

IBERIA, THE ATLANTIC BRONZE AGE AND THE MEDITERRANEAN

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... it is only at the very end of the Bronze Age, early in the first millennium BC, that an international 'Atlantic' Bronze Age comes into being...

Champion 1984: 223.

Atlantic Bronze Age: SYNONYM: carp's tongue sword complex; CATEGORY: culture: DEFINITION: A Late Bronze Age metalwork industry which developed on the west coast of France (Brittany to Gironde) c.1000-500 BC and spread to southern England and Iberia. The unifying factor of these areas was very active trading along the Atlantic seaways...

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INTRODUCTION

Some of the essentials of this paper have been suggested by one of us elsewhere (Burgess 1991), and have been further explored by both of us (Burgess & O'Connor 2004): especially the place of the Hío hoard and the Huelva deposit in an Iberian *Bronze Final 2* comparable to Wilburton industry in Britain and Saint-Brieuc-des-Iffs in north-west France; the misidentification of Huelva swords as carp's tongue, and the confusion resulting therefrom; the absence of the carp's tongue complex in Iberia apart from a very few swords; and the difficulty of defining a *Bronze Final 3* in Iberia, comparable to Ewart Park in Britain and carp's tongue in Atlantic France, and finally that this absence was due to the onset of a precocious Iron Age of oriental origin.

We have been very fortunate in putting together this paper to have been given access to three key, forthcoming works: the *Prähistorische Bronzefunde* volume on the Iberian swords (Brandherm 2007); some of Sabine Gerloff's work for her forthcoming *Prähistorische Bronzefunde* volume on metal vessels in Britain and Ireland; and a new survey of flesh-hooks and the Atlantic feasting complex (Needham & Bowman 2005). We are most grateful to all these authors for their kindness. It will also be apparent how great a debt we owe to many Spanish and Portuguese friends and colleagues, and to our sorely missed friend André Coffyn and his pioneering work on Iberia in the Atlantic Bronze Age (1985).

CHRONOLOGY

The absolute chronology used here is essentially that worked out by Needham (1996; Needham *et al.* 1997; Rohl & Needham 1998: 98-110, fig. 21; Needham & Bowman 2005), as adapted by the present authors (Burgess & O'Connor 2004). Industrial stages and phase names go back to Briard (1965) for France, Smith (1959), Hawkes (1960) and Burgess (1968) for Britain, Eogan (1964) for Ireland, and for Iberia we acknowledge especially the work of Savory (e.g., 1948; 1949; 1968), and Almagro-Gorbea (especially 1986). But for Late Bronze Age Iberia, we start from the outline proposed by Burgess (1991). The following framework for the Atlantic Late Bronze Age results:

LBA1/BF1 – Rosnoën/Penard/Mouruás-Herrerías-Isla de Cheta – 1300/1250-1150/1100 BC

LBA2/BF2 – Wilburton/Saint-Brieuc/Saint-Denis-de-Pile/Hío-Huelva – 1150/1100-1000/950 BC

LBA3/BF3 – Ewart Park/Carp's Tongue/Fiéis de Deus-First Iron Age – 950-850/800 BC

Brandherm uses a similar system, though with sub-divisions within our LBA 1 and 2 (2007: fig.1; see also Harrison 2004: 14-15; one of us (CB) does not believe Wilburton and Blackmoor constitute separate phases):

<i>Britain</i>	<i>France</i>	<i>Iberia</i>
Appleby	Penavern-en-Rosnoën	Isla de Cheta
Penard	Kergerou-en-Rédené	Huerta de Arriba
Wilburton	Saint-Brieuc-des-Iffs	San Andrés de Hío
Blackmoor	Braud-et-Saint-Louis	Ría de Huelva
Ewart Park	Vénat	Monte Sa Idda (Sardinia)

LBA4 in Britain, Llyn Fawr, 850/800–700, Hallstatt C in central-European terms, Hallstatt 1 or First Iron Age in France, has no equivalent in Iberia, where the beginning of Phoenician colonisation changed everything.

THE BACKGROUND, COPPER AGE TO MIDDLE BRONZE AGE

Precocious activity on the Atlantic sea routes in the Copper Age is suggested by diffusion of the Beaker phenomenon and its associated «package» of artefacts, notably its metal such as Palmela points, and also by the spread of early goldwork fashions such as lunulae. This activity did not last into the Early Bronze Age, which saw a cessation of traffic along the Atlantic littoral, which it is tempting to connect with the widespread collapse of systems and populations in Atlantic Europe, from Britain to southern Spain, at the end of the Copper Age, c. 2354-

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2345 BC (Burgess 1992; 2004). Throughout the Early and Middle Bronze Age long distance movement along the Atlantic seaways appears patchy and slight. It was perhaps because of this isolation that Iberian metalworking remained conservative throughout the Middle Bronze Age, the range and sophistication of its products slight compared with Atlantic regions further north.

The idea of an Atlantic Bronze Age has long been familiar, its history having been summarised by Coffyn (1985). He traces it back to Santa-Olalla (1946) and his desire to distinguish the Late Bronze Age of western Iberia from that of the east of the Peninsula, but it is clear that others were thinking along similar lines at that time (e.g., Savory 1948; 1949). The Atlantic Bronze Age has always meant different things to different writers, but has always been about metal. It came especially to be linked to the carp's tongue complex as defined by Hawkes (Kendrick & Hawkes 1932: 133-135), and to the widely distributed carp's tongue sword in particular, and the second quotation at the head of this paper shows how this view has maintained a popular cachet. Champion's quotation is nearer the mark, but by dint of being less specific. It was not «at the very end» of the Bronze Age that an Atlantic Bronze Age is evident, though its climax did come «early in the first millennium». Paradoxically, as we shall attempt to show here, if there was in any sense an Atlantic Bronze Age it was all over by the time of the carp's tongue phase of the Bronze Age. But this last gasp of the Iberian Bronze Age saw some of the most remarkable long-range traffic linking the Atlantic and Mediterranean worlds.

As the Atlantic Bronze Age has been preoccupied with metal, so this paper will dwell mainly on metal and little on other aspects of the period. That there was always movement of varying intensity by land routes from one side of the Pyrenees to the other has long been clear (Bahn 1984) and these connections have been given weight by the work of Coffyn (1985: 21-27), updated by Gomez (1995: 120-133), showing the distribution of Early and Middle Bronze Age pottery types such as vessels à *pastillage* (Gomez's à *pustules*) and polypod ceramics in southern France and northern Spain.

But what these studies also make clear is how little spread of metal products and fashions there was in the Atlantic lands during the Early and Middle Bronze Age. For much of the late third and second millennia Iberia remained discrete from lands further north, especially in metalworking. For much of this time Britain and Ireland looked to north-western France, then the Low Countries and even the Baltic. At an early stage of the Early Bronze Age, Wessex I/Bush Barrow in English terms, cross-Channel connections were mainly between Wessex and Brittany, but in Wessex II the emphasis switched noticeably to a broader axis from Wessex/south-east England to Normandy/Picardy, the Low Countries and north Germany

(Burgess 1996; Butler 1963). In the first phase of the Middle Bronze Age, Acton Park, the metallurgical focus in Britain switched away from Wessex, and it was a swathe from north Wales to East Anglia that maintained these connections with north-western Europe (Rohl & Needham 1998: 93-94). The second or Taunton phase saw an expansion of these maritime influences on a broad front, now linking the whole of the southern half of Britain with all north-western France bordering the Channel and Normandy in particular (O'Connor 1980: 47-49, 92-94, table 7); what Rowlands (1980: 37) conceived of as a Channel core area. From time to time this core area extended its influence down to the Loire and beyond. This MBA2/*Bronze Moyen 2* phase, c. 1400-1300/1250, is Taunton/Ornament Horizon in Britain (Smith 1959; O'Connor 1980: 38-94; Rohl & Needham 1998: 95-96), Baux-Saint-Croix/Mont-Saint-Aignan in Normandy (Burgess 1968: fig. 20), Dommiers/Villers-sur-Authie in Picardy/Nord (Blanchet 1984: 159-196), Portrieux in Brittany (Briard 1965), Duffaits B in the centre and centre-west (Gomez 1995), and *Bronze médocain* II-III in the south-west. It is an important phase for our present study, because one can begin to discern a spreading northwards and southwards of Channel core types, especially palstaves, and weapons such as rapiers and looped spearheads, throughout the Atlantic lands from north Germany to the Dordogne. One can begin to talk of Atlantic types.

These connections were, however, hardly sufficient to talk yet of an Atlantic Bronze Age. Even at an advanced stage of the Middle Bronze Age, the Channel core area had to its north a Low Countries zone which, as one proceeds north, was increasingly influenced by northern Germany. And the Channel core zone exerted its influence southwards only sporadically though increasingly beyond the Loire. The *centre-ouest*, the land of the Groupe Duffaits (Ibidem), and the Médoc had their own metal types, especially axes: the flanged axes of Médoc/Vendée type and palstaves of centre-west type, none of which spread far beyond the region to north and south (Ibidem: figures 62, 69), though the palstaves spread eastwards through central France. On the other hand, in the B phase of Duffaits, these local types had to compete with surprising numbers of palstaves from the north: Breton (Portrieux) and Norman types, as Verney (1989) and Gomez (1995: 168-171) have noted. But for both centre-west and Channel core types, the Médoc marks the southern limit of these influences. Beyond lay the infertile, sandy Landes, which has produced very little sign of Bronze Age activity (Gardes 1991), and even today is one of the most sparsely populated parts of France, given over to forestry and tourism. One would not expect much sign of activity along this low-lying, presumably mosquito-ridden coast, but more surprisingly, further southwards northern

Spain from Cantabria to Galicia shows a similar near-lacuna. A few French-type palstaves and flanged axes from northern Spain have been published (Monteagudo 1977: n° 898-900, 1135, 1144; Coffyn 1985: 17-21, pl. I; Fernández Manzano 1986: 33; Suárez Otero 2000), but often with provenances unknown, uncertain or unlikely. Nor is there Iberian material of this later Middle Bronze Age period from France, so that up to the end of the Middle Bronze Age there is little sign that an Atlantic Bronze Age had got underway.

Goldwork and ornaments at first glance suggest a different story, especially the *torques massifs incisés* found along Atlantic lands from south-east England to southern Portugal and Spain (Coffyn 1985: 60-1, figures 25-27, carte 15). For the incised decoration of this type is very much that of the Bignan armlets (Briard 1965: 123-35; Rowlands 1971) characteristic of southern England and Atlantic France during MBA2/BM2. There is considerable uncertainty about the date of these ornaments (Taylor 1980: 58, 66), mainly because their associations are few and usually with other difficult-to-date types. Some have assigned them to the Middle Bronze Age (e.g., Briard 1965: 145-146; Eluère 1982: 149-168), while others have preferred the Late Bronze Age (e.g., Coffyn 1985: 60-61; Armbruster 2002-2003: 146; 2004a: 134). While no certainty is possible, three observations seem to point to the Late Bronze Age rather than before. The first is that the massive ornaments with expanded ends in the Vieux-Bourg-Saint-Quentin hoard are surely Late Bronze Age. Secondly, the distribution of these massive torcs, compared with typical Middle Bronze Age ornaments, is completely different – as graphically demonstrated by Coffyn's maps of twisted torcs and massive torcs on facing pages (Coffyn 1985: cartes 14-15); and finally, that these massive torcs occur at Baiões in Portugal as part of a large (but uncertainly associated) assemblage of metalwork all of which can comfortably be accommodated within LBA2/BF2, the Hío Phase (Burgess & O'Connor 2004).

