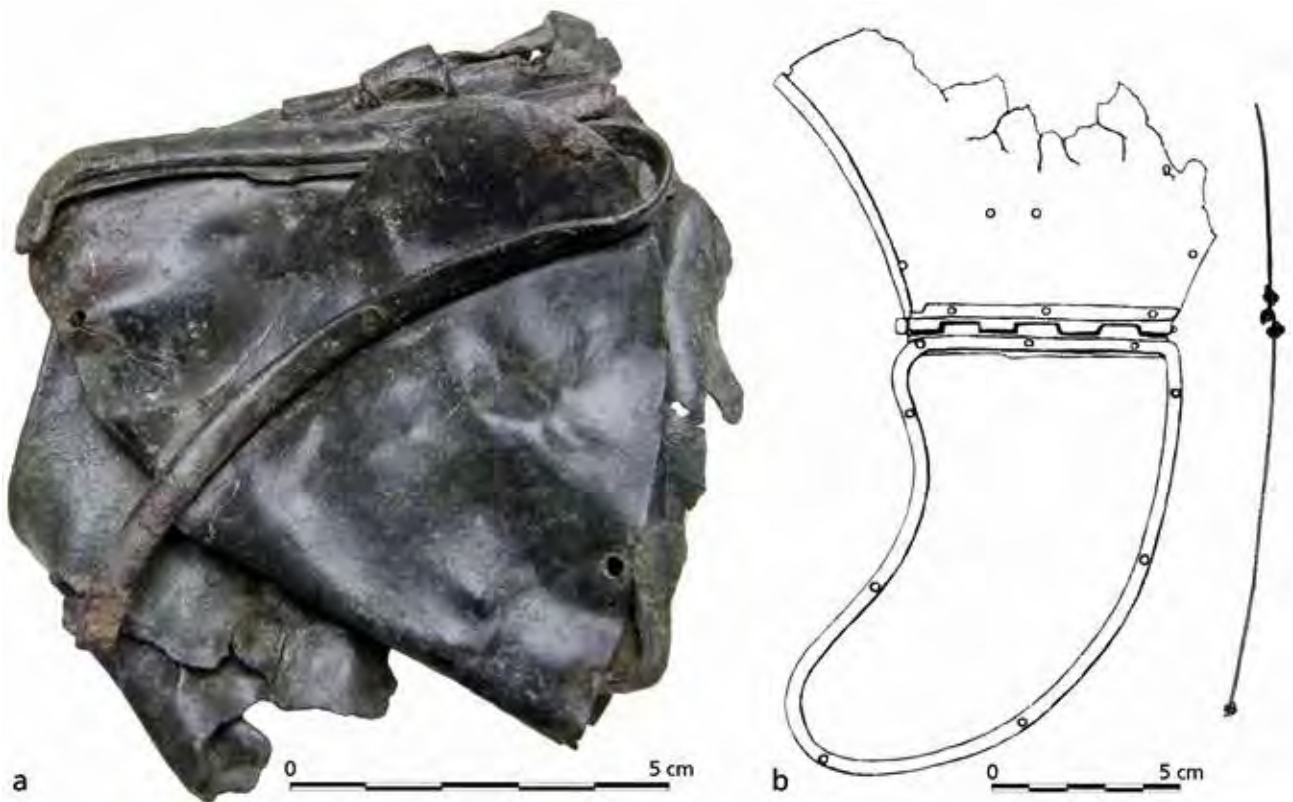


Fig. 10 Fragment of the helmet from grave 39 of Numantia (a) and its reconstruction (b). – (a photo F. Quesada; b after Jimeno et al. 2004, fig. 51).

ascribed to phase II of the cemetery⁵³, the excavators proposed a chronology between an indeterminate point in the 2nd century and 133 BC. However, the helmet could be older, thus fitting more closely with the rest of the series⁵⁴, although some of the elements of the Numantine helmet can already be related with the later evolution of the model⁵⁵.

In both cases the contexts represent a *terminus ante quem* and their morphologies are not sufficient, given their fragmentary nature, to establish fixed terms, although both pieces might be interpreted as examples of the final evolution of the model. The similarity between the nose-guard from Castillejo and that of other helmets dated between the 4th and 3rd centuries BC does not mean that the piece could not be later, since we do not know the characteristics of the frontal part of the most developed helmets (examples from Numantia and Alto Chacón). However, it is reasonable to assume that modifications to cheek pieces, hinges and appliquéd elements might also have affected the nose-guard area and therefore that its morphology could be different from that of the majority and the fragment from Castillejo.

