Volume 15
2025

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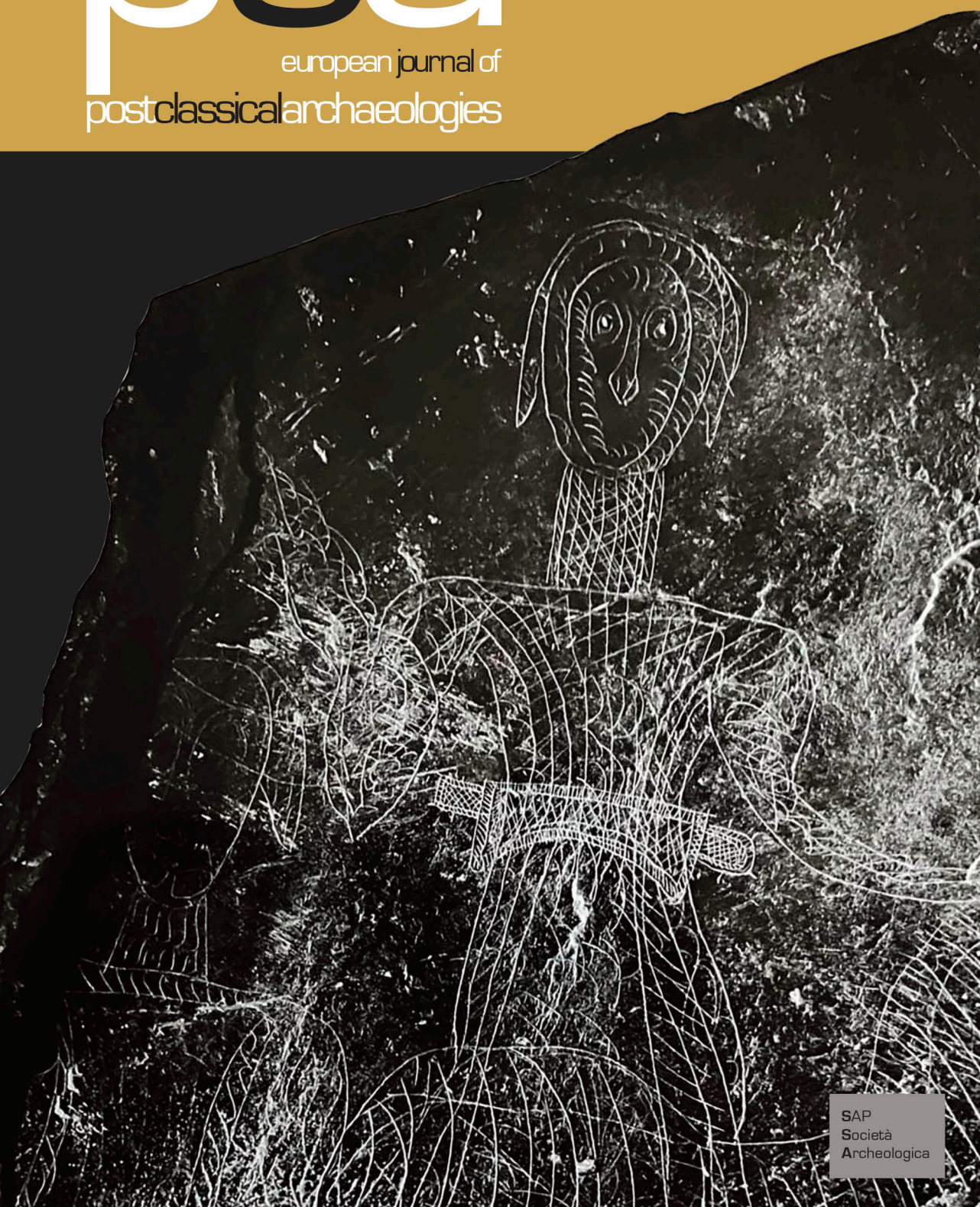

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european journal of
postclassicalarchaeologies

volume 15/2025

SAP Società Archeologica s.r.l.

Mantova 2025

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Cover image: San Vicente del Río Almar (Alconaba, Salamanca), slate decorated with drawings (see p. 189).

"Post-Classical Archaeologies" is indexed in Scopus and classified as Q3 by the Scimago Journal Rank (2022). It was approved on 2015-05-13 according to ERIH PLUS criteria for inclusion and indexed in Carhus+2018. Classified A by ANVUR (Agenzia Nazionale di Valutazione del sistema Universitario e della Ricerca).

DESIGN:
Paolo Vedovetto

PUBLISHER:
SAP Società Archeologica s.r.l.
Strada Fienili 39/a, 46020 Quingentole, Mantua, Italy
www.saplibri.it

Authorised by Mantua court no. 4/2011 of April 8, 2011

For subscription and all other information visit the website www.postclassical.it.

Volume funded by the
University of Padova
Department of Cultural Heritage

dBC DIPARTIMENTO DEI BENI CULTURALI ARCHEOLOGIA, STORIA DELL'ARTE, DEL CINEMA E DELLA MUSICA

ISSN 2039-7895

pca
european journal of
postclassicalarchaeologies

volume 15/2025

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Dionisio Urbina Martínez*, Rafael Barroso Cabrera**,
Jorge Morín de Pablos***

Forgotten horsemen of *Hispania*: Alan-Sarmatian legacies in the Late Roman West

1. Drawing of a horse in armour on a 5th-century brick in central Spain

The archaeological site of Cerro de la Muela (also known as El Pulpón) is located in central Spain, in Carrascosa del Campo, Cuenca, on a hill at 894 m. It lies next to the Roman road that connected the cities of Segobriga (15 km to the SE) and Ercávica (50 km to the N) (fig. 1, red point). The site was brought to light thanks to the work carried out in 1973-74 by a team from the University of Guelph, Ontario, Canada (Sadek 1976). These excavations had little impact on the historiography of the region, and the site was almost forgotten until a new project was launched in 2014 under the direction of C. Urquijo and D. Urbina.

Professor Sadek's research focused on the top of a hill where a rectangular building measuring 91 x 75 m was discovered. It has four towers, one in each corner, measuring 10 x 10 m. The exterior walls are made of *opus caementicium*, although they are not very thick: 70 cm, except for those of the towers, which are 1.2 m thick. In certain sections, the remains of these walls are over 2 m high. Inside, parallel walls have been discovered, forming 12 m wide corridors on all four sides. In the eastern part, aligned stone pillars have been preserved, which were used to support a pavement of more than 6,800 m^2. The main entrance opens in the south wall, facing the Roman city of Segóbriga. A settlement surrounds the building, its archaeological remains scattered across an area of 50 hectares. This remarkable structure was built sometime during the first half of the 1st century CE and was subsequently reused until the late 4th or early 5th century, although its main structure remained unchanged (fig. 2).

* ArchaeoSpain Co. Dir., Archaeologist UCM PhD, *Dio.urbina@gmail.com*.