LATE BRONZE AGE 1/ BRONZE FINAL 1/ BRONZE FINAL 1

The opening Penard-Rosnoën phase of the Late Bronze Age, the thirteenth-twelfth centuries, was a time of crisis, of change, and innovation throughout the Old World (e.g., Muhly 1992; Falkenstein 1997; Oren 2000; Burgess 2001a). The beginning of this period saw the development of Urnfield culture in central Europe, the appearance there of the armoured warrior, and the emergence in central and Atlantic Europe alike of high-profiled «fighting and feasting» societies. These are given substance by the appearance of an extensive range of new weapons, and by a proliferation of «eating and drinking»

novelties (Gerloff 1986; Burgess 1991; Burgess & O'Connor 2004; Needham & Bowman 2005). Not for the first or last time, political, economic and social crisis ushered in an age of the warrior; as pressures mounted on peasant populations, so fighting men, their weapons and accoutrements multiplied. As life for the peasants became more miserable because of worsening weather so the «fighting and feasting» elements flourished.

The period saw a continuation of the intense Middle Bronze Age cross-Channel traffic, to judge from the discovery of Channel wrecks of this period (e.g., Muckelroy 1981; Needham 1982). Distribution patterns suggest that movement may also have picked up along the Atlantic coast of France, and for the first time there are firmer signs that this was crossing the «mid-Ocean gap» between the Gironde and Iberia.

The earliest «swords» of the Iberian Late Bronze Age are Atlantic types with straight blades and broad midribs (Brandherm 2007: n° 1-5). Since they all have more or less trapezoidal hilts, they are strictly rapiers and dirks (*estoques y dagas*) rather than swords. Two examples were dredged together, with a spearhead, from the River Ulla near the Isla de Cheta, Pontevedra (Brandherm 2007: n° 2-3, lám. 54A; Peña Santos 1985), one a typical Group IV rapier – an Appleby variant, and one too worn to type. Two fragmentary examples are unprovenanced (Ibidem: n° 4-5), while the remaining blade, from a settlement at Croa de Zoñán, Lugo, has a rod-tang like that on the – very different – Group III rapier from Cutts, Co. Derry (Burgess & Gerloff 1981: n° 395). These Iberian rapiers and dirks are equivalent to Group IV in the classification for Britain and Ireland (Ibidem: 62) and Brandherm places the provenanced examples in his Appleby phase. The long socket and ogival blade of the Isla de Cheta spearhead (Brandherm 2007: lám. 54A, 3) match one of the spearheads in the Rosnoën hoard (Briard 1965: 157, fig. 51, 1), while there appears to be an example from a Middle Bronze Age context at Mondeville, Calvados (Chancerel *et al.* 2006: 162, fig. 115, 2). The northwesterly distribution of these rapiers and dirks in Spain (Brandherm 2007: lám. 44) is clearly consistent with their Atlantic origin, though in Catalonia the cave of Joan d'Os, Tartareu, Lleida, has produced a notched blade 155 mm. long with broad midrib identified as a Rosnoën type (Rovira i Port 1998).

The hoard from Valdevimbre, León, recently acquired by León Museum about eighty years after it was found (Valdevimbre forthcoming), could belong to this Isla de Cheta phase because of its conical ferrule (Needham 1982: 38, 40-41, 52-54, figures 13-15) and spearhead with long socket (Briard & Mohen 1983: 127-128). While the spearhead would be a French Rosnoën type, the ferrule should be of British origin since conical ferrules appear to be unknown in France. There appears to

be another conical ferrule in the Covalada hoard, Soria (Coffyn 1985: 387, 389, n° 80, 119, tab. V, pl. IIIB).

We should also mention here the hoard from Arroyo Molinos, Jaén (Ibidem: 165, 389 n° 121, pl. XVI), containing two median-winged axes (Monteagudo 1977: n° 1777-8) far away in Andalucía from their likely origin in eastern France (Millotte *et al.* 1968) – though they do reach the south-west (Coffyn 1985: 165; Gardes 1991: 16, fig. 2A, 1) – and a Rosnoën palstave (Monteagudo 1977: n° 1134). While there may appear to be no connection with Britain, where median-winged axes are almost unknown (Schmidt & Burgess 1981: 114-115), the largest group in Europe does come from Langdon Bay in the English Channel just east of Dover Harbour, associated with Rosnoën palstaves (O'Connor 1980: 96-8, 355-356, n° 108, figures 34-35), so Langdon Bay should represent diffusion similar to Arroyo Molinos.

As befits an «Age of the warrior», it is the range of eye-catching new weapons, offensive and defensive, that are the easiest to track, and the feasting paraphernalia enjoyed by these fighting men. The first innovations to note are the first true swords, as opposed to the rapiers and dirks which had sufficed in the Atlantic and the Mediterranean alike for centuries. Here are heavy slashing swords, with blade and hilt cast in one, of central European origin like so much in the new armoury. In the Atlantic world it is the Hemigkofen and Erbenheim types we must look out for (Cowen 1951), the originals brought from central Europe but widely copied in the west (Colquhoun & Burgess 1988: 29-33); also the first local types that they inspired, such as the British Clewer swords (Ibidem), and their French and Iberian equivalents.

Brandherm identifies from Spain three flange-hilted swords (*espadas de lengüeta*) of the mainly Hallstatt A2 Hemigkofen type and its Elsenfeld variant (2007: n° 11-13), compared with fifteen Hemigkofen weapons from Britain (Colquhoun & Burgess 1988: 26-28). Again, this should represent similar patterns of diffusion from central Europe to Iberia and Britain, though Brandherm does not exclude British origin for the sword from Mouruás, Ourense, because of its geographical position in the north-west of the Peninsula. As in Britain, the typological sequence in Iberia proceeds from imported flange-hilted swords to indigenous products: Brandherm's types Vilar Maior (2007: n° 15-21) and Catoira, with its Évora variant (Ibidem: n° 22-32). These include the earliest swords from Portugal; all are single finds and every Catoira type appears to have been deposited in a river. Brandherm compares Vilar Maior and Catoira with Limehouse and Taplow types in Britain (Colquhoun & Burgess 1988: 33-36).

But these true swords also helped spawn a range of local swords, without integral hilts, and managing with

handle arrangements of varying efficacy. Central Europe, and southwards into Italy, had especially rod-tanged swords, or *Griffangelschwerter/Griffdornschwert-er*, eventually to make an impact as far away as Ugarit (Burgess 2001a: 278-280). The Atlantic world had its hilt-tang swords, with straight (Rosnoën, etc.) or leaf-shaped (Ballintober, etc.) blades, the former somehow managing to reach as far east as Bohemia (Novák 1975: Taf. 5). To complicate matters further, new versions of the old dirks and rapiers were produced, certainly in Britain and Ireland, and were at least used in France, and even in Iberia at Isla de Cheta (Brandherm 2007: n° 3). These were still of the old Group IV blade form with flattened centre-section (Burgess & Gerloff 1981), but with hilt plate taller in height-width ratio, and often with notched butt rather than rivet-holed butt. The Irish Cutts weapons were even given heavier leaf-shaped blades (Ibidem: 90-96, pls. 97-104).

A rod-tanged sword from Cal Marquet, Barcelona, presumably came from the north-east, perhaps with the earliest Urnfield incomings into that region (Brandherm 2007: n° 8; Harrison 1994) and, like the poorly-provenanced Terontola sword from the Catalan Pyrenees (Brandherm 2007: n° 10), has nothing to do with this Atlantic quest, which leaves two atypical Ballintober swords.

Brandherm attributes the fragmentary leaf-shaped sword from Herrerías, Almería (Ibidem: n° 7) to the Ballintober type, dated to his Penard phase. Even further south, a weapon from the River de Larache in Morocco is identified as closely related to Ballintober (Ibidem: n° A 1). These two swords are not identical, the former having a rounded midrib flanked by multiple grooves and a notched tang, while the latter has a broad midrib of Rosnoën form and two (broken) rivet-holes at the top of its hilt. Neither seems to be a characteristic Ballintober sword of British or Irish origin (Colquhoun & Burgess 1988: 19-24), though grooves also occur on a sword from Mixnams Pit, Surrey (Ibidem: n° 24; Tomalin 1982: 166, fig. 2.2). Better comparisons for Herrerías may be the French swords from the River Charente at Cognac (Gomez 1987: 128-129, figures 2.1 & 3.1) and the Loire at Nantes (Briard 1965: fig. 55.3). The Larache sword resembles certain Group IV rapiers (Burgess & Gerloff 1981: n° 645), though its somewhat leaf-shaped blade and narrow hilt may also betray some Ballintober influence (we must thank Dirk Brandherm for examining this sword for us).

The sparsity of hilt-tang swords in Iberia is not surprising since they are rare even in western France. There is only one of the Ballintober-Chelsea group south of the Loire (Gomez 1987), and the Rosnoën distribution extends not much further, to the River Isle at Perigueux (Chevillot 2004). Others mapped in this area by Coffyn (1985: carte

12), and one from the River Adour in the Landes, are probably mistaken identifications. Coffyn also maps an unpublished Rosnoën sword from Palencia in northern Spain, but the authors have no knowledge of this piece and it does not appear to be listed by Brandherm (2007). There is one other piece of evidence for Rosnoën swords in Iberia, and that is on the weapons stela from Fóios, Beira Alta (Curado 1986; Burgess 1991; Harrison 2004: 193-195; Brandherm 2007: A IV-1). This depicts a straight-bladed sword with a four-rivet rectangular hilt plate, difficult to interpret except as a Rosnoën sword. This sword is placed alongside a typical V-notched shield, of which more below.

The warrior could also draw on new spearhead forms, especially the straight-based basal-looped form (the Enfield type: Burgess 1968). This and older forms of looped spearhead continued to be produced in Britain and Ireland, where loops were still preferred to the continental peg-holes, but these Irish-British looped spearheads achieved a remarkable distribution in Europe, from north Germany to northern Spain (Butler 1963; Schauer 1974; Coffyn 1985: 132, carte 17). The mould from Vilhonneur, Charente, confirms they were also made in Atlantic France. In Britain and Ireland their use continued through LBA 2, and it is likely that Iberian examples belong to this later period. In Britain especially, basal-looped spearheads were often produced in sizes so long (from Wandle Park, Surrey, c.80 cms.: Needham 1990a: 249, fig. 4) as to suggest that the new warfare involved as much posturing and parading as fighting.

Swords imply a completely new method of combat, and a new need for protection. This involves at least a shield and helmet, but in central Europe the warrior sported also bronze corselet and greaves (Schauer 1975; Burgess 1980: fig. 3.20). These may even have been invented in central Europe, since they are protection for a style of warfare – sword-wielding infantry – alien in the east (Burgess 2001a: 282). In bronze, the greaves at least reached as far as Cannes-Ecluse in the Paris Basin during this period (Gaucher & Robert 1967), but the corselet arrived probably only in *BF2*. Whether bronze helmets, in the western form with prominent studs, appeared as early as Penard-Rosnoën is unclear. Their presence in the next phase, *LBA2/BF2*, Wilburton/Saint-Brieuc/Hío, is much better attested. Logic suggests that when the true sword reached the west from central Europe, it would have brought with it a requirement for appropriate personal protection, so that leather and hide corselet, greaves and helmet would have been worn even if the bronze versions cannot be demonstrated as early as this. The point is emphasized by the round bronze shield, a part of the panoply of the central European sword warrior which did reach the Atlantic lands, but was probably known in Iberia only in leather form. It is likely, even in central

Europe, that this bronze armour was not intended for actual combat. As has been observed elsewhere, «when posturing turned to fighting, off came the bronze, and on went the hide...which was so much more effective in turning a blade...» (Burgess 2001a: 282). That this definitely happened in the case of shields at least is shown by the discovery in Ireland both of leather shields and wooden formers for their manufacture (Coles 1962).

