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In: P. François, P. Moret, S. Péré-Noguès (Eds.) *L'Hellénisation en Méditerranée Occidentale au temps des guerres puniques*. Actes du Colloque International de Toulouse, 31 mars-2 avril 2005.
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**Not so different: individual fighting techniques and battle tactics
of Roman and Iberian armies within the framework of warfare
in the Hellenistic Age.**

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SUMMARY

The weapons carried by the Iberian warrior during the fourth and third centuries BC were typical those used by a dual-purpose infantry, capable of using both close and open order tactics closely similar to those employed by Hellenistic *thureophoroi*. This panoply was based on a heavy throwing weapon -*pilum*, *soliferreum* or heavy throwing spear-, a main thrusting spear and a short thrusting and stabbing sword (*falcata* or *antennae sword*). Defensive weapons included a round wooden shield about two feet in diameter, a leather helmet and sometimes a felt or leather cuirass. Late in the third century three significant elements were added, mainly by the professional soldiers serving under Hannibal or Scipio: the oval shield (*scutum* or *thureos*), the 'jockey cap' type bronze helmet, and new sword types with longer blade and cutting and thrusting capabilities. This panoply is strikingly similar in functionality to the weapons carried by the Roman Republican legionaries, save for the old-fashioned *triarii*. Admittedly, ancient tactics were not determined by the choice of weapons, but there is a strong relationship between them. If we analyze the more detailed and precise literary sources (mainly Polybius and Livy, but also some descriptions by Diodorus and Strabo) a pattern emerges: the Iberians were quite capable of fighting pitched battles in close order formations of a formal nature, in *instructa acies* as Livy puts it, and their individual and small unit tactics were strikingly similar to the Roman fighting techniques.

KEYWORDS

Ancient Iberian Warfare. Roman warfare. Tactics. Weapons.

Much has been written about the 'primitive' nature of Iberian and Celtiberian warfare in comparison with the more developed strategical thinking, logistics and overall waging of war as practised by Rome. Accepted wisdom is mostly based on late nineteenth and early twentieth German scholarship -some of these scholars being soldiers as well, bred in the Prussian military tradition- who often took what ancient literary sources said on the subject at face value, without taking into account their ideological agendas, and who could not have had access to much of the archaeological data now

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available.¹ Basically, it has generally been accepted that Iberians and Celtiberians fought in loosely organized warbands using guerrilla hit-and-run tactics, incapable of sustained fighting and of concerted action both at the tactical and at the strategic level.² Some of this reconstruction still holds true, but some important additions and modifications can and should now be done. This paper will try to show that at the level of minor tactics and individual combat, Romans and Iberians fought in similar fashion, forming part of a 'western' military tradition completely different than that of Hellenistic states of the time.

We should first insist on some basic and often overlooked issues that are at the foundation of our reasoning. These issues also help to explain some of the most confusing aspects of the Roman adaptation of Hispanic weaponry during the early stages the conquest of the Iberian Peninsula, and also aspects of weapon production and supply for the legions fighting in *Hispania*.

The first point refers to the fact that the Roman legion at the beginning of the Second Punic War was not an exclusively heavy infantry formation in the way the later Marian or Caesarian legions were, but a combined force, poor in cavalry but extremely strong in light infantry. As against its 2.400 *hastati* and *principes* and 600 *triarii*, the republican legion of the III-II centuries BC also included 1.200 *velites*, that is, around 30% of the force of the whole legion (Polybius 6, 20.8 and 6, 21.7). We must emphasize this fact to avoid the enduring traditional image of the legion as a mass of purely 'heavy' infantry soldiers with nearly no skirmishing capability. Despite the importance of the *hastati* and *principes* in the decisive clash, the *velites* were as numerous as any of the other two lines and doubled the *triarii* in numbers. Therefore, their javelins, swords, circular shields and simple helmets (or caps, *perikephalaia*) represented an important share of the legions armament requirement, and a most important tactical asset.

¹ They lacked a good *corpus* of weapons, arranged typologically, geographically and chronologically, with accompanying functional analysis. Basically, this has not been available until the last decade of the 20th century (Quesada 1997a, Lorrio 1994, Moret, Quesada 2002).

² See e.g. Schulten (1914: 202 ff.). Some scholars still use exactly the same approach (e.g. García Gelabert 1989).

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The second point is that we should always remember that in antiquity, the characterization of troops as "heavy" or "light" infantry did not depend on the quantity of armour and defensive weapons they carried, but rather on the way they fought.³ Thus, while it is obvious that the tasks of the light infantry deployed in skirmish order forward of the main battle line demanded swift movements, and therefore these troops always discarded almost any form of body protection except, perhaps, a light shield and occasionally a helmet,⁴ the infantry we should call 'of the line', rather than 'heavy', could either carry heavy and bulky armour or just limited body protection based on a large shield and helmet. In the ancient Mediterranean region we have two examples of "heavy" or "line infantry": the early classical Greek hoplite (covered in bronze from head to foot by a heavy helmet, bronze cuirass, thigh protections and greaves,⁵ and also protected by a heavy, 8 kg., three feet round *aspis*⁶) and the later Macedonian phalangite in the inner ranks of his unit (carrying just a two feet round shield without a cuirass or greaves, and even wearing a felt cap instead of a helmet). In the Roman Republican legion, according both to Polybius's description and available iconography, only a small portion of the soldiers (mostly among the *triarii*) wore complete metal protection in the shape of *lorica hamata*, and an even smaller percentage carried also greaves. It was its organized structure and formal deployment which gave the legion its "heavy" character, and not the amount of body protection or even the type of weapons used. Therefore, the relative lightness of Iberian armour does not necessarily imply light infantry tactics; in fact, most Iberian warriors in Punic armies were, when armed with the oval shield, as heavily protected as any Roman *hastatus* or *princeps*. We shall return to this issue later.