** Archaeologist UAM MD, *rbacab@gmail.com*.

*** Dpto. de Arqueología, Paleontología y Recursos Culturales, AUDEMA, UAM PhD, *jmorin@audema.com*.

Fig. 1. The sites in Iberian peninsula.

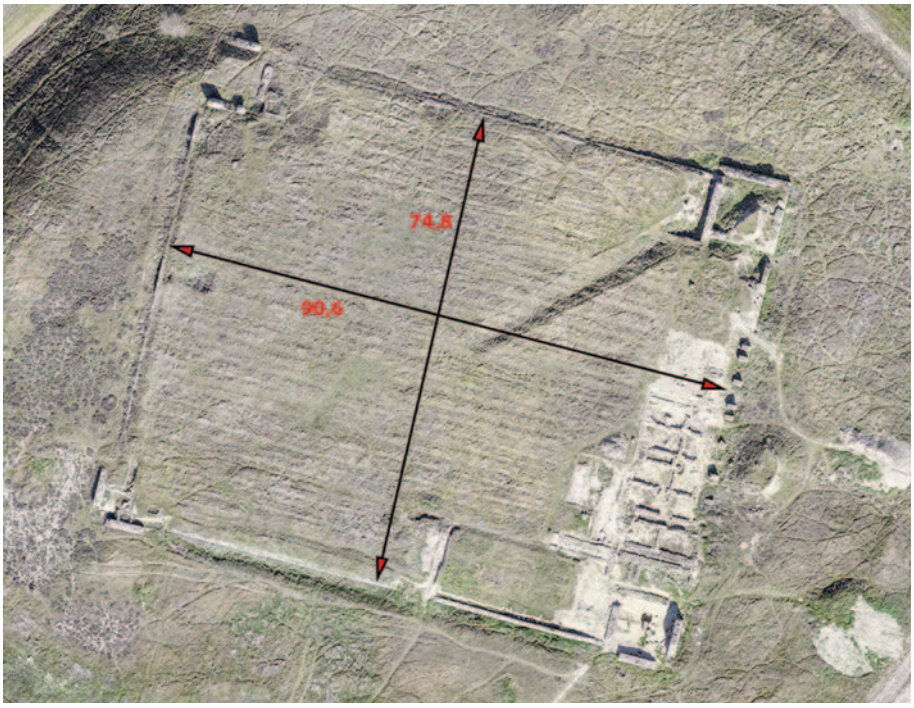

Fig. 2. Drone picture plant of a large building at the Cerro de la Muela site (2019).

The east wing pillars that supported the pavement are constructed with ashlars measuring 1.5 x 0.6 x 0.7 m. They were later reused as cornerstones of rooms approximately 3 x 5 m. In one of these rooms, E-5-6, during the 2018 excavation campaign, a fragment measuring 25.2 x 21.8 x 6.3 cm was identified among a group of bricks from the surface level of room E5-6 (excavated in 2015). This fragment bore an engraved design, made with a sharp object before firing. These bricks appeared in the surface level (above UE50), which consists of compacted clay from the collapse of walls corresponding to the buildings from the site's final occupation period. This layer shows signs of human activity but retains small areas in their original state. Among the materials found are open-rimmed cooking pots with molded lips, dated to the late 4th century (Vigil-Escalera 2013, p. 22, fig. 11; Zarzalejos 2002). Alongside these are fragments of late *terra sigillata*, essentially 37- Hispanic form flakes decorated with large circles, grooves, saws, and wheels (Juan *et al.* 2012). In the habitation level preceding this period (UE50), three coins were found: an *antoninianus* of Claudius II Gothicus and two half *centenionals* of Constans, dating to the mid-4th century AD (the latest coins found at the site are two *centenionals* of Magnus Maximus minted in *Lugdunum*, belonging to the series of "Hispanic imitations" from 383 to 388 AD). In the adjoining rooms, small, unaltered areas from this final period have been isolated without alteration. In addition to fragments similar to those described above, smooth, thin-walled bowls of the 8/Palol 56 type Hispanic *sigillata* have been documented, together with large bowls of the 73, 74, 75 and 77 types, associated with fragments of African D bowls, especially Hayes 59B, 61A and 62. These assemblages date from between the second half of the 4th century and the first half of the 5th century (Paz 2008) (fig. 3).

2. The engraving

The engraving was made with a punch while the brick was drying in the sun before being fired in the kiln. The drawing suggests the crudely rendered silhouette of a horse. It features hatched lines on the neck and other crossed lines in a diamond pattern on the head. Taken together, the lines appear to represent a piece of cloth or leather covering for the saddle. Two lines converging at the mouth can easily be interpreted as the horse's reins. Slightly more than half of the horse's body, including its two front legs, is preserved, all in a very simple yet effective design. Although the lines of the drawing are very crude, probably due to the artist's lack of skill and the difficulty of drawing precise features on this surface, we believe that the animal can be identified as a horse without any doubt. In this sense, the similarity in terms of the lengthening of the head and the schematism of the body is significant, in the drawing of a quadruped (in this case

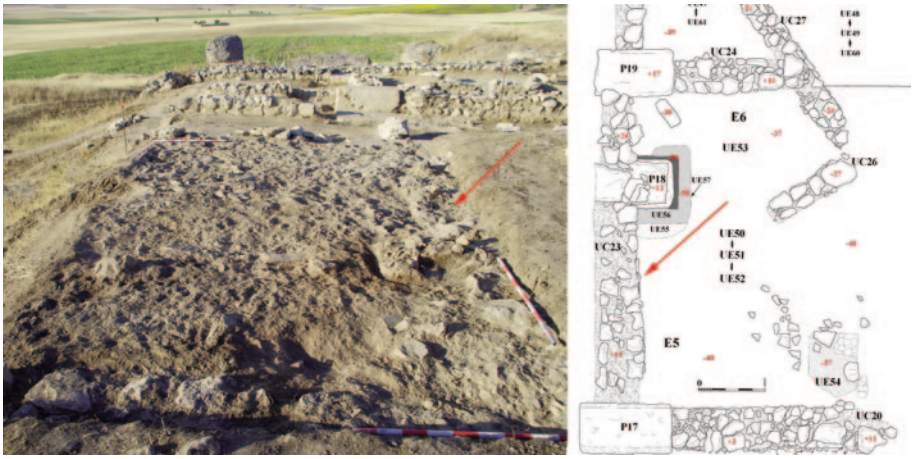

Fig. 3. Place where the brick was found.

a deer) drawn on a wall of the rock church of Peña Hueca, Loza, Álava (fig. 5.1), of uncertain early medieval date.

The rider is depicted in an even more schematic way. In fact, he is only sketched with a vertical line that ends halfway up the horse's belly and is finished with a curved stroke perpendicular to this line. Despite the crudeness of the drawing, the most plausible interpretation is that this stroke represents a stirrup, as it aligns with the end of the body representation, which, at that point on the horse's belly, can only correspond to the rider's leg and foot. If this interpretation is correct, its significance would be enormous, as we would be looking at the oldest known representation of a rider with stirrups in Western Europe to date (fig 4).