In Iberia the warrior had another string to his bow, literally. That sword warfare was slow to catch on there may have been due to the continuing popularity of archery, as indicated by frequent finds of bronze arrowheads. In north-western France, Britain and Ireland, archery had largely passed out of fashion after the Early Bronze Age, as indicated by the rarity of arrowheads. Clearly in the Channel core area, close-quarters combat with the spearhead and rapier, and later the sword, was preferred during the Middle and Late Bronze Age. This was not the case in the Groupe Duffaits in the centre-west of France, where bronze arrowheads are frequent finds (Gomez 1995: e.g. pls. 6, 13 & 18), as in Iberia. One wonders whether in both regions it was a scarcity of rapiers and swords that forced a continuing reliance on archery. Another possibility is suggested by the warrior figurines of nuragic Sardinia, which suggest that a distinction can be drawn between archers with lighter accoutrements and sword-bearers with heavier protection (Burgess 2001b: 179). With archery continuing in Iberia after the arrival of swords at the beginning of the Late Bronze Age, it is possible that a similar distinction developed there.

And what of the feasting that went with all this fighting? First and foremost are the sheet-metal vessels, the cauldrons of Class A (Gerloff 1986) and the early «Danubian» buckets (Gerloff 2004). These reached the west from central Europe in this *LBA1/BF1* period, and inspired long traditions of sheet-metal vessel development in Britain and Ireland in particular. The fact that the earliest of these vessels, the class A cauldrons of Colchester and Shipton types, come from south-eastern England, and that this area has the major British concentration of imported early Urnfield swords, no doubt reflects the common origin of these traditions. As yet it is unclear whether the slight French evidence for Class A cauldrons and early buckets permits a start there as early as this, and in Iberia cauldrons almost certainly appeared only in the next, Hío, phase (see below).

With sheet-metal vessels went flesh-hooks, which also emerged in Penard/Rosnoën (Needham & Bowman 2005), since one was found with the Class A cauldron at Feltwell, Norfolk (Ibidem: class 2 n° 1; Gerloff 1986: fig. 6). Again the earliest examples are in south-east England, though this time the first Irish examples are at least as early. Again there is no certain evidence that the French and

Iberian examples are this early. Another feasting novelty may be altogether later than this period, the rotary spit (see below). These had a complementary distribution and clearly a different function from flesh-hooks (Needham & Bowman 2005), and the scanty dating evidence and weight of distribution suggests that these must be taken out of this Penard/Rosnoën-British/Irish/north-west French milieu, and regarded as a development of north Portugal/Extremadura in the next, Hío, phase (Burgess & O'Connor 2004).

One other British/Irish novelty of Penard/Rosnoën was the socketed sickle, in its cylinder-socket form (Fox 1939). While it is difficult to see how this might have fitted into a feasting context, at least it makes more sense in a ritual context than as a conventional sickle. On the other hand, there is a resemblance to the *gancho para transportar a herba* of northern Spain (Calo Lourido 1997: 129), so they may have served some sort of practical agricultural function rather than a ritual use. Socketed sickles are well represented in France (Briard 1964; Maggi & Faye 1991), but paradoxically most there are of later forms, whereas the early cylinder-socket form is quite common in Galicia and Portugal (Coffyn 1985: 394, carte 56). However, even in Britain and Ireland the form may have been rare before LBA2, and associations suggest it may only have reached the rest of Atlantic Europe in LBA2/BF2.

The hoard from Huerta de Arriba and those from Covalada, Soria, and Monforte de Lemos, Lugo, both also dated to his Penard phase by Brandherm (2007), contain double-looped palstaves (Coffyn 1985: pls. III, 4; LXV, 1 & 4; Montegudo 1977: n° 1223, 1232-1233 & 1235, Taf. 150D, 152B). While the presence of double loops on a few British palstaves has been taken to mean they were derived from Iberia, comparison of the forms of the respective types suggests that is not the case and the British examples are simply local palstaves with two loops (Savory 1966-1968; O'Connor 1980: 54-55; Taylor 1982: 13). The same appears to be true of the double-looped palstaves found in France outside the south-west (Briard & Verron 1976: 109).

Apparently Iberia was still entering only reluctantly into contacts with Atlantic Europe in this first phase of the Late Bronze Age, but two aspects of deposition urge caution about taking this apparent paucity of finds at face value. The first could also affect the sparsity of finds in south-west France, and that is, in contrast to Britain and north-west France, the rarity of hoards of this period in Atlantic Europe, from the Charente to southern Spain. The second affects much of Iberia. It is well known that the vast majority of Late Bronze Age metal finds in most of Atlantic Europe have come from wet places and particularly from rivers. Without these «wet» finds the wealth

of Late Bronze Age metalwork from much of north-west Europe would look very depleted. These river finds continue into Galicia, but then stop suddenly – partly it may simply be the paucity of permanent rivers and wet places over much of Iberia. The Huelva find is very much isolated, and must indicate some very special circumstances of deposition in an Iberian context. Compared with Galicia northwards, an unusually large proportion of Late Bronze Age metal finds from Iberia have come from excavations of ostensible settlements such as castros and from graves.

Generally Iberia seems more open to outside influences in this than in previous periods. Firstly there arrived in north-eastern Spain – presumably via southern France – the first elements of Urnfield culture (Harrison 1994), but the similarities to Urnfield groups in central Europe and eastern France are general rather than specific. It is very difficult to identify anything in the Spanish Urnfield repertoire which pins down the specific origins in Urnfield Europe of the Spanish urnfields. For the most part the Spanish urnfields belong to periods later than this, but these influences from the north do seem to have set off a change in settlement systems in northern Spain. In particular we see the replacement of a long tradition of open and unspectacular settlement, of which Moncín in Zaragoza is typical (Harrison *et al.* 1994). In their place there are more visible *Hohensiedlungen* such as Cabezo de Monleón in the same province (Beltrán 1984), or Genó in adjoining Lleida (Maya *et al.* 1998). The characteristic radial internal arrangements, of attached rectangular units backing against and all round the perimeter wall, eventually came to be characteristic of much of later prehistoric Iberia.

But this Urnfield influence from the north-east is no more our principal concern here than the arrival of Levanto-Mycenaean influence in the south. Just how much Mycenaean pottery there is in Spain is unclear, since, as Spanish colleagues lament, it can be so easily confused with other, later, styles of painted and wheel-turned pottery. But the well-known Mycenaean sherds from Llanete de Los Moros (Martín de la Cruz 1988) in the upper Guadalquivir are from a site far from the coast, which hardly looks like an initial port of call. The Mycenaean sherds here have been assigned to LHIIIA/B, so are probably in a context of BF1. Further work on the wheel-turned/Mycenaean pottery of Spain has been published by Almagro Gorbea and Fontes (1997), and this is likely to be an aspect of Spain in this period that can only increase in importance. One metal find we can assign to this early oriental influence is the bowl in the hoard from Berzocana, Cáceres, found with typical Atlantic ornaments: massive gold armlets with archaic Bignan-type decoration. The bowl is of a type found all over the Near

East in the Late Bronze Age and, because of the armlets, Schauer (1983) must be correct to reject the traditional depression of its date to the eighth or seventh century to fit in with Phoenician colonisation.

LATE BRONZE AGE 2/ BRONZE FINAL 2/ BRONZE FINAL 2

With the onset of LBA2/BF2 and the turn of the twelfth-eleventh centuries BC, everything changed in Atlantic Iberia. Suddenly there are abundant signs of Atlantic metalwork and metalworking influence, as well as numerous hoards, *castros* and *Hohensiedlungen*. Only now can one in any sense speak of an Atlantic Bronze Age, and for the first time see metal production with common echoes all the way from northern France and Britain to southern Spain. But connections were not only with the north and the Atlantic world. On the sites and in the hoards, Atlantic elements are mixed with eastern material coming from the central Mediterranean and beyond (Burgess 1991). In the aftermath of the collapse of the great empires – Egyptian, Hittite and Mycenaean – we are dealing with a very different Mediterranean world, now dominated by the newly emerged Phoenicians, pursuing their commerce westwards in the footsteps of earlier Levanto-Mycenaean traffic, all the way to the Pillars of Hercules. They had not yet turned to colonisation.

In British-Irish terms this was the period of Wilburton metallurgy (Burgess 1968; Coombs 1975; Rohl & Needham 1998: 101-102), Saint-Brieuc-des-Iffs in north-western France (Briard 1965), and Saint-Denis-de-Pile in the south-west (Coffyn 1985: 75-96). Though there are common threads that unite these regional groups, there are also important differences that can only be touched on here. For example, the Wilburton hoards in Britain are characterised by Wilburton swords, and the old U-butt (Limehouse) swords have gone. But the Saint-Brieuc hoards still have mostly the U-butt swords, and Wilburton equivalents are rare. Such differences may have to do with different product preferences between the two, or with different hoard assembly/deposition mechanisms, or even different scrapping policies. One possibility is different hoard deposition episodes, that is most of the Saint-Brieuc hoards were deposited early in the phase, when U-swords were still plentiful (and being scrapped). The absence of associations of Saint-Nazaire swords in these French hoards hints at the same conclusion. On the other hand, if most of the Wilburton hoards were deposited a century or more later towards the end of the phase (as is often demonstrable: Burgess 1968: 36-37), then U-swords would long since have been scrapped. The Saint-Denis-de-Pile hoards fall between the two, with both U-swords and Wilburton equivalents. To reinforce the

scabbards for all these swords, these regional groups had tongue-chapes, paper-thin castings made possible by the free-flowing lead-bronze that characterises this phase.

Brandherm identifies two Spanish finds of Saint-Nazaire type (2007: n° 33-34), one from the Alhama de Aragón hoard, Zaragoza, with a lozenge-section chape (Ibidem: n° B 10, lám. 37). British finds of Saint-Nazaire swords come from the Wicken Fen, Isleham and Blackmoor hoards (Colquhoun & Burgess 1988: 53-54), dated to our Late Wilburton/Saint-Brieuc phase when this type appeared in France and to which the Alhama de Aragón hoard can be attributed because of its long chape (Ibidem: 54, n. 4). In this case, both Iberian and British swords were imported from Atlantic France. There is a shorter – 72 mm – lozenge-section chape with a straight mouth from the Castro de Berbeia, Álava (Brandherm 2007: n° B 11). Short chapes with straight mouths are unusual, though there are two 80 and 51 mm long from Ireland (Eogan 1965: 169, 172, n° 7-8, fig. 92). British evidence suggests such short chapes would be of Ewart Park date (Burgess *et al.* 1972: 218-219; O'Connor 1980: 146-147), though it is not clear whether this would apply if the Berbeia chape were Irish.

In addition to the sword, the Atlantic warrior could draw on a whole range of spearheads, both for parading and combat. Basal-looped spearheads remained in widespread use, perhaps more for show than in combat, and they are found throughout Atlantic Europe. But in Wilburton Britain, though seldom across the Channel in France, there were several new «fancy» spearhead types available: lozenge-sectioned, hollow-bladed or stepped-bladed, others with beadings or fillets edging the midrib, and spearheads with holes or openings in the blade, especially lunate-opening spearheads. These often have lozenge-sectioned, hollow blades. In addition, the basic leaf-shaped spearhead with peg-holes for shaft attachment was now in general use in Britain. For the other end of the spearhead shaft there were long, tapering, tubular ferrules, usually with closed ends, but sometimes with an expanded, flat end.

For defence we can assume the best-dressed warrior had at least a helmet and shield at his disposal, but these were not normally included in hoards. Paradoxically the best evidence comes from Iberia, of which more below, and for Britain and north-western France there are only pointed studs of the type which protruded from the front of Atlantic studded helmets. There are examples in the Saint-Brieuc hoard itself (Briard & Onnée 1972: esp. pl. XX; Coffyn 1985: 172, fig. 60), and several, together with possible sheet helmet fragments, from Fengate, Peterborough (Pryor 1991: 115-117, illus. 91; Coombs 2001: 258, 268, 290-291, figures 10.3, 8-16 & 10.6, 95) – though the sheet fragments here appear to one of us

(BOC) who has examined them to be too fragile to belong to a helmet.