It seems probable that the Hispano-Chalcidian helmets finally fell into disuse or disappeared, at least as far as their standardised morphology was concerned, at an earlier date which, in the absence of greater precision, we will put at the end of the 3rd century BC. This shorter time frame (from the middle of the 4th to the end of the 3rd century BC) allows us to see the life span of these helmets with greater consistency: preceded by helmets of the Alpanseque-Almaluez type and followed by the Montefortino, without rejecting the possibility of a final evolution of the model incorporating modifications that may have affected essential parts of the type, such as the serpentine adornments, which could have disappeared, changing the position of the lateral mounts that held adornments, modifying the structure of the hinges used to fix the cheek pieces and, perhaps, changing the shape of the nose-guards.

CONCLUSIONS

The chronology and characteristics of the fragment analysed here require two parallel lines of reflection. On one hand, the Hispano-Chalchidian helmets and, on the other, the Castillejo site. As we have seen, the fragment studied here completes the distribution map, reinforcing the Celtiberian character of these productions, while their metallurgical analysis contributes to our understanding of the nature of Hispano-Chalchidian helmets and control over the metal in the manufacturing process, providing evidence of the technical skill of the metal workers who made Celtiberian armour, already discussed in other studies⁵⁶.

Unfortunately, the exact context in which this fragment was recovered is unknown, and this once again leaves open to doubt certain aspects of chronology concerning Hispano-Chalchidian helmets. These require a discussion on the evolution of the model and its late chronology (3rd century BC) proposed for the final examples of the series. The presence in Castillejo of other elements that can be clearly ascribed to pre-Roman times implies that what A. Schulten excavated could have been much more complex than a succession of Roman military camps, for it could indicate that there was an additional Celtiberian phase that can contribute to our understanding of how Roman territory was organised. Thus the context has conditioned the way the finds published by A. Schulten have been interpreted, at least in the case of metal items such as the pectoral or the piece analysed here, since they have traditionally been studied as dating to the same time as Scipio's camp, interpreting them in exclusively late-Republican terms.

We hope that this study will contribute to investigate this site from a new perspective that takes into account the archaeological evidence detected in the surveys and will involve reviewing the data from Schulten's old excavations in the Numantine area (held in the RGZM) in order to acquire a transversal understanding of the context of Numantia over the course of time.

Translation: Verity Peterson

Acknowledgements

This article has been possible thanks to the facilities provided by the curators of the various museums that have permitted the analysis of Hispano-Chalchidian helmets in their collections and a number of colleagues who have kindly undertaken the metallographic analysis. So we would like to thank Prof. Dr. M. Egg and Dr. M. Müller-Karpe of the RGZM; Dra. P. Cabrera, Dra. A. Rodero and Ms M. Bar-

ril of the Museo Arqueológico Nacional (Madrid); Ms M. Arlegui of the Museo Numantino (Soria); Ms C. Rodríguez Ruza of the Museo de Cuenca; Dres. Ignacio Montero and Carolina Gutiérrez of the Consejo Superior de Investigaciones Científicas (CSIC); and, finally, Dr. Florian Ströbele of the RGZM.

Notes

- 1) The preliminary comprehensive study of the category of Hispano-Chalchidian helmets was decisive for its identification (Graells/Lorrio/Quesada 2014).
- 2) Between 1905 and 1912 A. Schulten conducted extensive excavations around the site of the Celtiberian city of Numantia. Most of the locations were Roman military camps, which have become fundamental to our understanding of the Republican army.
- 3) Schulten 1927, 170.
- 4) Morales Hernández 1995, 127-146. – Fernández Moreno 1997, 116f.
- 5) Schulten 1927, pl. 45, 37.
- 6) Graells/Lorrio/Quesada 2014, 115-124.
- 7) Graells/Lorrio/Quesada 2014, 96-108. – This detail reflects an anomaly in helmets made in the Peninsular, which had traditionally tended to leave the wearer's vision unobstructed. This is also true for the series of helmets produced in the Mediterranean area, which, from the 5th century BC onwards progressively eliminated nose-guards. Only Hispano-Chalchidian exemplars still had nose-guards in the 4th century BC. This argument has been repeatedly used to relate the oldest examples of this type of helmet with a development during the long-distance mercenary expeditions in the south of the Italian Peninsula, where other fundamental elements of the series such as the articulated cheek pieces and decorative crests attached to the crown (*lophoi*) would have been incorporated.

