15. MILITARY DEVELOPMENTS IN THE ‘LATE IBERIAN’ CULTURE (c. 237-c. 195 BC): MEDITERRANEAN INFLUENCES IN THE FAR WEST VIA THE CARTHAGINIAN MILITARY

Summary: The traditional Iberian panoply developed during the 5th and 4th centuries BC, superbly adapted to the local circumstances of warfare in the Iberian Peninsula, underwent major modifications and adaptations in the late 3rd century BC. After their defeat in the First Punic War, the Carthaginians, and in particular the Barcid faction, used the Southern and Eastern parts of the Iberian Peninsula, already subject to much Semitic influence since the ninth century BC, to rebuild some sort of territorial and economic ‘empire’. A big part of Spain became a logistical and military base, thousands of mercenaries were hired and local subjects and allies recruited, and by the time Hannibal marched on Italy, a sizeable part of his army was built around a hard core of African and Iberian or Celtiberian contingents. These troops (already partly familiar with foreign warfare through their previous employment as xeni in Sicily and Greece), now increasingly employed new types of weapon, such as the oval thureos, the cut-and-thrust straight sword, and bronze Montefortino-type helmets. These were used in a more sophisticated tactical framework of traditional, fourth-century vintage tactics (already based in a type of dual-purpose ‘line’ infantry with light infantry capabilities) but within the structure of a Hellenistic-type army in which those thureophoroi could be most useful in combination with other troop types. Although Hannibal’s army was not strictly a Hellenistic one, we will show that the implication of Iberia, velis nolis, in the ‘World Wars’ of the late 3rd century BC and later in the Roman Civil Wars, introduced military developments of ultimately Hellenistic origin.

However, these oval shields, bronze Montefortino helmets, and straight swords never completely displaced the traditional weaponry based on the round shield, leather helmet and curved falcata, except probably in those units serving under Carthaginian standards on a more or less permanent basis. During this period Iberians were increasingly being used (as allies, subjects or mercenaries) by the Carthaginians and later by the Romans as either line (dual-purpose) or light infantry, and as cavalry, but also fought each other, or on their own against both Carthaginians and Romans.

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1. A Note on Sources

One of the most characteristic traits of the Iberian, and, to a lesser extent, the Celtiberian cultures is the large number of almost life-size sculptures and reliefs, smaller bronze figures, and vase paintings that depict weapons, warriors and even battle scenes. This wealth of iconographic evidence is matched by the large number of weapons deposited as grave goods in cremation burials, weapons that usually appear as coherent sets from a functional point of view. Finally, a relatively large number of Graeco-Roman sources (notably Diodorus, Strabo, Polybius, Livy and Appian, among many others), inform us about Iberian weapons, tactics and warfare.

As literary sources provide what appears to be the most reliable, detailed and informative source of evidence, early scholars traditionally used them as the basis for reconstructing ancient Iberian warfare, using iconography and the weapons themselves to fill in some minor details and to ‘confirm’ what sources said. The patterns of behaviour described by literary sources, mostly for the Celtiberians, Lusitanians and the northern peoples who fought against Roman armies during the 2nd and 1st centuries BC, were extrapolated by these scholars, to describe the tactics, the military institutions, and the conduct of warfare of very different peoples (notably the Iberians from the East and South), and during completely different periods and situations (from the early 6th to the late 3rd centuries BC) not covered by the extant literary sources. Therefore, a homogeneous and deceptively simple pattern developed, a model that showed that all the Iberians had been for centuries a warlike race, a people that fought with somewhat exotic weapons employing barbarian, hit-and-run guerrilla tactics considered un-gentlemanly and cowardly by the Romans, who called them ‘concursare’ and labelled the Iberian armies as little more than an undisciplined rabble of very aggressive bandits without real stamina and unable to fight a ‘proper’ pitched battle, but who could wage a prolonged and ferocious guerrilla war.

Of course it was not always recognized that these very literary sources were usually quite late (of Augustan or later date in most cases); that they were biased in that they had an ideological agenda to defend (basically, to show the benefits of Roman civilization over barbarian savagery); and that the texts described the situation during the period of the Roman conquest, roughly the late decades of the 3rd and the 2nd centuries BC, a period and situation that

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This text arose thanks to Research Project ‘La imagen de las armas en la Iberia prerromana’. (BHA 2001/0187).

1 For a more detailed analysis, see Quesada (1997:20ff; 2002).
2 For a graph charting influences between these authors, see Quesada (1997:Fig.4).
3 Notably the German Adolf Schulten and following him many researchers, Spanish and foreign alike.
surely is not representative of the situation in earlier periods (6th to 3rd centuries BC), when the Iberian peoples were not implicated in the ‘World Wars’ of the time, and fought between themselves and not against the biggest military powers of the Western Mediterranean, or integrated as auxiliaries in their armies.

It is only over the last fifteen years that a completely new approach has been developed by Spanish scholars in the study of warfare among the Iberians. The starting point has been to explicitly recognize that literary sources, although very useful, should be considered only after taking into account their biases and the ideological, chronological and geographical framework in which they were written. Therefore, direct extrapolation of the information they provide to different periods and areas is to be avoided at all costs; now each literary reference is to be used only in its proper context, even if this seems to split the information available into many small units. Once this is done, the full capabilities of iconographical and archaeological studies can be taken into account, proving that, when properly used, grave goods and reliefs can be as useful and informative as the literary sources, not just complementary to them.

Recent research has been able to provide a completely new picture of weapon assemblages and typological development, taking explicitly into account the all-important factors of time and space. We are now able for the first time to draw a clear distinction not only between (roughly) the Iberian-speaking peoples from the Mediterranean coast and Andalusia and the Indo-European speakers from the Meseta and the southwest (Celtiberians, Lusitanians and many others), but also between the smaller regions within the Iberian area (i.e., Catalonia, the Southeast, Eastern and Western Andalusia). Also, the ‘time’ factor is now clearly defined, and different phases and sub-phases have now been defined and refined for the different areas.

II. The main phases in the early development of the Iberian weaponry (MID 7th-MID 3rd CENTURIES B.C.)

We shall now describe very briefly these phases, and regional developments, to put the analysis of the Late Iberian period into its proper context (see Figures 20 to 23)

The Formative Phase (c. 650-550 BC)
Data are scarce for this early and transitional period, labelled ‘Orientalizing’ in Andalusia and the Mediterranean coast (and sometimes specifically

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4 This has been argued in greater detail in Quesada (1997: 605-618), Lorrio (2002) and Sanz Minguez (2002).
‘Tartessian’ in Eastern Andalusia), and the ‘First Iron Age’ in Catalonia and the Ebro river valley. The main feature in this period is the extension of the metallurgy of iron. Defensive weapons are almost absent, although it seems clear that bronze armour, especially helmets, of both Greek, Phoenician and Hallstatt origin, were occasionally adopted but did not meet widespread acceptance.5 Some iconographic evidence shows that a form of leather and/or felt armour was in use, together with some form of head protection in leather and perhaps bronze. Regarding offensive weapons, we can trace the extinction of the long, straight bladed, carp’s tongue swords of Late Bronze Age III tradition.6 But the new iron swords are very rare in the Peninsula at this time: almost absent in the Meseta, they appear occasionally in princely or rich burials in two main areas: long flange-hilted swords with parallel edges in the South and East, and long- or short-tanged and antennae swords in the northeast.7 The most common offensive weapons are thus long, heavy spearheads meant for thrusting in close combat.

On the other hand, thousands of Scythian-type, bronze barbed and socketed military arrowheads imported by Phoenician colonists are known from seventh to sixth century contexts, but they are only found in Phoenician colonies and in native contexts in Andalusia and the island of Ibiza under intense Semitic influence, while flat, tanged bronze hunting arrowheads of Bronze Age vintage are common in Catalonia. Neither type would enjoy much, if any, success in warfare during the Iron Age II (c. 550-50 BC). Not much in the way of tactics can be ascertained, although what evidence there is points to quite small groups of infantrymen, armed mainly with javelins and spears, led by a few chiefs and their retainers on foot armed, armed with long thrusting spears and long swords, and protected with leather and occasionally bronze armour: keen to challenge their equals to single heroic combat.

The ‘Early Phase’ or the ‘Aristocratic panoply’

From c. 550 BC until c. 400 BC we can trace the development of the ‘Early Phase’ of Iberian weaponry, that we have labelled as the ‘Aristocratic panoply’. It shows a certain degree of continuity with the earlier period, but contains many improvements and innovations. Its best exponent are the life-size sculptures from the big and complex monuments at Obulco (Jaén)8 and Illici

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5 E.g. the 6th century BC bronze cuirass from Calaceite (Teruel, Ebro Valley) (Quesada 1997: 577), the bronze Oriental helmets from Ria de Huelva (Ruiz Gálvez 1995: 217 and Plate 19), or the Corinthian Greek helmets from Huelva and Cádiz (Jiménez Avila 2002: 235 ff.).
6 See Farnié, Quesada (2005).
7 Ibidem.
8 See Negueruela (1990); Olmos (2002).
(Elche, Alicante),\(^9\) representing warriors in battle and depicting with great detail all types of weapons. On the other hand, burials with weapons are still rare in this period except for some tombs coming from small cemeteries or as isolated finds in the Southeast and along the Mediterranean coastline.

