A New Celtiberian Hacksilber Hoard, c. 200 BCE

PLATES 65-68

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This study presents a Hacksilber hoard recently acquired by the ANS and argues for a significant role for Hacksilber in the monetization of Iberia in the third century BCE

The American Numismatic Society (ANS) received in early 2007 a lot of 136 silver objects (2007.1.1-136) said to be a hoard found at some unknown date in the Iberian Peninsula. There is, unfortunately, no additional information that came with the hoard that might help to establish either a date or exact provenance for the material. Nevertheless, as can be seen in what follows, there is enough internal consistency in both the composition of the lot and the suggesting dating of individual items that we are confident this lot can be considered a single hoard. We cannot say, however, if this lot represents the entire hoard as found, or if there were additional objects, or coins, that were dispersed. Whether complete or not, we argue that the hoard as we have it dates to the end of the third or beginning of the second century BCE, and likely originated from the eastern zone of southern Celtiberia. Although Hacksilber hoards from the second half of the first millennium are not uncommon in Iberia, what makes this new hoard particularly significant is the tiny size of most of the

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^{1.} That is, towards the east of the present Province of Cuenca or in the inner territories of the present Province of Valencia; see Lorrio 1997; *id.* (ed.) 2001b.

fragments. It is argued below that these fragments served a parallel and complementary function as small change alongside, and at times in lieu of, circulating coinage.

This article is divided into four additional sections, the first of which discusses individual pieces of note in the hoard (a full catalogue is found in Appendix 1), the two following sections describe the metrology and chronology, and the final section offers our concluding arguments on the hoard's significance.

THE HOARD

Coins

Among the 136 silver pieces that comprise the hoard eight are identifiable as coins (nos. 1-8), only one of which is complete, the rest being cut into halves, quarters and smaller fragments. Three fragments cannot be attributed with any certainty, although one might be Gaulish (no. 6) and another might be a drachma with Emporitan types (no. 8). The remaining five coins are: one drachma of Arse-Saguntum (no. 1), three Iberian imitations of drachmas of Emporion (nos. 2-4), and a Dyrrachium stater (no. 5). In spite of the small number of coins in the hoard, their presence is significant because they enhance our knowledge of the issues in circulation during the Second Punic War and the first years of the second century BCE.

The Arse-Saguntum issue (no. 1) is of particular interest since this is the first drachma bearing the types,), has been attested². The date of this issue is uncertain, however. Basing his arguments on a metrological scheme that was developed from inadequate data, Villaronga (1967: 104 and 117 ff.) suggested it was minted after 212 BCE, when the city had already been liberated by the Romans; since then he has further revised the date, recently suggesting the final years of the third century BCE (Villaronga 1994: 304-305). A date during the years of the Carthaginian occupation of the city (*ca.* 219-212 BCE) was a hypothesis defended by García-Bellido (1990b: 68-70), who based her arguments on the dispersion of these coins, the denominations struck, and their epigraphy. Her dates, however, have not stood up to continued scrutiny (see below).

A third chronological argument places the production date (long) before the Carthaginian presence in Arse-Saguntum. This dating has been defended by Marchetti (1978: 386-394), Crawford (1985: 343), and Ripollès and Llorens (2002: 279), and is based on the absence of this type in hoards buried during the years of the Second Punic War and the period following; if they were not hoarded at this later date it was because they were out

^{2.} The types, female head wearing Corinthian helmet and legend *arseetar*, have been noted pm fractional coinage; cf. Villaronga (1994), 305, nr. 4; Ripolles and Llorens (2002), nr. 23.

of circulation entirely, or only small quantities remained in circulation at that time. Also, the iconography of the helmeted female figure on the obverse, copying Athena's portrait on the gold staters of Alexander the Great, suggests a date closer to the moment of widening use and diffusion of this iconographic model in the early third century.

The appearance of the drachm in this hoard might seem to lend credence to Villaronga or García-Bellido's dating for the series nearer the years of the Second Punic War. However, the high amount of wear on this piece (note also that it is pierced indicating perhaps that it served as jewelry for an extended period) suggests that it had long been in circulation by the time the hoard was closed around the end of the War (see section 4 below).³ Note also the comparative freshness of the drachms found in the Valeria, Cheste or Tivissa hoards (IGCH 2333-5; Villaronga 1993: nr. 24, 27 and 39), which are likely dated to the earlier part of the third century. Although arguments based on wear are never conclusive because of the large number of variables involved, nevertheless, the evidence provided by this new hoard would seem to support a production date for the drachmas of Arse-Saguntum in the first half of the third century BCE.

The three imitation Emporion drachmas (nos. 2-4) are from various series that were minted in considerable volume (more than 278 obverse dies: Villaronga 1998: 91) during the years of the Second Punic War, a dating deduced from the chronology of the hoards in which the coins have been found (generally late third century or beginning of the second century BCE). The legends indicate that they were issued in diverse locations in the northeast of the Iberian Peninsula. Villaronga (1998: 107-108) has argued that these issues served to finance the Iberian military uprising against the Romans. There are, however, other possibilities that might also explain their existence: they could have equally served the interests of the Romans covering the substantial expenses generated by the war including, for example, the salary of mercenaries or auxiliary troops. Indeed, the designs and the weights of the Iberian imitations suggest that they played a role in some sort of coordinated financial contribution, which was demanded or voluntarily given by the different cities and territories of the northeast. The popularity of the Emporion-type drachms throughout the western Mediterranean would help in this function since their general acceptability was assured, while the expenses of production could be spread out among several allied communities. Also, the idea that the Iberian imitations were issued to finance the native uprising against the Romans fails as an explanation, since they were also minted by cities that were constantly under Roman political and military control, as was the case, for example, with Kese-Tarraco (Villaronga 1998: nos. 102-103).

^{3.} It may also be worth noting that the degree of wear on this coin is similar to other coins that appear to have been in circulation for most of the third century, e.g., the tetradrachm of Antiochus I from the Cuenca-Guadalajara hoard (Ripollès, Cores and Gozalbes, forthcoming).

The presence of the Dyrrhachium stater (no. 5) underscores the fact that during the years of the Second Punic War coins from the eastern parts of the Mediterranean also circulated in Iberia, never in large quantities, but still they appear in many hoards.⁴ Coins minted in Syracuse, Akragas, Neapolis, Tarentum, Metapontum, Athens, Macedonia, Thrace, Asia Minor mints and Dyrrhachium, have appeared in the Bretti, Martos, Moixent (*IGCH* 2328), Tangier, Cuenca, Villarrubia de los Ojos, Valeria (*IGCH* 2334), Plana de Utiel, X4 and Cuenca-Guadalajara hoards.⁵ Regrettably, our Dyrrhachium stater is fragmented—only a quarter remains—which does not allow certain identification of the type, although the features of the *stellate* pattern design of the reverse suggests that it belongs to the group of issues dated between 300 and 200 BCE (cp. *SNG Fitzwilliam Museum* 2540; *SNG Cop* 443-444). Because the coin exhibits little wear it seems reasonable to believe that this coin was minted towards the end of the third century.

The growing body of evidence for the presence of Greek coins in Second Punic War-period hoards is beginning to offer a better picture of the types of coins present and in what numbers they were reaching the west. Crawford (1984: 88) argued that the Greek coins found in the Iberian Peninsula came generally from the regions in the east where Roman troops were operating, and so made their way westward within a Roman military context. Such mechanisms for bringing the coins westward through Italy included the scale of the military activity, the great mobility of the troops in the central and western Mediterranean, and the booties obtained in the east (Crawford 1985: 58). There may have been other non-military mechanisms, like trade, as well, but in any event, the proportion of Greek coins circulating in the Iberian Peninsula was not great. As this hoard shows, any coins that reached Iberia during the turbulent years of the War, and the great financial stress that it brought, were almost certainly put to use, no matter where they were from or who produced them.