There are a number of depictions of this type of mount with a style relatively similar to the engraving at El Pulpón. A graffito drawn on a plaster wall in Avdat (Israel) shows an Arab warrior mounted on a horse, wearing a cuirass rendered with crossed lines in a manner very similar to that of our example. It is dated to the 2nd century CE (fig. 5.5). A drawing on a tile found in the city of Madara (Bulgaria), dated to the 7th century, also depicts a warrior wearing a cuirass similarly represented with rhomboidal crossed lines. In this case the similarities are closer, since it is a drawing, incised on fresh clay, just like ours (fig. 5.4). Although over time the representations tend to be more realistic, while heavy cavalry has become the norm, all those made with incisions on hard surfaces like the rock engravings of the Solà de Saurí site (Pallars Sobirà) or Castell d'Oroners, or with charcoal on soft surfaces such as gypsum (Calatrava la Vieja Castle (Ciudad Real). The similarity to the Roman brick representation is still evident. The essential features – head, neck, body, legs, and reins – are alike (fig. 5).

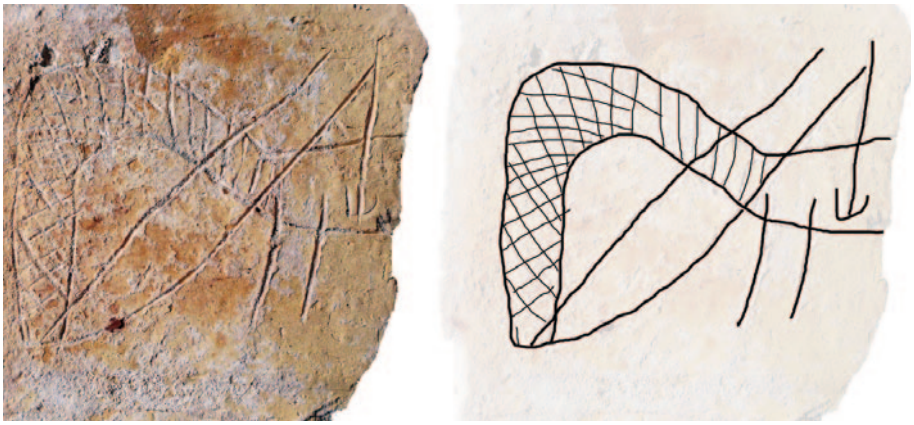

Fig. 4. Brick fragment, picture and drawing of the horseman.

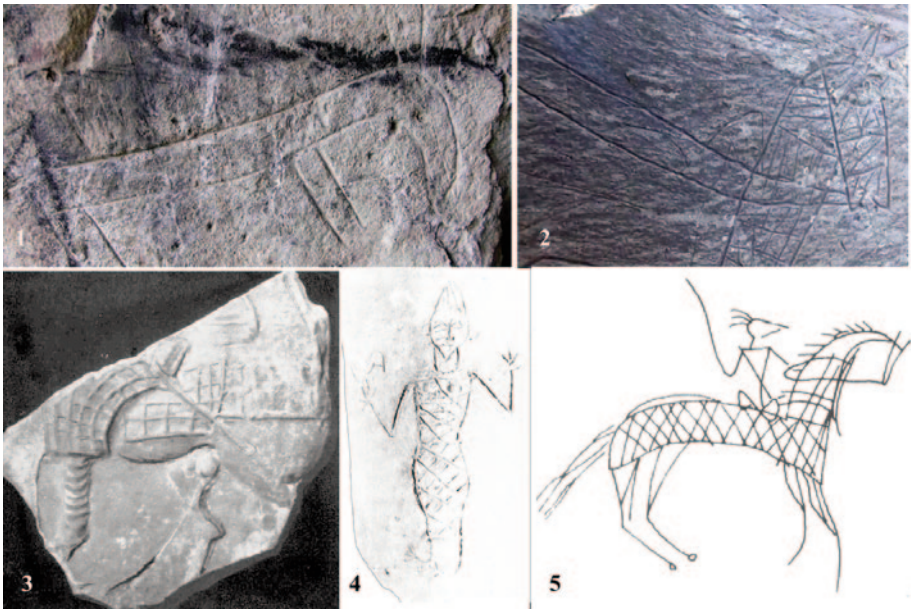

Fig. 5. 1. Deer figure from Peña Hueca, Loza, Álava. Spain; 2. Horse from Solà de Sauri, Vall d'Assua, Pallars Sobirà, Lérida, Spain, XIV-XV c.e. 3. Ostracon from Khumbuz Tepe. IV-III a.c.e. (Ivanov 2012, fig. 1); 4. Warrior with lamellar curiass in rooftile, Madara (Bulgaria) (Nicolle, McBride 1990, p. 22); 5. Arab graffito in plate wall, Avdat, SE. Israel, s. II c.e.

The diamond shapes on the head and the oblique lines on the neck must be due to the desire to distinguish two different types of defenses: *chamfrons* and *crinets*, we would therefore be looking at the representation of an armored horse, typical of cataphracts or clibanarii. Probably the oldest representation of a horse with some type of armor is that of the vessel found at Khumbuz-tepe (Chorasmia, Uzbekistan), dated to the late 4th-early 3rd century BCE. It depicts a horse with armor represented in the form of squares, with a rider also protected by armor on his body and legs (fig. 5.3) (Ivanov 2012, fig. 1; Nikonorov 1997, fig. 4.g). Another armored horse and rider appears in one of the paintings from the palace of Khalchayan (Denov, Uzbekistan), dated to the mid-1st century BC (Nikonorov 1997, fig. 31.a). On some bone plaques horses and armored riders reappear on a belt buckle from the cemetery of Orlat, near Samarkand, dating from the 1st to 3rd centuries BC (Nikonorov 1997, fig. 43.a). From the 2nd century AD, we have the famous graffito from Dura-Europos, as well as the cuirass found at the same site and the depictions of Sarmatian cataphracts on Trajan's Column (MacDowall, Hook 1995). We conclude this brief overview with the pair of horsemen from the petroglyphs of Charchad, Mongolia, dating from the 6th and 7th centuries AD (Nicolle, McBride 1990, fig. 57g).

Basically, horse armor consisted of three elements: chamfrons, or armor covering the horse's forehead; crinets, or protection for the mane or neck; and bardes, breastplates and armor that protected part or all of the animal's body (Soria 2012, p. 136). These defenses were usually made of fabric and leather, although chamfrons could be made entirely of metal (Wilcox, McBride 1986; Nicolle, McBride 1990, 1991, 1996; Peers, Perry 1995,1996; MacDowall, Hook 1995; Brzezinski, Mielczarek 2002; Farrokh, McBride 2005). Typically, the riders of heavy cavalry were partially or fully clad in articulated plate armor combined with steel mail defenses (Arrian. Ars Tactica, IV, 1).