The third point refers to the combat tactics and formations of the Roman units at the time of the Second Punic War. An intense debate has

³ Exactly along the same lines, for instance, see Lazenby (1978:14).

⁴ Other experiments often finished in failure, such as in the case of the *ekdromoi* (the younger hoplite phalanx age group) who used to leave the formation to pursue the enemy *peltastai* – usually without success since, despite their strength and agility, they were burdened by the hoplite panoply (*ekdromoi*, Tuc. 4,125,3; Jen. *Hel.* 4,5,16).

⁵ Jarva (1995) is now probably the most complete synthesis.

⁶ Blyth (1986), Donlan, Thompson (1976).

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developed over the last few years on the nature of legionary warfare (Goldsworthy 1996, Sabin 2000; Zhmodikov 2000). As opposed to the Greek hoplite or phalangite, basically a spearman or pikeman who only used his short *xiphos* when his shafted weapon broke during the hand-to-hand fight,⁷ the Roman legionary has been considered until very recently basically a swordsman (and with some good basis in classical sources, Polybius 2, 30, 8; 2, 33; 15, 12, 8; Vegetius 1, 12), who combined an active use of his *scutum* to push and unbalance his foe, with strong thrusting and slashing strokes of his *gladius*. In this concept, *pila* were thrown in volleys during the initial stage of the charge, to disorganize the enemy line just before the sword charge, as described by Livy in many occasions (Livy, 9, 13, 2-5; 9, 35, 4-6; 28, 2, 5-6; see Zhmodikov 2000:68). However, some objections against this simplistic reconstruction have been raised recently, as in the important papers by A. Zhmodikov (2000) and P. Sabin (2000:12) who have gathered a considerable number of sources that prove the sustained use of *pila* during the whole duration of the battle, and not just in the initial charge. This implies that not all throwing weapons were spent during the initial clash and, even more, that there were lulls in the hand-to-hand fight during which the contending lines separated while the throwing of *pila* continued. In consequence, initial close combat appears to have been most often somewhat hesitant and indecisive (Sabin 2000, Zhmodikov 2000, Goldsworthy 1996:222). This new vision of the use of *pila* fits perfectly with what we know about the long duration of many battles as described by literary sources; in fact, combats that were decided in a matter of minutes were the exception rather than the rule, and in those cases it was mainly because one side, morally defeated, broke and fled *before* actual contact.. Most battles lasted for two, three and even more than four hours (see Zhmodikov 2000:70-71; Sabin 2000:4-5; Goldsworthy 1996:225 for cites). As we know that physical exhaustion is reached after few minutes of hand-to-hand fighting with sword and shield (Goldsworthy 1996:224 for references), we should find an explanation for the well documented fact that most battles lasted for hours, and that can only be that there were prolonged lulls during which both sides would draw back and remain some paces apart while exchanging missiles and insults. Philip Sabin (2000:17) has concisely summarized an emerging consensus among the small band of specialists in combat analysis in the Ancient World: "*these clashes were more tentative and sporadic than has previously been assumed, and that only such a*

⁷ See Hanson 1989:165; Anderson (1991:25), etc. For the Hellenistic period, for example Lloyd (1996:193

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model can account for the apparent combination of long duration, one-sided casualties, fluidity of the battlefield and emphasis on reserves rather than formation depth. [...] (p. 17) "in most Roman battles the lines did sporadically come into contact, as one side or the other surged forward for a brief and localized flurry of hand-to-hand combat. The flurry of combat would end when one side got the worst of the exchange, and its troops would step back to re-impose the 'safety distance' while brandishing their weapons to deter immediate enemy pursuit. This kind of dynamic stand-off punctuated by episodes of hand-to-hand fighting could continue for some time until one side finally lost its ability to resist [...] The most common mechanism for such a transformation would obviously be the panic of the losing troops due to the breaching of the line, a psychological shock such as the death of the general, or the sheer accumulation of casualties and fatigue" (pp. 14-15).

Finally, the recent book by J. Lendon (2005:180 ff.) poses again the still unsolved -and seemingly unsolvable- problem of the working of the manipular system on the battlefield, that has plagued the efforts of generations of scholars since the nineteenth century. From Livy's description (8, 8, 9-14) -who provides us with the most detailed description of the manipular system-, it necessarily follows that the three main lines of *hastati*, *principes* and *triarii* were placed in a checkerboard formation (called *quincunx* by modern scholarship, not by ancient sources, see Wheeler 1979:305-306). During combat there was a way to replace tired units in the front line with reserves from the second and, if necessary, from the third line. Although there are a few opinions to the contrary (starting with Hans Delbrück), we believe that it is implausible to maintain that the maniples in the front line fought leaving between them gaps of maniple or even of century size, as these gaps could not be adequately covered by the *principes* in the second line and could be easily exploited by any enemy -the more irregular and less concerned with rigid formations the better- to very quickly take the isolated front units from the flanks. Therefore, many possible solutions have been put forward to allow for a continuous front line of the legion while at the same time allowing for the ordered replacement of exhausted units by the second line as described by literary sources. The most viable of these solutions would apparently be that during the initial deployment the maniples formed with one of its two organic centuries behind the other, and that just before the clash the *centuria posterior* of each maniple advanced diagonally and closed the gaps, thus creating a continuous line. If necessary, the process could be reversed by these same *posterior* centuries of each maniple