Jewelry fragments and Hacksilber⁶

The great bulk of this hoard, as can be seen in Fig. 1, is composed of small silver pieces, which include jewelry fragments (nos. 9-35; 37.22 gm total), rod fragments (nos. 36-52; 23.17 gm total), ingot fragments (nos. 53-83; 29.44 gm total) and plate fragments (nos. 84-136; 26.51 gm total).

^{4.} Arévalo (2002), 1-15, lists the individual Greek coins finds in Iberian hoards for this period. 5. See Villaronga (1993), nos. 11, 15, 18, 21, 25, 26, 27, 34; Sills (2003), 392, no. 77; and Ripollès, Cores, Gozalbes, forthcoming.

^{6.} Martín Almagro-Gorbea, the primary author of section 2.2, made his analysis of the objects based on photographs alone. Because he was not able to study the objects in hand, some of the identifications that follow must be considered preliminary.

Table 1. Components of the Celtiberian hoard

ANS 2007.1	N^{o}	0/0	Accession No.	
Coins	8	5,9	2007.1-8,	
Fibulae	3	2,5	2007.1-14, 16?, 18	
Decorated Sheets	3	2,5	2007.1-9, 17, 128	
Decorated Vases	4	2,9	2007.1-10, 26, 28, 32? 2007.1-84-87, 89, 91-96, 98, 100-105,	
Plain Sheet-fragments of Vases?	37	27,2	107, 110-115, 116?, 117, 119-121, 124, 125, 129, 130, 134, 135	
Wire Torques	6	4,4	2007.1-13, 22, 27, 33, 36, 43	
Massive Bracelets	16	11,8	2007.1-20, 21, 37-42, 44-48, 50-52	
Band-bracelets with decoration	4	2,9	2007.1-12, 15, 24, 35	
Band-bracelets without decoration	14	10,2	2007.1-11, 25, 29, 31, 88?, 90, 97, 109, 122, 126, 127, 131, 132, 136 2007.1-19, 23, 34, 106, 108, 133	
Uncertain Objects	6	4,4		
Ingots Fragments	35	25,7	2007.1-30?, 49?, 53-83, 99, 118?	
TOTAL	136	100		

Brooches or fibulae

Three fragments (nos. 14, 16?, 18) probably belong to La Tène brooches with bilateral coiled wires and a foot turned towards the bow. Two of them (nos. 14 and 18) likely belong to brooches with a hollow bow, decorated with a line of silver grains along the upper border similar to a brooch from the Driebes hoard (San Valero 1945: fig. 3; Raddatz 1969: pl. 8, no. 7; IGCH 2336). The decorative composition, with rings and other soldered elements, is also similar to the brooches of the Pozoblanco (*id.*, pl. 47, no. 7; RRCH 174) and Santiago de la Espada hoards (*id.*, pl. 57, no. 8).

The third fragment (no. 16) may be a part of a foot of a turned La Tène-brooch, probably similar to the silver ones from Pozoblanco (*id.*, pl. 48, nos. 6 and 8; RRCH 174), Palencia (*id.*, pl. 32, no. 2; 42, no. 2), Chão de Lamas (*id.*, pl. 94, nos. 1-2) and Driebes (*id.*, pl. 8, no. 5; *IGCH* 2336), although the Driebes brooch has been interpreted as a neckring or torque end (San Valero 1945: fig. 1, no. 501). This particular type of foot is very common in the La Tène brooches of bronze (Argente 1994: type 8; Lenertz-de Wilde 1991: 22 s. fig. 12, 17, 30, etc.). There are also gold brooches with moulded feet in the Mairena del Alcor (Fernández Gómez 1985; *id.*, 1989: 86) and Puebla de los Infantes hoards, both from Seville (*id.*, p. 87). These brooches also have parallel rings in the border, which served to fix the bow.

Fragments of a decorated metal sheet.

Three fragments are of embossed decorated metal sheets (nos. 9, 17, 128) and all three could possibly be part of the same object: perhaps a decorative rectangular silver plate or band, likely fixed to some leather, wood or cloth object. Their iconography likely consisted of magical motifs, such as circles (possibly of solar meaning), and other sacred symbols, such as wolves-heads and aquatic-birds, all of them characteristic of the Celtic areas of Iberia, as demonstrated by the gold plates from the La Martela (Berrocal 1989) and Serradilla hoards (Almagro-Gorbea 1977: pl. XLVI, no. 1), both in Extremadura. This type of decorated plate with embossed decoration is also typical of other Iberian and Celtiberian silver hoards, such as the Mogón (Raddatz 1969: pl. 27, no. 2; RRCH 200) Salvacañete hoards (*id.*, pl. 49, no. 8; RRCH 205). The same technique is also used in the Lusitanian *lunula* from the Chão de Lamas hoard (*id.*, pl. 90-91, no. 1).

Fragments of decorated vases.

Three metal sheet fragments are decorated with die or embossed motifs (nos. 10, 26, 28); another fragment (no. 32) might also be part of a similarly decorated object. All the fragments have decorations near a thickened border, which is characteristic of Iberian and Celtiberian silver vases.

Fragment no. 10, with die decoration in a U-form, appears to be part of the moulding of a vase. This type of decoration is known from the Driebes hoard, with other close parallels from the Tivisa and the Chão de Lamas hoards. However, this fragment might also be part of the base of a concave-convex decorated vase, similar to those dated to the end of the third or beginning of the second century BCE (Raddatz 1969: 79, 259).

No. 28 has a thicker moulding along the border and a pseudo-rope decoration made by using a chisel with a triangular point (note especially the mark made by this tool in the moulding of the border). This detail confirms that this moulding forms part of the external border of a vase inspired by a Hellenistic-Roman prototype, like the Fuensanta de Martos bowl from Jaén (Raddatz 1969: pl. 4, no. 3a) and a bowl from Santisteban del Puerto (*id.*, pl. 59, no. 5). This simple schema also appears in a vase of an unknown form from the Driebes hoard, perhaps the best parallel for this fragment, although it is of a much better quality.

The third fragment, no. 26, has a thick border below which there is a pseudo-rope

7. Driebes (*IGCH* 2336): Raddatz (1969), pls. 8-11, especially pl. 10, no. 75; Tivisa (*IGCH* 2335): *id.*, pl. 71, nos. 3, 4, 6; fig. 24, no. 5; Chão de Lamas: *id.*, pl. 87, no. 1; and 88, no. 1.

moulding between two thinner mouldings, as well as a line of die triangles in schematic imitation of the classical *ovae* decoration. This decoration is characteristic of Celtiberian vases as seen by examples from the Driebes hoard, in which there were vases decorated with *ovae* under the pseudo-rope moulding (Raddatz, 1969, pl. 8, nos. 18-30), and also decorated with die triangles filled with dots (*id.*, pl. 9, nos. 37-39). The same decoration is found on a concave-convex vase from the Province of Jaén (*id.*, pl. 31, no. 6). Both elements of this decoration appear in the Salvacañete hoard (*id.* pl. 50, nos. 1, 2, 4; *RRCH* 205), but they are known outside of the Celtiberian area only on material from the Santisteban del Puerto hoard (*id.*, pl. 59, no. 3). Finally, fragment no. 32, although is it not a border fragment, might be a strip of die triangles similar to those on no. 26, and so may be from a similar vase.

Plain fragments of vases

The largest group of objects from the hoard—83 pieces, or 27.9% of the total—are fragments of plain silver metal sheets, most of them folded and crumpled.⁸ This act of folding and crumpling, as well as the small size of some of the fragments, make it especially difficult to discern the type of object these fragments come from. However, we can be reasonably certain that most of them are parts of broken vases or plates, a typical component of Celtiberian hoards. Some of the tiny fragments might also be fragments of silver bracelets, ingots or thick metal sheets (e.g., nos. 99, 105, 116, 118).