For the feasting there is now much more widespread evidence for cauldrons and flesh-hooks, and a novelty appeared – the rotary spit – (Burgess & O'Connor 2004; Armada Pita 2005a). These had different function and a largely complementary distribution pattern to the flesh-hooks (Needham & Bowman 2005: fig. 11), and were probably developed in north-central Portugal/Spanish Extremadura as part of the changes sweeping the area in this period. Finally in this section we must not forget socketed sickles, and unlike in the rest of Atlantic Europe, these are well represented in hoards and settlements in Iberia in this period.

The principal axe type in Britain and north-west and south-west France was the narrow blade, looped palstave, the *hache à talon massive* (Briard 1965: 180, fig. 60), normally of the «late» type with overhanging stop, but sometimes still the so-called «transitional» type (Smith 1959: 176-177; O'Connor 1980: 95-96) of LBA1/BF1. Otherwise axe preferences were regionally different. Britain and Ireland developed socketed axes, of square-mouthed forms, with ribbed or flat collars; and also «indented» examples with waisted bodies. These indented socketed axes also occur in the Saint-Denis-de-Pile hoards (Coffyn 1985: fig. 39) and in northern France (Blanchet 1984: fig. 136), but generally socketed axes were eschewed in Atlantic France, where median-winged and early end-winged axes were preferred as secondary axes, not surprisingly with the proximity of winged-axe lands to the east. New tool types also appear in Wilburton/Saint-Brieuc contexts, notably socketed gouges and chisels, but these, especially the gouges, are more common in the French than the British hoards, and may have developed in France first. In Ireland and Britain gouges appear only in late Wilburton hoards (Burgess 1968) and did not become commonplace until LBA3, Ewart Park/Dowris.

Why Iberia suddenly tapped into Atlantic metalworking traditions and fashions, why hoard deposition suddenly became common, why *castros* and *Hohensiedlungen* appeared widely, is not clear. Perhaps the more fundamental question is why the Peninsula was suddenly so open to influences coming not just from the Atlantic world, but also from north-east (Urnfield), and from the Mediterranean. This was a time of sweeping change in Iberia, in some way reminiscent of the dramatic transformations that have overtaken both Spain and Portugal since the end of their dictatorships. But though this period in Iberia has hoards, it is the *castros* which have provided many of the metal finds and the most interesting contexts. Indeed metal finds are so abundant as to suggest *castros* in some way were more than just domestic, almost as if they had taken the place of the «wet» loca-

tions of much of the rest of Atlantic Europe for deposition. The emergence of the *castros*, as the evidence stands, is difficult to interpret, because the earliest, with abundant metal finds of BF2, appear to be in north-central Portugal. One might have expected the first in Atlantic northern Spain if they had been inspired by Atlantic influences, but whether this pattern genuinely suggests a local innovation in north-central Portugal, or is an illusion resulting from unequal excavation in Atlantic Iberia, is impossible to determine. Certainly it is easy to find LBA bronzes among the old finds from *castros* in Galicia and the Asturias. Twin-looped palstaves and cauldron fragments come from several sites (Maya 1988: 71-78; Schubart 1961: 43; Gerloff forthcoming). In the Alentejo, south of the apparent «primary» area in north-central Portugal, Late Bronze Age *castros* and hillforts also abound on the strength of abundant ceramic finds (Pereira & Soares 1980; Arnaud 1979; Gibson *et al.* 1998), but whether they began as early as those further north is impossible to determine without comprehensive excavation. Metal finds are undistinguished, but even limited excavations on small sites have shown them to be incredibly rich. For example, Coroa do Frade in the Alentejo (Arnaud 1979: fig. 6; Silva, I. 1995: 43, n° 36) produced not only abundant ceramics from very limited excavations, but what may be the shank of a rotary spit amongst scrappy bronze finds; and Alto do Castelinho da Serra, not far away, though it has not yet yielded metal finds from limited exploration of its primary Late Bronze Age levels, has produced both fibulae and iron tools from overlying Early Iron Age levels, along with Phoenician and Greek pottery (Gibson *et al.* 1998).

It is the hoards which reveal the extent to which Iberia in this period was part of the Atlantic Bronze Age, but the *castros*, settlements and graves which show how Atlantic influences were mixed with Mediterranean. One of the most representative hoards is that from Hío in Galicia (Schubart 1961; Coffyn 1985: pls. LX, LXI), which gives its name to this Iberian equivalent of Wilburton/Saint-Brieuc/Saint-Denis-de-Pile (Burgess 1991; Burgess & O'Connor 2004; Brandherm 2007).

In addition to the Saint-Nazaire swords (see above), Brandherm attributes to his Hío phase a type named after a find from the River Ulla at Cordeiro, Pontevedra (Ibidem: n° 35-40). Apart from Huelva, there is a -probably- associated find from the River Sil at San Esteban, Ourense (Ibidem: lám. 54B), dated by Brandherm to his Wilburton/Saint-Brieuc/Hío phase. The San Esteban hoard also contains a basal-looped spearhead and a hollow-bladed spearhead. The former type survived into the Wilburton phase and beyond in parts of Britain (Burgess *et al.* 1972: 214, 225), while the latter was characteristic of the British Wilburton phase (Ibidem: 222-224; Needham *et al.* 1997:

92). However, French associations suggest that Cordeiro swords were still evident at the time of Blackmoor and Huelva (Brandherm 2007; Coffyn 1985: fig. 34, 16-17). The basal-looped spearhead from San Esteban is not necessarily a British import because this type is also common in France, but hollow-bladed spearheads seem to be unknown there (Ibidem: 142, carte 17). The San Esteban spearhead has been included among a group of hollow-bladed spearheads of British origin or inspiration from the north-west of the Peninsula (Suárez Otero & Carballo Arceo 2001: 15, fig. 5.9) including an example in the Portuguese hoard from Viçosa, Bouças, Minho (Ibidem: 17, 24, n° 48, fig. 5.11; Coffyn 1985: 390, n° 141, pl. XXXVI, 7), and perhaps also the hollow blade in the spearhead hoard from Cisneros, Palencia (Ibidem: 389, n° 123, pl. XXXVI, 4; Suárez Otero & Carballo Arceo 2001: 17, n. 22).

Stepped-blade spearheads are also present in several hoards, such as Cabezo de Araya, Badajoz, and Porto do Concelho, Beira Baixa (Coffyn 1985: pls. XXXIV, 1-2, XLIV, 7; Melo 2000: 68-69, fig. 19.3): these also appear to be local products.

The spearheads in the Híó hoard have been attributed to the Brandariz/Híó group, derived from the hollow-bladed spearheads of British Wilburton origin (Suárez Otero & Carballo Arceo 2001: 14, fig. 4, 3-5) – indeed one may belong to this typologically earlier group (Ibidem: 18, fig. 4.5) – and found in Galicia (Ibidem: fig. 5). Related spearheads occur in a hoard from Solveira, Trás-os-Montes, with a flesh-hook (Ibidem: 14, n. 14; Coffyn 1985: 390, n° 135, pl. XLIII, 4-7; Needham & Bowman 2005: Class 3, n° 8), which is among the hoards attributed by Brandherm (2007) to his Blackmoor/Braud/Huelva phase, though Needham & Bowman (2005: 114-115, fig. 7) place it in the preceding phase. For CB, late Wilburton will suffice.

The Híó hoard also has its feasting furniture: cauldron fragments and flesh-hooks. A late date for this hoard is no longer necessary given the British evidence that cauldrons and flesh-hooks appeared at the beginning of the Late Bronze Age (Gerloff 1986: 88-94, 102; Needham & Bowman 2005) and Brandherm (2007) regards it as contemporary with San Esteban, Wilburton and Saint-Brieuc. Two possible flesh-hooks are identified by Needham and Bowman (2005: Class 2, n° 4-5) as belonging to their socketed single prong class, which appeared in Britain during the Penard phase. These are not typologically the earliest from Iberia, but the unsocketed double prong from the castro of Barrios de Luna, León (Ibidem: Class 1, n° 3), cannot be dated by association because it was unstratified. It remains uncertain whether the Iberian cauldrons were derived from Britain (Armada Pita 2002), indeed we still lack a thorough study of this important group of material (Coffyn 1985: 55-57, 141, 395-396, carte 22),

but the British vessels appear to have chronological priority. Hawkes regarded the Cabárceno cauldron, Santander, as developed from insular vessels of class B1 (1952: 110-111), but in her forthcoming *Prähistorische Bronzefunde* volume Sabine Gerloff will argue that the complete Iberian cauldrons should instead be compared to insular class A and thus be contemporary with the Wilburton phase. Needham and Bowman (2005) note the similar distribution of cauldrons and flesh-hooks in the north of the peninsula and suggest both types were introduced at the same time as lozenge-section spearheads.

Cylinder-socket sickles are known from at least one hoard (Arganil - Coffyn 1985: pl. XLIII) and several *castros*, but local sickles of the Rocanes type (*à bouton allongé*) are much more common (Melo 2000: 58, 67). Axe types, as in Atlantic France and Britain, are mainly palstaves, especially heavy types with narrow blades, reminiscent of Wilburton/Saint-Brieuc types, but are usually longer from stop to edge, even elongated in form. Sometimes they have one loop, as in the Híó hoard, but often they have the characteristically Iberian twin loops. Equally peculiarly Iberian are the extraordinary flat-faced palstaves (Ibidem: 56-57, 66; Chitty 1936). These palstave types are supplemented by lugged axes, often in heavy versions, but as in Atlantic France socketed axes are rare, and generally have, as in Britain, slender, square-bodied forms with multi-ribbed (Híó) or flattish collars (Bouças hoard – Coffyn 1985: pl. XXXVI).

Much of the important assemblage of material from the *castro* at Senhora da Guia, Baiões, Viseu, comes from the so-called founder's hoard dated to the this period. Most of this find was recovered in 1983 following installation of an artesian well and water pipes (Silva *et al.* 1984; Silva 1986, 165; Ruiz-Gálvez Priego 1997: 102-105, fig. 9.4; Silva, I. 1995: 72, n° 52). The Baiões assemblage has few weapons, but in addition to undistinguished spearheads there is a stepped-blade example, and a tapering ferrule with expanded foot. Perhaps most remarkable is what appears to be a bent spearhead (Silva *et al.* 1984: 83, Est. VII.1), but the curl-over of the blade looks deliberate and the piece seems at first to resemble a «curved socketed knife» of the type well-known in Late Bronze Age Scottish hoards: Cullerne, Morayshire, Wester Ord, Ross and Cromarty, and Sleat on the Isle of Skye (Coles 1959-60: 46, 87) and in Ireland (Eogan 1964: 296, fig. 12, 5). These hoards are later than Baiões, but there is an earlier association, in the hoard of Fresné-la-Mère, Calvados, which is probably of the Rosnoën phase (Eogan 1967: 158-161, fig. 8). However, BOC has been able to examine the Scottish knives thanks to our friend Trevor Cowie and to verify that they have the form and proportions of socketed knives, whereas the Baiões object has those of a spearhead. Whatever the function of these strange tools, like that other

instrument of uncertain purpose, the cylinder-socket sickle, they persisted long in the Atlantic world. The Baiões hoard has no less than nine of these sickles (Silva *et al.* 1984: 79-81, est. V). All are from the same mould and are characteristic of the socketed sickles found mainly in Portugal (Armbruster 2002-2003: 147-8). In Britain, ring-socketed sickles also occur in the Isleham hoard, Cambridgeshire (O'Connor 1980: 98-99, 366, fig. 44, 26), which would be contemporary with Baiões.