The main feature of the period is the development of a heavy and costly set of weapons, made in bronze plate over a felt backing for the armour, and in iron for the offensive weapons. Swords, rare in the earlier phase, are now common, but with a radical change in design. Swords are now short and with a wide blade. In the Iberian regions, there are two basic types: the ‘frontón-sword’ of Mediterranean ancestry, with a short, wide, slightly waisted blade, and flat flanged hilt ending in a semicircular pommel, like in the earlier Italian Terni type swords; and the curved ‘falcata’. Both are dual-purpose, short, cut-and-thrust infantry weapons, even if the falcata derives from a long sabre of Italian provenance and ultimately Balkan origin, the machaira.\(^{10}\) In the Meseta, the most common types are variants of the atrophied antennae swords, with some frontón swords imported from the south. Excavations in both areas have also yielded some beautiful daggers with a wide triangular tapering blade, often decorated with intricate silver inlay designs, altogether more suitable for exhibition of status than for battle. However, the main offensive weapon was still the long, heavy thrusting spear, with spearheads up to 60cm. long, balanced with heavy spear butts, often paired in burials with a heavy throwing weapon (the all-iron soliferreum with barbed head, a local socketed type of pilum or javelin) all of them adapted for short range throwing just before close combat.

These heavily armed warriors were protected with leather helmets reinforced with bronze or iron rims and enhanced with big horsehair crests (as in the Porcuna sculptures or the Mogente warrior statuette). They also carried round breast- and back-plate bronze kardiophylakes, over a felt backing in the shape of wide cushioned cross-belts designed to protect the neck and shoulders; bronze greaves with a felt lining, and leather or wooden shields with big, round bronze bosses. All this bronze plate armour (greaves, breastplates and shield bosses) was decorated with the same embossed patterns. All these weapons are well represented in the monuments from Porcuna and Elche, and are also known from burials (Figure 23).

It is evident that this was a complex panoply, heavy and costly, apt for hand-to-hand combat between aristocratic champions, and was used by them within a mental framework of a heroic tradition of ‘Homeric’ type,\(^{11}\) well

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\(^9\) See in the last place Lorrio (2004).

\(^{10}\) And not exactly from the Greek kopis, see for a detailed discussion Quesada (1991; also 1997).

\(^{11}\) This does not mean that any sort of Greek influence is postulated here, but only that local aristocracies seem to have developed a set of values in some ways similar to that
represented for example in the scenes from Porcuna. Obviously, these are not the sort of weapons designed, or useful for light infantry or guerrilla tactics. This is not to say that lighter troops armed with a much more modest set of weapons did not exist, not even that these were not the most numerous contingents in any war-band. We only mean by this statement that these poorer troops have not left any trace in the archaeological record, as they belonged to the lower strata of society not represented in monuments or imposing burials.

A very small number of bronze tanged arrowheads have been found in some aristocratic burials in Catalonia (e.g. Granja Soley); they are probably hunting weapons, revealing just another aspect of the violence that accompanied the Iberian aristocratic way of life.

During this period a proper ‘cavalry’ (i.e., mounted units, fighting in a concerted way, employing recognizable tactics, and capable of playing a distinct role in the battlefield) did not yet exist. Some leaders and distinguished warriors probably went into battle on horseback, only to fight on foot. Equestrian sculptures such as those from Villares (Albacete) or Casas de Juan Nuñez (Albacete) are clear evidence of the role of the horse as a status symbol associated with warrior aristocracies, but not as a weapon of war. The scene from Porcuna showing a warrior fighting on foot while at the same time holding his horse by the reins (Figure 23) does not represent any real practice during combat, in battle this activity would be suicidal, but a sort of conceptual synthesis of those two most important elements in the warrior ethos: single combat and ownership of horses.

During this period there is a certain homogeneity in the weaponry of both the Iberian coastal areas and Celtiberia in the Meseta (the central plateau of the Peninsula). This latter area, moreover, received strong influences from the South and East (round kardiophylakes, frontón swords, shield bosses, helmets) while at the same time it was adopting sword types from northern regions such as Aquitaine and Languedoc.

Thus, by the early years of the 5th century BC a distinctive ‘peninsular’ panoply had developed. Basically, it was the result of a strong local impulse founded on Tartessian traditions, but it also owed much to external influences coming from two very different directions. On the one hand, from the Mediterranean (mainly Italy), which provided the prototypes for the falcata, the frontón-sword and the body armour. On the other hand, from the continental areas north of the Pyrenees, where the first soliferrea and pila probably were forged, together with the first antennae swords that later became immensely popular in Celtiberia, but were also produced in Andalusia and Murcia (South and Southeast) in the fourth century BC.
The ‘Mature Phase’ or the ‘Standard panoply’

During this period (c. 400–c. 230 BC) the most important factor lies in the number and nature of our data. Very few cemeteries are known from the previous phase, and even then weapons are rare in burials, as they tend to be restricted to the most important burials. By the beginning of the fourth century BC the situation had changed dramatically. Cemeteries with up to 500-600 burials are now known (such as Cabecico del Tesoro, Cigarralejo), and those with 100-plus burials become common (Figure 24). Moreover, during the 4th century BC, on average 35% of burials in Iron Age cemeteries contain weapons, and in some sites such as at Cabezo Lucero (Alicante) or Coimbra (Murcia) the proportion reaches 60%. It seems that the right to formal burial in cemeteries was extended to a wider stratum of the population during this phase, but it is also clear that still only a fraction of the total population, men, women and children, ranked by social class, had access to normative burials in these cemeteries. Most anthropological analyses show that there is a good correlation between the male sex and the presence of weapons in the grave goods. In sum, it seems that by around 400 BC the right to bear arms, and to be interred in formal cemeteries, had been extended to a wider segment of the population; and that a sort of standard set of weapons became accessible and used by a much larger proportion of the male population than in the previous phase, when complete panoplies were the privilege of a few. This tendency towards a greater ‘isonomy’ has been identified by other scholars in other aspects of Iberian society too.12

However, during this process the weapons a warrior carried experienced a certain degree of simplification and standardization in comparison with the earlier types. This is true especially of defensive weaponry: the embossed bronze breastplates, greaves and shield bosses quickly disappeared, replaced by less conspicuous and less expensive armour in felt or leather. Shields, now universally round and wooden with, rarely, small iron boss-plates, are detected in cremation burials thanks to the development of a new type of central iron handgrip with long triangular ‘wings’ to fix it to the shield body. These handgrips are sometimes 60 cm. long or even more, and clearly show that the average diameter for those shields was around 60 cm., close to the two feet mentioned by Strabo (3.3.6) for the Late Period. During the 4th century there is no proof of the use of bronze helmets or oval shields, neither in Celtiberia nor along the Mediterranean coast.

As for offensive weapons, the curved falcata became, during the first half of the 4th century BC, almost the only sword type in the Iberian areas (only a few antennae, frontón and La Tène I swords are known in the proportion of 10

or 15 falcatas to 1). In the Meseta by far the commonest types are very short straight, atrophied antennae swords, together with some Gaulish La Tène I, and very few residual Iberian ‘frontón’ swords.

Iron spearheads and socketed iron butts for thrusting spears became shorter: 20 to 40 cm. on average for the heads, and with wider blades. A very common occurrence in burials are pairs of spearheads (one much longer and heavier than the other), or one spearhead and a soliferreum or falarica. Arrowheads and sling bullets are completely absent in burials, and are never represented in art, so much that it can be argued that these types of long-range projectiles were rejected in warfare by the Iberians, as by other Mediterranean peoples during the Archaic Age, being considered cowardly and effete, although we can be sure they were used in hunting and perhaps sporadically by light troops in warfare (of course the Balearic slingers are a completely different matter).

Overall, the functional coherence of a high proportion of grave goods in hundreds of burials containing weapons shows a clear standardization of weapons typical of a line of infantry fighting in close order, but also capable of opening its lines to fight in skirmish order if necessary. The basic panoply consisted of a heavy javelin, a thrusting spear, sword and shield, together with a leather helmet and some form of textile armour, metal armour being scarce or non–existent. Only the falcata is over-represented in burials, and sometimes it is the only weapon among the grave goods. This is due not to military reasons, but to the ritual, sacrificial connotations of that specially shaped weapon, similar to the machaira or curved sacrificial knife of the Orientalizing period.13

Horse bits, spurs and other elements of horse harness are very rare in Iberian tombs, and are usually found in the so-called ‘princely’ burials, at the rate of one to every two hundred burials or so.14 In fact, all the available evidence, or lack of it, shows that during the 4th century BC there was no true ‘Iberian’ cavalry fighting on horseback, or riding as military units to the battlefield and dismounting to fight. Only up to 3% of warriors rode into battle as nobles and leaders of men, but fought on foot. On the other hand, the proportion of horse bits in Celtiberian tombs is much higher, rising to 20 % in certain cemeteries. It was probably there, in the central Meseta, where the first contingents of peninsular cavalry appeared, at first only in small numbers (up to perhaps two to three hundred in the bigger armies, as they are documented in the literary sources describing events during the second half of the third century BC.15

13 For details on the sacrificial aspects see Quesada (1997: 162-168).
In marked contrast to the relative homogeneity observed during the 5th century BC, during the period 400-325 BC strong regional traditions became clear, with different sets of weapons and probably different degrees of formal army organization and different tactics. Most of what has been said in the previous paragraphs applies mostly to the purely ‘Iberian’ area (i.e. Eastern Andalusia, the southeast, the Mediterranean coast and the lower Ebro valley). Catalonia seems to have adopted the La Tène panoply, including the flat oval shield and long straight sword. At the other extreme of the Peninsula, in western Andalusia, the strong Semitic tradition implies that very few formal cemeteries are known, but what scarce evidence there is points to the existence of the same sort of weapons and tactics found in the Iberian area, except that there was a more frequent use of bow and arrow, as implied by the survival of some of the early Phoenician-type bronze barbed arrowheads typical of the Orientalizing Period (7th to 6th centuries BC). As for Celtiberia, we have noted that true cavalry probably developed there during the 4th century BC, while bodies of infantry, although fighting also in close order, were probably less formalized. The functional capacity of the Celtiberian panoply is very close to those of the Iberian lands, but the shields seem to have been a bit smaller and lighter, while short straight swords take the place of the falcata; thrusting spears, heavy throwing spears and javelins show differences in typological minutiae (blade shape, midrib section, etc.) but are identical in function to ‘Iberian’ weapons. There are also minor local variations in weapon types between the Duero area, the upper Ebro and other inland areas.