Olbricht (2010, p. 75) concludes that "…It can be stated with certainty that in the 4th and 3rd centuries BC, the Khorasmians had armored cavalry (which, after the introduction of the long pike, could be called cataphract cavalry), as well as light cavalry with long lances". Thus, heavy cavalry developed, eventually becoming the shock force in all Western armies. This is not the place to elaborate on the birth and evolution of this new tactic, about which there is abundant literature, including: Azzaroli 1985; Wilcox, McBride 1986; Nicolle, McBride, 1990, 1991; Mielczarek 1993; Peers, Perry 1995, 1996; Vicente 1999; Brzezinski *et al.* 2002; Farrokh, McBride 2012; Soria 2012; Lazaris 2012; Anderson 2016, D'Amato, Neguin 2018.

3. The stirrup controversy

As we noted earlier, in the El Pulpón engraving, the rider is represented by a simple vertical line that ends at the midpoint of the animal's belly. It is finished with a curved stroke. With this stroke, the artist seems to have indicated that the body (that is, the foot) rests on something that appears unfamiliar. This level of detail,

despite the schematic nature of the representation, is consistent with the lines depicting the horse's neck and head guards. If this is not a random stroke (and there appears to be nothing random about the drawing), the curved line must represent a stirrup. Perhaps a spur, although the drawing does not focus solely on the back of the rider's foot, and spurs had been used in cavalry for centuries. Therefore, we believe the most logical conclusion is that it represents a stirrup.

There are numerous studies on the emergence of the stirrup and its qualities for horse riding, including: White 1962; Bivar 1995; Curta 2008; Ivanišević, Bugarski 2012; Lazaris 2005; Quesada 2005; De Vries, Smith 2012, pp. 99-114; Conyard 2013; Coulston 2013. Along with the saddle, the stirrup is one of the most effective tools for enhancing rider stability, as it improves balance while providing a secure point of support during cavalry charges. Therefore, its use should be linked to the popularization of heavy cavalry. It was even suggested that the stirrup was the main cause of the emergence of heavy military cavalry, responsible for the birth of feudal society (White 1962, pp. 28-38). We have seen how there is evidence of "defenses" on horses and riders from at least the 4th century BC (Olbricht 2010). However, these models represent isolated cases that will not spread to other regions. According to Arrian (Tact., XLIV), Hadrian was the first to introduce cataphracts to the Roman Army, undoubtedly influenced by the knowledge his predecessor Trajan gained in his wars against the Parthians. But nothing is said about the use of the stirrup.

There seems to be unanimity regarding the Chinese origin of the regular use of the stirrup, around the 2nd century BC. From there it spread to Kora and Central Asia, where it was used regularly in the 4th and 5th centuries, reaching Europe between the 7th and 9th centuries (Dien 1986; Olbrich 2010; Neguin, D'Amato 2020; Suhr 2020). There is also a degree of agreement in attributing the popularization of the stirrup from the Eurasian steppes to the Avars (Pohl 2018; Neguin, D'Amato 2020; Suhr 2020). In this regard, the absence of literary references or iconographic representations prior to the 6th century AD seems to be a very convincing argument in favor of a late adoption of the stirrup.

From an archaeological point of view, evidence has been provided the ancient Avar custom consisted of part of the military equipment that usually included stirrups, horse bits and spearheads (Daim 2003, p. 468). This led to the belief that the use of stirrups had been introduced to the West through contact between the Germanic and Hun peoples and the Avar horsemen who had arrived from the Asian steppes (Bishop, Coulston 2006, p. 123). However, archaeological evidence of the use of stirrups among the Avars does not seem to go beyond the 6th century AD (Kazanski 2012, p. 196.f; Curta 2013).

The absence of literary references is not a definitive argument since, for example, in China, the first closed stirrups appear to have been recorded in the mid-4th century AD, yet there is no documentary evidence until the end of the following century (Dien, 1986, pp. 34-36). Today, despite the reluctance shown

decades ago, the idea of early use of stirrups among the Avars (and also other steppe peoples such as the Huns) is gaining ground among researchers (Quesada 2005, p. 141.f; Olbricht 2010). For some authors, the use of stirrups among the Huns had already become widespread in the second half of the 5th century AD, to the point that they consider it the cause of this people's superiority in their confrontations with the Sassanid Persians (Anderson 2016, p. 97.f). In fact, many researchers have revised the date of the stirrup's appearance in the West and suggest that it was used in the Battle of Adrianople (378 AD), in which the Alan and Roxolani cavalry contingents played a decisive role in the victory over the imperial army (Amm. 31. 12–13. 5) (Barbero 2005; Zaroff 2017, p. 234). There are even those who argue that the development of heavy cavalry from the 4th century onwards was nothing more than a consequence of the spread of the use of stirrups (Azzaroli 1985, pp. 157-159).

In any case, it seems clear that the popularisation of the stirrup is related to Chinese heavy cavalry units. Horses with armour and larger weapons, such as lances and composite bows, optimised the use of larger animals and pieces that provided better support for the rider, such as the saddle and stirrup. But all of this depended on a military tactic involving the use of heavy cavalry. For this reason, the stirrup took some time to be assimilated in other places. The emergence of the cataphract seems to be the result of the fusion of the achievements of Central Asia and, in a broader sense, of the Achaemenid military traditions with those of Macedonia. From the end of the Achaemenid period onwards, the importance of heavy cavalry in the military art of Western Asia began to grow, reaching its peak during the Arsacid period, when the tactics of cataphracts and horse archers were successfully employed in battle (Olbricht 2010, pp. 81-82). These traditions set the tone for many trends, including the development of armour for horses. Archaeological evidence confirms this existence (Neguin, D'Amato 2020; Suhr 2020; Bayarsaikhan *et al.* 2023).

4. The meaning of the drawing

The above lines are merely intended to explain the context in which the drawing of the horse found at the Cerro de la Muela site is inserted. We do not wish to force the sources in order to chronologically fit the line that could correspond to a stirrup. In the chronological context in which the El Pulpón brick is included (late 4th-early 5th century CE), heavy cavalry units, recruited in imitation of the Parthian and Sassanid armies, were a relatively widespread phenomenon in the Roman army, especially in the east and in units close to the imperial environment. Therefore, there is nothing strange about the drawing of an armored horse on the brick from Cerro de la Muela, beyond the exceptional nature of the drawing itself.

The engraving was undoubtedly made by someone with no experience in drawing. His intention seems to have been to show others something he knew, either because he had seen it in an area close to where he lived, on some of his travels (if he made any) or perhaps because he had taken part in a battle where the elements he depicted on the horse were used. Certainly, the cataphract cavalry must have made an impact on those who saw it in battle or on parade. Plutarch tells us about the battle of Carrhae (Crassus, 25.1) that the Parthian cataphracts were sometimes used as a means of inspiring panic rather than as an effective weapon of combat.