The axes here are mostly twin-looped «massive» palstaves (Silva *et al.* 1984: 78-79, est. IV), but there is also a bronze mould for flat-faced palstaves (Ibidem: 76-77, est. III; Armbruster 2002-2003: 148, est. VI). The rich array of feasting furniture is the highlight of the Baiões assemblage, notably a magnificent triple-pronged flesh-hook (Needham & Bowman 2005: Class 3, n° 9), which has been described as a masterpiece of bronze worker's art without direct parallels (Armbruster 2002-2003: 149, est. VII). The Irish flesh-hook from Dunaverney, Co. Antrim (Needham & Bowman 2005: Class 3, n° 1), has recently given a radiocarbon date range of 1050-950 cal BC consistent with our Wilburton phase.

Baiões has produced a rotary spit (Burgess & O'Connor 2004: 196, n° 2; Armbruster 2002-2003: 149-150, est. VIII, 1), though not from the hoard, thus making this the only site where flesh-hook and spit both occur. There are also cauldron fragments, but much more extraordinary are pieces which show that Mediterranean elements were mixing with the Atlantic here in the far west (Burgess 1991: 37-38). The Baiões hoard contains a unique miniature wheeled cauldron (Armbruster 2002-2003: 150-151, est. IX-X), which is surely of local manufacture but has reminiscences of Mediterranean and central European fashions; and also a series of hemispherical spun bronze bowls, of Cypriot inspiration if not actual imports (Ibidem: 151, est. XII, 2 & XIII, 1). Not part of the hoard are two fragmentary fibulae (Kalb 1978: 117, 123, Abb. 8 top left & 10) and probably of a plain, double-spring type common in the central Mediterranean, and especially Sicily in Pantalica II-III (cf. Müller-Karpe 1959: Abb.32). Another indication of oriental influence may be two so-called *tranchets*, openwork handles expanding into short, ribbed wedge-shaped extensions. Another was found at Monte do Crasto in the Beira (Vilaça 1995). These are very reminiscent of Sardinian Late Bronze Age openwork mirror handles (Lo Schiavo 1991: fig. 2), and mirrors will be touched on further below.

Not far from Baiões another castro, Santa Luzia (Inês Vaz 1987), presents a similar mix of Atlantic and Mediterranean. Here, too, are cylinder-socket sickles, cauldron fragments, a ferrule with expanded foot, and a bifid razor. This last was another long-lived (and therefore not closely datable) Atlantic type sometimes found in Iberian Late

Bronze Age hoards, such as Huerta de Arriba, Burgos (Coffyn 1985: pl. LXV). Mediterranean influence at Santa Luzia is represented by at least one double-spring fibula, like those from Baiões.

These fibulae from *castros* form part of the «background noise» of oriental material beginning to permeate the central Mediterranean and Iberia; for the eleventh century (in the traditional local chronology) saw the emergence of Phoenicia and the beginnings of Phoenicia's far-flung commercial adventuring, southwards down the Red Sea to Ophir and westwards through the Mediterranean to Tartessos (Burgess 1991). Ornaments in particular must represent the visible elements in traffic that was presumably mostly invisible: textiles, perfumes, spices, wine and other perishables (Ibidem: 37). Other fibulae have been found in settlements, including a fibula *de codo* at the Cerro de Los Infantes, Granada (Mendoza *et al.* 1981, Abb. 12f); and another at Cerro de la Miel, Granada, in a site which produced a Huelva sword (Brandherm 2007: n° 85; misidentified as a carp's tongue sword by Carrasco *et al.* 1985). Another fragmentary double-spring fibula comes from Outeiro dos Castelos de Beijós, Viseu, a Baiões/Santa Luzia site, where it was associated with a radiocarbon date of 814-777 cal BC (Senna-Martinez 2000b: 47, 56, fig. 11; Arruda 2005a: 296). Fibulae from graves include examples of the simple double-spring type, like those noted above, from the cupula tomb of Roça do Casal do Meio, Setubal (Spindler *et al.* 1973-1974; Silva, I. 1995: 95, n° 70), and a *de codo* fibula from San Román de la Hornija, Valladolid (Delibes de Castro 1978). Coffyn (1985: 396, fig. 56, carte 24) listed fourteen early fibulae of various forms, including *de codo* and more elaborate Cypriot fibulae, found all over Iberia; but the number has probably at least doubled since then (Ruiz Delgado 1989; Carrasco Rus & Pachón Romero 2006d on Huelva fibulae appeared too late for us to take account of it) with new finds from excavations, especially of *castros* and settlements, many demonstrably of this Hío period. So too are examples of another ornament type, the penannular ear-ring with fat body and thinned terminals, as found in the hoard from Río Sil (Almagro Basch 1960: E3). Because this is a simple form one hesitates to be categorical, but while it does not normally appear in the west, it is a common Phoenician ornament. It is interesting, therefore, to note an example from the site at Santa Olaia, near the Portuguese coast at Figueira da Foz (Rocha 1905-1908), a site notable for its Phoenician material, but which has also produced cauldron fragments (Gerloff forthcoming) and has been linked to Baiões (Senna-Martinez 2005). However, the pottery from Santa Olaia has been dated later than Hío, to the seventh and sixth centuries (Arruda 2005a: 294, 297). That these ear-rings reached much further north

in Atlantic Europe is indicated by one in the hoard from Saint-Gregoire, Ille-et-Vilaine (Coffyn 1985: fig. 69), where the associated lugged tools confirm the likelihood that this piece was brought up from Iberia.

Saint-Gregoire serves to emphasize that the transmission of ideas and metalwork was not all from the Atlantic world into Iberia but also went in the other direction. The northwards flow was clearly not heavy, but is indicated especially by unmistakable Iberian axes such as twin-looped palstaves, both single finds (Ibidem: figures 66-68), and in hoards of the Saint-Denis-de-Pile group, such as Saint-Denis-de-Pile itself, and Uchamp in the Gironde (Ibidem: figures 39-40).

Nor was the flow from the east all one way. From Iberia to Sardinia went knowledge of heavy swords, for nearly all the swords of nuragic Sardinia are in the Atlantic tradition (Burgess 2001b: 179). The indigenous rapiers, extremely long, slender and impractical, must have been entirely for show and ritual. Atlantic swords begin with examples with exaggerated broad heavy leaf blades, in the manner of the English Mortlake series and their counterparts, such as the swords from Évora (Brandherm 2007: n° 27-8; Meijide Cameselle 1988: lám. VIII). This is the background of the swords from the Su Tempiesu well temple (Fadda & lo Schiavo 1992) and the well-known sword from Siniscola (Contu 1997: (2), pl. CLI-II), but at the other end of LBA2 there are Huelva swords with straight blades, including another sword from Siniscola (Ibidem: fig. 129), and another in a hoard with nuragic «rapiers» from Bolotana (Lo Schiavo 1994: fig. 7). And the Atlantic tradition continues into LBA3, to the Monte Sa Idda hoard and its many carp's tongue variant swords. Sardinia also has socketed sickles and other Atlantic LBA types. Coffyn (1985: carte 23) has mapped this Iberian material in the central Mediterranean, but it is likely that much of it reached there in LBA3.

Another important source of evidence for this period are the Iberian weapons stelae (Almagro Basch 1966; Blázquez 1985-1986; Galán Domingo 1993; Harrison 2004; and especially Celestino 2001a). One of us elsewhere (Burgess 1991) has dealt at length with the evidence that many of these must belong to the Hío phase, and even the preceding *BF1* phase if the sword on the Fóios stela is of Rosnën type (above). The crucial point is that there is little if anything on the stelae that need be later than Hío. While many of the stela swords are imprecisely drawn, there is not one with an indisputable carp's tongue point. On the other hand many undoubtedly have leaf-shaped blades, and these had a restricted life in Iberia centring on the twelfth-eleventh centuries. The earliest are the Clewer equivalents in the latter part of *BF1*, then those in the first part of Hío, in hoards such as Río Sil. But by the latter part of Hío -in Hío itself and Huelva for exam-

ple- swords have straight blades. Spearhead depictions on the stelae are uninformative, but what are useful are representations of the defensive equipment seldom occurring as actual finds, especially helmets with projecting studs, and V-notched shields. These are based on Irish-British versions of Nipperwiese and Harlech shields (Needham 1979; Burgess 1991: 40) which, since they have never been found in Iberia, were presumably of leather. But if the swords, spears, shields, studded helmets and bifid razors represent Atlantic influence, frequent bows and arrows confirm the continuing popularity of archery in Iberia. Horned helmets on the other hand are surely of Sardinian origin, as represented on the nuragic warrior figurines. Other Mediterranean influences, many already familiar from actual finds, are also depicted, including fibulae, mirrors, combs, lyres; and wheeled vehicles, for which we would otherwise have no Iberian evidence as early as this.

If the hoard from Río Sil with its leaf-shaped sword represents the earlier part of this *BF2* phase, the Hío hoard and the Ría de Huelva deposit (Ruiz-Gálvez Priego 1995b), with straight-bladed swords, represent the later stage. Few Iberian Bronze Age finds have been as often discussed and so often misunderstood and misdated as Huelva, mainly because of mistaken identification of the Huelva swords as carp's tongue. They are not. Nor is Huelva a carp's tongue hoard. The problem has been discussed by us in detail elsewhere (Burgess 1991; Burgess & O'Connor 2004) and a summary will suffice here. Quite simply, the contents of the Huelva find are without exception familiar elements of the Hío phase as discussed here: Atlantic elements include swords like those in Hío, spearheads including a lunate-opening example, long ferrules with slightly expanded ends, and studded helmets. Schauer (1983) suggested there is also a fragmentary Assyrian helmet, but this has not been widely taken up. Definite Mediterranean elements include several fibulae from Cyprus and the central Mediterranean.

CB has suggested elsewhere (Burgess 1991; repeated in Burgess & O'Connor 2004) that Huelva swords were Iberian equivalents of the Saint-Nazaire swords of France and Britain, the assumption being that in both cases we are looking at swords which in some way form a bridge to the development of carp's tongue swords. CB now accepts that he chose the wrong French swords to compare to Huelva swords! Brandherm (2007) has perceptively noted that some supposed carp's tongue swords in France are not true carp's tongue swords, for the very same reasons that Huelva swords are not carp's tongue swords. This has prompted us to re-examine the whole question of what constitutes a carp's tongue sword, starting with an assertion that we have made elsewhere (Burgess & O'Connor 2004: 192): that even in France there are well-known supposed carp's tongue swords which have been misidentified.