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withdrawing behind the first to open the gaps that would allow the second line of *principes* to advance and replace the tired *hastati*. The problem is that this solution, while practicable on paper, could not work on the battlefield, even during the short lulls in the fighting described above. We should have to visualize the exhausted men of the second centuries of each manipule slowly walking backwards and then to the left, maintaining an ordered formation in ranks and files to move behind the first century of their maniples, in a complicated ballet-like choreography that demanded careful coordination and precision.⁸ But if these movements became necessary it would precisely be because these men were exhausted, on the very verge of defeat. What, then, would the enemy, a few paces away, already sensing victory, do while seeing half of the Roman battle-line withdrawing and leaving century-wide gaps? Obviously they would charge the now isolated front units and throw them back in utter confusion over the withdrawing 'posterior' centuries, sending the whole first line reeling back in disorder towards the advancing *principes*. The whole scheme is a recipe for disaster.

However, many different ancient sources still insist that the main advantage of the Roman fighting system laid in its ability to replace, if necessary, the tired first line with fresh ones, both in the manipular and in the later cohort system (e.g. Polybius 15, 14; Livy 30, 34, 9-12; Caesar, *Bell. Civ.* 1, 45; 3, 94); so there *was* a system that actually worked. In our opinion, the answer lies both in the combination of the more or less prolonged lulls that emerged during combat, even if the opposing lines were quite close (see above), with a new model of the type of formation adopted during combat by Roman line infantry units, a model that allows for a very quick expansion and contraction of the front of the Roman small units. This in turn emerges from an analysis of the space needed by Roman soldiers to effectively use their main weapons (*pila* and the *gladius hispaniensis* which, we should remember, had a 60-65 cm. long blade used both for thrusting and cutting, see Quesada 1997b). Polybius states very clearly (18, 28-30) that to effectively use their weapons, legionaries had to occupy a space of around 1.80 m. both in frontage and in depth as opposed to half the frontage and depth occupied by Hellenistic pikemen (see also Goldsworthy 1996:179; Sekunda 1996:19): "*a Roman soldier in full armour also requires a space of three square feet. But as their method of*

⁸ See for example the tidy and misleading graphics in Warry (1980:111), Connolly (1988:140-142).

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fighting admits of individual motion for each man -because he defends his body with a shield, which he moves about to any point from which a blow is coming, and because he uses his sword both for cutting and stabbing,- it is evident that each man must have a clear space, and an interval of at least three feet both on flank and rear, if he is to do his duty with any effect. The result of this will be that each Roman soldier will face two of the front rank of a phalanx...." (trans. Evelyn S. Shuckburgh).⁹ It is clear that the Roman republican legionaire did not fight in a very close, shoulder-to shoulder formation, and in fact the frontage allotted to each soldier was much more generous than the average 60 cm. of the line infantry in the european armies during the horse-and-musket period (see Nafzinger 1996:22).

But still some scholars believe that even then maniples 'formed' in neat rectangles with dressed ranks, which is perhaps true of the reserve lines and even of the first line before the battle. But what we intend to suggest, following partly J. Lendon,¹⁰ is that Roman maniples, once battle started, did not adhere to a rectangular formation with dressed ranks, but that at least when fighting 'western' enemies, they could and did fight in dense 'clouds' rather than in formal ranks; this formation is still a recognizable one, keeping a strict unit and sub-unit system, and using the all-important standards as focal points (Polybius 6, 24, 4-6). This is also not a dense skirmish line, but a battle line, although its centurions would not be much concerned with keeping regular ranks once fighting started, but just with having men grouped round their standards and ready to expand and compress their ranks. Initially the front line maniples would form in close order (about 3 feet per man) with both centuries side-to-side, leaving maniple wide gaps between them (at three to six ranks deep, which was a normal deployment, see Sekunda 1996:19; Goldsworthy 1996:180-181, this would mean a frontage of between 40 and 20 metres per maniple with correspondingly wide gaps between them). Just before the initial clash, the maniples of the front line would expand slightly to both sides; between ten and

⁹ For a more detailed analysis of the frontage problem, including the apparently conflicting account by Vegetius, see Goldsworthy (1996:179-180); Sekunda (1996:19); Quesada (2005 forth.).

¹⁰ Timidly in 2005:179, more openly in the recent *Second Hellenistic Warfare Conference* held in Valencia in October 2005.

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twenty metres *at most* to each side, adopting the six-feet-per-man looser 'battle' formation to be able to throw *pila* and use shield-and-sword effectively. If the dressing of ranks was, as we believe, not of paramount importance, it would be quite easy for each maniple to contract its frontage by the same amount, around the standard and under the strict control of the centurions, to reopen the gaps and very quickly withdraw through the second line or to allow the second line to advance through them. When Delbruck (1920:293) argued that mainples could not possibly expand and contract their frontage in this way, it was because he was still thinking in terms of formally dressed ranks and files in nineteenth-century fashion, and not in the sort of more elastic dense 'clouds' we visualize.