Folded and crumpled silver sheets from fragmented vases are known from the Driebes and Valeria hoards; broken vase fragments, but not crumpled, are also found in hoards of the Oretania area, such as the Pozoblanco and Santisteban del Puerto hoards.⁹

Wire neckring and/or armring fragments

Another group of fragments (nos. 13, 22, 27, 33, 36 and 43) can be attributed to neckrings or armrings made with silver wire, in many cases twisted. No. 13 belongs to an armring or string twisted neckring. This type of jewelry is common in Iberian silverwork, but the Ibero-Turdetanian examples usually have both thick and fine strings, and of a much more refined work.¹⁰ The same characteristics are known from

^{8.} These are nos. 84-87, 89, 91-96, 98, 100-105, 107, 108, 110-115, 116?, 117, 119-121, 124, 125, 129, 130, 134, and 135.

^{9.} Driebes (*IGCH* 2336): Raddatz (1969), pl. 8-11, 16; Valeria (*IGCH* 2334): *id.*, pl. 81, nos. 1, 11 and 12); Pozoblanco: *id.*, pl. 46, nos. 1, 5; 49, n1 7; Santisteban del Puerto: *id.*, pl. 58, no. 5; 59, nos. 1, 3, 5, 6; 61, nos. 1-3, 14; 62, no. 7; 65, no. 1.

^{10.} Raddatz (1969), pl. 1, no. 2, from Badajoz; 6, nos. 1-2, from Córdoba (*RRCH* 184); 22 and 23, 25,8 and 26, from Mengíbar; 28, from Mogón (*RRCH* 205); 32, from the Province of Jaén; 33, nos.

rings found in Iberian hoards from Tivisa, Tarragona (Raddatz 1969, pl. 69, 2; *IGCH* 2335) and Cheste, Valencia (Ripollès, Ribera 2005: 22; IGCH 2333), and from the neckrings of the *Vaccaei* and *Vettones* in North Meseta, and from a neckring found in Monsanto de Beira in Lusitania. Unlike these examples, however, no. 13 has equal-size strings, a technical detail typical of neckrings from Celtiberian hoards, such as the Driebes, Valeria, and Salvacañete hoards, even though this detail can also be found in some neckrings from Palencia and Lusitania. These kind of neckrings are generally not found in the Iberian area, although there are a handful of examples from the Santisteban del Puerto (Raddatz 1969, pl. 66, no. 2) and Torre de Juan Abad hoards (*id.*, pl. 79, nos. 2, 6 and 7), and two more in the Tivisa hoard (*id.*, pl. 69, no. 6; 72,6; *IGCH* 2335). As a general conclusion, even though these neckrings appear to have circulated widely within the region, they exhibit characteristics closest to Celtiberian silver work.

Fragments nos. 22, 27, 33, 36 and 43 belong to wires of circular cross section of various thickness. Nos. 27 and, perhaps, 33 are twisted, suggesting that they too may be pieces of a neckring or armring. No. 22, on the other hand, has a square end section, a feature generally corresponding to some type of closing in a torque (Raddatz 1969, pl. 14, no. 194; 29, no. 3).

Nos. 22, 33 and 43 are simple wires, perhaps from bracelets or neckrings made with a simple wire.¹³ Fragments of this type of wire with a circular cross section appear in the Celtiberian Driebes hoard; bracelets of made of simple wire appeared in the Salvacañete hoard, suggesting it must have been a common object in pre-Roman Iberian and Celtiberian silver-work.¹⁴

- 1-2, from Orellana la Vieja, Badajoz; 49, nos. 2 and 3, from Pozoblanco (*RRCH* 174); pl. 56, nos. 2 and 4, from Santiago de la Espada; 66, no. 4; 67, no. 2 and 68, no. 1, from Santiesteban del Puerto.
- 11. *Vaccaei*: Ripollès, Ribera (2005), pl. 34 a 38, 41 and 43; Delibes de Castro *et al.* (1993), fig. 2, no. 1 and 2; fig. 6, nos. 2 and 8; *Vettones*: Fernández Gómez (1979); *id.* (1986), fig. 27, no. 7; *Lusitania*: *id.*, pl. 96, no. 1.
- 12. Driebes (*IGCH* 2336): San Valero (1945), fig. 1, no. 24; Raddatz (1969), pl. 12, nos. 129-130 and 13, nos. 131-138; Valeria (*IGCH* 2334): *id.*, 81, no. 2; Salvacañete (*RRCH* 205): *id.*, pl. 51, nos. 1 and 2; Palencia: *id.*, pl. 32, nos. 2 and 34, no. 2; *Lusitania*: *id.*, pl. 89, no. 2 from Chão de Lamas; 93,1, from Indalha; 95, nos. 1, 3 and 4, from Monsanto de Beira.
- 13. Cf. Raddatz (1969), pl. 1, nos. 4-6, from Badajoz; 22, no. 3; 23, no. 3, 4; 25, no. 2, from Mengíbar; 28, no. 5, 31, no. 4, from Mogón (*RRCH* 200); 32, no. 4, from Capsanes; 44, 45, from Palencia; 47, nos. 13, 20, from Pozoblanco (*RRCH* 174); pl. 56, nos. 1, 3; 61, no. 4; 65, no. 2, from Santisteban del Puerto; 84, no. 3, from Cadaval; 87, nos. 2-4, from Chão de Lamas; 96, no. 3, from Montsanto de Beira.
- 14. Driebes (*IGCH* 2336): Raddatz (1969), pl. 13, nos. 171-177; 14, nos. 183, 185, 188-190); Salvacañete (*RRCH* 205): *id.*, pl. 52, nos. 4 and 5.

Solid bracelet fragments.

Nos. 20, 21, 37-42, 44-48 and 50-52 appear to be fragments of a solid circular or polygonal section bar, usually used to make solid bracelets, a type of simple jewelry common in Iberian and Celtiberian silver working (Raddatz 1969: 111).

Most of these fragments have circular cross sections, but with different diameters (nos. 37-42, 44-48, 50 and 52). Bracelets of circular section are well known in Iberian silver work, with examples coming from Albacete, Utiel, El Centenillo, Jaén, Córdoba, Pozoblanco, and Santisteban del Puerto. This type of bracelets also appear in the Vaccean and Vettones silver hoards. However, neckrings with a solid circular cross section are only found in the Palenzuela 3 hoard (Delibes de Castro *et al.* 1993: fig. 2, no. 3), with another example coming from Monsanto de Beira, in Portugal (*id.*, pl. 95, no. 2). This kind of bracelet is also represented in the Celtiberian Salvacañete hoard, and many fragments of these bracelets were found in the Driebes and Valeria hoards. Therefore, it is possible to attribute the ANS fragments more specifically to Celtiberian silver-work and to date them to the end of the third or beginning of the second century BCE.

Three other fragments of solid bracelets have a polygonal cross section (nos. 20, 21 and 51). To date, this type of jewelry has only been found in Celtiberian hoards, such as the Driebes and Valeria hoards, where fragments are also die decorated, and the Salvacañete hoard. This strengthens the arguments for the provenance and chronology of the circular cross section items discussed above, and helps to narrow the provenance for the hoard itself to the southern Celtiberian area.

Decorated band bracelet fragments.