Brandherm has pointed out that no less a sword than that from La Pointe de La Hague, Manche, used to illustrate the classic carp's tongue type by Gaucher & Mohen (1972: 56, fig. 1), in fact has more in common with Huelva swords. He is absolutely correct in his claim that the swords in the hoard from Prairie de Mauves, Nantes (Briard 1966: pls. 5-10) – and he might have added all the other carp's tongue hoards – are more representative of the classic carp's tongue type of the carp's tongue hoards. The confusion in France does not stop with the Pointe de La Hague weapon. The swords used by Briard (1965: fig. 69) to illustrate his classic treatment of the carp's tongue type are often not carp's tongue swords, as we have noted elsewhere (Burgess & O'Connor 2004). Of the five «carp's tongue» swords on that page, only two are classic carp's tongue swords as we propose now more strictly to define them: n° 2 and 3. No. 5 has certain hilt features which must relegate it to treatment elsewhere, which leaves n° 1 and 4. Both these swords lack the vital hilt-shoulder curve that we now deem necessary to denote classic carp's tongue swords. The term «classic» carp's tongue (Prairie de Mauves) sword we propose to restrict to those carp's tongue swords typical of the hundreds of carp's tongue hoards in France and England. The crucial criterion lies in the configuration of hilt and shoulders. The hilt is relatively wide, with sides that eventually curve out gracefully and evenly towards the points of the shoulders (Colquhoun & Burgess 1988: 108). This contrasts notably with other sword types, Huelva swords and their French equivalents included, where there is a more abrupt angle between grip and shoulders. All other criteria are optional, and this includes even the carp's tongue point itself, for paradoxically there are classic carp's tongue swords in France and in Britain which lack the carp's tongue point: for example those from the Seine at Paris (Mohen 1977a: 170, ill. 596) and the Thames at Kingston, Surrey (Colquhoun & Burgess 1988: pl. 98, 669). Another characteristic of carp's tongue swords is the «right-angle» configuration of the underside of the shoulders and the ricasso, the shoulder undersides being horizontal, then turning abruptly down into a vertical ricasso (Burgess & O'Connor 2004: 192; Colquhoun & Burgess 1988: pl. 98, 669, 671 & 673; also most of the hilts on pl. 99: and in France the Vénat hoard carp's tongue swords, Coffyn *et al.* 1981: pls. 4-5). This «right-angled» line is frequently emphasized by a raised lip extending from the shoulder points into the upper blade (Colquhoun & Burgess 1988: pl. 99, 679, 681 & 690). The right-angled ricasso is not peculiar to classic carp's tongue swords, however, for it is a feature both of Huelva swords – such as that from the Cerro de la Miel (Brandherm 2007: n° 85; fig. 1.b) – and of their French equivalents, such as those from Pointe de La Hague and from

Saint-Philbert-de-Grandlieu, Loire-Atlantique (fig. 1.a & c). After the latter we propose to call these French weapons Saint-Philbert swords (fig. 1.a & c). Other notable «carp's tongue» characteristics shared by classic carp's tongue swords, Huelva and Saint-Philbert swords are the distinctive straight blade –with rounded midrib flanked by a groove joining from the lower shoulder– and by the carp's tongue point itself. These features can be seen on many Huelva swords, including several in the Huelva deposit itself, on the Cerro de la Miel sword (fig. 1.b) and commonly on their French Saint-Philbert equivalents.

Clearly, with Huelva and Saint-Philbert swords sharing so many carp's tongue features with classic carp's tongue swords, we risk accusations of illogicality and sowing confusion. The answer is perhaps to take refuge in Cowen's (1971: 154) notion of a «great family of Carp's-Tongue Swords» which «clearly embraces a number of varieties». If we then risk resorting to outmoded and, dare we say it, loaded terminology, then it may still some criticism to think of Huelva and Saint-Philbert swords as «proto-carp's tongue swords». Our main point in this, after all, has been to emphasize that the Carp's Tongue Complex, and classic carp's tongue swords, made no impact in Iberia.

This brings us back to figure 69 in Jacques Briard's study of the Breton hoards (1965) where the Saint-Philbert sword is n° 4. These Saint-Philbert swords can now be seen to be widespread in Atlantic France, and even to occur in Britain. In addition to the eponymous example and that from La Pointe de La Hague, a cursory glance at the obvious literature reveals examples from the Paris region (the Seine at Paris, at Corbeil and above Villeneuve-Saint-Georges – Mohen 1977a: 170-171, ills. 594, 595 & 597); from Picardy (Mouy, Oise; Blanchet 1984: 308, 526, fig. 170.3); several in south-west France, notably from the Garonne at Cambes (Coffyn 1985: fig. 48.1); and also, across the English Channel, from Llanddety in Breconshire (Colquhoun & Burgess 1988: pl. 99, 674). It is satisfactory to note that this first list of Saint-Philbert swords includes many of those swords in France and Britain which Brandherm (2007) relates to Huelva swords.

A preliminary scrutiny of the material suggests that Saint-Philbert swords do not occur in carp's tongue hoards, but are always single finds. Conversely, carp's tongue swords with rare exceptions always occur in carp's tongue hoards. Far-reaching conclusions can be drawn from these observations, which must be more fully rehearsed in another place, but they do suggest that Saint-Philbert swords belonged to that period at the end of the Saint-Brieuc phase, that is Blackmoor/Isleham in England, when hoards in Atlantic France (unlike England) were very rare. In this position chronology would confirm typology in suggesting that they, and not Saint-Nazaire swords, were the obvious and immediate precursors of the

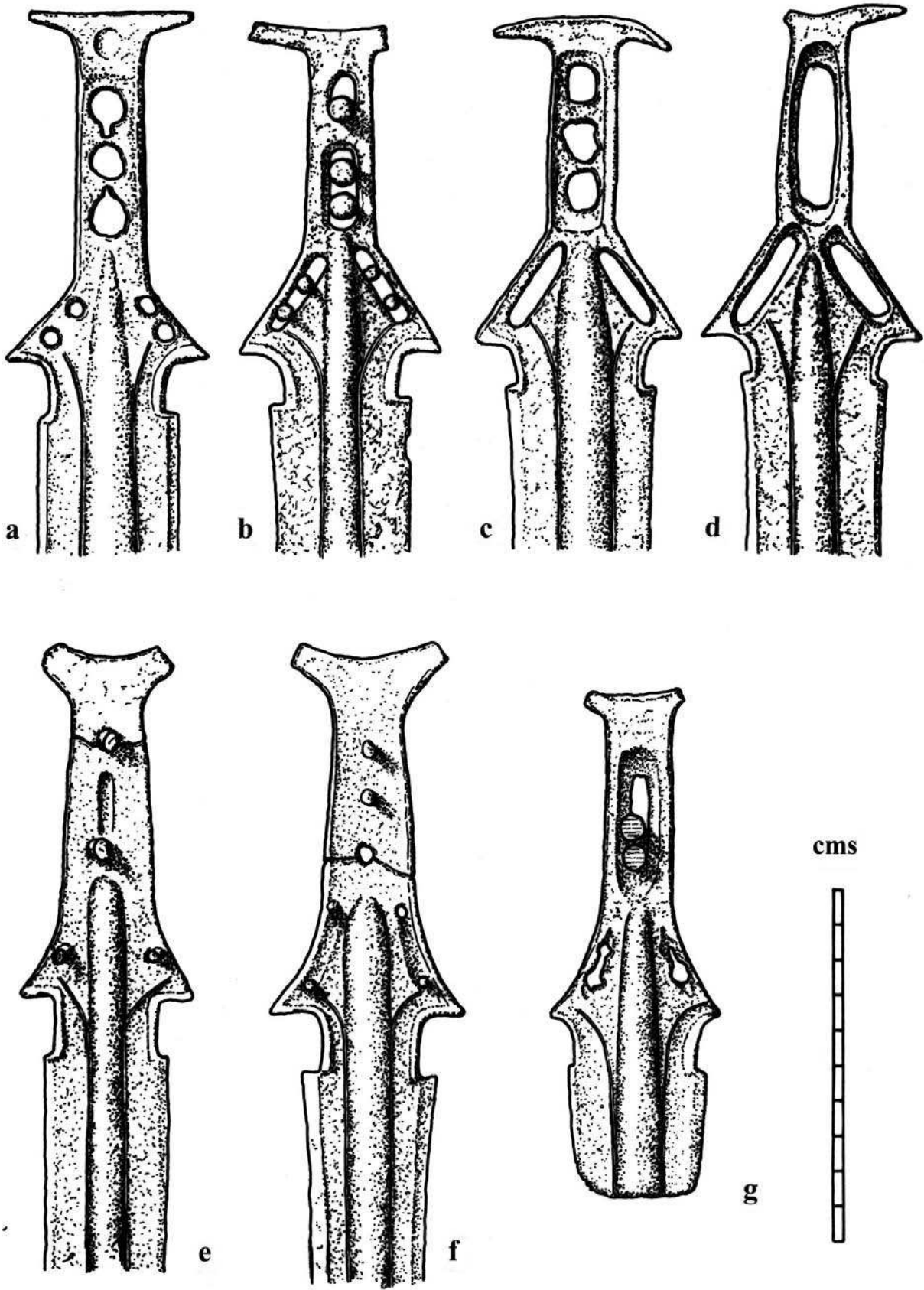


Figura 1
 Swords of the St. Philbert (a, c) and Huelva (b, d) groups contrasted with true carp's tongue swords (e-g): a. La Pointe de la Hague, Manche; b. Cerro de la Miel, Granada; c. Saint-Philbert-de-Grandlieu, L.-A.; d. Huelva deposit. e-g carp's tongue swords: e. Menez-Tosta hoard, Finis-tère; f. Vénat hoard, Charente; g. Addington hoard, Surrey. (a. after Gaucher & Mohen 1972; b. after Carrasco *et al.* 1985; c. after Briard 1965; d. after Coffyn 1985; e. after Briard & Giot 1956-58; f. after Coffyn *et al.* 1981; g. after Britton 1960).

classic carp's tongue swords. Further comments on the emergence of Saint-Philbert swords and their relation to Saint-Nazaire swords in one direction and carp's tongue weapons in the other must await another occasion. One more observation will suffice: examination of Saint-Philbert and Huelva swords alike shows up a hilt form common on both, a narrow parallel-sided «bar» hilt with large rivet holes. Examples are sufficiently numerous to suggest that when it does occur, rarely, on true carp's tongue swords, as it does on both sides of the Channel, it denotes examples early in the carp's tongue series. In singling out the fragment in the carp's tongue hoard from Beachy Head, Sussex (Colquhoun & Burgess 1988: n° 690; Curwen 1954: 207, 216-217, n° 19, pl. XVII.2-7), as a hybrid Huelva/carp's tongue sword, Brandherm has clearly reached a similar conclusion to that of the present authors, that the Saint-Philbert/Huelva «bar hilt» with large rivet holes is of archaic aspect. And the fact that it is so rare on carp's tongue swords in hoards, and that the carp's tongue swords in hoards are for the most part so uniform, might suggest that carp's tongue hoards were deposited at some distance in time from Saint-Philbert swords. Here, however, we are aware that limited space is in danger of forcing us into circularity of argument.

So Huelva swords were a local equivalent not of Saint-Nazaire swords but of Saint-Philbert swords. CB's first working hypothesis sees them in the long line of Anglo-French sword fashions and products that were carried southwards down the Atlantic sea routes, beginning with early Urnfield derivatives, then Limehouse-Essonne swords (Burgess & O'Connor 2004: 191) followed by Wilburton-Brécý weapons (Ibidem), and then Saint-Philbert swords, leading finally to carp's tongue. But further scrutiny of these problems, especially of the French material, may yet reverse this flow, and take Huelva swords northwards to influence French developments.

Huelva swords are the most numerous Iberian type, at least 84 of the 105 Iberian examples coming from the eponymous find (Brandherm 2007: n° 44-148). The smaller Puertollano variant (Ibidem: n° 149-62) comes mainly from that more recent find (Ibidem: lám. 55-56A), but also occurs at Huelva. There is a Huelva sword in the Hío hoard, Pontevedra (Ibidem: n° 55), while the Remanso de las Golondrinas (Pool of the Swallows) in the River Genil, Sevilla, has produced two Huelva weapons and a Puertollano variant (Ibidem: n° 58, 110 & 159) with a spearhead and a flesh-hook with twisted metal shaft (Needham & Bowman 2005: Class 4, n° 3; Armada Pita & López Palomo 2003). Brandherm agrees with the present writers in concluding that since Huelva swords do not occur in carp's tongue hoards, Spanish finds containing Huelva swords should be aligned with Wilburton and Blackmoor. The very few classic carp's tongue swords from

Iberia are represented by the three examples of his Safára type (2007: n° 163-165). We suggest that unclassifiable blade fragments could add to this number, and that there are other examples of the carp's tongue family to be taken into account, as we shall see below.