We thus believe that this model is promising because it takes into account the peculiarities of Roman armament (which needs a 'safety zone' for each soldier to throw his *pilum* and use his sword and shield in an effective manner); it makes adequate use of the elaborate and apparently excessive arrangement of standards and centurions for each small unit; and it explains better than any other model how the manipular 'replacement' system could work. In this respect, as we shall see, this type of battle line is in many ways closer to other 'western' tactics than to the much more rigid arrangement of ranks in the phalanx of the Hellenistic armies.

It is in this context that we should compare the weaponry, individual combat techniques and small unit tactics of the Iberian peoples and the Romans during the period 218-133 BC.

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As shown in Figure 1, the typical set of weapons carried by the average Iberian

1. COMPARATIVE TABLE OF THE ROMAN REPUBLICAN (III-II c. BC) AND IBERIAN/CELTIBERIAN WEAPONRY						
"LINE" TROOPS (1)					LIGHT TROOPS	
	Legionary (<i>bastatus/pri-ncipe</i>)	Legionary (<i>triarius</i>)	Iberian Warrior (2)	Celtiberian Warrior (2)	<i>Veles</i>	Hispanic Warrior (2)
OFFENSIVE WEAPONS	<i>Pila</i> (x2)	<i>Hasta</i>	<i>Soliferreum</i> or <i>pilum</i> , and spear	<i>Soliferreum</i> or <i>pilum</i> , and spear	Javelins	Javelins and/or spear
	<i>Gladius</i> (<i>xiphos</i> or <i>hispaniensis</i>)	<i>Gladius</i> (<i>xiphos</i> or <i>hispaniensis</i>)	<i>Falcata</i> or <i>gladius hisp.</i>	Straight sword or <i>gladius hisp.</i> and/or dagger	Sword	
	Adopted? <i>Pugio</i>	Adopted? <i>Pugio</i>		Dagger		
DEFENSIVE WEAPONS	Oval <i>Scutum</i> in convex shape	Oval <i>Scutum</i> in convex shape	Flat <i>Scutum</i> or big 66 cm. <i>caetra</i>	<i>Caetra</i> or flat <i>scutum</i>	<i>Parma</i>	<i>Caetra</i>
	Bronze helmet	Bronze helmet	Bronze or leather helmet	?		
	Metallic pectoral	Chainmail	Organic Cuirass. Occasionally pectorals?	Organic Cuirass. Occasionally Chainmail.		
	Metallic greave	Metallic greave	Textile greave	Textile greave		
(1) In accordance with the fact, proved by literary sources, that the Iberian and Celtiberian troops with more or less discipline and/or success fought in <i>acies instructa</i> (see Quesada 1997a:657 ff.).						
(2) From archeological data that allows us to distinguish between light troops and line troops from the combinations of grave goods, see Quesada 1997a:643 ff.)						

'line' warrior (or soldier in the long-standing professional units in some Carthaginian armies, see Quesada 2005) was functionally identical to the Roman panoply.

Since 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 sever 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 Late Phase (c. 230-c. 200 BC), the traditional Iberian weaponry of the earlier Mature Phase (c. 400-c. 240 BC), already based on a combination of throwing spear

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(*soliferreum*), thrusting spear and sword (Quesada 1997^a, 2002, 2003 forth.), was modified and adapted to the new situation of high-intensity warfare.

The most important new offensive weapon during this short period was the straight-bladed sword with parallel or very slightly 'waisted' edges and a short triangular point, derived from the 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 4th c. Celtiberian version of the La Tène I sword is hardly distinguishable from the Gaulish prototypes. By the 3rd century BC, however, some peculiar peninsular traits became evident: first, the gradual disappearance of the metal scabbard with *pontet* or suspension loop, now replaced by a wooden or leather scabbard with iron edge reinforcements and suspension rings for a baldric slung over the shoulder; second some blades have a slight waist and very occasionally slight grooving. The final product was a slightly waisted, around 65 cm. long blade with a strong point, apt both for thrusting and cutting, slung from a baldric in a wooden scabbard fitted with suspension rings and side metal reinforcements, a type, to sum up, that matches exactly the known Roman swords from Republican times, i.e., the famed *gladius hispaniensis* (Osuna, Delos, Smihel, Ljubljana, Jerico, etc.)¹¹. Therefore, this is undoubtedly the prototype of the Roman sword of Republican times - perfectly useful in the context of close combat, 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).

Another development in offensive weapons 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. Provided with a peculiar two-disc hilt, it is of course the prototype of the Roman *pugio*,¹² that was widely used by legionaries from Augustan times, but had probably been adopted by the Romans by the time of Numantia's siege (133 BC) perhaps first as exotic booty.¹³ 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.

¹¹ Feugère (1993, 1995); Connolly (1997); Horvat (1997); Istenic (2000, 200b), Sievers (1997); Stiebel (2004).

¹² There is a long bibliography on this particular subject. See summary in Quesada (1997a:300-302) and recent discussion in Quesada (2005 forth.). 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).

¹³ *Pro* Ulbert (1984:108-109); *contra* Luik (2002:90).

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Finally, heavy throwing *soliferrea* and lighter *pila*, javelins and thrusting spears remained as popular as ever.