Four fragments (nos. 12, 15, 24 and 29) are likely parts of wide decorated band bracelets with a serpent or snake-form decoration. A traditional Mediterranean decorative element with symbolic and magical meaning, the snake-form was widely used in pre-

- 15. Albacete: Raddatz (1969), pl. 3, no. 3; Utiel: *id.*, pl. 3, nos. 4, 5; Lorrio (2001b), fig. 2,4-5; El Centenillo, Jaén: *id.*, pl. 4, no. 4; Córdoba: *id.*, pl. 6, nos. 10, 11; Pozoblanco (*RRCH* 174): *id.*, pl. 47, no. 14; Santisteban del Puerto: *id.*, pl. 65, no. 3; 66, no. 1; 67, nos. 1, 3; 68, no. 2.
- 16. Vaccean: Lorrio (2001b), pl. 38, no. 4; 39; 40, no. 2, from Palencia; Delibes de Castro *et al.* (1993), fig. 2, nos. 4, 5; Vettones: Fernández Gómez (1979), *id.* (1986), fig. 27, no. 8.
 - 17. Salvacañete (*RRCH* 205): Delibes de Castro *et al.* (1993), pl. 51, no. 9; 52, nos. 1, 3, 8-10; Driebes (*IGCH* 2336): San Valero (1945), fig. 2, no. 222; Raddatz (1969), pl. 13, nos. 152-169; Valeria (*IGCH* 2334): *id.*, pl. 81, nos. 4, 5, 14.
- 18. Driebes (*IGCH* 2336): San Valero (1945), fig. 1, no. 13; Raddatz (1969), pl. 13, nos. 145-151; Valeria (*IGCH* 2334): *id.*, pl. 81, nos. 3, 6; Salvacañete (*RRCH* 205): *id.*, pl. 51, no. 8.

Roman Iberian jewellery (Raddatz 1969: 111).

Fragment no. 15 is probably the end of a bracelet decorated with a snake head motif, its eyes as two semi-spherical protuberances, another two at the end representing the nostrils. These anatomic details are common in this kind of bracelet, as are the thick borders and line of chisel dots in the center. This type of snake-form bracelets is known from several Iberian hoards, such as the Córdoba, Capsanes, Pozoblanco, Santisteban del Puerto and Tivisa hoards. While the examples from these hoards tend to be more realistic, the Vaccean snake-bracelets are more schematic. Other narrower snake-form bracelets are not close parallels to the pieces from this hoard.

From the Celtiberian Driebes hoard come fragments of snake-form bracelets that have a preserved snake head on its end (San Valero 1945; fig. 7; Raddatz 1969, pl. 14, no. 196). Normally this element is lost (*id.*, nos. 197, 219), which makes it difficult to identify the typology. This type of bracelet is also present in the hoards from Salvacañete (*id.*, pl. 53, nos. 3 and 4) and Los Villares, Valencia (Martínez 1986; Lorio 2001: fig. 2,6), which confirms the use of this type of bracelet by the Celtiberians.

The schema of fragment no. 15 derives from Iberian prototypes, like the ones from Córdoba (*vid. supra*), but the Iberian bracelets have more realistic features than the die decoration of the Driebes piece, which is closest to the Vacceas examples belonging to the Celtic peoples from Meseta. Although there is no exact parallel for our fragment, the long head is reminiscent of the fragment of the Pozoblanco bracelet, and those from Capsanes and Los Villares. The eyes of no. 15, however, are closest to those on a gold brooch from Cheste (*IGCH* 2333).²² Other examples of La Tène jewellery, like the bracelets from the Driebes hoard (*IGCH* 2336),²³ show a very different stylistic structure.

Fragment no. 12 has two rows of decorations made with a U-shaped die situated between the lateral and central borders. This decoration derives from an Iberian prototype, like that found on the Capsanes bracelet (Raddatz 1969, pl. 32, no. 5), but the technique used is not similar to that found on the Celtiberian or Vaccean bracelets. This could mean that this piece came from an unknown workshop in southern Celtiberia, perhaps near the Iberian Mediterranean region. The same can be said for fragments nos. 24 and 29.

The fourth fragment, no. 35, is the most peculiar of our lot. Very narrow, it is

^{19.} Córdoba (*RRCH* 184): Raddatz (1969), pl. 6, nos. 9, 12, 13; Capsanes: *id.*, pl. 32, no. 5; Pozoblanco (*RRCH* 174): *id.*, pl. 47, no. 21, one with a philiform appendix: pl. 49, no. 4; Santisteban del Puerto: *id.*, pl. 60, no. 2; 61, no. 8; Tivisa (*IGCH* 2335): Raddatz (1969), pl. 72, no. 7.

^{20.} Raddatz (1969), pl. 36, no. 2; 37, no. 3; 40, no. 1; 44, nos. 4-6, from Palencia; Delibes de Castro *et al.* (1993), 429 s., fig. 6, nos. 4, 5.

^{21.} E.g., Delibes de Castro et al. (1993), pl. 1, no. 1, from Badajoz.

^{22.} Ripollés and Ribera (2005), 22; Lenerz-de Wilde 1991: 159 s., fig. 117.

^{23.} San Valero (1945), fig. 4, pl. VIII; Raddatz (1969), pl. VII.

decorated with two concave borders formed by two lines of triangles made with the point of a chisel, each along the side of the central convex rim. This detail is similar to that on no.12, and to the Capsanes bracelet. It also ends in with a philiform appendix like that on the Pozoblanco bracelet (Raddatz 1969, pl. 49, no. 4; *RRCH* 174), which is also similar to a Driebes badge/pin (*id.* pl. 12, no. 97; *IGCH* 2336).

In sum, these bracelet fragments prove the existence of a Celtiberian jewelry tradition, different in its technical and stylistic features from those already known. This tradition seems to have been located in southern Celtiberia, but a region close to the Iberian Mediterranean might also be possible.

Simple band bracelet fragments.

Thirteen fragments (nos. 11, 25, 29, 31, 88?, 90, 97, 109, 126, 127, 131, 132 and 136) are undecorated bands or parts of bands of different sizes probably prepared for use in bracelets. A number of them (nos. 25, 31, 88?, 90 and 131) show the characteristic two thick borders or rims typically seen on this type of bracelet. Although the type with thickened borders is not widely dispersed, simple wide-band bracelets are known from hoards from Badajoz (Raddatz 1969: pl. 1, no. 3) and Driebes (*id.*, pl. 14, nos. 224 and n° 225, 226; *IGCH* 2336). The abundance of fragments in the ANS hoard could again point to a southern Celtiberian workshop.

Unidentified fragments.

While exhibiting general traits of broken jewelry or plate, fragments nos. 19, 23, 34, 106, 108 and 133 cannot be placed under any specific rubric. No. 19 is a metal sheet with circular perforations, strengthen by a welded metal string border. No. 23 appears to be turned; its fabric also appears to be related to no. 106, a rolled up sheet with three decorative rises. This technical feature is reminiscent of the band-bracelets, but its function remains unknown.

No. 34 is a straight rod with a rectangular cross section narrowing towards one of its ends. A possible parallel, 64 mm long, came from the Santiago de la Espada hoard (Raddatz 1969: 250, no. 20; pl. 56, no. 6), but we have no suggestions for the type of object both of these rod fragments might have belonged to. No. 108 is a silver sheet with a metal string passing through a perforation; a possible parallel came from the Driebes hoard (Raddatz 1969, pl. 15, no. 258; *IGCH* 2336). Finally, no. 133 is a silver sheet in tubular form with a circular perforation, which might have been a part of a hollow bow of a La Tène-brooch (cf. nos. 14 and 16, *vid. supra*).

Ingot fragments.

The second largest group of items from the hoard are 35 ingot fragments and silver smelting-drops (nos. 30?, 49?, 53-83, 99, 118?). These sorts of pieces are well known from pre-Roman silver Iberian hoards (Raddatz 1969: 54ff.; Hildebrand 1993: 172ff.). In Celtiberia, large ingots came from the Driebes hoard (Raddatz 1969: pl. 18, nos. 331-340; *IGCH* 2336), which included both smelting-drops and ingots (*id.*, pls. 19, 21). They also formed part of the Valeria hoard (*id.*, pl. 81, nos. 15-22; *IGCH* 2334) and "melted silver bars" were found in the hoards from Cheste and Los Villares.²⁴ Other silver smelting-ingots fragments came from Andalusian hoards: Cuesta del Rosario, in Sevilla, Martos, Cordoba, Santiago de la Espada and Santisteban del Puerto.²⁵

While ingots of this types appear to be a frequent component of pre-Roman Iberian hoards generally, their presence also in Celtiberian hoards from Driebes, Valeria, Los Villares and Cheste (*IGCH* 2330, 2333-4 and 2336), would also indicate that they are an important element of southern Celtiberian hoards more specifically.