The Late Phase or the ‘Modified Panoply’ (c. 230-c. 100 BC)

During this period we have the best and most complete available set of combined archaeological, iconographic and literary evidence for all of the Iron Age. On the one hand, a substantial number of actual weapons are still found in cemeteries of this period, although admittedly in much smaller numbers than in the 4th century BC. On the other hand, and as if to compensate, we now have the important figurative vase painting styles from Liria (Alicante), Numantia (Soria) and the lower Ebro valley, and these provide us with many images of fully armed warriors represented either fighting in battle, in gladiatorial funeral contests, performing ritual dances, or in other activities. These images are also quite detailed, and can be compared with each other to provide a picture for the different regions. A wealth of sculptural evidence is also available, such as in the monument from Osuna (Sevilla) or the stelae from the lower Ebro, not to mention many bronze warrior figurines found in sanctuaries in Andalusia and Murcia. Coins, minted in quantity since the second half of the third century BC, also provide information on weapons both for the Iberian and Celtiberian
people. Finally, we can now use the literary sources, texts that for the first time pay attention to peninsular affairs; apart from historical, narrative texts that inform us of diplomacy, campaigns and battles, some ethnographical descriptions that are quite detailed regarding weapons (Diodorus, Strabo, probably borrowing from lost texts by Poseidonius, Polybius and many other authors) surely refer to this period.

Around 237 BC Iberia became a most important logistic base for Carthage in its struggle with Rome, providing silver, raw materials for the war effort and soldiers. The Peninsula quickly became a battlefield when the Romans landed in Ampurias in 218 BC trying to server Hannibal’s supply lines. An ever increasing number of Iberians and Celiberians took part in the war, fighting for both sides either as subjects, allies or mercenaries. During this phase, the traditional weaponry of the Mature Phase was modified and adapted to the new situation of high-intensity warfare, fought to the death in big pitched battles, as well as of a novel situation in which sustained campaigns were fought over years with extended use of cavalry and light troops.

Later on, during the second century BC, once the Carthaginians had been expelled from Spain after the battle of Illipa, and after the Iberian peoples in Andalusia and the Mediterranean coast had been crushingly defeated in the major uprising of 195 BC, Rome experienced what Polybius (35.1) labeled a ‘war of fire’ in their conquest of the interior, fighting campaign after campaign against the Celtiberians (Numantia among many other oppida) and Lusitanians (led by Viriathus). During these protracted and terrible wars, Celtiberian weapons and tactics became well known to the Romans, who feared and respected them, while at the same time trying to dismiss them as barbaric and more appropriate for bandits than for warriors. However, these so-called ‘bandits’ were able to inflict more than one heavy defeat in pitched battle against Rome’s field armies (e.g. Appian Iber. 44-45), and even Scipio chose to refuse open battle against the Numantines (Appian, Iber. 90-91), preferring to force them to surrender them using the much slower and less glamorous method of a formal blockade by hunger. We will not further discuss these matters, the 2nd century Celtiberian wars, as they lie beyond the scope of this paper.

During the early sub-period of this Phase, during the Hannibalic War and the great Iberian rising (i.e., c. 230-c. 195 BC), new types of weapons were introduced, especially bronze helmets of the Montefortino type and oval shields, both probably due to Carthaginian influence, and also longer straight bladed swords, the origin of the gladius hispaniensis adopted by the Romans in this period. The case of Catalonia, where iron helmets and flat oval shield with iron bosses of Celtic origin were predominant since the earlier period, is different.

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16 Guadan (1979); Lorrio (1995); Quesada (1997 passim).
Coins show the increasing importance of the horse not only as the age-old status symbol of the equestrian warrior aristocracy, but also as a weapon of war. We will analyze in some detail this period in the third part of this paper.

The ‘Final Phase’ or the ‘Simplified Panoply’ (c. 100-c. 45 BC)
This phase coincides with the Roman Civil Wars, and in the Peninsula includes both the Sertorian affair, and Caesar’s fight against Pompey’s Hispanic clients. We do not include the final conquest of the Peninsula’s northern fringe (the lands of the Cantabri and Astures) by Augustus and Agrippa, close to the Christian Era, as it pertains to a different historical and cultural context.

During the first half of the first century BC, both sides in the Civil Wars employed Hispanic troops as auxiliaries. But as they could count with ‘proper’, or sometimes hastily built- Roman legionary formations, the old heavy Iberian infantry was no longer needed, in the same way as it had been needed and used by Scipio at Iliipa or by Hannibal at Cannae. So, the line capabilities of the Iberians were conveniently forgotten about (except for some scutatae cohortes used as thureophoroi: i.e. as dual purpose infantry, but emphasizing their skirmishing abilities). It was cavalry and pure light infantry which the Roman commanders needed, and which they got the from local peoples. Part of the myth of the Hispanic peoples as only being adept at guerrilla and light infantry warfare comes from this period.17

Although old weapon types such as falcatas and soliferrea were still used in this very late period, when the Iberian and Celtiberian cultures were rapidly fading away, submerged into what we conveniently call ‘Romanization’, the weapons changed for the last time. Long, heavy spearheads are now rare, while light, rib-less javelin points are much commoner than in the earlier phases. Shields also seem to have been lighter, with less iron elements in them, and armour is almost non-existent. This matches fairly well with the light infantry roles forced upon the Iberians as auxiliaries during the Civil Wars, as documented mainly by the literary sources.

III. INNOVATIONS IN IBERIAN WEAPONRY AND HANNIBAL’S WAR (C. 225.-C. 195 BC)

Within the wide framework provided by the previous summary, we can now trace in some detail the changes in Iberian weaponry during these few momentous decades between Hannibal’s campaigns against the Vaccaei and the siege of Saguntum, and the great 195 BC rebellion of the Iberians against the

Roman newcomers, and therefore embracing the Second Punic War in between these dates.

Some very significant additions are evident in weaponry during the first period of the ‘Late Phase’, as we have already noted. Some of these new weapons are developments of earlier swords and daggers; but most visible are more radical innovations in defensive weapons, with the introduction of the flat version of the oval shield (scutum, θυρεό) in the South and Southeast and probably also in the Meseta; and also of the bronze helmet of Italic (some would prefer Celt-Italic) origin commonly known as Montefortino or jockey-cap helmet.

**Offensive weapons: the ‘gladius hispaniensis’ prototype and the biglobular dagger**

The main feature during this short period is the resurgence in Iberian territories of the straight-bladed sword with parallel edges and a short point, derived from La Tène I models already abandoned in Gaul by the end of the 3rd century BC, but still used in Celtiberia. If found without hilt or scabbard, the early fourth century Celtiberian version of the La Tène I sword is hardly distinguishable from its Gaulish prototypes. By the third century, however, some peculiar peninsular traits become evident. Firstly, the gradual disappearance of the metal scabbard with pontet or suspension loop, replaced by a wooden or leather scabbard with iron edge reinforcements and suspension rings for a baldric slung over the shoulder. Secondly some blades have a slight grooving. Thirdly, some hilts with iron elements are typically Spanish (*i.e.* El Atance). Finally, some blades are slightly waisted. These swords are common in Celtiberian cemeteries but are also occasionally found in proper ‘Iberian’ contexts.

Now, as we have argued elsewhere in English,\(^\text{18}\) the final product was a slightly waisted blade, around 65 cm. long, with a strong point, adapted both for thrusting and cutting, slung from a baldric in a wooden scabbard fitted with suspension rings and side metal reinforcements, a type, in sum, that matches exactly the known Roman swords from Republican times, *i.e.*, the famed *gladius hispaniensis* (Osuna, Delos, Smihel, Lujbljanica, Jericho, etc.).\(^\text{19}\) Therefore, this is undoubtedly the prototype of the Roman sword of Republican times, and perfectly useable in the context of close quarter combat, which was common in Iberia by 225 BC, and seems to have been preferred by the Iberian/Celtiberian soldiers in Hannibal’s army, at least at Cannae (Polybius 3.114).

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\(^{18}\) Quesada (1997b).

\(^{19}\) Feugère (1993, 1994); Connolly (1997); Horvat (1997); Istenic (2000, 200b), Sievers (1997); Stiebel (2004).
Another new offensive weapon during the third century BC was the biglobular dagger, a type with short, tapering, triangular blade, waisted and with a midrib only in the final series, and provided with a peculiar two-disc hilt, that of course is the prototype of the Roman pugio, widely used by legionaries from Augustan times onwards, but probably adopted by the Romans by the time of the siege of Numantia (133 BC), perhaps at first as exotic booty. This dagger is typically Celtiberian in origin, the earliest series go back to the fourth century BC, but also occasionally appears in some Iberian areas such as Catalonia (Turo del Vent) or Cuenca (El Molon), although at least the Catalonian daggers seem to have been placed as trophies, nailed to the walls in sanctuaries following Celtic custom.

These offensive weapons, if combined, are typical of the Late Celtiberian panoply and are best suited to close combat. In fact, they would have severely encumbered any pure light infantryman jumping from rock to rock and avoiding scrub in the manner some usually visualize the Celtiberian ‘guerrilleros’. According to the literary sources (Polybius, Livy), the straight swords were widely used at least in Hannibal’s army. It seems however clear that they are not specially common along the Mediterranean coastal region or Andalusia.

**Defensive weapons: the introduction of the ‘jockey cap’ bronze helmet in Iberia**

Much more significant from the tactical point of view are, in our opinion, the changes in defensive weapons. The oval shields and bronze helmets were superior to the flat, round, caetra around 60cm. in diameter and old leather helmets, in this new ‘high intensity’ warfare era, when pitched battles, even between smaller contingents, became the norm during long campaigns, instead of the one-off and occasional affairs of previous wars between local peoples.