One hypothesis is that the author was a soldier who had participated in battles, both on the eastern borders and in the West, as these types of mounts with defenses were becoming common in all armies. In Hispania, there were situations of instability, such as in 384, when the usurper Magnus Maximus dominated Hispania after taking control of the prefecture of Gaul, a year earlier (remember that two coins belonging to this figure have been found in Cerro de la Muela). In 407 Constantine III took power in Britain and extended it to Hispania, not without encountering some resistance. It was precisely the fear that Theodosius' relatives would join forces with Honorius that led the proclaimed emperor to appoint his son Constans as Caesar of the diocese and send General Gerontius to Hispania. Over the next two years, a civil war took place on our soil, as Theodosius' relatives, Didymus and Verinianus, assembled a private army in Lusitania to fight the army of the usurper of the Diocese, Constantine III, commanded by Gerontius (Arce 1986, p. 151; Arce 2007, chap. I).

Despite having been reused for almost four centuries, the *praesidium* of Cerro de la Muela retained the general lines of its structure until its final days, including the four towers, the outer walls and the four buildings inside each of its wings. Despite the reuse of the ashlars from the east wing, the building continued to look like a fort until the end. This meant that it could be used as such again whenever necessary. In the absence of a detailed study of the findings, some of the items found in the excavations can be interpreted as belt pieces, similar to those found in neighbouring Huete or villages from in Mesa de Ocaña (Aurrecoechea 1999). Likewise, the chronology of the building's layout shows great structural similarities with the *castra* and *castella* of the North African and Middle Eastern limes, especially with the so-called *centenaria* or *quadriburgia* of Diocletian's time (Southern, Dixon 1996, pp. 27, 130-139). It is true, however, that the typology of these forts has hardly changed since the beginning of the Empire (fig. 6).

In any case, we believe that the evidence of the drawing and the depiction of a horse with protective coverings cannot be ignored, as it constitutes one of the few examples from this period, and perhaps, given the graphic evidence of a stirrup, would make it the oldest in Europe. But with this, we only intend to reiterate that archaeological finds represent only a small percentage of the materials

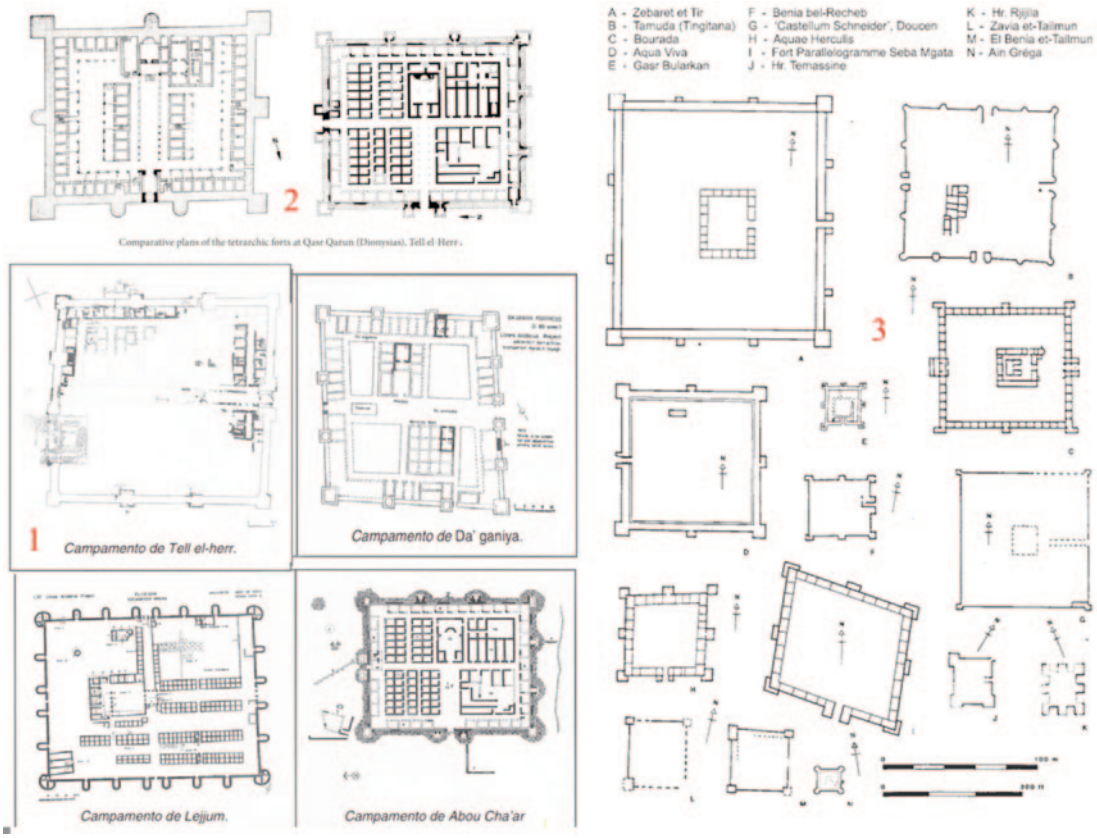

Fig. 6. Late Roman Fortresses. Plans of late imperial Roman camps in the eastern delta of Egypt and the *limes arabicus*. 1. Perea 2003, p. 139. 2. Breeze, Reddé 2021, fig. 137. 3. Rushworth 2015, p. 125, fig 10.2.

that once existed. With them, we try to reconstruct the past, and sometimes a small detail can drastically change our perception. That is the value we place on the drawing from Cerro de la Muela.

5. The Visigothic slate of San Vicente (Alconada, Salamanca)

The collapse of the imperial administration in Hispania in the 5th century led to the emergence of regional cultures that are often difficult to trace archaeologically. Fortunately for us, the south of the province of Salamanca is one of the areas that has provided the most abundant archaeological data, thanks above

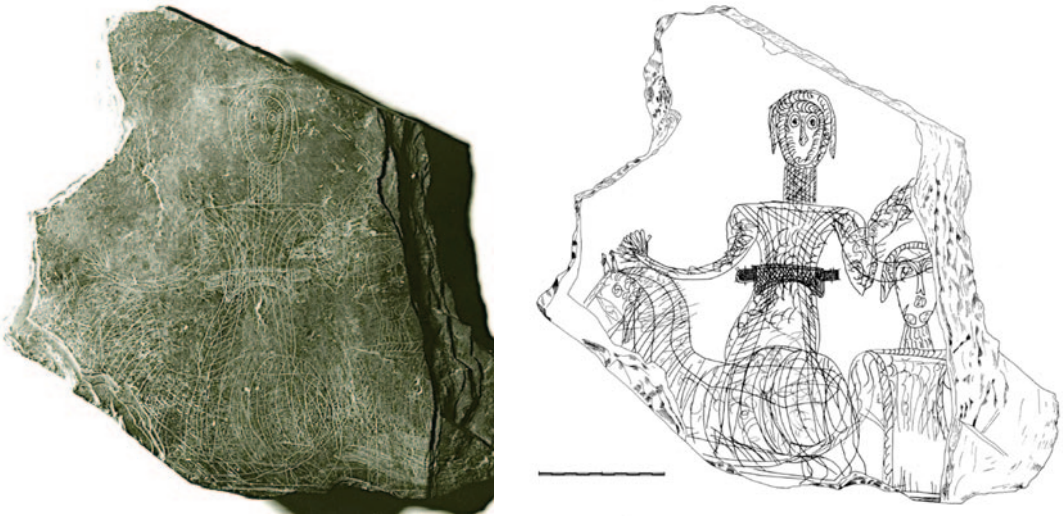

Fig. 7. Salamanca Museum. San Vicente del Río Almar (Alconaba, Salamanca). Slate decorated with drawings. M. Santonja and M. Moreno, 1991–1992.

all to the large number of slate finds (Velázquez 1989, 2004; Morín 2003). Among all the documented material, we are particularly interested in one specimen with a strange drawing. The slate measures 47 x 36 x 2.5 cm and was found in San Vicente de Río Almar (Alconada), a site (fig. 1, blue point) that has also yielded a Roman tombstone and some remains of Roman and Visigothic settlements, including a necropolis and slates. It is very possible that the slate comes from the latter site (Santonja, Moreno 1991-92; Morín 2006) .