HOARD PARALLELS

The best general parallels for this hoard are the Celtiberian hoards from Driebes in Guadalajara, and Valeria in Cuenca;²⁶ other close parallels are the Hacksilber hoards of Cheste, Los Villares in Valencia, Cuesta del Rosario in Sevilla, Martos and Córdoba, and Santiago de la Espada and Santisteban del Puerto in the silver-mines region of the *Oretani*.²⁷

A specific south-eastern Celtiberian provenance for this hoard is suggested by a number of the fragments, some of which have no parallels in other pre-Roman silver-working regions. Plate and vases with borders decorated with chisels are typically found in Celtiberian hoards, as are fragments of crumpled vases, which to date have appeared only in the Driebes and Valeria hoards, both of which also contain

- 24. Cheste (*IGCH* 2333): Zóbel de Zangróniz (1878), 162-172; Ripollès and Ribera (2005), 19; Los Villares (*IGCH* 2330): Pla (1960), pl. 1, no. 6.
- 25. Cuesta del Rosario: Fernández Chicarro (1944), fig. 3; Martos: Villalonga 1983; Cordoba (*RRCH* 184): *id.*, pl. 6, no. 5; Santiago de la Espada: *id.*, pl. 56, nos. 8-13; Santisteban del Puerto: *id.*, pl. 61, n° 7 and 12.
- 26. Driebes (*IGCH* 2336): San Valero (1945); Raddatz (1969), 210; Valeria (*IGCH* 2334): Almagro Basch and Almagro-Gorbea (1964); Raddatz (1969), 266 and ff.
- 27. Cheste (*IGCH* 2333): Zóbel de Zangróniz (1878), 162-172; Ripollès and Ribera (2005), 19; Los Villares (*IGCH* 2330): Pla (1960), pl. 1, no. 6; Cuesta del Rosario: Fernández Chicarro (1944), Martos: Villalonga (1983); Córdoba (*RRCH* 184), Raddatz (1969), pl. 6, no. 5; Santiago de la Espada: *id.*, pl. 56, nos. 8-13; Santisteban del Puerto: *id.*, pl. 61, nos. 7 and 12.

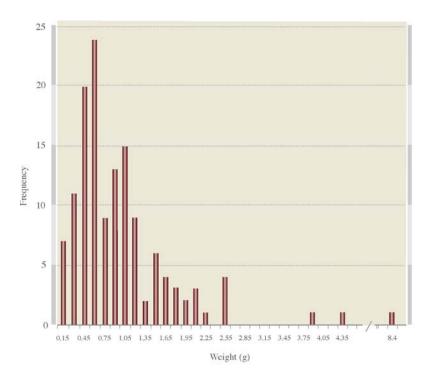


Fig. 1. Histogram of weights of all objects from the hoard

Gaulish coins à la croix, like the hoard of La Plana de Utiel (Ripollés 1980). Bracelets of simple wire, twisted torques, and massive bracelets with circular cross section are widely dispersed across the Iberian Peninsula, but bracelets with polygonal cross section have only appeared in the hoards of Driebes, Valeria and Salvacañete, which points again to southern Celtiberia. The band-bracelet fragments from this hoard, with their crude decorative techniques excluding an origin from Andalusia and the Vaccaean territory, are perhaps from a heretofore unknown series of Celtiberin jewellery. Certain stylistic details of these fragments, particularly the emphasized semiglobular eyes of the snake-head on one of the pieces (no. 15), which is similar to those on the gold annular brooch from Cheste (see above), suggest that this new group came from the eastern zone of southern Celtiberia (see n.1 above).

METROLOGY

The statistical analysis of the weight of all objects contained in the ANS hoard emphasizes the small size and weights of the items: 93% of the 136 pieces weigh less than 2 gm. Although the weights of the individual pieces might appear quite irregular, peaks in the

histogram (Fig. 1) show prominent groupings around the intervals of 0.45-0.60 gm and 0.9-1.05 gm, and less prominent, but perhaps still significant groupings around 1.35-1.50 gm and 1.95-2.10 gm. These four concentrations might indicate a desire to produce fractional pieces at intervals of 0.5-0.6 gm. If this is, in fact, what we are observing, these intervals could be explained as rational fractions of the prevalent 4.5 gm silver coin standard used for both the Roman denarius and the Emporitan drachms (and their Iberian imitations). Indeed, the peak at 0.45-0.60 gm corresponds to the Emporitan and Iberian fractions (see Conclusions below). As would seem to be the case elsewhere (cf. Kim and Kroll 2008, this volume), transactional needs could have dictated the use of smaller silver pieces in a wider variety of rationalized weights than was provided by the coinage in circulation. The presence of fragmented coinage in this hoard along with miniscule pieces of Hacksilber is also strongly suggestive of a parallel and complementary use of coinage and Hacksilber to cover a broad range of transactions, from the smallest to the greatest. The lowest weight piece in the hoard, no. 123 at just 0.03 gm, is also suggestive of either very low value transactions, or the need for such tiny pieces to fine tune the scales in a transaction.

Table. 2. Statistical values of all silver objects in the hoard (measures in grams).

Number	Total weight	Mean	Median	Dev. stand.	Max. weight	Min. weight
136	126.62	0.931	0.73	0.9389	8.39	0.03

CHRONOLOGY

While a number of pieces of jewelry from the hoard have parallels that can be dated to the end of the third century or beginning of the second century BCE, which have also appeared in hoards of Hacksilber that are analogous to the ANS hoard (García-Bellido 1990b: 110-111; Villalonga, 1993: 70 s.; Hildebrandt 1993: 186), it is the coins from this hoard that provide the best dating evidence. Of the coins, the fragments of Iberian imitation of Emporitan drachmas (nos. 2-4) suggest a burial date of around 200 BCE. It is clear from the X4 (Sills 2003: 392, no. 77) and Orpesa la Vella hoards (Ripollès 2005:15-34), both of which contained a great quantity of these issues, that these coins had already been struck by 206 BCE. Despite their fragmented state, the preservation of the types on the drachms in the ANS hoard is good, indicating that the coins had not been in circulation long before they met the chisel. On this basis we propose that the hoard was buried within a reasonably short period after *ca.* 206 BCE. Whether this period was a few years later while the Second Punic

^{28.} See Villaronga (2003), 77-81 and (1998), 45-56. The Roman denarius standard is more likely to have been used than the Carthaginian shekel standard (*c*. 7.20-6.8 gm); see Villaronga (1973), 97-98.

War was still raging, or in the first decade of the second century after the war had ended, we cannot say with certainty, although the lack of Roman issues in the hoard (as we have it) could be indicative of an earlier date, before they had reached wider circulation in Iberia.

Conclusions

That this hoard was assembled around the end of the Second Punic War has potentially significant interpretive consequences. In the final years of the third century, the Iberian Peninsula was the scene of competing interests and outright war between the most important powers of the western Mediterranean, generating some of the most impressive troop movements yet seen in the west. As the war between the Romans and the Carthaginians progressed, silver, especially in the form of coinage, increasingly became the primary means of financing the war (Marchetti 1978: 385; Villaronga 1984b). Both warring parties were motivated to put into circulation a huge volume of coinage paid out to their armies, which in turn was spent in the regional economies. The financial stress produced by the war and the insatiable demand for currency led both sides (Romans and Carthaginians) to adopt many types of coins, not just their own, to meet their expenses, including at times the coins of their adversaries and local communities acquired as booty or extractions from conquered territories (cf. Crawford 1985: 70-71). This mixing of coinages was exacerbated by mercenary soldiers switching sides in the fight and bringing their accumulated wealth in coins with them to the other side. Such mechanisms would explain why Iberian hoards of this period generally have such a broad mix of coinages, including Carthaginian, Roman, Emporitan and Iberian imitation issues, as well as diverse Greek pieces coming from South Italy, Sicily, Macedonia, Thrace and Asia Minor.