- 8) These crests were structured on the basis of three fixing points aligned on the crown, following the axis marked by the nose-guard and projecting towards the nape of the neck. The system consisted of a central pivot with a two-pronged fork that acted as a guide for an organic structure that was stretched (Graells/Lorrio/Quesada 2014, fig. 149) and held firmly in place with two points of support consisting of rings (Graells/Lorrio/Quesada 2014, 118-120), one situated at the nape of the neck (Graells/Lorrio/Quesada 2014, fig. 152) and another above the nose-guard, as in the fragment considered here (Graells/Lorrio/Quesada 2014, fig. 151).
- 9) Micro X-ray fluorescence using the μ -RFA method carried out by Dr. F. Ströbele (RGZM, Archäometrielabor). – Equipment: Eagle III; Rhodium tube with max. 40 kV, 1 mA, Oxford Instruments; Si(Li) detector, EDAX, resolution 148 eV for MnK α ; camera test: 75 × 75 × 135 cm; X-ray optics: monocapillary with 0.3 mm focal spot (corresponding analysis area); EDAX analysis, nitrogen-cooled. Measurement parameters: atmospheric air, 40 kV voltage tube, tube current 125 μ A, measurement time 300 s, conformation time 35 s, filter Ti 25.
- 10) X-ray fluorescence using the spectrometer belonging to the MAN: INNOV-X Alpha equipped with X-ray tubes, silver anode, operating conditions: 35 kV, 2 μ A. The acquisition times were fixed at 40 s and the quantitative values were calculated from a calibration validated with certified patterns (our thanks to Dres. Ignacio Montero and Carolina Gutiérrez for the information).
- 11) The piece, a fragment of metal sheet, was analysed by the laboratory services of the Instituto del Patrimonio Cultural de España using a scanning electronic microscope coupled with microanalysis by energy dispersive X-ray spectroscopy, giving a composition of 86.3 % Cu and 12.1 % Sn, as well as evidence of corrosion (our thanks to Ms Concepción Rodríguez Ruza, director of Museo de Cuenca at the time we carried out the study on Hispano-Chalchidian helmets, for allowing us to use the unpublished report).
- 12) The data indicated that the *lophos* support (PA22100) is a ternary bronze with little lead, the other analyses being more problematic. On one hand, a fragment of sheet metal soldered by oxidation to the support (PA22102) proved to be of a different leaded bronze alloy with a high proportion of lead, and also contained antimony (Sb), unlike the support, which contained arsenic, a very divergent model of impurities for the same piece, so it could be a fragment of something else. The other pieces of metal plate (PA22100c and d) did belong to the crown, although they showed a high level of iron, probably as a result of oxidation of the rivets that were used to attach the support. Rather different is a button that forms part of the system for anchoring the rings to hold the helmet's *lophos* (crest), which seems to have been filled with lead.
- 13) Fernández Moreno 1997, 15.
- 14) Schulten 1927, 167 pl. 12, 1-2. – Fernández Moreno 1997, 127. – Dobson 2008, 235-239 figs 125-128.
- 15) Fernández Moreno 1997, 111. 117.
- 16) Some of the conclusions of the Schulten's studies are still worthy of recognition, and many of his theories remain valid, although some important qualifications need to be made and some of his interpretations re-evaluated. On this subject, see Schulten 1927, 167-215; 2004, 122-127. – Morales Hernández 2000; 2002. – Jimeno 2002. – Luik 2002, 10-12.
- 17) Schulten 1927, 175-181; 2004, 124-127. – Morales Hernández 2000, 229 f.; 2002, 285. – Dobson 2008, 266-294. – Luik 2009, 54 fig. 7.
- 18) Schulten 1927, 18-25; 2004, 113-138. – Morales Hernández 2000; 2002; 2004. – Jimeno 2002, 166-168; 2004, 242. – Jimeno/de la Torre 2005, 164. – Dobson 2008, 235-405.
- 19) Schulten 1927, 175-181; 2004, 123. – Dobson 2008, 251-258.
- 20) Schulten 1927, 181-188; 2004, 123. – Dobson 2008, 259-266.
- 21) Schulten 1927, 171 f. pl. 23. – Dobson 2008, 235-294. 387-389 fig. 127.
- 22) Morales Hernández 1995, 134.
- 23) Hildebrandt 1979, 245-247. 266. 269-271.
- 24) Romero Carnicero 1990.
- 25) Ibidem 271.
- 26) »Die vorrömischen Ansiedlungen. Zahlreiche Stücke der für die jüngere Neolithik charakteristischen Scherben mit eingravierten geometrischen Mustern lehren, daß Castillejo wie die ganze Gegend von Numantia zuerst von einer neolithischen Bevölkerung bewohnt worden ist [...]. Nicht minder ist vertreten die von den Kelten herrührende Hallstattware, grauschwarze Töpfe mit Nageleindrücken. An einer Stelle im NW wurde unter römischen Pflaster in einer Koch- oder Wohngrube ein ganzes Nest solcher Gefäße gefunden. Auf die älteren Siedler folgten dann, wie aus Resten iberischer Keramik zu entnehmen ist, die Iberer. Besonders wichtig ist das reich bemalte archaische Stück [...], welches sich scharf von der späteren, in den Lagern vorkommenden und ihnen gleichzeitigen, unbemalten oder nur mit einfachen Ornamenten bemalten Gefäßen unterscheidet. Aus dieser Epoche stammen auch die an mehreren Stellen gefundenen Lehmziegel und Webstuhlgewichte aus Thon, die beide massenhaft in Numantia vorkommen« (Schulten 2004, 122).
- 27) Morales Hernández 1995, 128-146.
- 28) Fernández Moreno 1997.
- 29) The remains of a partially excavated circular structure was documented at the base level of the Castillejo hill; associated with the structure are lithic and ceramic finds closely related with those of La Muela de Garray, and cover the period from the Late Chalcolithic to the Early Bronze Age (Fernández Moreno 1997, 113).
- 30) Morales Hernández 1995, 127-131 figs 49-51. – Fernández Moreno 1997, 116 f. – Fernández Moreno's observations (1997, 117) on analysing the Castillejo wall reproduced by A. Schulten (1927, pl. 21) is interesting. He points out that it is quite different from those identified in the Numantine camps, suggesting that it could be older, perhaps dating to the beginning of the Iron Age.
- 31) Romero/Lorrio 2011.
- 32) Morales Hernández 1995, 131 f. fig. 52, 34-36.
- 33) Ibidem 134.
- 34) Ibidem 130 f. fig. 51.
- 35) Morales/Sanz 1994.
- 36) Romero Carnicero 2010, 515 fig. 32.