The piece in question was studied by M. Santonja and M. Moreno (Santonja, Moreno 1991-92; Santonja, Velázquez 2006). To briefly summarise the findings of the aforementioned study, we can say that the engraving depicts four figures: two standing human figures, both facing forward, one of them superimposed on a horse in profile, and finally, a snake descending diagonally into the main scene from the upper right corner (fig. 7).

The first character, located on the right side of the scene, is dressed in a long-sleeved tunic with his right arm extended towards the other human figure. The garment has lines that suggest a padded gambeson-type tunic with reinforced or decorated bands on the collar and sides. A series of zigzag lines drawn on the neck seem to indicate a mesh ruff.

The second figure is also depicted facing forward, with arms outstretched, dressed in a long-sleeved tunic fastened with a belt. The filling of the tunic fea-

tures a design of lines that seem to correspond to some type of defensive attire. It also shows what appears to be a ruff, although this time the filling is formed by a latticework similar to that of the belt he wears. The author has shown great interest in the representation of this last object: the drawing allows us to appreciate the curved edge as well as what appear to be two lateral appendages. The face of this second character has circular eyes below the eyebrows, and a nose, both framed by a double oval filled with lines. Above, the artist drew what appears to be a headdress that falls on both sides of the face. Another interesting detail worth noting is that the nose is also lined.

Second figure appears superimposed on a horse. Although difficult to see, it is possible to make out the animal's bridle and reins, as well as part of what appears to be a *chamfron*. A series of lines in the area of the cape seem to suggest some kind of defensive fence. Santonja and Moreno considered that the author of the drawing wanted to represent figure B mounted on the horse, but the truth is that this intention is not very clear in the drawing.

The last figure in the scene is a snake moving diagonally downwards from the upper right corner of the slate towards the horse. Although the figure is incomplete, it is possible to make out the scales and a kind of beard or hair sprouting from the animal's skin.

6. Interpretation of the San Vicente slate

At the time, Santonja and Moreno defended the hypothesis that the engraving reproduced the famous apocalyptic passage of the Whore of Babylon and the Beast (fig. 8). However, we have elsewhere set out our objections to this interpretation, objections that can be summarised as the absence of the seven heads and the chalice held by the harlot, as well as the appearance of the serpent independently of the beast, something unusual in the manuscript tradition (Barroso *et al.* 2025a). Another argument against this interpretation has to do with the strange belt worn by character B. It is interesting to note the striking morphology of this belt, as it is very reminiscent of military-style belts (*baltea*) also used in gladiatorial games (Wisdom, McBride 2001). The two appendages of the belt probably correspond to some type of heraldic appliqué similar to those found on the "multiple" belts of nomadic cavalry (Paulsen, Schach-Dörges 1978; Kazanski 2012, p. 196; Sasse *et al.* 1995) (fig. 9).

Here, the artist seems to have misinterpreted the motif, although he undoubtedly showed great interest in depicting them because they must have struck him as a strange element of the rider's attire. In any case, the belt on the slate shows a clear similarity to some strange objects found at various sites on the peninsula and in ancient Gothic Septimania, which were mistakenly catalogued as pruning

Fig. 8. Madrid, National Library. Beatus of Facundus, f. 225v. The Prostitute of Babylon.

shears (Hierro 2018, pp. 180-184). These are obviously plated belts typical of cavalry, as demonstrated by the Alconada engraving itself and the fact that the lower part of these objects is curved in order to better fit the back of the saddle. The saddle itself, with its striped back and strange design on the head, as well as the particular shape of the ears, seems to suggest a mount with laminated defences and/or padded breastplate and saddlecloth.

In our opinion, all these details seem to indicate that we are looking at a representation of a warrior wearing a helmet and chain mail, plate and chain mail armour, and a military cincture. What is truly interesting about this figure is that he is a special type of man-at-arms who, precisely because of his unique character, must have caught the artist's attention.

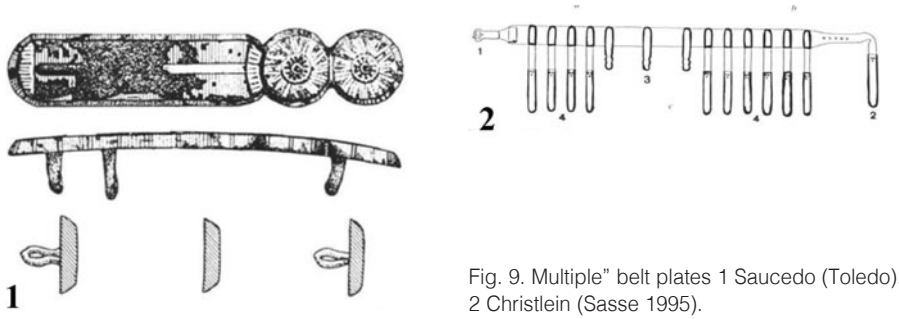

Fig. 9. Multiple" belt plates 1 Saucedo (Toledo). 2 Christlein (Sasse 1995).

Indeed, the military equipment of figure B seems to indicate that we are looking at a heavy cavalryman of the *clibanarii* or *catafractarii* type, typical of certain elite cavalry troops of the Late Empire (MacDowall, Hook 1995). *Amianus Marcellinus* (c. 330-c.400 AD) described these magnificent warriors and the undeniable psychological effect that the sight of their splendid appearance had on their enemies (Vicente 1999).

"... he was surrounded by dragons, woven from purple thread and tied to the golden, jewelled tips of the spears, with large mouths open to the breeze and therefore hissing as if excited by anger, and leaving their tails waving in the wind. And marching on both sides were twin lines of infantry soldiers with shields *and crests gleaming with shining rays, dressed in shining chain mail*; and scattered among them was the fully armed cavalry (which they called *clibanarii), all masked, provided with protective breastplates and girded with iron belts, so that they could be considered statues polished* by the hand of Praxiteles, not men. Thin circles of iron plates, fitted to the curves of their bodies, completely covered their limbs; so that in whatever direction they had to move their limbs, their clothing fit them well, so skillfully were the joints made (Amm. 16. 10. 7-8)" (italics are ours).