Many of the spearheads from Huelva find their best antecedents in the Wilburton and Blackmoor hoards (Ibidem: n. 195-196). The blade with lunate openings (Ruiz-Gálvez Priego 1995b: 210, Ic.210, lám. 15, 22) can be linked directly with Blackmoor and other Wilburton hoards (Colquhoun 1979: 106, fig. 4.1, 1-2 & 5), though perforated spearheads also occur in France (Briard & Mohen 1983: 143-146; Coffyn 1985: 133, carte 17). A link with northern France would be supported by the presence at Huelva of four or five spearheads with long flame-shaped blades and short sockets attributed to the Parisian type (Ruiz-Gálvez Priego 1995b: 210, Ic. 211-215, lám. 15, 23-27; Briard & Mohen 1983: 129-30). In terms of distribution, it is also significant that the more complete crested helmet from Huelva (Ruiz-Gálvez Priego 1995b: 217, lám. 19, 1-2; Hencken 1971: 72, fig. 48a) has its best comparisons in northern France, from the River Oise at Armancourt, Oise, and the Bernières d'Ailly hoard, Calvados (Ibidem: 66-72, figures 39-46; Blanchet 1984: 316, 507, fig. 176; Marcigny *et al.* 2005: 96-97, n° 86).

We should also note a recently published fragment of a crested helmet from an important deposit in an ancient course of the Rhine at Roxheim, north of Ludwigshafen (Sperber 2006: Abb. 7.14). This find has produced tubular ferrules (Ibidem: Abb. 6.7-8), one with an expanded foot resembling an example from Baiões (Kalb 1978: Abb. 1.7). Among the fragments of Atlantic swords, several appear to belong to the carp's tongue blades that characterise carp's tongue hoards (Sperber 2006: Abb. 5, 2, 6-10, 14, 16 & 19). However, we have made it clear that such blades are equally characteristic of Saint-Philbert and Huelva swords and this identification is reinforced by the only illustrated hilt on a 'carp's tongue' blade. This is a three-slot hilt (Ibidem: Abb. 5, 1), a form abundant in the Huelva find, so we would be inclined to agree with Brandherm's attribution of this Roxheim sword to the Huelva type (2007: n° 272). The small size of most of the sword fragments suggests that comparison of the nature of the Roxheim deposit with Huelva and river finds from the Thames and the Seine (Sperber 2006: 207), where more complete swords are usual, may be less apposite than with Atlantic hoards from wet places which contain much broken-up material, including the Scottish lake find from Duddingston Loch in Edinburgh (Colquhoun & Burgess 1988: 52, pl. 177-178A).

Two Vénat spearheads have been claimed from Huelva (Ruiz-Gálvez Priego 1995b: 206, Ic.175-176, lám. 14, 6-7), but the resemblance is slight at best (see our definition of the Vénat type below), while one of these pieces

probably probably does not belong to the Huelva find dredged up in March and April 1923 (Brandherm 2007).

The tubular ferrules from Huelva itself (Ruiz-Gálvez Priego 1995b: 210-216, lám. 16-17), also associated with Huelva swords from the Guadalquivir at La Rinconada, Sevilla (Brandherm 2007: n° 53; Ruiz Delgado 1988: 276, fig. 1C), and Puertollano (Brandherm 2007: lám. 55.8) should be compared to the long ferrules of the Wilburton and Blackmoor phases, rather than the shorter ferrules characteristic of the Ewart Park phase (Burgess *et al.* 1972: 216).

LATE BRONZE AGE 3/BRONZE FINAL 3/EWART PARK/CARP'S TONGUE/EDAD DEL HIERRO 1

We consider that the great majority of Iberian Late Bronze Age hoards belong to our Hío phase, including in addition to those mentioned above, such notable finds as Cabezo de Araya, Badajoz; Cisneros, Palencia; Monte do Crasto and Arganil in the Beira Litoral; Quinta de Ervedal, Castelo Branco; Solveira, Trás-os-Montes; and Porto de Concelho, Beira Baixa (all conveniently illustrated by Coffyn 1985: pls. XXXIV-XLIV; for Porto de Concelho see also Melo 2000: 59-73). We acknowledge, however, that Brandherm (2007) places Quinta de Ervedal earlier and Porto de Concelho later. With Iberia so firmly part of the Atlantic Bronze Age in this Hío stage, one might have expected the Atlantic connection to continue after Hío, but not at all. What followed in Atlantic lands further north were new industries characterised by the carp's tongue complex, but pace the second quotation at the head of this paper, there was effectively no carp's tongue in Iberia, as we have pointed out elsewhere (Burgess 1991; Burgess & O'Connor 2004).

Although the classic carp's tongue sword is very rare in Iberia, it has to be remembered that Cowen's «great family of Carp's-Tongue Swords clearly embraces a number of varieties» (Cowen 1971: 154). No systematic work has been carried out on identifying carp's tongue variants beyond Cowen's identification of the Boom, Monte Sa Idda and, especially, the Vénat groups (Ibidem). The last, with projecting pommel stud and sunken recess to the hilt, is by far the most numerous and widespread (fig. 2). Brandherm's corpus attributes only two swords and two daggers to the Vénat type (2007: 167-170). Hitherto, the Vénat type has not been known beyond Brittany (Ibidem: lám. 98; Coffyn *et al.* 1991: 190, carte 1), but we can now add two finds from further north. First, a complete example from Lobith, Gelderland in the Netherlands (Butler 1987: 33, n. 10, fig. 19) – though this may not be a characteristic example (Brandherm 2007: n. 259) – and, second, a pommel in the Hoaden II hoard, Kent

(see below; fig. 2.a). These finds complement the eponymous dagger of Boom type from near Antwerp (Cowen 1971: 157, 165. n° 1, fig. 3.1, pl. IX.7; Warmenbol 1991: fig. 19) which is related to swords of the Monte Sa Idda type, now known from the stone mould found in 1979 at Ronda, Málaga, to have been produced in southern Spain (Brandherm 2007: n° 178). Other Iberian sword moulds are for unclassifiable types (Ibidem: n° 225-230), but the last of these, from Peña Negra, Alicante, was associated with moulds said – unconvincingly in our view – to be for Vénat spearheads (Ruiz-Gálvez Priego 1997: 105, fig. 9.5b, 24-27; Coffyn *et al.* 1981: pl. 11, 7-20).

The other carp's tongue type supposedly widely distributed in Iberia is the Vénat spearhead (Coffyn 1985: carte 19, list p. 391). Considering how distinctive is the Vénat type, it is extraordinary how consistently it has been misidentified. As represented by the three examples of the type in the Vénat hoard itself (Coffyn *et al.* 1981: pl. 11, 7, 8 & 17), and the fine series in the hoard from Triou, Deux-Sevres (Pautreau, Gendron & Bourhis 1983-1984: 36-43), the form is very consistent (fig. 3): a slender, relatively long blade with the maximum width, often rather angular, *at about, and often just below halfway* (our italics), and the turn in towards the point also quite abrupt and even angular. The base of the blade turns abruptly into the socket, and may even be slightly barbed, and the socket itself is short and expands widely. Even in carp's tongue France these spearheads are not found everywhere, but are concentrated between the Loire and the Gironde in an example of the regionalism of the carp's tongue complex that must await another paper. None of the Vénat spearheads mapped outside France are Vénat spearheads, and this is as true of Britain as of Iberia. The type is at present unknown in both areas, as it is in some French carp's tongue areas such as the Breton peninsula. Of the enormous range of distinctive carp's tongue axes, tools and bric-a-brac, there is scarcely a trace in Iberia.

The Vénat hoard contains several of the shallow oval-or lozenge-shaped terminals sometimes called boat-shaped chapes (Coffyn *et al.* 1981: pl. 8. 5-13). This is a carp's tongue type most common in western France, but also present in England (Jockenhövel 1980: 120, 201, Liste 3, Taf. 53A). Brandherm adds three examples from Portugal (2007: n° B 7-9), all from Late Bronze Age settlements. One of these sites, Pragança, Estremadura, has also produced two bag-shaped chapes of lozenge section (Ibidem: n° B 4 & 5; Coffyn 1985: pl. XLV. 10-11).

Brandherm (2007) attributes to his Ewart Park/Vénat/Monte Sa Idda phase the hoard from Ripoll, Girona. This dating can be confirmed by the recent recognition in that hoard of a fragment from a double-edged socketed knife, previously identified as part of a chape

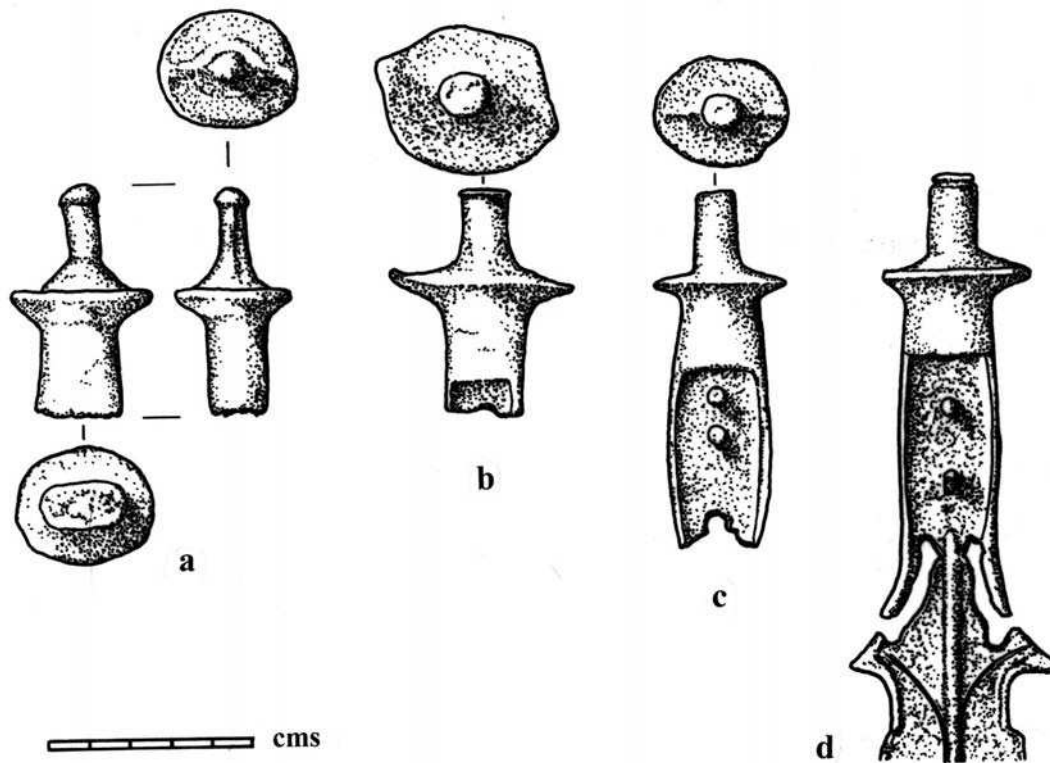


Figura 2

Swords of the Vénat type: a. Hoaden II hoard, Kent; b. Parc-aux-Boeufs hoard, Morbihan; c. Pont-er-Vil hoard, Morbihan; d. hybrid sword with Vénat hilt and Monte Sa Idda blade, Fiéis de Deus hoard, Leiria. (a. after Perkins 1998; b. & c. after Briard 1965; d. after Coffyn 1985).

(Rovira i Port & Casanovas i Romeu 1999: 46, n° 16; Rovira i Port 1998: 164-165). Apart from one example from the River Dordogne, the nearest finds will have been from Vénat (Gallay 1988: 155, Taf. 68A). In addition, though the comparison is not exact, we may note the resemblance between the socketed tang in the Ripoll hoard and two English tools. The first has a slightly tapering tang with rectangular section (Rovira i Port & Casanovas i Romeu 1999: 54, n° 21), while the examples from Scarborough, North Yorkshire (Smith 1927: 181, fig. 4), and the Ewart Park hoard from Donhead St Mary, Wiltshire (Passmore 1930-1932: 375, n° 15, pls. I, lower left & II, lower second left), have straight tangs and may be narrow gouges or drills.