But most visible are the more radical innovations in defensive weapons, with the introduction of the flat version of the oval shield (*scutum*, □□□□□□) in the South and Southeast and probably also in the Meseta; and also of the bronze helmet commonly known as Montefortino or jockey-cap helmet. Even if they were ultimately of Italic origin, the jockey-cap bronze helmet and the oval *thureos* were probably first adopted by Iberian mercenaries and allies in the Carthaginian service, and perhaps even by Carthaginian citizens, as they were both cheap and efficient.¹⁴ We have argued elsewhere in detail (Quesada 2002-2003) that a close analysis of the chronology of the first oval shields and Montefortino helmets in Iberia closely matches the period of Barcid influence (c. 237-c. 218) and Hannibal's war (218-202 BC), and therefore it is very likely that both defensive weapons and Punic presence are connected as no other model explains better the available data.

All these weapons, if taken together, are typical of the Late Iberian and Celtiberian panoply (c. 230-c. 100 BC) 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'. We believe that the innovations in weaponry we have just summarized (see Quesada 1997b, 2002-2003, 2004 forth. for more details) are not the result of chance or of fashion. They imply a significant 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 determined changes in weapons, 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 Iberian, Turdetanian and Celtiberian contingents in the Carthaginian army first (c. 237-c. 205 BC) and in the Roman army somewhat later (c. 218-c. 45 BC). The new situation, without essentially altering the traditional forms of combat, introduced new dangers in a battlefield environment of much higher intensity than before, and during far

¹⁴ In fact, since the 2nd and during the 1st centuries BC the Montefortino helmet and its late developments (Buggenum...) became one of the most common all over the Mediterranean, from Galicia to the Near East (cf. Völling, 1997; Raev, Simonenko, Treister 1991; Schaaff, 1988; Robinson, 1975; Feugère, 1994:37 ss. etc.).

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more protracted periods, and therefore demanding an upgrade specially of defensive weaponry.

On the other hand, both Carthaginians and Romans were, during their wars, chronically short of a flexible line infantry. They employed not only small specialized contingents such as Balearic slingers or small cavalry units, but also bigger units of dual-purpose infantry, adept both at close combat (and therefore capable of fighting in something approaching even terms with legion) and of skirmishing in rough terrain (with clear superiority over pure light infantry). It is this employment of Iberian troops that is more commonly documented in the literary sources if we read them without prejudice, as we have shown elsewhere (Quesada, 1997a:657 ss.; 2002, 2003 forth., 2005). Other scholars are also beginning to accept this interpretation (Gracia 2003:257 ff., 306-307), as opposed to the earlier paradigm that, for ideological reasons, defended the essences of the 'Iberian guerrilla'. In countries with a large proportion of rough terrain, such as in Italy or Spain, these troops were specially useful and, moreover, they did not have to drastically change their natural tactics they had employed since at least the early decades of the 4th century BC. The oval shield of Celtic or Hellenistic shape, somewhat lighter than the Roman *scutum*, was useful while in skirmish order, but at the same time afforded better protection than the round *caetra* in pitched battle. The adoption of the jockey cap bronze helmet responds to the same phenomenon: it was light, cheap, massively produced and, with or without cheekpieces, provided a good balance of protection and hearing. This tactical employment of troops is a development of the traditional one among Iberians since the early 4th century BC. and closely matches that of the hellenistic *thureophoroi*, themselves heir to previous experiments with peltasts in the first half of the 4th century BC (see Moreno, 2002) and who –we must recall-, 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).

One of the more important realizations of recent research on Iberian warfare is the fact that pitched battles in some sort or recognizable formation by massed bodies of troops were the rule, not the exception in Spain since c. 400 BC. (different aspects in Blanco, 1988:78-79; 111; Quesada 1997a:653 ff.; 2002-2003:84 ss.; 2003 *passim*, 2003b forth.; 2004; Gracia 2003). This fact made the integration of Iberian and Celtiberian troops in the Hellenistic-type Punic

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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 (Quesada 2005). If Hannibal or his colleagues had had to drastically change the nature of the tactics employed by 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 at Cannae and on many later occasions,¹⁵ or that the Roman Scipio used his Iberian allies directly as line infantry at *Illipa* and other battles also proves this point (Polybius 11,22; Livy 28,14 ss.). It is true that Livy and other Roman 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 were trying to demonstrate the essential superiority of civilized Roman society over the barbarian peoples; in doing so, they often emphasized the more 'primitive' aspects of subjected peoples to make the essential superiority of the Romans more natural and beneficial by comparison, and thus to establish their natural right to rule. If we read carefully the battle descriptions of the literary sources, it can easily be seen that pitched battle and not guerilla was the preferred tactic of both Iberians and Celtiberians, not only when forming part of the Carthaginian and Punic armies, but also when they fought on their own against them. As A. Blanco noted with his usual perspicacity long ago (Blanco 1988:78-79), the Iberians suffered catastrophic defeats in their early fights against the Romans in 200-195 BC *precisely* because they tried fighting pitched battles against the markedly better organized and disciplined legions. There are more examples of this that can be summarized here. 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 *iusta 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;

¹⁵ In Apulia in 208 B.C. the best troops of Hannibal's army were already formed by Spaniards (Livy 27,14,5), placed with confidence by the Carthaginian in the centre of his line, and the same thing happened in the following year (Livy 27,48,6).

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Hernández Cardona, 1991) and it seems that the description is coherent and historically accurate.