- 37) Schulten 1927, 170. 214.
 38) Martín Valls 1990, 150.
 39) Lorrio/Olivares 2004, 104-106. 108.
 40) Schulten 1927, 257-259 no. 19 pls 44, 19; 50. – Luik 2002, 189 no. C41 fig. 78 pl. 4, 1.
 41) Graells 2012, 228-231 no. 54 figs 113-115.
 42) Ibidem 101-119.
 43) Tomedi 2000, 94 nos 399-400 pl. 144.
 44) This is in line with the characterisation of the metal, which is quite different from the average proportions of other Celtiberian disc cuirasses (Graells 2012, 121).
 45) One was recovered from a shipwreck in the mouth of the río Seco (Benicarló, prov. Castellón/E) (Graells/Lorrio/Quesada 2014, 73f.) and the other came to light in burial 3 of the necropolis at Los Canónigos (Graells/Lorrio/Quesada 2014, 63-72; Quesada/Valero 2011-2012). The first find has been associated with a possible staging point for recruiting mercenaries from the Iberian Peninsula to fight in the central Mediterranean (Graells 2014, 48. 194f.) that would have marked the point where a route from the Celtiberian area reached the sea. However, we shall not consider the second case further at this point, as it relates to a peripheral Celtiberian area, subject to abundant influences from the Iberian territories.
- 46) Graells 2014, 192. – Graells/Lorrio/Quesada 2014, 161. 259.
 47) Graells/Lorrio/Quesada 2014, 63-72 cat. no. 28.
 48) Ibidem 57-59 cat. no. 24.
 49) Ibidem 8-11 cat. no. 1.
 50) Ibidem 11-15 cat. no. 2.
 51) Ibidem 18-20 cat. no. 4.
 52) Ibidem 15-18 cat. no. 3.
 53) Jimeno et al. 2004.
 54) And with the chronology of the associated fibulae, the only significant elements other than the helmet in the burial's grave goods. They can be dated to the 3rd century BC, although it is true that they were still current in the 2nd century BC.
 55) Graells/Lorrio/Quesada 2014, 170.
 56) Graells 2012, 124-127.