Despite the fragmentary nature of the representation, the mysterious serpent waving above character B allows us to reasonably conjecture that it is a *draco*, the typical standard of the Sarmatian heavy cavalry, perhaps misinterpreted by the artist, since in all known representations and archaeologically documented examples, the head was usually attached to the pole. The artist's confusion can be explained by the fact that he must have made the engraving from data he had previously memorised (fig. 10). Although they had been known since ancient times, wind sleeve-shaped standards, traditionally used by the nomadic peoples of the steppes and of disputed origin (Persian, Iranian or Sarmatian), were adopted by the empire's heavy cavalry squadrons from the 2nd and 3rd centuries AD onwards as a result of Rome's contact with the Dacian and Sarmatian peoples (Coulston 1991, 2013; Brzezinski, Mielczarek, Embleton 2002;

Fig. 10. Koblenz. Landesmuseum. Draco of Niederbieber. Wikimedia CC/C. Raddato.

Vermaat 1999-2011; Kavanagh 2015, figs. 6-7). According to Vegetius (Epit. 1. 20, 1. 23/ 2. 13), by the 4th century the *draco* had become widespread as the standard of the Roman cavalry (Epit. 2. 7). We have some notable graphic evidence, such as the Chester stele (Mihailescu-Bîrliba 2009) (fig. 11) and the representation of Saint Theodore Stratelates of Vinica (Viniĉko, Macedonia) (Proeva 1994, p. 502f; fig. 7; Dimitrova 2012, pp. 221-229; Dimitrova 2013; Dimitrova 2016, pp. 10-13 (fig. 12).

The historian Arrian of Nicomedia (*circa* 89- *circa* 175 AD) vividly describes the use of *dracontes* or dragons by the Scythian cavalry:

'The Scythian standards are serpents (δράκοντες) of equal length held on spear shafts. They are made of *pieces of coloured cloth* sewn together, and the head and entire body down to the tail resemble snakes, so that they appear more terrifying. And when the horses are not trembling, t*he multicoloured bodies can be seen hanging down,* but when they charge, *they fill with air from the wind*, so that they look more like beasts and even hiss when a strong wind blows through them with much movement" (Tact. 35. 2-4) (italics are ours).

With regard to this description, we must remember that the variety of colours on the banners was due to the need to distinguish between the different cavalry units, as well as to signal manoeuvres on the battlefield. This would explain, in our opinion, the legend of the coloured spears that preceded Eurico's royal investiture (Hydatius 243; Isidorus Hisp. HG 35) (Barroso *et al.* 2025a).

Fig. 11. Chester. Grosvenor Museum. Funerary stele depicting a draconarius. Wikimedia CC/ W. Sauber.

Fig. 12. Vinica (Viničko, Macedonia) Plate of Saint Theodore Stratelates (Dimitrova 2016).

7. Conclusion: the Alan presence in the Iberian Peninsula

In summary, we believe that the San Vicente slate seems to fit into a group of representations of heavy cavalry horsemen that is relatively well known in the world of the Iranian-Sarmatian steppes (Brzezinski, Mielczarek, Embleton 2002; Wilcox, McBride 1986). In most cases, these representations were the result of the impact that these types of warriors, due to their rarity and spectacular nature, had on the people who watched in awe as the horsemen and their mounts paraded by (fig. 13).

To date, representations of this type have hardly been documented in the western part of the empire. The engraving on brick found at the Muela del Pulpón site, which we have analysed previously (Barroso *et al.* 2025b), would also belong to this group. The chronology of the find (late 4th-early 5th century AD) is consistent with the proposal defended here for the Salamanca slate and would fit within a general historical framework determined by the collapse of the empire and the establishment of the first barbarian settlements.

We have more doubts when it comes to determining when the representation of the knight on the slate should be included, given the absence of a precise archaeological context. Based on the chronology of the Salamanca site and the phenomenon of the slates themselves, we believe that this is an Alano-Sarmatian

Fig. 13. Draconarius. Roman Festival at Augusta Raurica Roman Cavalry Reenactment. Wikimedia CC/ B. Codrin.

cataphractarius and not an imperial *clibanarius*, as most of the latter were deployed on the eastern borders or alongside the emperor (Duarte 2007; Neira 2005).

Literary sources and, increasingly, archaeological research report the arrival in Hispania of large contingents of Alans and Sarmatians, as well as the pre-eminence of the Alans over the Suebi and Hasdingi Vandals (Hydatius 68). This primacy gives some idea of the importance that the Alan element must have had, a circumstance that, incomprehensibly, has been relegated in research in favour of the Suevi and Vandals (Bachrach 1973; Alemany 2000; Zaroff 2017). Nevertheless, we consider it very likely that most of the finds from level I/level D2-D3 of Tejral discovered on the peninsula should be attributed to this Alan horizon (Barroso *et al.* 2006). In general, this type of find (the Beja sword, the Albaicín necklace, the Beiral ring and necklace, the Cacabelos comb, etc.) is usually associated indiscriminately with the Suebi or Vandals (Arezes 2018; López 2001; Pinar, Ripoll 2008), although, archaeologically speaking, they find their closest parallel in the fashion of the nomads of the steppes (Kazanski 1996). Without a doubt, the princely female burials documented in recent years in Mérida, which are considered to be Suevi (Heras, Olmedo 2015; 2018; 2018-2019; Mateos 2023, p. 275), but which display a feminine style typical of steppe populations (Kazanski 1995) (fig. 14). The lavish burial of a warrior excavated a few years ago in Torrejón de Velasco (Madrid) would point in the same direction (Barroso 2018, pp. 101-108). The same phenomenon should also be associated with the reoccupation of Roman villas such as El Val in Alcalá de Henares and Tinto Juan de la Cruz in Pinto (Barroso *et al.* 2001, pp. 197-202), as well as certain anomalous burials in the Madrid necropolis of Gózquez and the huts associated with them (Vigil 2000; Morín, Barroso 2025). It is also possible that some unusual finds can be explained – at least indirectly – in this way. This would be the case of the *bracteae* from the Martí Esteve collection at the Museum of Valencia (Barroso, Morín 2014) or the jade claw-shaped pendant and cylindrical jug from the Villaverde y Pasaconsol necropolis kept at the Museum of Cuenca (Barroso, 2019, p. 235f).

In fact, in 411, the barbarians made a pact that established the respective areas of activity for each people: the Suebi settled in southern Gallaecia and the Vandals in northern Gallaecia (Hasdingi) and Baetica (Silingi). For their part, the Alans were assigned to settle in Lusitania and inland Carthaginia (Hydatius 42 and 49). Hidatius himself points out that the Alans established their own kingdom in Lusitania. This is an important fact because it gives an idea of the Alans' warrior potential, something that, as has been said, has been systematically underestimated by most authors. After several defeats at the hands of the Goths of Walia and the death of their king Addax (Alemany 1993), the Alan kingdom finally collapsed in 419 and its survivors were integrated into the gens of the Hasdingi Vandals (Hydatius 68; Isidorus HG 22). Over time, as would later happen with the

Fig. 14 Late Roman necropolis of Mérida (Heras Olmedo, 2015 figs 15.5 and 15.7g). 1. Gold plates from the burial of a young woman (grave 1). 2. Gold deposit: necklace, pendants, spherical beads and two pins with polyhedral ends (grave 2).