Regarding the Montefortino helmet and its variants, previous studies allow us to omit a detailed examination of two key aspects: the distinction between the different typological variants and their chronological significance, and the date of their introduction into Hispania. Apart from a very small number of Celtic iron helmets loosely connected with the Montefortino class,

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20 There is a long bibliography on this particular subject. See summary in Quesada (1997: 300-302) and discussion in Quesada (forth. note 5); also Couissin (1926: 236); Helmig (1990), Bishop and Coulston (1993: 20); Feugère (1993: 163); Filloy, Gil (1997: 148), Connolly (1997: 56-57); Luik (2002: 90).


23 Quesada (2003) for the first modern synthesis on Iberian warfare as a whole.

the overwhelming majority of the ‘jockey cap’ helmets in the Peninsula belong to four distinct typological groups, that also happen to have specific geographic and chronological contexts (Figure 25).25

Three of these series of helmets are associated with the Roman penetration along the Ebro valley into the northern Meseta (2nd-1st centuries BC), mass produced types, to the conquest of the south-western and western areas and the Civil Wars (1st century BC): the so called Buggenum type, and to local imitations of Augustan date in Galicia (the extreme northwest of the Peninsula, close to the Christian Era). Therefore, all these helmets are not relevant to the problems we discuss in this paper (Quesada 1997d).

The fourth group: in fact, the earliest one in chronological terms, comprises those helmets found in indigenous contexts (usually but not always cemeteries) in eastern Andalusia and the Southeast. These are dated, in those cases in which the context allows it, to the end of the 3rd century BC or the first half of the 2nd (Quesada 1997a:560); most of them were intentionally damaged, they were deprived of cheek-pieces at least before burial, and probably while actually in use.26 These helmets are of fairly good quality, the latest of them are decorated with the Wellenranke pattern (Schaaf 1988), and the hollow top knobs are also decorated. This series marks the appearance of Montefortino helmets among Iberian troops, together with their clear representations in vases of the Liria style, also precisely dated to the end of the third century BC. (Figure 22).

Even if they are significant from the cultural and military point of view, it should be nevertheless recognized that overall these helmets are quite rare in the big cemeteries such as Cabecico del Tesoro, Cigarralejo, Galera, Ceal and others, and their appearance shows only that, while becoming increasingly popular, they were never massively adopted by Iberians while on their own, although probably they were quite common in Iberian units serving for some time under the Carthaginians, where they could have been issued with them or obtained as booty. We completely agree with Yann Le Bohec (1996:43) when he remarks that these jockey cap helmets were typical for the 3rd century BC not only in Roman armies, but that ‘des mercenaires au service de Carthage ont dû porter des couvre-chefs de ce type’.

In fact, both the jockey cap helmet and the oval thureos, even if they were of Italic origin, had been adopted by mercenaries and allies, and perhaps

26 This series includes the helmet from burial 4F-2 at the cemetery of Pozo Moro (Albacete). We insist upon assigning a date in the late third or very early second century BC to it, even though it was found in association an Attic black glaze kantharos dated to the fourth century BC, probably a heirloom (Quesada 1997a: 362; 1997d: 156 contra García Mauriño 1993: 115; see also Alcalá Zamora 2003:130-131). The Latin name MVLVS incised on the neckguard proves its Roman origin, perhaps taken as war booty.
even by Carthaginian citizens, as they were both cheap and efficient. Certain iconographic testimonies gathered by M. Fantar (1993: II, p. 99-100) point in the same direction indicated by Le Bohec; therefore, it is quite feasible that the bronze Montefortino helmets were originally introduced into Iberia via Carthaginian intermediaries or by Iberian mercenaries in the Carthaginian service.

The *thureos/scutum* in Iberia

A certain amount of confusion still exists in the Peninsula concerning the origin, diffusion and characteristics of the oval shield. The old paradigm that ascribed all oval shields to Celtic influence from Gaul cannot, in our opinion, be maintained any more. Nor can it be held that the representations of oval shields in the southeast are due to Roman influence (Eichberg 1987: 216-217), as these representations are earlier than the Roman presence in Iberia.

A number of fairly recent works have studied the oval shield in general terms, so much so that the probable North Italian origin of the type, its chronology, variants, construction and other aspects are on the whole fairly well known now. In its different variants, it appears from Tunis to Denmark, and from Ireland to Egypt (Stary 1981: 287), but this does not mean that the shields share more in common than their general shape. Eichberg (1987) sorted them out into six groups (A to E), some of them contemporary (Figure 26), called by him ‘Roman’ (A), Round (*sic*, B); Etruscan (C), Hellenistic (D), Celtic (E) and Gladiatorial (F). It is often difficult to make a distinction between Hellenistic and Etruscan types from representations (Eichberg 1987: 219), and in fact it seems that the ethnic labelling of the six groups cannot be equated with the users: “for example, the Celtic mercenaries serving in Hellenistic armies employed the scutum used there, different from the weapon used north of the Alps” (Eichberg 1987: 218-219). Still following Eichberg, it seems that the *scutum* was strictly an Italian weapon until the beginning of the 4th century BC, when its use spread over the river Po plain and into La Tène territory north of the Alps (1987: 183-184; 217-218). P. Stary, however, while accepting an Italian origin, believes that the diffusion of the *scutum* took place somewhat earlier, in the 5th century BC, on the basis of an incised representation on a La Tène sword scabbard (Stary 1981b:294). The difference is not only one of

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27 In fact, after the 2nd and during the 1st centuries BC the Montefortino helmet and its late developments (Buggenum, etc.) became one of the commonest all over the Mediterranean, from Galicia to the Near East (cf. Völling, 1997; Raev, Simonenko, Feugère, 1994b: 37 ff. and p. 81; Treister 1991; Schaff, 1988; Robinson, 1975, etc.).
30 With good reasons he includes some round shields with *spina* and *umbo* in this group.
detail: while Eichberg seems to believe that the expansion of the *scutum* to the Transalpine region is later than the adoption of manipular tactics and weaponry in Rome, Stary maintains that the resurgence of the *scutum* in Rome is due to a reflux from the Celtic region.

It is thus true that during the Iron Age the oval shield was characteristic of the ‘Celtic’ peoples - whatever that label means - but it is equally true that it was also widely used in Etruria and Rome in its flat variant (type Eichberg C, 1987: Beil. I), and later in its curved, ‘tile’ shape, that according to Livy (38.21.4) protected the body much better than the flat version, and that was probably introduced in Rome only during the Second Punic War (Eichberg, 1987: 190-191, Type A). Therefore, the oval shield was not only typically Celtic, but also Etruscan and Roman. Even more important, the *thureos* was increasingly employed after the early years of the 3rd century BC or earlier by many Greeks, who probably adopted it from the Galatians during their raids on Greece, for example that of Brennus in 279 BC. It is also possible that at least the Achaian League fought in a phalanx, but by the end of the 3rd century BC they used the oval *thureos* instead of the hoplite’s *aspis*, when Philopoemen convinced them to adopt the round shield (Pausanias 8.50.1; Plutarch, *Philopoemen* 9).

In the course of time, the *thureos* did not completely replace the *aspis* in the Greek world, but it became the standard weapon of the peltasts, a dual-purpose infantry capable of fighting both in close or skirmish order, that slowly changed their crescent-shaped or round *peltai* for oval shields (Snodgrass, 1967: 123). In fact, the term *thureophoroi* became a common name for the Hellenistic mercenaries usually armed with that shield, as shown by sources (cf. Polybius 10.29.6) the 3rd to 2nd c. BC. Hellenistic stelae from Sidon, and other monuments from the Eastern Mediterranean (see Sekunda 2001). This precision is important, as it proves that by the time the Romans were employing the curved oval shield, (as shown by the later 3rd c. BC Minerva relief at Tarraco or the early 2nd c. BC monument of Aemilius Paulus at Delphi), the use of the oval shield had already spread all over the Eastern Mediterranean.

It is not an easy task to prove conclusively that the Carthaginian army (*i.e.*, citizen troops and Libyans) used the oval shield, although we do have some evidence. It does not seem probable that this happened before the Hannibalic War (218-202 BC), as all evidence seems to prove that the normal shield was a big round one close to the Greek *aspis* (Fantar, 1993, vol. II, 94-

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95), although the oval shape was probably known from Gaulish, Ligurian and perhaps even Iberian mercenaries from Catalonia if any were recruited there (the presence there of the Greek colony of Emporion does not provide proof for or against).