While the influx of many diverse types of coinages undoubtedly increased the potential for using coins in a variety of monetary transactions, the concurrent presence of silver bullion (Hacksilber) in Iberian hoards of this period—and before and after—attest to the continuing importance of this type of private, rather than state-sponsored, monetary instrument and the behavior patterns, e.g., weighing silver in transactions, that its presence implies. Although hoards containing silver fragments, both formless chunks and complete or cut jewelry, were until recently considered to be primarily non-monetary stores of metal for use by silversmiths vel sim. (cf. Hébert 1998: 80-84), the monetary role Hacksilber and other forms of uncoined metal has become more apparent, even in areas, like the archaicand classical-period Aegean and Near East, that saw considerable use of coinage.²⁹ This hoard, and other Iberian hoards containing Hacksilber, especially those coming from the interior areas, show that by the end of the third century BCE the practice of storing wealth and

^{29.} See especially Kim and Kroll (2008); Kroll 2007; Balmuth 2001; and van Alfen 2004-05a and b.

transacting in weighed silver bullion was widespread (cf. Ripollès 2004: 333-344).

This monetary use of silver bullion did not begin in the Iberian Peninsula during the years of the Second Punic War, but existed previously, as can be deduced from the fact that hoards buried during the fourth century BCE contained noticeable quantities of cut silver, as is the case with the Pont de Molins and Montgó hoards.³⁰ Initially, during the fifth and fourth centuries BCE, the use and circulation of Hacksilber seems to have been limited primarily to the Mediterranean coastal strip. During the years of the Second Punic War, however, the practice spread further inland as the scale of use also increased.

We do not know if silver bullion was ever used as a primary means of paying mercenaries or distributing booty, that is, if it was ever formally adopted by the warring states as a contingent means of payment in lieu of their own specie, but no matter how it made its way into circulation, the bullion served a function that coinage did not. As this hoard vividly demonstrates, with 81% of all the silver pieces of the hoard weighing between 0.03 and 1.2 gm, bullion filled in the lower range of the monetary spectrum where no coin of such small, and apparently needed size existed, or, if they existed, were not in adequate supply to meet demand.

On this point, it is noteworthy that the major peak in the weights of these silver fragments (0.45-0.60 gm; Fig. 1) corresponds closely to the weight of one important contemporary fractional coinage, which was issued in significant volume in the northeast and eastern parts of the Iberian Peninsula. These Emporitan, Iberian imitations of Massaliotan and Emporitan fractions, as well as other small silver coinages coming from uncertain mints (Villaronga, 1994, 24/46-49, 56-59/131-158A, 59-60/160-169B, 77-78/1-13), have average weights between *ca.* 0.40 and 0.60 gm; smaller fractions have still lower average weights. The high demand for these fractions is seen in their frequent appearance in Second Punic War hoards generally, and in particularly great number in the Villarrubia de los Ojos (Ciudad Real) hoard (García Garrido 1990).³¹

From a monetary standpoint, this new ANS hoard provides evidence not for the general use of monetary Hacksilber in the Iberian Peninsula, which had begun centuries earlier, but for a mode of monetization that was both deepening, in terms of the range of transactions accommodated by Hacksilber, and widening, in terms of its geographical expansion, and one that was also exhibiting tremendous flexibility in its concurrent

^{30.} Pont de Molins (*IGCH* 2313; Campo 1987): ingots and Hacksilber weighing *ca*. 2 kg; Montgó: (Chabás (1891), 59-64; *IGCH* 2312): 1 kg in the form of complete or fragmented silver ingots, Hacksilber, as well as 108 g in worked objects.

^{31.} Although the evidence for prices in this period is limited, we get a sense for why there was such a demand for fractional coinage, and corresponding Hacksilber, from two passages in Polybius: the wage of a legionary was two obols per day (= ca. 0.75 gm of silver; Polybius VI, 39, 12), while a night's stay at an inn in Galia Cisalpina was a semis (= ca. 0.19 gm of silver; Polybius II, 15, 6).

(unregulated?) use of multiple monetary instruments to achieve the same transactional goals.

APPENDIX 1: CATALOGUE

I. Coins

Subtotal: 10.28 g.

I. Coins

1. Arse. Drachma.

Obv.: Female head, with Corinthian helmet, to r.

Rev.: Bearded man-faced bull, advancing to r.; above, Iberian legend ([a] rsee[tar]); crescent in front.

AR. 2.43 gm. Pierced.

Ripollès and Llorens 2002: nr. 23a. ANS 2007.1.1

2. Iberian imitation of Emporitan drachma.

Obv.: Wreathed female head r.; three dolphins around (only one visible).

Rev.: Pegasus r.; [head in form of a small crouching figure]; below crescent and Iberian legend .

AR. 1.0 gm. Fragmented: 1/4. Villaronga 1998: n° 311-330. ANS 2007.1.2

3. Iberian imitation of Emporitan drachma.

Obv.: Wreathed female head r.; three dolphins around (only one visible). Rev.: Pegasus r.; head in form of a small crouching figure; [below Iberian legend?].

AR. 2.50 g. Fragmented: 1/2. ANS 2007.1.3

4. Iberian imitation of Emporitan dra chms.

Obv.: [Wreathed] female head r.; [three dolphins around].

Rev.: Pegasus r.; head in form of a small crouching figure; [below Iberian legend?].

AR. 1.41 gm. Fragmented: 1/4. ANS 2007.1.4

5. Stater of Dyrrachium. 300-200 BCE Obv: Cow sucking calf; no circle of dots.

Rev: Double stellate pattern in square frame.

AR. 0.99 gm. The design of the stellate pattern has similarities with coins minted before 200 BC, see SNG Fitzwilliam Museum 2540; SNG Cop 443-444. ANS 2007.1.5

6. Not identified. Gaulish?

Obv.: Part of a male head?

Rev.: Traces of a non-identified figure. AR. 0.99 gm. Fragmented: trapezoidal shape.

ANS 2007.1.6

7. Not identified.

AR. 0.60 gm.

ANS 2007.1.7

282

8. Not identified. AR- 0.45 g. ANS 2007.1.8

II. Jewelry Fragments

Subtotal: 37.22 g

9. Chisel-worked sheet fragment Small fragment of a silver plate chiselworked repujada. Rectangular form, with three concentric circles around a central point, with additional linear elements. The upper portion of the piece is missing, and it appears to have been nailed to some object.

Weight: 0.44 gm. ANS 2007.1.9

10. Sheet fragment

Fragment of a silver plate object, dubbed, doubled and folded. Linear elements along one edge, perhaps from a weld.

Weight: 2.15 gm. ANS 2007.1.10

11. Band fragment

Fragment of a band, folded and twisted into a spiral.

Weight: 1.01 gm. ANS 2007.1.11

12. Die-decorated plate fragment Doubled over plate fragment, one side with U-shaped die-made decorations, the other side smooth.

Weight: 2.05 gm. ANS 2007.1.12

13. Wire fragment

Wire fragment formed by 3 or 4 wires of silver, braided into an S and fused,

possibly belonging to the foot of a fibula, or an arm/neckring (torques) or a bracelet (viria).