The best documented case is probably that of the campaigns against the Romans waged by 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, implying the rest were 'line' (Polybius 11, 33).¹⁶ The Roman casualties recorded by Livy in this fight (4.200, of which 1.200 were killed) were 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 the right and other minor peoples in the left wing.¹⁷ The battle was again hard, and

¹⁶ Polybius 11, 33: "The enemy's infantry therefore, being thus deprived of the support of the cavalry, on which they had relied in descending into the valley, were distressed and overmatched in the battle; while their cavalry was in much the same plight: for, being surprised on ground of insufficient extent, they fell into confusion, and lost more men by hurting each other than by the hands of the enemy; for their own infantry was pressing upon their flank, and the enemy's infantry on their front, while his cavalry were attacking on their rear. The battle having taken this course, the result was that nearly all those who had descended into the valley lost their lives; while those who had been stationed on the foot of the hills managed to escape. These last were the light armed troops, and formed about a third of the whole army..." (trad. Evelyn S. Shuckburgh). Livy 28,31: "They summoned their tribesmen once more to arms, and called out the auxiliaries who had joined them before, and with a force of 20,000 infantry and 2500 cavalry they crossed their frontiers and marched to their old camping ground in Sedetania" (trad. C. Roberts).

¹⁷ "On the morrow the whole of the Spanish army marched under arms and in battle formation to within a mile of the Roman camp. The *Ausetani* formed the centre, the *Ilergetes* were on the right and the left was made up of various nameless tribes. Between the wings and the centre open spaces were left, wide enough to allow of the cavalry charging through when the right moment arrived. The Roman line was formed in the usual way, except that they so far copied the enemy as to leave spaces between the legions for their cavalry also to pass through. *Lentulus*, however, saw that this disposition would be of advantage to that side only who were the first to send their cavalry through the wide gaps in the opposing line. Accordingly he gave the military tribune, *Servius Cornelius*, orders to send his cavalry at full speed through the openings. He himself, finding that his infantry were making no progress, and that the twelfth legion, who were on the

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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 major skirmish against guerrilleros, but of a deadly serious battle. Finally, thanks to a timely cavalry charge, the Iberian ranks began to waver (*turbatos hostium ordines... fluctuantia 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 other episode (Livy 34, 20). It was only when Indibilis, hit by a *pilum*, fell dead, that the Iberian coalition forces collapsed, 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. It is the case of the *Suessetani*, known 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, *pólemos ektaxamenos*, in many occasions (Appian, *Iber.* 76-77), and even offered open battle to Scipio in 134 BC, but the Roman general avoided the risk and chose siegeworks instead. In the (in)famous battle of August 25, 153 BC, Nobilior's whole army

left, opposed to the Ilergetes, were beginning to give ground, brought up the thirteenth legion who were in reserve to their support. As soon as the battle was restored in this quarter he rode up to L. Manlius, who was at the front encouraging his men and bringing up assistance wherever it was required, and pointed out to him that all was safe on his left and that S. Cornelius, acting under his orders, would soon envelop the enemy with a whirlwind of cavalry. He had hardly said this when the Roman cavalry charging into the middle of the enemy threw his infantry into confusion, and at the same time barred the passage for the Spanish horse. These, finding themselves unable to act as cavalry, dismounted and fought on foot. When the Roman commanders saw the enemy's ranks in disorder, confusion and panic spreading and the standards swaying to and fro, they appealed to their men to break up the enemy while thus shaken and not let them re-form their line. The barbarians would not have withstood the furious attack which followed had not Indibilis and his dismounted cavalry placed themselves in front to screen the infantry. There was very violent fighting for some time, neither side giving way. The king though half dead kept his ground till he was pinned to the earth by a javelin, and then those who were fighting round him were at last overwhelmed beneath showers of missiles. A general flight began and the carnage was all the greater because the troopers had no time to recover their horses, and the Romans never relaxed the pursuit until they had stripped the enemy of his camp" (Livy 29, 2, trans. C. Roberts).

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was so badly mauled in a giant, Trasimene scale ambush, that that day was afterwards considered ill-fated by the Romans.

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 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 sparked by the Carthaginians, but it was feasible in the short term because since the Fourth century BC there was a Celtiberian cavalry in the central Meseta that made development along the Mediterranean coast and Andalusia much easier (Quesada 1998 for a more detailed study).

We have shown that both Romans and Iberians employed similar weapons, that the Roman battle line was much more flexible and less dense than is usually believed, and that the Iberians could and did fight in close order in pitched battles. In fact, as regards density of the battle line, Goldsworthy has noted that "*There does not appear to be any suggestion in our sources that a Roman infantryman in mêlée normally occupied more or less space than any of their opponents in our period*" (Goldsworthy 1996:179-180). In fact, it is clear that the Romans themselves considered that the differences between Romans and Greeks regarding weapons and combat tactics were actually bigger than between the Romans and the Iberians. On the one hand, Hellenistic phalangites did not carry any throwing weapons, hardly used the sword, carried a relatively small round shield and fought in a very deep and dense formation in which a rigid alignment of ranks and files was essential to maintain the 'hedgehog' of projecting spearpoints that constituted its main asset in battle (Polybius 18, 28-30). Polybius himself makes a lot about the fact that each Roman in the front line confronted at least two falangites, and then at least the pikes of four more ranks, ten in all. Thus, the differences in equipment and tactics were substantial, the decisive factor being the difference between the thrusting *sarissa* and the throwing *pilum* (see also the opinion of Livy in his almost 'science fiction' ucrony about a hypothetical campaign between Alexander the Great and Rome, Livy 9, 19, 7-8).