Although Brandherm (2007) places several other Iberian hoards – including the three studied recently by Melo (2000) – in his Vénat phase, after Huelva so after c. 950 BC, there is simply not the range of bronze products to think in terms of a *Bronze Final* stage comparable to carp's tongue, Ewart Park and Dowris further north in the Atlantic world. One of us has elsewhere suggested that this is because Iberia entered a precocious Iron Age (Burgess 1991), iron and ironworking being yet another of the Mediterranean influences arriving in the Hío phase. It has long been known, for example, that there is iron in the Huelva assemblage, and there is a composite chisel in the Baiões material with bronze socket and iron blade (Armbruster 2002-2003: 146-147, est. II). Outeiro dos Castelos de Beijós has produced an iron

knife with a suggested date in the tenth or even eleventh century BC (Senna-Martinez 2000b: 53, 57-58, fig. 14; Arruda 2005a: 296). We should note in passing that the same context produced two fragments of a rotary spit that we were not aware of when we compiled our list (Ibidem: 56-57, fig. 12; Burgess & O'Connor 2004).

Now iron does not lend itself to hoarding in the same way as bronze, is not recycled in the same way, is much less eye-catching in excavation, and is notoriously difficult to chart in its early stages of development (Burgess 1979). We can only surmise, therefore, that as Phoenician pre-colonial contacts gathered pace during the tenth and early ninth centuries, so iron and ironworking spread. And with the start of Phoenician colonisation now likely to be set back a century, into the ninth, with the re-dating of certain Aegean pottery forms (Brandherm, this volume), the length of the pre-colonial phase that has to be filled has shrunk dramatically. Settlements such as Aldovesta in the lower Ebro (Mascort *et al.* 1991), with many early Phoenician amphorae that once might have been considered late eighth century but may now be ninth, not surprisingly have the iron, but also still some bronze – including a socketed axe. This mix of iron and bronze has also been noted with surprise by Vilaça (1995; Raquel Vilaça's article on iron in Late Bronze Age contexts in Portugal (2006a) appeared too late for us to take account of it) in the latest Bronze Age communities of the Beira Interior, and

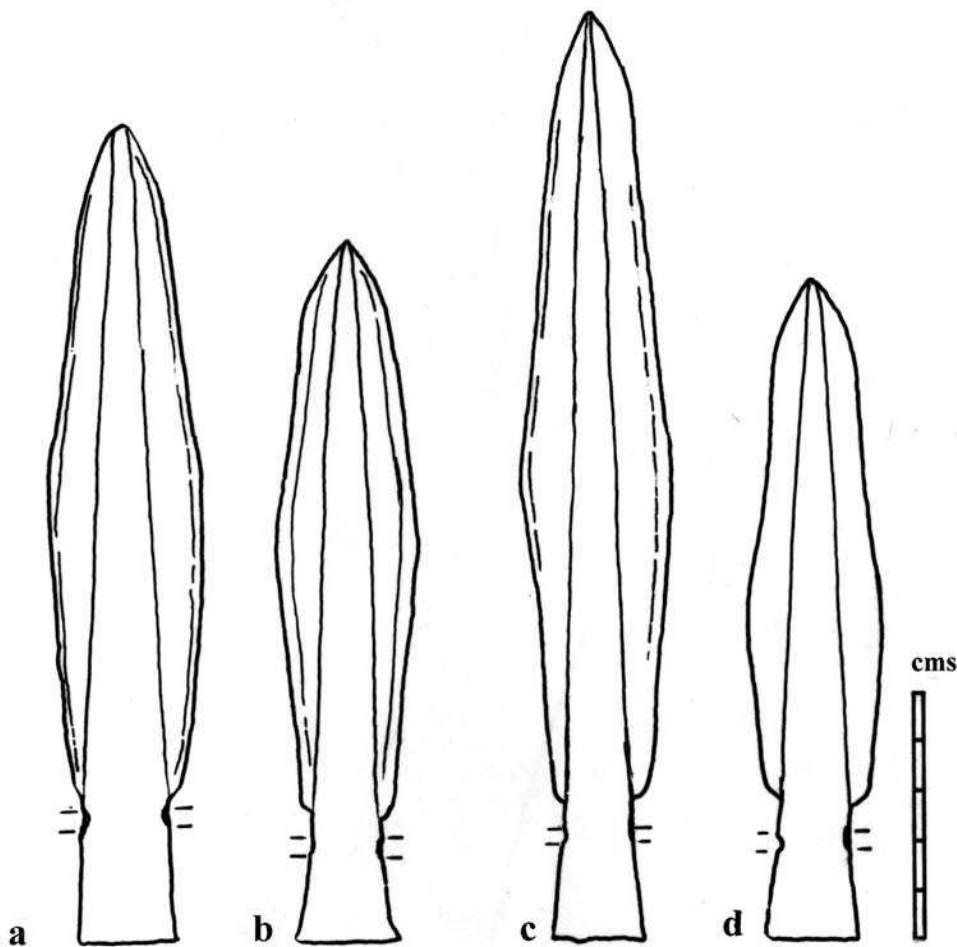


Figura 3
Spearheads of Vénat type: a, b. Vénat hoard, Charente; c, d. Triou hoard, Deux-Sevres. (a, b. after Coffyn *et al.* 1981; c, d. after Pautreau *et al.* 1983-84).

no doubt a systematic search of *Bronze Final* settlements would throw up a regular pattern.

The final, carp's tongue, phase of the Atlantic Bronze Age saw both unparalleled hoard deposition and long-range trafficking in metalwork which is hard to explain. A mechanism or mechanisms developed which required not just direct transmission of bronze-work, often in scrap form, but distribution which one feels was hand to hand. Is this how one must explain the scattered finds of Sicilian/Italian shaft-hole axes in Atlantic Europe as far away as Southbourne, near Hengistbury Head on the south coast of England (Hawkes 1938; Cunliffe 1978: 29-31, figures 9.2 & 10; Coffyn 1985: carte 25)? Are interruptions of regular metal supplies why French carp's tongue material was shipped across the Channel to Britain, and why so much British Ewart Park material ended up in France? Iberia does not have this frenetic end-of-Bronze-Age hoard deposition, but it certainly sent shipments of often outmoded bronzes northwards to Atlantic France, hence the presence of distinctive Iberian palstaves and lugged axes there, reaching as far as the centre-west, and looking very much like scrap in hoards such as Rouillasse, Charente-

Maritime (Ibidem: fig. 64), and in the large carp's tongue hoard of Triou in Deux-Sevres (Pautreau *et al.* 1983-1984: 67 n° 30). Other shipments went eastwards to the central Mediterranean, but can this mean there was a need there for scrap metal, especially on metal-rich Sardinia, where the large Monte Sa Idda hoard (Lo Schiavo, this volume) consists very largely of Iberian bronzework? This is not a collection of contemporary pieces for sale, but an assemblage of material outmoded and fragmentary, bronzes Early, Middle and Late, including copper flat axes going back to the dawn of metalworking in Iberia. Many reasons have been suggested for the deposition of so many carp's tongue hoards, and Monte Sa Idda has its carp's tongue material. Was there a ritual or symbolic explanation? Was it just scrap being stored, the concept of the founders' hoards beloved of antiquaries and archaeologists for much of the nineteenth and twentieth centuries? One of us has suggested a variation on this explanation (Burgess 1979), that it was indeed scrap, but scrap that was abandoned in an age when the rapid rise of ironworking dramatically reduced the market for bronze. This concept of abandonment or «dumping» has also been explored by Needham (1990b: 135), and has

been considered in an Iberian context (Carrasco *et al.* 1985: 312), for material he regarded as carp's tongue, the Huelva deposit and the complete Huelva sword from Cerro de la Miel, Granada. But since we now know these to be earlier, of the Hío stage, these finds belonged to an earlier episode of metal deposition.

It is against this background of instability, of interruption and change in metal supply and manufacture, and of abnormal flow, deposition and long-range transmission of metal, that we must view some of the remarkable connections linking, albeit at many times remove, the extremities of the Atlantic and Mediterranean worlds at the end of the Bronze Age. Few are more remarkable than the carp's tongue swords, but the distribution of the variants with projecting stud at the end of the hilt – Vénat, Monte Sa Idda and Boom (Cowen 1971) – is even wider (Coffyn *et al.* 1981: 190-1, carte 1). The first Vénat sword in England has recently been recognised by one of us (CB), in the Hoaden II carp's tongue hoard from Kent (Perkins 1998: 369, fig. 5.3, 62). This identification, made from the published drawing, has since been confirmed by both of us from inspection of the actual object. The distribution of Vénat swords now extends all the way from England, down the Atlantic seaboard to Portugal, and eastwards to Sardinia, where one was included in the hoard from Monte Sa Idda (Taramelli 1921). This connection is paralleled by another, beginning almost at the same point and ending in precisely the same location. In a different part of the same county of Kent, in another carp's tongue hoard, from Hayne Wood, is included England's only rotary spit (Burgess & O'Connor 2004: 187-188, fig. 22.4). Again the chain leads down the Atlantic seaboard to Portugal, and thence to the Monte Sa Idda hoard. But in this case it extends onwards, through the Mediterranean to the rotary spit from Amathus, Cyprus (Karageorghis & Lo Schiavo 1989). Alas, one can no longer add to the list of these remarkable long-range connections the barbary ape (Lynn 2003: 49-50) from the hillfort of Navan in Ireland, once thought to be from Late Bronze Age levels, but now reassigned to a later Iron Age phase of the site. But it does remind us that remarkable though the unfolding history of Atlantic, Iberian and Mediterranean metal connections has been, it is only the tip of an iceberg, that would mostly have been made up of invisibles and intangibles that we can only guess at.

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ABSTRACT

This paper reviews the evidence, mainly metalwork, for the place of the Iberian Peninsula in the so-called Atlantic Bronze Age, and for Iberian contacts with the Mediterranean. After setting out the chronological framework, we summarise the background from the Copper Age to the Middle Bronze Age. During the Early and Middle Bronze Age there is little evidence for traffic on the Atlantic seaways south of the English Channel in contrast to the abundant evidence for cross-Channel contacts, and Iberia developed largely in isolation without reference to lands to the north. There follows discussion of the three phases of the Late Bronze Age. During Late Bronze Age 1 contact with Atlantic Europe is discernible though limited, but there is also some evidence of influence from Urnfield Europe. Only in Late Bronze Age 2, equivalent to Wilburton in Britain and Saint-Brieuc-des-Iffs/Saint-Denis-de-Pile in France, did the metalwork of Iberia reflect that from Britain and France to the extent that we can speak confidently of an Atlantic Bronze Age. In Iberia this is the Hío phase, with abundant exotic influences – mainly Atlantic but some also Mediterranean. The Huelva find belongs to the last part of this phase; both its traditional dating to the succeeding LBA 3 phase and its identification as part of the carp's tongue complex, are shown to be incorrect. Carp's tongue swords and their antecedents are redefined, while Huelva swords are shown to be Iberian equivalents of a group of French swords – the forerunners of carp's tongue swords – named here after the weapon from Saint-Philbert-de-Grandlieu. True carp's tongue swords are almost absent from Iberia, though carp's tongue variants are rather more common. Other familiar components of the carp's tongue complex are entirely missing or very rare, including Vénat spearheads; the many supposed Iberian examples of these spearheads have been incorrectly identified. While some hoards did occur in Iberia during Late Bronze 3, these differ in character from carp's tongue hoards and other contemporary hoards north of the Pyrenees. Comparatively little bronze metalwork can be dated to this phase, which may reflect the precocious adoption of iron in Iberia under oriental influence.