References

- Dobson 2008: M. Dobson, *The Army of the Roman Republic. The Second Century BC, Polybius and the Camps at Numantia, Spain* (Oxford 2008).
- Fernández Moreno 1997: J. J. Fernández Moreno, *El poblamiento prehistórico de Numancia. Fondos del Museo Numantino. Estudios y Catálogos 7* (Salamanca 1997).
- Graells 2012: R. Graells i Fabregat, *Discos-coraza de la Península Ibérica (s. VI-IV a. C.)*. Jahrbuch des RGZM 59, 2012 (2014), 85-244.
 2014: R. Graells i Fabregat, *Mistophoroi ex Iberias. Una aproximación al mercenariado hispano a partir de las evidencias arqueológicas (s. VI-IV a. C.)*. *Archeologia Nuova Serie 1* (Venosa 2014).
- Graells/Lorrio/Quesada 2014: R. Graells / A. J. Lorrio / F. Quesada, *Cascos hispano-calcídicos. Símbolo de las élites guerreras celtibéricas*. *Kataloge Vor- und Frühgeschichtlicher Altertümer 46* (Mainz 2014).
- Hildebrandt 1979: H. J. Hildebrandt, *Die Römerlager von Numantia. Datierung anhand der Münzfunde*. *Madrid Mitteilungen 20*, 1979, 238-271.
- Jimeno 2002: A. Jimeno, *Numancia: campamentos romanos y cerco de Escipión*. *Archivo Español de Arqueología 75*, 2002, 159-176.
 2004: A. Jimeno, *Numancia y los campamentos romanos: investigación y recuperación del pasado*. In: C. Pérez-González / E. Illarregui (eds), *Arqueología militar romana en Europa. Actas (Segovia del 3 al 14 de julio de 2001)* (Salamanca 2004) 237-249.
- Jimeno/de la Torre 2005: A. Jimeno / J. I. de la Torre, *Numancia, símbolo e historia*. *Akal Arqueología 6* (Madrid 2005).
- Jimeno et al. 2004: A. Jimeno / J. I. de la Torre / R. Berzosa / J. P. Martínez, *La necrópolis celtibérica de Numancia*. *Arqueología en Castilla y León 12* (Valladolid 2004).
- Lorrio/Olivares 2004: A. J. Lorrio / J. C. Olivares, *El toro en la Hispania Celta*. *Revista de Estudios Taurinos 18*, 2004, 81-141.
- Luik 2002: M. Luik, *Die Funde aus den römischen Lagern um Numantia im Römisch-Germanischen Zentralmuseum. Kataloge Vor- und Frühgeschichtlicher Altertümer 31* (Mainz 2002).
 2009: M. Luik, *»Der feurige Krieg« – Archäologische Forschungen zu den römischen Lagern um Numantia/Spanien. Ein Überblick*. In: H. Meller (Hrsg.), *Schlachtfeldarchäologie = Battlefield Archaeology. 1. Mitteldeutscher Archäologentag, vom 9. bis 11. Oktober 2008 in Halle (Saale). Tagungen des Landesmuseums für Vorgeschichte Halle (Saale) 2* (Halle/Saale 2009) 49-57.
- Martín Valls 1990: R. Martín Valls, *Los »simpula« celtibéricos*. *Boletín del Seminario de Estudios de Arte y Arqueología 56*, 1990, 144-169.
- Morales Hernández 1995: F. Morales Hernández, *La Altiplanicie Sorianana*. *Carta Arqueológica Soria* (Soria 1995).
 2000: F. Morales Hernández, *Una reinterpretación de la circunvalación escipiónica de Numancia*. *Revista d'Arqueologia de Ponent 10*, 2000, 227-241.
 2002: F. Morales Hernández, *La circunvalación escipiónica de Numancia: viejos y nuevos datos para una interpretación*. In: A. Morillo Cerdán (ed.), *Arqueología militar romana en Hispania. Anejos de Gladius 5* (Madrid 2002) 283-291.
 2004: F. Morales Hernández, *Los campamentos y fuertes romanos del asedio de Numancia*. In: C. Pérez-González / E. Illarregui (eds), *Arqueología militar romana en Europa. Actas (Segovia del 3 al 14 de julio de 2001)* (Salamanca 2004) 251-258.
- Morales/Sanz 1994: F. Morales / A. Sanz, *Una copa de cerámica a mano procedente de »Castillejo«, Garray (Soria)*. *Celtiberia 87-88*, 1994, 253-264.