On the other hand, classical sources do not emphasize the differences in weapons and their employment when comparing Romans and Iberians, as they do when comparing Romans and Macedonians, rather they focus on organization, on discipline, on moral issues, and in the different concepts

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concerning war (e.g. Livy 28, 32, 9-12). It is not the types or the handling of weapons on which they concentrate, but rather on the inability of the Iberians to handle large armies and organize campaigns (Polybius 11, 32-33). Livy is explicit in this respect when describing the battle of Hibera in 216 B.C. (Livy 23, 29, 6): the difference between the Roman and Carthaginian armies (whose main body was formed by Iberian line troops) laid not in the number or in the type of soldiers (*genere militum*), but in morale.¹⁸

Battle descriptions consistently show that similar tactics were employed by both sides. As we have shown, the essence of legionary tactics at the end of the Third Century B.C. was to start the battle using big swarms of skirmishers who tried to get rid of enemy 'lights' and, if at all possible, to disorganize the main enemy line. Only then successive 'line' infantry formations would advance, throwing their *pila*,¹⁹ and then charge against the enemy using the shield to unbalance the enemy and the sword as the main offensive weapon. Traditionally, as we have seen, legionaries have been basically considered as swordsmen, but recent research argues that the role of shafted weapons, particularly *pila*, was far more important than just the initial weakening of the enemy lines before a decisive charge with the sword (see above). If we compare the way these weapons were employed with the available information about

¹⁸ "These were the dispositions on each side, and whilst the two armies were standing ready to engage, their commanders felt almost equally confident of victory, for neither side was much superior to the other either in the numbers or the quality of the troops. With the men themselves it was far otherwise. Though the Romans were fighting far away from their homes their generals had no difficulty in making them realise that they were fighting for Italy and for Rome. They knew that it hung upon the issue of that fight whether they were to see their homes again or not, and they resolutely determined either to conquer or to die. The other army possessed nothing like the same determination, for they were most of them natives of Spain and would rather be defeated in Spain than win the victory and be dragged to Italy. At the first onset, almost before they had hurled their javelins, the centre gave ground, and when the Romans came on in a tremendous charge they turned and fled" (Livy, 23, 29).

¹⁹ Goldsworthy (1996:197-199) for a detailed analysis of the process. Peter Connolly (1989:162), although accepting the throwing of *pila* in volleys, still poses some very reasonable doubts about the possibility of carrying in combat both *pila* (heavy and light) as described by Polybius, and throwing them at a distance that would start only 30 m. from the enemy while both formations charged against each other: there would simply not be enough time for throwing both volleys and then drawing swords before contact between contending lines. Goldsworthy (1996:199) discusses the same point and concludes by agreeing with Connolly: the second *pilum* would remain in reserve in the rear. But then... Why the explicit distinction that Polybius – and some reliefs- make between the heavy and the light *pila*? The question still remains unanswered.

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Iberian and Celtiberian weapons and fighting techniques, we see that the basic differences are scarce. It is true that amongst the peninsular peoples the formal structure of sub-units, number of non-commissioned officers and discipline bear no possible comparison with the Roman army; this made all the difference, and cost them one defeat after another almost every time they fought in pitched battle -however disputed it was at the beginning- as we have shown. And, of course, from the point of view of logistics – the nerve of war – there was no possible comparison between Rome and any of the peninsular peoples. But, as far as the *very basic* combat technique is concerned, the distinction between light and line infantry, the generalized use of heavy missile weapons thrown at about 25 metres by 'line' troops and not only by skirmishers, the decisive role of the sword,²⁰ the similarities between the Iberians and the Romans are more significant than differences. It is only to this question of the compatibility of weapons and their use in combat we are referring to now, and not, of course, to the general conduct of war.

In Iberia and Celtiberia, *soliferrea*, *pila* and other throwing spears were typically massively and systematically used at the beginning and during the whole duration of battle. This is clearly documented both by archaeological and literary sources.²¹ In 207 B.C., as we have already said, (Livy 28,2) a Celtiberian army formed by a *iusta legio* of 4000 line foot soldiers armed with oval shields and lighter troops confronted the Romans of Silanus. Let us see how Livy describes the opening of the battle: "*There were in the Celtiberian army 4000 men with shields and 200 cavalry, making up a regular legion. These were his main strength and he stationed them in the front; the rest who were lightly armed he posted in reserve. In this formation he led them out of the camp, but they had hardly crossed the rampart when the Romans hurled their javelins at them. The Spaniards stooped to avoid them, and then sprang up to discharge their owns...*" (Trans. C. Roberts). Although later Livy makes a contradictory consideration about the fact that the roughness of the ground was favourable for the Romans, the

²⁰ In marked contrast with what happened in the classical Greek or in the Hellenistic world, see above.

²¹ For *soliferreum*, *pilum* and *falarica* (a kind of *pilum*) among the Iberians, see a detailed analysis in Quesada (1997a:307-343).

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weapons and the way they were used are close or equivalent.²² A few years later, when Livy (34,14,10) describes with a fair amount of detail the battle of Ampuriae in 195 B.C. in which the Ilergetes fought against Cato, he writes: '*ut emissis soliferreis falaricisque gladios strinxerunt...*' employing the same words he could have used to describe legionary troops.²³ The same had happened at Hibera (Livy, 23, 29, 9) (see note 18).