Within Hannibal’s army, including among the Iberians, the oval shield was common according to Polybius and Livy, but as thureophoroi as such do not seem to have been part of Carthaginian armies in the late third century BC, its use was perhaps the result of Celtic or even Roman influence. However, Hannibal must have quickly recognized the advantages of this type of shield, light but offering good protection for the body, just as Hellenistic and Roman armies recognized them. By the last Punic War (149-146 BC), the oval shield was most common in the Carthaginian arsenals (Appian, Afr. 93). There are some African stelae with representations of oval shields from El Hofra, Cirta etc. (Berthier, Charlier, 1955: Lám. XVII.A; Fantar, 1993.II: 95) (Figure 27), although these have been ascribed both to Iberian mercenaries (unlikely) (Connolly 1981:150), or even more unlikely to Roman soldiers; now they are usually dated to the 2nd century BC (Fantar 1993: vol. II, 94). M. Fantar wrote in 1993 (95-96) that: “C’est au cours des guerres romano-carthaginoises que le bouclier long ou ovale semble avoir fait son apparition... Mais si le bouclier ovale est adopté par le soldat punique, le bouclier rond n’a pas été exclu du répertoire des sculpteurs... Quoi qu’il en soit, la présence du bouclier dans les armées puniques ne souffre pas l’ombre d’un doute. A partir de la fin du IVe siècle [bold type is ours], le bouclier long ou ovale vint supplanter ou s’ajouter au bouclier rond, attesté dans le monde punique depuis, au moins, le VIe siècle avant J.-C.”. Let us remark that if the early date put forward by Fantar were correct, it would imply that the oval shield would have been in general use in Carthage by the First Punic War, and that therefore the Punic world could have been perfectly responsible for its introduction in Iberia by the end of the 3rd century BC. However, the truth is that the available data (stelae, literary sources) are later, pointing to the late 3rd-2nd centuries BC, and therefore the date of the introduction of the oval shield in Carthage is still debatable. It then follows that it is not easy to attribute to the Carthaginians the introduction of the oval shield in Southern Iberia, dependent as it is on the date of its first use in Carthage itself. However, it seems sure that its massive use among Iberian soldiers in Hannibal’s army (Polybius 3.114; Livy 22.46) was due to the Carthaginian generals’ initiative, interested in the advantages that the oval thureos provided over the round caetra in the close order speirai (Polybius 3.114) employed at Cannae.

We should then try to be as precise as possible about the moment when the oval shield first appears in Iberia, to see if it coincides or not with Hannibal’s presence thereafter c. 225 BC.
Classical texts are our first source. Apart from generic references on this type of weapon in other cultures, already examined *ad nauseam* in generic studies on Celtic, Hellenistic and Roman weapons, we should remember a very few explicit literary sources dealing with *Hispania*. Among the more detailed descriptions of Iberian weaponry, those from Diodorus and Strabo, only the first (Diod. 5.33) specifies that some among the Celtiberians carried big round shields, and others, the ‘light’ Celtic *thureos* (we should understand ‘light’ as against the much heavier Greek *aspis*), but his reference, drawn perhaps from Poseidonius or an unknown 2nd century author, does not provide a chronological clue.

The first relevant references from a chronological point of view are the narration of Cannae (216 BC) by Polybius (3.114) and Livy (22.46, Polybianic), as both of them remark on the similitude of the oval shields carried by the Gauls and Iberians while their swords were markedly different. A few years later in 207 BC, Livy (28.2) describes the episode in which Mago fought in Celtiberia against Silanus, placing in the front rank his best troops, 5000 Celtiberian *scutati*, so that they would be able to resist the Roman legions, who were similarly armed. Much later are some references to Sertorian and Caesarian Hispanic *scutati*, but as they date to the 1st century BC they are not relevant for our present purpose (Quesada 1997a, 524seq.; 544).

The archaeological sources are much more informative for Iberia. We have catalogued around 35 *scuta* iron boss-plates from Iberia (Figure 28) (Quesada 1997a: 538 ff. also Appendix IV), and those can be conveniently grouped in three different classes: bivalve, winged and round (Figure 29). We have very recently re-examined in detail the typology and chronology of these boss plates (Quesada 2002-03: 77 ff.) so that we can conveniently summarize here the main conclusions. The very few bivalve *umbones* are of European Celtic origin and are clearly the earliest, dating to the second quarter of the 4th century BC at the earliest. There is no possibility of dating them to the 5th century BC as one scholar has recently claimed (Rapin 2001: 281, Fig. 25). They can possibly be associated to mercenaries. This type did not find wide acceptance or continuity in the Pesinsula, however, neither in the Celtic area, nor in the Iberian coastal lands, where all the known bosses have been found, mainly in Andalusia.

The second type of iron, oval, shield boss-plates is formed by those provided with ‘wings’ (side plates), rectangular in shape in the early variants after the end of the 3rd century BC, and opening into the trapezoidal wing of the so-called ‘butterfly’ shape later on. These elements are only found north of the

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32 E.g. Polyb. 2.30; 6.23; Livy 38.21.4; Diod. 5.30; Strab. 4.4.3; Caes. Bell. Gal. 1.24.3, etc.
33 See the latest discussion in Quesada 2003b: 88-90, Table 1.
Military Developments in the ‘Late Iberian’ Culture

Ebro river, mainly in Catalonia, and are usually found in association with the other elements of the La Tène I-II panoply, such as swords with metal scabbards and pontet, wide La Tène spearheads, etc. These must therefore belong to scuta of Gaulish type, and as some of them belong to the second half of the 3rd century BC (Cabrera del Mar, Turo dels dos Pins, etc.) they could conceivably be related to the Second Punic War, although, as we have already noted, the panoply in Catalonia had been of Celtic type since the Early Iron Age, even if in a territory that culturally and linguistically speaking is to be considered as ‘Iberian’. A sub-group within this type is comprised by similar bosses found also in the Northeast or the Levant, but dated to the first half of the 1st century BC, and associated to Roman Sertorian contexts (La Azucarera, La Almoina de Valencia, La Caridad). Some of them have been found in association with Roman heavy and light pilae (La Almoina), Montefortino helmets and gladii hispanienses (La Azucarera) and even light catapults (La Caridad). The third type is formed with round bosses of 1st century date, contemporary with, or slightly later than the late group of the second type.

Therefore, archaeology documents the occasional appearance of oval shields with Celtic bivalve bosses in South and South-eastern Spain during the 4th century BC, although these did not enjoy much success and did not become widespread. After a 150 years hiatus, new Gallic scuta with winged boss plates reappeared only in north-eastern Iberia, while the later ‘butterfly’ shapes are associated with Sertorian Roman conquest, but only in the North-eastern quadrant of the Peninsula, and never south of Valentia. From this we could infer that the oval shield was only used in the heavily ‘Celticised’ panoply of Catalonia. However, and as P. Stary pointed out years ago (1982: 119), while the objects are found north of the Ebro river, the images appear mostly south of it, and greatly modify the pattern that apparently correlates oval shields with Celtic contexts.

The oldest representations of Iberian oval shields are those found in vases of the so-called ‘Liria’ style, now closely dated to the end of the 3rd or the first years of the 2nd century BC. In fact, oval shields become more frequent than round ones in Iberian vase painting, by 39 to 24 cases in 1997 (Quesada 1997a: 521, Figure 301). An association of this fact with the Barcid presence in Iberia and the beginning of the Second Punic War seems almost unavoidable, even if the earliest vases of this style could go back to c. 240 BC, which does not seem very probable (along this line, also Bonet, Izquierdo 2001: 283).

These painted oval shields are often quite small and show no details, but the basic shape is more rectangular with rounded rather than oval upper and

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34 For a detailed analysis of the chronology of the Liria style and the scuta painted in them see Quesada (2002-2003: 79, notes 21, 22).
lower ends. In a few cases some details were represented carefully, showing the stylized *spina* and *umbo* (Figure 28.1, 3); in some cases a type of handgrip that looks like a pair of leather thongs crossed in an ‘x’ shape, quite unlike the typical short, horizontal wooden handgrip, but documented in, admittedly much later, medieval Berber examples from Northern Africa (Kalus 1977: 44). This peculiarity seems unique to Iberian shields, and would imply a very light structure, perhaps wicker work, as the odd filling pattern of shield 8.5 could indicate. Also, the dotted pattern of shield 8.4 could indicate a rawhide cover. But of course many filling patterns are heavily stylized in Iberian iconography, and all these details could just be decorative patterns.

Oval shields in Iberian sculpture are all clearly later than mid-third century BC. The more detailed representations are those from the funerary monument at Osuna (Figure 30), two seen from the outside and one from the inside. Their flat shape (clearly visible in the Paris example, Rouillard 1997: 32), *spina*, reinforced metallic rim and metallic boss point to Hellenistic or Gallic types more readily than to Roman ones, which is to be expected if we take into account that they were found in the province of Seville, in the Southwest, and that the reliefs are best dated to the 2nd century BC rather than the 3rd (Quesada 1997a: 541; Leon, 1981: 189; contra Noguera 2003: 161, but see his p. 190). But even the earliest of the possible dates for the monument matches that of the painted pottery, so the period between Hamilcar’s landing in Iberia in 237 BC and the siege of Saguntum c. 219 BC is still the upper margin of the chronological time-span. Other images of *scuta* are contemporary or slightly later, such as the stelae from the lower Ebro valley – specially those from Caspe and Calaceite (Quesada 1997a: Fig. 250) and the pillar-stela from Caspe (Beltrán Lloris 1996: 182-183).

It is significant that among the many thousands of small bronze votive *ex-voti* known from Iberian sanctuaries only one, from Collado de los Jardines, now kept in the Cabré Museum in Calaceite, carries clearly a Roman oval shield (Cabré, 1939-40: Lam. XIX). Completely different to those shown on painted on vases, it should be dated to the Caesarian period or even later (in this we agree with Nicolini 1969: 185). The Tivissa silver *phiale*, with its complex iconography, shows among many other figures a rider with a spear and an oval shield whose shape resembles Hellenistic *thureoi* rather than Celtic *scuta* (like the already cited painted stelae from Sidon, Sekunda 1995). We shall not discuss here neither the famous ‘Flannery broach’ nor the quite late images of oval shields on Iberian coins (see Quesada 2002-2003:82-83 for a detailed analysis).

To sum up, a pattern now emerges. Except for a very few marginal cases in the early 4th century BC, the oval shield was unknown before c. 330 BC in Peninsular armies, whose warriors employed round shields two feet or more in diameter with a central handgrip, and smaller round bucklers for lightly armed units. A Celtic type flat oval shield with iron boss plate appeared only north of the Ebro river from c. 350 onwards, in association with La Tène-type swords. At the same time, scuta with parallel edges and rounded ends appeared further south somewhat later, around 225 BC, and in a different, more Carthaginian-related context. By the first century BC oval shields are found in contexts associated with Roman Sertorian and Caesarian armies all over Hispania. It is not longer possible to explain the appearance of oval shields in the southern Iberian areas in terms of either Celtic (as per Stary 1982: 121) or of Roman influence (as in Eichberg 1987: 216). Therefore, we should probably agree that the Iberian thureos can be put in relationship with the Carthaginian presence in Iberia and particularly with the massive recruitment for the Hanniballic Italian project.