- Quesada/Valero 2011-2012: F. Quesada / M. A. Valero, Un casco variante del grupo italo-calcídico en la necrópolis de Los Canónigos (Arcas del Villar, Cuenca). In: Homenaje al Prof. Dr. Manuel Bendala Galán I. Cuadernos Prehist. y Arqu. 37-38, 2011-2012, 349-386.
- Romero/Lorrio 2011: F. Romero / A. J. Lorrio, El origen del poblamiento celtibérico en el Alto Duero. In: J. Álvarez-Sanchís / A. Jimeno Martínez / G. Ruiz Zapatero (eds), Aldeas y ciudades en el primer milenio a.C. La Meseta Norte y los orígenes del urbanismo. Complutum 22, 2 (Madrid 2011) 95-127.
- Romero Carnicero 2010: F. Romero Carnicero, Las representaciones zoomorfas en perspectiva cenital. Un estado de la cuestión. In: F. Romero / C. Sanz (eds), De la región vaccea a la arqueología vaccea. Vaccea Monografías 4 (Valladolid 2010) 467-545.
- Romero Carnicero 1990: M. V. Romero Carnicero, Lucernas republicanas de Numancia y sus campamentos. Boletín del Seminario de Estudios de Arte y Arqueología 56, 1990, 257-296.
- Schulten 1914: A. Schulten, Numantia. Die Ergebnisse der Ausgrabungen 1905-1912. 1: Die Keltiberer und ihre Kriege mit Rom (München 1914).
- 1927: A. Schulten, Numantia. Die Ergebnisse der Ausgrabungen 1905-1912. 3: Die Lager des Scipio (München 1927).
- 2004: A. Schulten, Historia de Numancia. Ed. de Fernando Wulff (Pamplona 2004).
- Tomedi 2000: G. Tomedi, Italische Panzerplatten und Panzerscheiben. Prähistorische Bronzefunde III, 3 (Stuttgart 2000).

Zusammenfassung / Summary / Résumé / Resumen

Ein neues Fragment eines hispano-chalkidischen Helmes aus Castillejo (prov. Soria) im RGZM

Dieser Artikel beschäftigt sich mit einem neuen Fragment eines hispano-chalkidischen Helmes. Es wurde zwischen den Funden, die A. Schulten in der Umgebung von Numantia ausgegraben hatte, entdeckt. Die Typologie und der Fundort tragen dazu bei, den Bestand dieses Helmtyps auf nun 33 Exemplare zu erhöhen und deren keltiberischen Charakter zu unterstreichen. Gleichzeitig ist nun eine Diskussion über die Metallzusammensetzung der Gruppe möglich sowie einige Überlegungen zur letzten Stufe ihrer Entwicklung am Ende des 3. Jahrhunderts v. Chr.

A New Fragment of a Hispano-Chalcidian Helmet from Castillejo (prov. Soria) in the RGZM

This paper deals with a new fragment of a Hispano-Chalcidian helmet recovered amongst the finds excavated by A. Schulten in the surroundings of Numantia. The typology and find spot contribute to increase the catalogue of this type of helmets to 33 examples, and reinforce their Celtiberian character. Simultaneously, it allows a discussion on the metallography of the group, and some reflections on the last step of its evolution at the end of the 3rd century BC.