²² We say contradictory, because Livy maintains that for the agile Celtiberians the rough terrain (*asperitas locorum*) made their movements very difficult, while it was favourable for the dense Roman formation except for the fact that shrub and rocks broke the lines. This is a *post facto* explanation, as rough terrain would favour the lighter troops. The contradiction can only be partially solved if we admit that the Roman formation was not so dense and formal as in a phalanx, so that the rocks and shrubs mentioned by Livy did not hamper them more than they restricted the movements of the Celtiberians: "*The Celtiberians, accustomed to rapid evolutions, found their agility useless on the broken ground, but the Romans, who were used to stationary fighting, found no inconvenience from it beyond the fact that their ranks were sometimes broken when moving through narrow places or patches of brushwood. Then they had to fight singly or in pairs, as if they were fighting duels*" (Livy 28, 2) Probably the 'overlapping' shields means that the Romans were initially in this case in the 'close' formation of about three feet per man described by Vegetius.

²³ "*They thought that the Romans had retired through fear, and bursting out of their camp they covered with their numbers the whole of the ground between their camp and the Roman line of battle. Whilst they were hurriedly forming their ranks the consul, whose dispositions were completed, commenced the attack. The cavalry on the two wings were the first to get into action, but those on the right were immediately repulsed and their hasty retirement created alarm amongst the infantry. On seeing this, the consul ordered two picked cohorts to be taken round the enemy's right and to show themselves in his rear before the infantry became engaged. This menace to the enemy made the battle a more even one; still, the right wing, both cavalry and infantry, had become so demoralised that the consul seized some of them with his own hand and turned them towards the foe. As long as the action was confined to the discharge of missiles it was equally contested on both sides, but now the Roman right where the panic and flight began was with difficulty holding its ground; the left, on the other hand, was pressing back the barbarians in front, and the cohorts in the rear were creating a panic amongst them. When they had discharged their iron javelins and fire darts [mistaken translation for falarica] they drew their swords and the fighting became more furious. They were no longer wounded by chance hits from a distance, but foot to foot with the foe they had only their strength and courage to trust to. 15. Finding that his men were becoming exhausted, the consul rekindled their courage by bringing up the reserves from the second line. The front was re-formed, and these fresh troops attacking the wearied enemy with fresh weapons made a fierce charge in a dense body and broke their lines, and once broken they soon scattered in flight and rushed through the fields in the direction of their camp. When Cato saw the whole battleground filled with fugitives he galloped back to the second legion which was stationed in reserve, ordered the standards to be borne before him and the whole legion to follow him at the double to attack the hostile camp*" (Livy 34, 14-15).

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Incidentally, the compatibility of weapons and weapon handling goes a long way to explain the adoption of the *gladius hispaniensis* by the Romans, and probably made the provisioning of weapons during the Peninsular campaigns much easier (Quesada 2004b forth.). Round breastplates or *kardiophilakes* had long been employed by the Iberians and Celtiberians, and the piece found in a Roman camp at Numantia could well have been of local manufacture (Quesada 1997a, Luik 2002:Abt. 78, p.69 ff.). And *soliferrea* were in every way as effective and useful as *pila*, and were very probably extensively used by the Romans fighting in Spain. In fact, it was probably used much later in widely different contexts as seems to be proved by Plutarch's description of the battle of Pydna (168 B.C.), in which Perseus fell wounded by a *olosideros* (= *soliferreum*, all of iron) and not by a *byssos* (= *pilum*). It might be that Plutarch chose an unusual word instead of the normal one for Roman throwing weapons, but it may also be that Iberian auxiliary soldiers were present in the army of Aemilius Paulus, or even that some of the Romans – specially those who had fought in Hispania – employed *soliferrea*. Furthermore, Appian (*Bell. Civ.* 5,82) tells us that in the naval battle of Cumae the general Menekrates, who fought for Sextus Pompeius, was wounded by an *Iberian soliferreum* with barbed point (*Menekrates ton meron akontio poliglochini Iberikoi olosideroi*) which shows that this type of throwing weapon was still very much in use at the time of the Civil Wars.

Concluding remarks

Communis opinio has long held that there was an *essential* difference at four levels between Roman and Iberian-Celtiberian armies as they met *circa* 218-133 BC: in weapons, individual fighting techniques, battle tactics and concepts of warfare. Almost general consensus also runs that the differences at these levels are linked, being dependent on each other. The rationale behind this lies in a biased and incomplete reading of ancient literary sources by some influential early researchers such as A. Schulten, and in the incomplete knowledge of Iberian and Celtiberian weaponry when this model was developed by early twentieth century scholars (notably H. Sandars and the Marquis of Cerralbo). It is now possible to propose an antithesis to this thesis. It agrees with traditional scholarship in that concepts of warfare were essentially different, and that the armies themselves were basically different at organizational level, sub-unit structure, in discipline and even in numbers. Further, the antithesis maintains that these differences made it eventually

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impossible for any Iberian or Celtiberian army to win a campaign against Rome in the long run, even if they could be successful in one-off battles.

However, we believe that it can be convincingly argued that at the basic level of individual fighting techniques and combat tactics there were many similarities between the Iberians and the Romans, and that both belonged to a 'western' tradition quite different to the Greek Classical and Hellenistic way of fighting. It was based in the combination of heavy throwing spears and swordsmanship by a 'line' infantry that deployed in relatively open formations that were, in the case of the Roman Republican and Iberian armies, much looser and more flexible than the contemporary Hellenistic phalanx. It seems that Roman sub-units in the front line fought in a formation which was similar to, although undoubtedly much more disciplined than, the battle lines deployed by Iberian and Celtiberian armies.

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