IV. INNOVATIONS IN TACTICS AND TROOP TYPES. SIEGE WARFARE AND LEADERSHIP

The new weapons and tactics
The innovations in weaponry we have described were not the result of chance or of fashion. They imply a significant enough renovation of the traditional Iberian panoply, and should be explained in terms of tactical adaptations or changes, as in the ancient world it was usually changes in tactics that in turn determined changes in weaponry, and not the other way round (see Gracia 2003: 35, n. 1; Hanson, 1991: 63 ff.). Given the chronology of these innovations, we should look for the causes in the gradual but rapidly increasing immersion of large Iberian, Turdetanian and Celtiberian contingents in the Carthaginian army first (c. 237-c. 205 BC) and in the Roman army somewhat later on (c. 218-c. 45 BC). The new situation, without essentially altering the traditional forms of combat, introduced new dangers in a battlefield of much higher intensity than before, and during far more protracted periods, and therefore demanding an upgrade of equipment, in particular of defensive weaponry.

On the other hand, and given that both Carthaginians and the Romans were chronically short of flexible line infantry during their wars together, they employed not only small specialized contingents such as Balearic slingers or

36 A recent paper by J. Gunby (2000) puts forward much the same ideas regarding oval shields on the Black Sea littoral. In her opinion, the traditional interpretation of oval shields in ‘Celtic’ ethnic terms can no longer be maintained, as these shields became commonplace all over the Mediterranean by the 3rd and 2nd centuries BC.
small cavalry units, but also, and in particular, big units of dual-purpose infantry, adept both at close combat (and therefore capable of fighting in something approaching even terms with a legion or phalanx) and of skirmishing in rough terrain (with clear superiority over pure light infantry). This is the role they are commonly used in as documented in the literary sources if we read them without prejudice, as we have shown elsewhere (Quesada, 1997a: 657 seq; 1997c, 2003), and as other scholars are beginning to accept (Gracia 2003: 257 ff., 306-307), against the earlier paradigm that defended the essence of the ‘Iberian guerrilla’ for ideological reasons.

In countries with a high proportion of rough terrain, such as in Italy or Spain, these troops were especially useful, and, moreover they did not have to drastically change their natural tactics employed since at least the early decades of the 4th century BC. The oval shield of Celtic or Hellenistic shape, lighter than the Roman scutum, was useful while in skirmish order, but at the same time afforded better protection than the round caetra in close battle. The adoption of the jockey cap bronze helmet responds to the same phenomenon: it was light, cheap, massively produced and with or without cheek-pieces provided a good balance of protection and hearing.

This tactical employment of the troops concerned, and the enhancement in the role of the infantry among the Iberians, matches closely that of the Hellenistic thureophoroi. They were themselves heirs to previous experiments with peltasts during the first half of the 4th century BC (see Moreno, 2002), and they, let us once again remind ourselves, constituted a class of their own between the ‘heavy’ hoplites or phalangites, and the psiloi or pure light infantrymen, often confused with peltasts (Arrian, Tact. 3, 1-4; Asclep. Tact. 1.2; Aelian, Tact. 2.8).

**Pitched battle**

One of the more important realizations of recent research on Iberian warfare is the fact that pitched battle in some sort of formation by massed bodies was not the exception but the rule in Spain since c. 400 BC, and that this fact made the integration of Iberian and Celtiberian troops in the Hellenistic-type Punic armies a much easier accomplishment, as the Carthaginian generals only had to improve on weapons and discipline, but not on the basic approach to battle. If Hannibal or his colleagues had had to drastically change the nature of the tactics employed by his Spanish troops in the middle of a war, it would have invited immediate disaster. The fact that Hannibal could be confident enough to place his Iberians in the centre of his line, or that Scipio used his Iberian allies directly as, admittedly second class, line infantry at Illipa and other battles proves this (Polybius 11.22; Livy 28.14 seq.).

It is true that Livy and other authors often emphasized the nimbleness and flexibility of Spaniards in comparison with the Roman legion. Also that
literary sources insist on the depredatory nature of Iberian warfare and the hit-and-run tactics often employed (Quesada 1997a: 657 ff. for a complete analysis of these sources). But we should also understand the biases and prejudices of these authors, who most of the time were trying to prove the essential superiority of civilized Roman society over the barbarians, and in doing so often emphasized the more ‘primitive’ aspects of subjected peoples to make the natural superiority and right to rule of the Romans the more natural and beneficial in comparison. If we read carefully the battle descriptions in the literary sources, it can easily be proved that pitched battle was the preferred methods of both Iberians and Celtiberians not only when forming part of the Carthaginian and Punic armies, but also when they fought against them. As A. Blanco noted with his usual perspicacity long ago (Blanco 1988: 78-79) the Iberian suffered catastrophic defeats in their early fights against the Romans in 200-195 BC precisely because they tried pitched battle against the markedly better organized, armed and disciplined legions.

There are many examples of this that can be summarized here.37 Livy (28, 2) even called the Celtiberian army who fought in line against a Roman force in 207 BC (4000 infantrymen and 200 cavalry supported by light infantry) a iuxta legio. In the battle of Emporion, a few years later, Cato caught the Iberians in the act of forming a proper battle line (acie instruenda) and soundly defeated them, although he had some trouble and had to use his reserves (Livy 34.13-16; Appian Iber. 40); this battle has been carefully scrutinized (Walsh, 1961: 134; Martínez Gázquez, 1992: 64-65; Hernández Cardona, 1991) and it seems that the description is coherent and historically accurate.

The best documented case is that of the campaigns against the Romans of Indibilis and Mandonius, the leaders of the Ilergetes and their confederates. In 206 they gathered the equivalent of a Roman consular army: 2,500 cavalry and 20,000 infantry (Livy 28.31) of which a third was light infantry, which implies the rest were ‘line’ (Polybius 11.33). The Roman casualties recorded by Livy in this fight (4,200, of which 1,200 killed in action) are very high and show that this was a hard-fought battle, even if contrary to common practice Livy exaggerated Roman casualties. If this first attempt to beat the Romans in the open had not been a normal battle practice but a reckless innovation by Indibilis, we should expect that the disaster would have come as a hard learned lesson not to be repeated. In fact, exactly the opposite happened: in 205 BC the Ilergetes gathered an even bigger army (30,000 infantry and 4,000 cavalry) and marched against the Romans in Sedetania (Livy 29.1.19-26). Again the Iberians offered pitched battle in formation (armati instructique omnes, Livy 29.2.4). Livy then offers another precious piece of information (29.2.5): the Iberians formed by nations, with the Ausetani in the centre, the Ilergetes in

37 For a complete study, Quesada (1997a: 657-663).
the right, and other minor peoples in the left wing. The battle was again hard, and a near run thing, so much so that Legio XII began to give way before the Ilergetes, and the Roman commander, Lentulus, had to bring from the reserve another unit, Legio XIII, to restore the situation. Obviously, this is not the tale of a serious skirmish against guerrilleros, but of a deadly serious battle. Finally, and thanks to a timely cavalry charge, the Iberian ranks began to waver (turbatos hostium ordines... fluctuanta signa. We again get the impression of formed troops grouped around standards, an image repeated in other cases, such as the signa of the Suessetani in another episode (Livy 34.20). It was only when Indibilis, hit by a pilum, fell dead, that the Iberian coalition forces collapsed: and the battle ended and carnage ensued.

Other pieces of information confirm that Iberian troops could be recognised at a distance thanks to shield emblems and signa militaria, implying some sort of recognisable units. This is the case with the Suessetani, recognized from far away by the Iacetani (Livy 34.20.6): ‘ubi arma signaque... cognovere’.

This pattern can be easily extended to the Celtiberians. For example, Livy uses the term acies instructa to indicate the Carpetanian battle line: ‘Hispani acie instructa ad vallum accesserunt, 30, 30, 5); and in Livy 30, 31, 4 the Celtiberians attacked in cuneus and almost broke through the Roman legionary battle line. Even the Numantines fought in pitched battle in many occasions (Appian, Iber. 76-77): pólemos ektaxamenos, and even offered open battle to Scipio in 134 BC, but the Roman general eluded the risk and chose siege-works instead. In the (in)famous battle of August 25, 153 BC, Nobilior’s whole army was destroyed in a giant ambush on the scale of Trasimene, so much that that day was considered afterwards ill-fated by the Romans.

Cavalry
Another, even more far reaching innovation during the 3rd century BC, although in this case not necessarily of Punic origin, was the development of a true cavalry in the Iberian regions. Cavalry did not exist as a tactical entity before c. 250 BC in these areas (Quesada 1998, contra Gracia 2003: 134). It is probable that its development was stimulated by the Carthaginians, but it was feasible in the short term because since the 4th century BC there was a Celtiberian cavalry in the central Meseta which made development along the Mediterranean coast and Andalusia much easier.