Weight: 2.08 gm. ANS 2007.1.13

14. Brooch fragment

Fragment of a tube, the upper portion of which has a rim with a small cord border. Two small balls are welded into one end, three small rings into the other, one longitudinal and two in parallel, a welded band under the rings.

This fragment could belong to a bow fibula or brooch of the La Tène-type.

Weight: 1.62 gm. ANS 2007.1.14

15. Bracelet fragment

Fragment of the end of a bracelet with band section finished in the form of a snake head, two semi-globular eyes and other two semi-globular protuberances for nostrils at the end. The edges are raised with a central, chisel-worked spine. The interior face is smooth.

Weight: 0.53 gm. ANS 2007.1.15

16. Fibula fragment?

Tubular fragment with a small rod, decorated with a line of dots, welded to one side. The tube appears to have been tapered.

Weight: 1.01 gm. ANS 2007.1.16

17. Chisel-worked plate fragment Fragment of a rectangular small plate, with chisel-worked decoration. The edges are decorated with a series of perpendicular lines, the interior the center of a motif perhaps featuring two wolves heads and two aquatic birds. This fragment may be related to no.

9.

Weight: 0.43 gm. ANS 2007.1.17

18. Decorated rod fragment

Fragment of a rod with circular cross section, decorated with three spheres made with a chisel or fused, the largest sphere in the center with two smaller on both sides, one of which is decorated with incised lines. It may be a fragment of a high foot of a brooch of La Tène scheme.

Weight: 8.39 gm. ANS 2007.1.18

19. Plate fragment with circular opening Fragment of a plate with a circular perforation reinforced by a rim formed by a welded wire of circular section.

Weight: 0.41 gm. ANS 2007.1.19

20. Fragment of bar of octagonal cross section

This fragment may belong to a neckring or to a bracelet.

Weight: 4.35 gm. ANS 2007.1.20

21. Fragment of bar of square cross section

Weight: 0.57 gm. ANS 2007.1.21

22. Rod fragment

Square cross section at one end, circular at the other. It seems to have been

slightly twisted. Weight: 0.17 gm. ANS 2007.1.22

23. Fragment

Fragment that seems to have been turned due to mouldings of semicircular section, separated by a larger concave moulding. The piece seems to be slightly twisted.

Weight: 0.55 gm. ANS 2007.1.23

24. Bracelet fragment

Fragment of band with lateral rims and a line of chiselled points in the middle; the other face is smooth. It may belong to 15.

Weight: 0.40 gm.

25. Bracelet fragment

Fragment of band with lateral rims; the other face is smooth.

Weight: 0.85 gm. ANS 2007.1.25

26. Chisel and die-worked plate fragment

Fragment of plate with thickened edge below which chisel-worked cord decoration between two fine riders, and a series of die-formed triangles imitating very schematic ovae.

Likely the edge of a vase with concaveconvex profile (cf. Raddatz, 1969, pl. 8,19).

Weight: 0.36 gm. ANS 2007.1.26

27. Twisted rod or wire fragment Possibly part of a torque or neckring

made with braided wires.

Weight: 0.95 gm. ANS 2007.1.27

28. Chisel-worked plate fragment Fragment of a small plate with thickened edge, below which chisel-made cord decoration.

Possibly part of a chaliciforme vase (cf. Raddatz, 1969, pl. 9, n° 32, 42-47, etc.).

Weight: 0.33 gm. ANS 2007.1.28

29. Folded band fragment

Folded band fragment with lateral rims along which small oblique chisel-cuts. The other face is smooth. Possibly part of a band-bracelet.

Weight: 1.04 gm.

30. Small ingot (?) fragment Possible test cut in one face

Weight: 1.37 gm. ANS 2007.1.30

31. Folded band fragment

Possible band bracelet fragment with well-defined lateral rims. Its inferior

face is smooth. Weight: 1.52 gm. ANS 2007.1.31

32. Decorated plate fragment

Fragment of plate with a chiselled decoration forming a line of triangles.

Weight: 1.66 gm. ANS 2007.1.32

33. Twisted rod fragment

Fragment of a rod or wire of circular cross section slightly twisted that could be part of a wire neckring of braided wires.

Weight: 1.05 gm. ANS 2007.1.33

34. Twisted rod fragment

Fragment of a rod with rectangular cross section that is narrowed or sharpened towards one of the ends. Likely not part of a wire neckring formed by twisted elements.

Weight: 1.55 gm. ANS 2007.1.34

35. Chiselled band fragment

Fragment of a silver-tape with its end sharpened as a wire. It is decorated with two lines of chiselled lines of triangles in opposite sense separated by one slight central rime.

Weight: 0,38 g.

III. Rod Fragments

Subtotal: 23,17 g.

36. Fragment of wire with circular cross section

It is slightly faceted in the middle.

Weight: 1.88 gm. ANS 2007.1.36

37. Fragment of bar with circular cross

section

Folded and broken in middle. It has copper concretions like no. 41.

Weight: 1.26 gm. ANS 2007.1.37

38. Fragment of bar with circular cross

section

Weight: 1.04 gm. ANS 2007.1.38

39. Fragment of bar with circular cross section Note size.

Weight: 0.73 gm. ANS 2007.1.39

40. Fragment of heavy wire with circu-

lar cross section It is slightly twisted. Weight: 0.82 gm. ANS 2007.1.40

41. Fragment of heavy wire with circu-

lar cross section Weight: 0.59 gm. ANS 2007.1.41

42. Fragment of heavy wire with circu-

lar cross section Weight: 0.93 gm. ANS 2007.1.42

43. Fragment of wire with circular cross section Weight: 1.04 gm.

ANS 2007.1.43

44. Fragment of wire with circular cross section Weight: 1.29 gm.

ANS 2007.1.44

45. Fragment of bar with circular cross section Possible smelting-flashes on one side.

Weight: 1.39 gm. ANS 2007.1.45

46. Fragment of bar with circular cross section. Note copper concretions as on

42.

Weight: 1.76 gm. ANS 2007.1.46

47. Fragment of bar with circular cross

section

Note cut marks. Weight: 1.37 gm.

ANS 2007.1.47

48. Fragment of bar with circular cross

section

Note cut marks. Weight: 1.87 gm. ANS 2007.1.48

49. Fragment of bar with circular cross

section

Note that one portion is oval in cross

section. Weight: 3.85 gm.

ANS 2007.1.49

50. Fragment of bar with circular cross

section

Note cut marks Weight: 1.36 gm. ANS 2007.1.50

51. Fragment of bar with hexagonal

cross section Weight: 0.8 gm. ANS 2007.1.51

52. Fragment of bar with circular cross

section

Weight: 1.19 gm. ANS 2007.1.52

IV. Hacksilber Subtotal: 29,44 g

53. Cut ingot fragment

Weight: 1.52 gm. ANS 2007.1.53

54. Cut ingot fragment

Note copper concretions.

Weight: 1.13 gm. ANS 2007.1.54

55. Cut ingot fragment

Weight: 0.83 gm.

ANS 2007.1.55

56. Cut ingot fragment

Flattened (slightly to thicker than foil).

Weight: 0.57 gm. ANS 2007.1.56

57. Cut ingot fragment

Note flashes. Weight: 2.55 gm. ANS 2007.1.57

58. Cut ingot fragment

Weight: 1.66 gm. ANS 2007.1.58

59. Cut ingot fragment

Flattened (slightly to thicker than foil).

Weight: 0.75 gm. ANS 2007.1.59

60. Cut ingot fragment

Note flashes. Weight: 0.46 gm. ANS 2007.1.60

61. Cut ingot fragment

Note cut marks. Weight: 0.59 gm. ANS 2007.1.61

62. Cut ingot fragment

Weight: 0.52 gm. ANS 2007.1.62

63. Cut ingot fragment

Weight: 0.50 gm. ANS 2007.1.63

64. Cut ingot fragment

Possibly a coin fragment.