Un nouveau fragment de casque hispano-chalcidique en provenance de Castillejo (prov. Soria) au RGZM

Cet article traite d'un nouveau fragment de casque hispano-chalcidique. Il a été découvert au milieu d'un lot d'objets en provenance des fouilles des environs de Numance menées par A. Schulten. Le lieu de découverte comme la typologie permettent d'implémenter le nombre de casques de ce type à 33, et renforce le caractère celtibère de ce type. Dans le même temps, une discussion métallographique de ce groupe et ses évolutions lors de la dernière phase du 3^e siècle apr. J.-C. sont ainsi relancées.

Traduction: L. Bernard

Un nuevo fragment de casco hispano-calcídico de Castillejo (prov. Soria) en el RGZM

Este artículo trata de un nuevo fragmento de casco hispano-calcídico recuperado entre los materiales excavados por A. Schulten en el entorno de Numancia. La tipología y lugar del hallazgo contribuyen a aumentar el catálogo de este tipo de cascos hasta 33 ejemplares, y a reforzar su carácter celtibero. Al mismo tiempo, permite un debate sobre la metalografía del grupo, y algunas reflexiones sobre el último episodio de su evolución, al final del siglo III a. C.

Schlüsselwörter / Keywords / Mots clés / Palabras clave

Spanien / Iberische Halbinsel / Numantia / Keltiberer / hispano-chalkidischer Helm / Toreutik
 Spain / Iberian Peninsula / Numantia / Celtiberians / Hispano-Chalcidian helmet / toreutics
 Espagne / péninsule Ibérique / Numance / Celtibères / casque hispano-chalcidique / toreutique
 España / Península Ibérica / Numancia / Celtiberia / casco hispano-calcídico / toréutica

Raimon Graells i Fabregat

Römisch-Germanisches Zentralmuseum
 Leibniz-Forschungsinstitut für Archäologie
 Ernst-Ludwig-Platz 2
 55116 Mainz
 graells@rgzm.de

Alberto J. Lorrio

Universidad de Alicante
 Departamento de Prehistoria
 Carretera de San Vicente del Raspeig s/n
 E - 03690 San Vicente del Raspeig
 alberto.lorrio@ua.es

Miguel F. Pérez Blasco

C/ Poeta Quintana 66, 3º izq
 E - 03004 Alicante
 migferpb@gmail.com

INHALTSVERZEICHNIS

Peter Balthasar , Die steinzeitlichen Oberflächenfunde von Ahlendorf (Saale-Holzland-Kreis)	1
Philippe Crombé, Joris Sergant, Yves Perdaen, Erwin Meylemans, Koen Deforce , Neolithic Pottery Finds at the Wetland Site of Bazel-Kruibeke (prov. Oost-Vlaanderen/B). Evidence of Long-Distance Forager-Farmer Contact during the Late 6 th and 5 th Millennium Cal BC in the Rhine-Meuse-Scheldt Area	21
Peter Trebsche , Zur Absolutdatierung der urnenfelderzeitlichen Kupfergewinnung im südöstlichen Niederösterreich	41
Bruno Chaume, Wolfram Ney , Les fibules de type Heuneburg	61
Miloslav Chytráček, Ondřej Chvojka, Markus Egg, Jan John, René Kyselý, Jan Michálek, Stephan Ritter, Petra Stránská , Zu einem Fürstengrab aus der Späthallstattzeit mit zweirädrigem Wagen und Bronzegefäßen bei Rovná (okr. Strakonice) in Südböhmen. Ein Vorbericht	71
Raimon Graells i Fabregat, Alberto J. Lorrio Alvarado, Miguel F. Pérez Blasco , A New Fragment of a Hispano-Chalchidian Helmet from Castillejo (prov. Soria) in the RGZM	91
Matthew E. Loughton , Engraved Amphora Dies from Toulouse »Caserne Niel« (dép. Haute-Garonne): New Evidence Concerning their Function	105
Fabian Gall , Ein römisches Gorgoneion aus Belleben-Haus Zeitz (Salzlandkreis)	125
Lutz Grunwald , Keramische Luxuswaren aus den spätmittelalterlichen Töpfereien von Mayen (Lkr. Mayen-Koblenz). Anmerkungen zu Werkstätten und zwei Krugfragmenten mit anthropomorphen Verzierungen	137