According to the literary sources and the more detailed representations painted on vases or carved in relief, Iberian and Celtiberian cavalry fought with javelins or short spears, and was even provided with the amentum, and sometimes dismounted to fight on foot. Sometimes shield-less, some images

38 Quesada (1998: 176-178) and Appendix I for sources, see also Seco, de la Villa (2003: 132 ss.). For iconography, see Quesada (1997a: 414 ff. and Fig. 252).
show it carrying a round or oval shield. Except for a very few cases, it seems it was never a ‘heavy’ cavalry armed with a long spear meant for charging home against enemy cavalry or infantry, even if the images on the reverse of many Iberian and Celtiberian coins might mislead us into believing otherwise. These representations from coins were inspired by Hellenistic-type issues from Sicily, in turn derived from Macedonian coins representing heavy cavalry armed with a long spear or kontos. We should also remember that the earliest Iberian coins do not show spearmen, but only weapon-less riders (Arévalo 2003: 67) whose iconography, even if Greek in origin, is directly linked with the equestrian aristocratic tradition that goes back in time to the warriors from Porcuna (Figure 23), or the unarmed riders from Los Villares (Blánquez 1992), both dated to the 5th c. BC. Therefore, the idea of cavalrymen being represented in coins as a status symbols was of long standing was quite natural to Iberian society in the 3rd and 2nd centuries BC, and if a suitable prototype was available in Greek currency, it was adopted in a quite straightforward way, even if the kind of cavalryman represented, with the long heavy lance (Manti 1983) did not match exactly the type of cavalry tactics and weapons employed by local cavalry. This is, therefore, an interesting example of a ‘false friend’ in iconographical terms.

Siege warfare?
At a more general level, it seems that during the 3rd-1st centuries BC the traditional scenarios of short razzias, plundering raids, that occasionally led to open battles, and surprise assaults on isolated towers or even major strongholds, typical of local Iberian and Celtiberian warfare before Hannibal (Quesada 2003) did not change drastically after 237 BC. There is neither literary nor archaeological evidence of formal siege warfare or of the employment of siege machinery and artillery among the Iberians. We should remember that in every case in which sophisticated siege activities are documented in Iberia it is always in the presence of Roman or Carthaginians (see for example the assault on Orongis discussed from different points of view by Moret, 1996: 256; 2001: 140 and Quesada 2001: 149). Also, complex fortifications with artillery towers and even catapult stone balls, such as the enceinte wall at Tossal de Manises (Alicante), traditionally considered Iberian, have now been proved as being Punic (Olcina, Pérez, 1998: 38-40) even by recent and as yet unpublished

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39 Such as in two images on vases from Cabecico del Tesoro (Quesada 1997a: 956, cat. n. 46) and Archen (ibidem 955, cat. n. 44).
40 Arévalo (2003: 66 and Fig. 19, from Hiero II of Syracuse, c. 274-216 BC); also Domínguez Arranz (1997: 170 ff.).
petrological analyses that show that the ammunition was manufactured in *Carthago Nova* using local stone and then transported to Tossal de Manises. It does not seem that the complex techniques seen by Iberian and Celtiberian soldiers in Italy, Sicily and elsewhere really permeated local conditions of warfare among the Iberian peoples.

**Leaders**

It seems that high ranking mercenary officers of Spanish origin, such as a certain Moericus mentioned by Livy (25.30; 26.21) became long time professionals, veritable *condottieri*, who served overseas for many years and in most cases became estranged from their places of origin (see also Polybius 1.67). These professionals therefore fit into the patterns of Hellenistic warfare, but their activities do not seem to have seriously affected the internal development of the Peninsular cultures, and most of them seem to have settled in Italy or Sicily after their careers.

But in Iberia itself things look different: military leaders, southerners like Culchas (Livy 28.13; 33.21), northerners like Indibilis and Mandonius, easterners like Edecon or even Celtiberians like Allucius (Livy 26.50.14) were aristocrats whose authority derived from their lineage (*regiae nobilitatis*, said Livy of Indibilis), followed by large clientelae of warriors. Nothing indicates that they were professionals or charismatic leaders, although of course military success would have enhanced their reputation and authority (Coll, Garcés 1998). The isolated case of Istolatius (Diodorus 25.10.1), a Celtic *strategos* who led mercenary troops in the service of the Turdetanians cannot be taken at face value as the description of a *condottiero*, as we now nothing about his status and the nature of his authority in his place of origin.

V. A COMPREHENSIVE MODEL OF WARFARE IN THE LATE IBERIAN PERIOD

After many years of detailed work, we believe that we are finally in a position to put forward a preliminary global model that explains the objectives and forms of Warfare among the Iberian peoples in the 3rd century BC. It is still tentative in some aspects, but as a whole it is coherent with archaeological data and the literary sources, even if in many places clashes frontally with the traditional accepted wisdom, based on a prejudiced reading of Classical sources. We are now able and willing to clearly identify ideological bias in the literary sources, exposing their internal contradictions when they describe the forms of warfare practised by the Iberians. But the main difference with earlier work lies in the fact that we can now draw also on a reasonably exhaustive analysis of archaeological data: weapons, fortifications, and *‘Spatial Archaeology: unavailable until very recently.*
The main objective of war among the Iberians and Celtiberians, when fighting each other, was not the physical annihilation of the foe, with the destruction of cities, massacre of the male population and the enslavement of women and children. Initially, not even the reduction of the adversary to a status of servitude or dependence was contemplated. However, by the 3rd century BC a process of concentration of power led to a system in which some political communities exerted a recognized authority over neighbouring oppida or territories originally independent and rival. This dominance implied the payment of tribute in kind or work, and even military service.

The conception of War was basically depredatory. Sacking of harvests and cattle, and of movable goods when surprise allowed it were the preferred actions, the destruction of fields and farms was usually perfunctory and allowed for quick reconstruction. Battle was to be avoided if at all possible. For the leaders, gaining fame and honour, and avoiding shame at all costs, were also main factors. Responsibility in war was conceived at a personal level. Warrior values were embedded in the social fabric, and the close personal link with one’s own weapons as status symbols was not the occasional by-product of exceptional circumstances, but the true expression of fundamental principles; in the etymological sense of the word, of the conceptual framework of Iberian societies.

Military activity was seasonal, and winter warfare would be almost unheard of before the coming of the Barcids and the Romans. Warfare was therefore limited in time and space, endemic but of low intensity, with limited mortality and long periods of peace within each annual cycle.

As the annihilation of the adversary was not seriously contemplated, formal sieges of enemy oppida was not practised, and even the assault by surprise of main enemy settlements was the exception rather than the rule. If one side felt inferior in strength, he would normally take refuge in his fortified towns and villages and endure the sacking and destruction of his properties in the fields from the safety of the walls. If, however, he believed himself to be strong enough, he would risk battle to protect property. The basic form of native warfare would thus be the razzia or plundering expedition, organized and regulated in most cases, that could sometimes develop into real combat. In that case, the usual pattern would be pitched battle between the opposing armies, ranging from a couple of hundred to a few thousand soldiers, including ‘line’ infantry, skirmishers and, in the later part of the period, small cavalry units. They would form in acies instructa, grouped in units by family or clan, and by city or populus in the case of big armies including contingents from different cities.

It is not yet possible to decide with certainty if the basis of an Iberian army in the 3rd century BC was a timocratic civic militia, where position in the line of battle would be based on the kind of panoply each warrior could
purchase according to his wealth. The growing homogeneity in weaponry since the 4th century BC (throwing spear, thrusting spear, sword, round shield and limited body armour for the ‘line’ infantry) points in that direction. The main alternative is the army based in the _clientelae_ of major leaders, which sometimes could be very substantial in size. Probably both models coexisted, with military clients acting if necessary as cadres for a bigger civic militia formed by free, middle class men, peasants and artisans in daily life. These clients however, were not professional soldiers, and also carried out their daily economic activities, but perhaps served their leaders on a rotating basis.

Other possible models, such as a _iuventus_ based on age-groups and military initiation rites, display very archaic features, and, even if they did survive at a ritual level, they would not be viable as the basis of Iberian military organization during the 4th to 3rd centuries BC. On the other hand, if there had been something like a military aristocratic caste during the 6th and 5th centuries BC, who had the privilege of carrying weapons meant for heroic-type duels, it certainly did not survive as such, as the nucleus of Iberian armies during the 4th and 3rd centuries BC.

Leaders of men in battle were the same persons that led society in normal life, although logically it was the adult and younger members of the aristocratic groups, and not the _seniores_, who took active part in combat. Middle-ranking officers were lesser and younger members of these same aristocratic or royal families (depending on the region).

Apart from the usual, endemic wars between neighbours (Saguntines against Turboletai, Turdetanians against Baeturians and so on), in some cases whole confederations of different peoples joined forces, either as allies or subordinate to a bigger _populus_. In those cases the different tribes formed under their natural leaders in different parts of the line, as we are explicitly told by Livy. We do not know if these confederations were formed only for offensive purposes, or if there was some form of _epimachia_.

There is no contradiction between the existence of pitched battles between armies formed in the plain, and the absence of formal siege warfare. This same model is well documented in other Mediterranean regions, although in somewhat earlier periods, for example in Greece before the Peloponnesian War. The concept of defence was therefore active and not passive, based on sallying from the fortified settlements and offering open battle to expel the plundering enemy. There is no contradiction either between the existence of a ‘line’ infantry capable of fighting in close order, and the depredatory nature of warfare expressed in plundering raids: the peltast or _thureophoros_ is precisely the type of soldier best adapted for this dual function.

Fortifications were not conceived of mainly as defences against siege or direct assault, but as a symbolic limit of the _oppidum_, as expression of the power and status of the aristocratic leaders, and as a defence against bandits,
wild animals and surprise attacks. There is no clear proof of the existence of systematic frontier defensive barriers, although clusters of fortified watchtowers existed as a means of controlling territory, and in certain areas (Valencia, Jaén) we know of small fortified settlements and fortified towers around certain major sites, probably occupied by families or small groups that combined their normal economic activities and military service, both controlling the territory and giving early warning of external attack.

Although demographic studies are still in their infancy, we can put forward some orders of magnitude regarding army sizes: a normal plundering razzia could involve from a few dozens to a few hundred armed men; a war between two oppida with their respective territories could see armies around one thousand men. Main expeditions by important leaders with strong clientelae and ruling over many oppida would involve perhaps up to seven or eight thousand men, while a big confederation of many populi could muster up to 25,000 thousand warriors.