Weight: 1.19 gm. ANS 2007.1.64

65. Cut ingot fragment

Weight: 0.45 gm. ANS 2007.1.65

66. Cut ingot fragment

Weight: 2.52 gm. ANS 2007.1.66

67. Cut ingot fragment

Note copper concretions.

Weight: 0.65 gm. ANS 2007.1.67

68. Cut ingot fragment

Weight: 0.72 gm. ANS 2007.1.68

69. Ingot fragment or drop of silver

smelting

Note copper concretions.

Weight: 0.56 gm. ANS 2007.1.69

70. Cut ingot fragment

Weight: 0.78 gm. ANS 2007.1.70

71. Ingot fragment or drop of silver

smelting

Weight: 0.81 gm. ANS 2007.1.71

72. Ingot fragment or drop of silver

smelting

Weight: 1.09 gm. ANS 2007.1.72

73. Cut ingot fragment

Weight: 1.10 gm. ANS 2007.1.73

74. Ingot fragment or drop of silver

smelting

Weight: 1.99 gm. ANS 2007.1.74

75. Cut ingot fragment Weight: 1.19 gm. ANS 2007.1.75

76. Cut ingot fragment

Flattened.

Weight: 0.46 gm. ANS 2007.1.76

v77. Ingot fragment or drop of silver smelting Flattened oval form.

Weight: 0.52 gm.

78. Cut ingot fragment Note copper concretions.

Weight: 1.03 gm. ANS 2007.1.78

79. Cut ingot fragment Weight: 0.56 gm. ANS 2007.1.79

80. Ingot fragment or drop of silver smelting Weight: 0.49 gm.

ANS 2007.1.80

81. Cut ingot fragment Weight: 0.99 gm. ANS 2007.1.81

82. Cut ingot fragment One edge beveled. Weight: 0.39 gm. ANS 2007.1.82

83. Cut ingot fragment One edge beveled. Weight: 0.87 gm. ANS 2007.1.83

V. Foil

Subtotal: 26,51 g. 84. Plate fragment Folded and crumpled. Weight: 1.18 gm.

ANS 2007.1.84 85. Plate fragment Folded and crumpled. Weight: 0.85 gm. ANS 2007.1.85

Folded.

Weight: 0.27 gm. ANS 2007.1.86

86. Plate fragment

87. Plate fragment

Folded.

Weight: 0.36 gm. ANS 2007.1.87

88. Plate or band fragment Possibly a bracelet fragment?

Weight: 0.17 gm. ANS 2007.1.88

89. Plate fragment

Crumpled.

Weight: 0.20 gm. ANS 2007.1.89

90. Plate or band fragment

Folded.

Weight: 0.64 gm. ANS 2007.1.90

91. Plate fragment

Crumpled.

Weight: 0.06 gm. ANS 2007.1.91

92. Plate fragment Folded and crumpled. Weight: 0.44 gm. ANS 2007.1.92

93. Plate fragment

Crumpled.

Weight: 0.13 gm.

ANS 2007.1.93

94. Plate fragment

Folded.

Weight: 0.50 gm. ANS 2007.1.94 95. Plate fragment

Rolled or coiled, one edge cut.

Weight: 1.07 gm. ANS 2007.1.95

96. Plate fragment

Rolled or coiled, small spot of copper

corrosion.

Weight: 0.75 gm. ANS 2007.1.96

97. Plate fragment

Folded band with copper corrosion.

Weight: 0.78 gm. ANS 2007.1.97

98. Plate fragment

Crumpled. Weight: 0.60 gm. ANS 2007.1.98

99. Plate (or ingot?) fragment

Note cut marks. Weight: 0.51 gm. ANS 2007.1.99

100. Plate fragment

Crumpled. Weight: 0.07 gm. ANS 2007.1.100

101. Plate fragment

Folded.

Weight: 1.02 gm. ANS 2007.1.101

102. Plate fragment

Crumpled with copper concretions.

Weight: 0.42 gm. ANS 2007.1.102 103. Plate fragment Weight: 0.18 gm.

104. Plate fragment Weight: 0.23 gm. ANS 2007.1.104

ANS 2007.1.103

105. Plate (or ingot?) fragment

Note cut marks. Weight: 0.47 gm. ANS 2007.1.105 106. Plate fragment

Folded; note raised decoration

Weight: 0.10 gm. ANS 2007.1.106

107. Plate fragment

Crumpled. Weight: 0.26 gm. ANS 2007.1.107 107. Plate fragment

Folded with a wire passing through a

perforation.
Weight: 0.54 gm.
ANS 2007.1.107
109. Band fragment
Folded and coiled.

Folded and coiled. Weight: 0.08 gm. ANS 2007.1.109

110. Plate fragment

Crumpled. Weight: 0.79 gm. ANS 2007.1.110 111. Plate fragment

Crumpled with small amount of copper

concretion.

Weight: 0.57 gm. ANS 2007.1.111 112. Plate fragment

Folded.

Weight: 0.76 gm. ANS 2007.1.112

113. Plate fragment

Folded.

Weight: 0.65 gm. ANS 2007.1.113

114. Plate fragment

Coiled with a small amount of copper

concretion.

Weight: 1.20 gm. ANS 2007.1.114

115. Plate fragment

Fragmented by folding, not cutting

Weight: 0.32 gm. ANS 2007.1.115

116. Plate (or ingot?) fragment

Note cut marks. Weight: 0.58 gm. ANS 2007.1.116

117. Plate fragment

Folded.

Weight: 0.31 gm. ANS 2007.1.117

118. Plate (or ingot?) fragment

Note cut marks. Weight: 0.73 gm. ANS 2007.1.118 119. Plate fragment Folded and flattened. Weight: 0.97 gm. ANS 2007.1.119

120. Plate fragment

Folded and crumpled. Weight: 0.50 gm. ANS 2007.1.120 121. Plate fragment

Weight: 0.31 gm. ANS 2007.1.121

122. Plate fragment Weight: 0.28 gm. ANS 2007.1.122

123. Plate fragment Folded and flattened. Weight: 0.03 gm. ANS 2007.1.123

124. Plate fragment Folded and flattened. Weight: 0.21 gm. ANS 2007.1.124

125. Plate fragment

Folded.

Weight: 0.21 gm. ANS 2007.1.125

126. Plate fragment Weight: 0.39 gm. ANS 2007.1.126

127. Band fragment? Weight: 0.48 gm. ANS 2007.1.127

128. Worked plate fragment

Decoration of raised perpendicular lines near one edge. Cf. no. 9, perhaps part of

the same object. Crumpled.

Weight: 0.12 gm. ANS 2007.1.128 129. Plate fragment

Note copper concretions.

Weight: 0.63 gm. ANS 2007.1.129

130. Plate fragment

Note copper concretions.

Weight: 0.36 gm. ANS 2007.1.130

131. Band fragment

Folded and unfolded with copper con-

cretion.

Weight: 1.38 gm. ANS 2007.1.131

132. Plate (or ingot?) fragment

Weight: 0.84 gm. ANS 2007.1.132

133. Plate fragment

Folded, edges curled, perforated.

Weight: 0.44 gm. ANS 2007.1.133

134. Plate fragment

Folded.

Weight: 0.95 gm. ANS 2007.1.134 135. Plate fragment Weight: 0.36 gm.

ANS 2007.1.135

136. Plate or band fragment

Weight: 0.26 gm. ANS 2007.1.136

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Plate 65



A New Celtiberian Hacksilber Hoard, c. 200 BCE

Plate 66



Peter G. van Alfen, Martín Almagro-Gorbea, Pere Pau Ripollès



A New Celtiberian Hacksilber Hoard, c. 200 BCE

A New Celtiberian Hacksilber Hoard, c. 200 BCE



The hoard en masse A New Celtiberian Hacksilber Hoard, c. 200 BCE