That this model has similarities with what we know about other Mediterranean cultures and should come as no surprise: there is no influence but convergence. The coexistence of archaic elements (warrior ethos, private wars, absence of siege warfare) with formal battles and civic armies in some cases is not contradictory either. In fact, this model fits well with what we know of the Iberian culture as a whole and its Mediterranean connexions (long distance trade, writing systems, developed urbanism in many cases). If we are now admitting a whole series of complex traits for many aspects of the Iberian culture, it would be absurd that warfare: as fundamental an aspect of ancient societies as you can get, had stagnated into a very primitive type of purely guerrilla warfare.

That the Iberian Culture was not a Hellenistic type of society is obvious: but it is much more difficult to assess the degree in which some aspects of Hellenistic culture (such as the concept of power expressed in architecture, the use of special silverware, monumental sculpture, etc. and even in its military aspects) could have impregnated Iberian society via Carthaginian influence during the 3rd century BC. Iberia was not isolated from the oikumene, and some elements, such as the use of Hellenistic pottery, luxurious silverware, and above all coins displaying Hellenistic-type iconography became common in Iberia by the second half of the 3rd century BC, showing that the citizen aristocracies of Iberia and Celtiberia were quite familiar with these objects and the messages that they carried.

Regarding military organization, we will never know what would have happened if Iberia had not became involved in the ‘World War’ of the time, the war of Hannibal, and had not suffered subsequent Roman conquest. But what we do know is what happened, basically that Iberia was not subject to any substantial influence of Carthaginian and Hellenistic military innovations.
Certain new types of weapons, bronze helmets and oval shields, became widely accepted, given that they offered better protection, which was especially the case with the enormous contingents recruited by the Carthaginians and Romans. But these weapons never completely replaced the traditional panoply. And the advances in military technology that mercenaries and allies could observe in their campaigns: artillery, complex tactics, etc., were never really integrated into the fabric of the Iberian military, except when Iberians were in the service of foreign powers.

Given the chronic lack of light infantry and of cavalry in the armies of both sides during the Hannibalic War, it is only natural too, that both Carthaginians and Romans tended to recruit precisely these types of troops among the Iberian peoples, although they also made extensive use of their dual-purpose ‘line’ infantry. However, the most important innovation was the growing development of Iberian and Celtiberian cavalry.

But the more refined aspects of tactics and military hardware never reached the Iberian military system. In this sense, it seems that the décalage between the military traditions of Greece, Italy, Carthage, and those of Iberia widened rather than shortened during the 3rd and 2nd centuries BC, so that by this time the gap between the military traditions of the Mediterranean and Iberia: in organizational, tactical and equipmental terms became bigger, rather than smaller, than it had been during the 4th century BC. In the last instance, thus, we get the impression that if during the first decades of the 4th century BC the Iberians were practising forms of warfare not very distant in many aspects from those of the Etruscans or Romans during roughly the same period (civic militias, military clientelae, bellum privatum, pitched battle, predominance of line infantry over light troops and cavalry), by the end of the third century the military of the Iberians had lagged behind the impressive developments that took place in the central Mediterranean.

Fernando Quesada-Sanz
Universidad Autónoma de Madrid (Spain)
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### FIGURES

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<th>EASTERN MESETA (INNER PLATEAU)</th>
<th>WESTERN MESETA</th>
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<tr>
<td><strong>FORMATIVE</strong> (mid 7th.-end 6th centuries BC)</td>
<td><strong>DEFENS.</strong></td>
<td>- Round leather shields - Leather horned helmets - Some corinthian helmets</td>
<td>- Round leather shields - Bronze helmets (?)</td>
<td>?</td>
<td>?</td>
<td>?</td>
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<td></td>
<td><strong>OFENS.</strong></td>
<td>- Long, heavy spearheads - Long straight flange-hilted swords - Scythian-type= barbed arrowheads</td>
<td>- Long, heavy spearheads - Iron version of Late bronze Age long sword (Sa llda type)</td>
<td>- Imported antennae swords - Flange hilted swords - Pila.</td>
<td>- Long, heavy spearheads - Javelins</td>
<td>- Miraveche sword? - Bronze daggers?</td>
</tr>
<tr>
<td><strong>EARLY</strong> (early 5th-late 5th c. BC)</td>
<td><strong>DEFENS.</strong></td>
<td>- Disc breastplates (kardophilakes) - Bronze greaves - Textile cuirass - Round leather shields - Round wooden shields with short central handgrip. - Complex bronze and leather helmets with big crests - Round and radial bronze embossed shield bosses.</td>
<td>- Bronze embossed cuirass. - Bronze greaves. - Round and radial bronze embossed shield bosses. - Organic material cuirasses (spolas)</td>
<td>- Disc breastplates - Local bronze helmets - Organic material protection</td>
<td>Perhaps small round wooden and leather shields with round iron boss.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>OFENS.</strong></td>
<td>- Scythian-type= barbed arrowheads</td>
<td>- Fronton= type sword. - Fronton= type dagger. (Frontón=arched pommel) - Falcata - Antennae swords type III Quesada - Long, heavy thrusting spear (types 1 and 2) - Javelins (type 12) - Soliferrea - Pila</td>
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<td>- Antennae swords types Quesada I,II,III. -&gt; Frontón= type sword - Long spearheads - Javelins</td>
<td>- Miraveche sword - First Monte-Bernorio daggers (type III)</td>
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## Military Developments in the ‘Late Iberian’ Culture

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</table>
| DEFENS. |       | -Round wooden shield with long metal handgrip  
|         |       | -Organic protections  
|         |       | -Leather helmets with metal crest holder.  
|         |       | -Rarely, big round bronze embossed shield bosses.  
|         |       | -Iron helmets of Celtic type.  
|         |       | -In the latter part of the period, some oval shields (scutum, thureos)  
|         |       | -Round shields with thin metal handgrip  
|         |       | -Some iron shield bosses.  
|         |       | -Hemispheric iron shield bosses.  
|         |       | ->Open= shield bosses.  
|         |       | -Big radial shield bosses.  
| OFENS.  |       | -Frontón sword (rare)  
|         |       | -Falcata  
|         |       | -Rarely, atrophied antennae swords (types III and IV)  
|         |       | -Atrophied antennae daggers  
|         |       | -Spear and javelin heads of all types. Heavy and strong rib predominant.  
|         |       | -Soliferreum  
|         |       | -Pilum  
|         |       | -La Tène I swords  
|         |       | -Broad, middle sized spearheads  
|         |       | -Javelins  
|         |       | -Soliferreum  
|         |       | -Antennae swords type III (rare), IV and V.  
|         |       | -Falcata (very rare)  
|         |       | -La Tène swords (from end 4th c BC)  
|         |       | -Local version of La Tène Sword (3rd c. BC)  
|         |       | -Middle sized spearheads with small rib.  
|         |       | -Javelins  
|         |       | -Hybrid daggers (types IV and V)  
|         |       | -Type III dagger (Monte Bernorio)  
|         |       | -Late Miraveche sword  
|         |       | -Type VI antennae sword  
|         |       | -Fronton sword (very rare)  
|         |       | -Falcata (rare)  
|         |       | -Broad, middle sized spearheads.  
|         |       | -Local version of La Tène Sword (3rd c. BC)  

MATURE (c.400-c.230 BC)
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<th>WESTERN ANDALUSIA</th>
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<td>DEFENS.</td>
<td>Oval shield. Small round shield (end of the period) Helmets of organic material (Osuna)</td>
<td>Big round shield (c. 60 cm. Or more in diam.) Small round shield Oval shield Organic (leather and felt) protections Montefortino helmets</td>
<td>Oval shields Rarely, round shields Montefortino helmets</td>
<td>Round shield with thin metal handgrip Iron bosses Oval shield (?) Montefortino helmet (rare).</td>
<td>Round light shield with iron boss. Iberian type, heavier round shield Chain mail? (Extremely rare if ever, only Strabo)</td>
<td></td>
</tr>
<tr>
<td>LATE (c. 230-c.100 BC)</td>
<td>Local version of La Tène I sword (=Gladius hispaniensis) Falcata (rare) Middle sized spearheads Javelins Soliferrea (?)</td>
<td>Falcata Local version of La Tène I sword (=Gladius hispaniensis) (rare) Biglobular (=pugio) daggers of type VI. Spearheads of many types. Mostly middle and small size, many without central rib Javelins and darts Soliferrea (rare)</td>
<td>Falcata (rare) La Tène sword and local versions Spearheads of both Iberian and Celtic types Javelins</td>
<td>Athropied antennas swords of types V-VI Local version of La Tène I sword (Gladius hispaniensis) Ribless spearheads Biglobular (=pugio) daggers of type VI. Javelins Soliferrea</td>
<td>Daggers of types III, IV, VI. Swords types V, VI. Small and medium sized spearheads.</td>
<td></td>
</tr>
<tr>
<td>OFFENS.</td>
<td>Systematic occurrence of Roman Republican weapons: Late Montefortino and Buggenum helmets, oval scuta with iron &gt;butterfly= bosses, light and heavy pila, gladii hispanienses (derived from a late local version of the Celtic La Tène I sword), iron socketed arrowheads. Also, weapons of local tradition (smaller versions of the Iberian round shield -caetra-, falcata, smaller spearheads.</td>
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Fig. 20: Evolution chart of Iron Age weapons in the Iberian Peninsula.
Fig. 21: Main types of Iberian weapons in the Peninsula.
Fig. 22: Main types of Iberian weapons in the Peninsula. (5th to 1st centuries BC). After Quesada (1995, Iberian weapons) and Lorrio (2004b, Celtiberian weapons).
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