Siling Vandals, these Alan-Sarmatian populations would eventually be absorbed by the predominant Suebi and Visigoth groups, until they disappeared completely as an independent gens. In fact, this submission has been one of the reasons for their neglect in research. However, the testimony of Hydatius cited above is very categorical in measuring the Alan superiority over their neighbors.

However, once the Addax kingdom collapsed, the integration of the Alans into other ethnic structures was not complete, nor did it prevent some of its members from remaining faithful to their ancestral traditions, even preserving a particular funeral ritual that is a simplified reproduction of the pit and chamber burials documented in the Eurasian steppes, as can be seen in some graves in the Gózquez de Arriba necropolis (Kazanski 2017; Barroso 2018, pp. 96-101).

Literary sources also attest to the presence of Alan-Sarmatian populations years after the disappearance of the Alan kingdom. An analysis of Visigothic-era names suggests a possible Alan-Sarmatian origin for some of the bishops of the time. Names such as Atala, Attila, Audax, Armenius, Asiaticus, Sarmata, etc. (García 1974, n. 461, 635, 566, 480, 564, 373) should be linked to the presence of Alan-Sarmatian and Hunnic populations still present at the end of the 6th century and in the 7th century.

If the interpretation defended here is confirmed, the slate from San Vicente would be an important testimony to the presence of these Alan-Sarmatian elements in the kingdom of Toledo, which would have to be added to the archaeological and literary evidence analysed here. All of this would fill an archaeological gap in Hispania, which contrasts with what research has revealed for other provinces of the Roman West (Bachrach 1967; 1973; Kovalenskaja 1993; Kazanski 1996; 2013; 2020; Mastykova, Kazanski 2006; Alemany 2006).

Abstract
As far as archaeological research is concerned, the century and a half that elapses between the end of Roman domination in Hispania and the consolidation of the Visigothic kingdom of Toledo remains to this day one of the least known periods in peninsular history. The lack of archaeological data underlines the importance of the two popular testimonies that we present in these pages. These are rare finds in the western European panorama and, even less so, in the Iberian Peninsula: an engraving on brick from La Muela de El Pulpón (Carrascosa del Campo, Cuenca) and a drawing on slate found in San Vicente del Río Almar (Alconada, Salamanca). These two interesting finds and the historical context in which they are placed will serve as an excuse to address some problems posed by this dark period, especially in relation to the presence of heavy cavalry units and Alan-Sarmatian contingents in the western part of the Empire.
Keywords: stirrups, standards, draco, draconarius, cataphractarius, clibanarius, Alans, Visigoth slates.

Per quanto riguarda la ricerca archeologica, il secolo e mezzo che intercorre tra la fine della dominazione romana in Hispania *e il consolidamento del regno visigoto di Toledo rimane ancora oggi uno dei periodi meno conosciuti della storia peninsulare. La mancanza di dati archeologici sottolinea l'importanza delle due testimonianze popolari che presentiamo in questo contributo. Si tratta di reperti rari nel panorama dell'Europa occidentale e, ancor più, nella penisola iberica: un'incisione su mattone proveniente da La Muela de El Pulpón (Carrascosa del Campo, Cuenca) e un disegno su ardesia rinvenuto a San Vicente del Río Almar (Alconada, Salamanca). Questi due interessanti reperti e il contesto storico in cui sono inseriti serviranno da spunto per affrontare alcuni problemi posti da questo periodo oscuro, soprattutto in relazione alla presenza di unità di cavalleria pesante e contingenti alan-sarmati nella parte occidentale dell'Impero.*
Parole chiave*: staffe, standardi,* draco*,* draconarius*,* cataphractarius*,* clibanarius*, Alani, ardesie visigote.*

References

Sources

Ammianus Marcellinus, ed. J.C. Rolfe, Cambridge, Mass. 1935-40. W. Heinemann, Perseus (tufts.edu).

Arrianus, *Tactica. Flavii Arriani quae exstant omnia*, ed. A.G. Ross, Leipzig 1968.

Hydatius, *Hydatii Lemici, Chronica*, ed. Th. Mommsem, MGH Auct. ant. 11. Chron. min. 2, Berlin 1894, ed. J. Campos, *Crónicón de Idacio, obispo de Chaves (s. IV-V)*, Salamanca 1984.

Isidorus Hispalensis, *Historia Gothorum,* ed. Th. Mommsem, MGH Auct. ant. 11. Chron. min. 2, Berlin 1894, ed. C. Rodríguez, *Las historias de los godos, vándalos y suevos de Isidoro de Sevilla*, León 1975.

Notitia Dignitatum, ed. C. Neira, *La Notitia Dignitatum: nueva edición crítica y comentario histórico*. Madrid. Ed. A.D. Duarte 2007, *Notitia Dignitatum. Relación de dignatarios*. Murcia, https://www.academia.edu/2901946/Notitia_Dignitatum_Traducci%C3%B3n_del_lat%C3%ADn_al_castellano

Procopius. Goth., *History of the Wars 1–5*, ed. H.B. Ewing, *Procopius with an English translation. History of the Wars*, Books VII (continued) and VIII. Vol. V. London/Cambridge, MA 1962.

Sozomenus, ed. E. Walford, *Ecclesiastical History. History of the Church in Nine Books, From A.D. 324 to A.D. 440*, London 1846.

Vegetius, *Epitoma rei militaris*, ed. C.R. Lang, *Flavi Vegeti Renati. Epitoma rei militaris.* Toronto 1885. Ed. M.T. Calleja, *Edición crítica y traducción del Epitoma Rei Militaris de Vegetius, Libros I y II, a la luz de los manuscritos españoles y de los más antiguos testimonios europeos,* Madrid 2015. Ed. D. Paniagua, *Flavio Vegecio Renato. Compendio de técnica militar.* Madrid, A.D. Duarte, *Flavivs Vegetivs Renatvs Epitoma institutorum rei militaris. Flavio Vegecio Renato Recopilación sobre las instituciones militares,* 2006: https://www.academia.edu/2901949/Epitoma_Institutorum_Rei_Militaris_Flavio_Vegecio_Renato_Traducci%C3%B3n_al_castellano.

Bibliography

A. Alemany 1993, *Addac, Alanenkönig in Hispania*, "Beiträge zur Namenforschung" 28/2, pp. 156-162.

A. Alemany 2000, *Sources on the Alans. A Critical Compilation. Handbook of Oriental Section VIII: Central Asia*, vol. 5. Leiden-Boston-Köln.

A. Alemany 2006, *La problemática de las fuentes sobre la presencia alana en la 'Gallia' e 'Hispania'*, in J. López, A.M. Martínez, J. Morín (eds), *Gallia e Hispania en el contexto de la presencia 'germánica' (ss. V-VII): balances y perspectivas*, Oxford, pp. 307-316.

E. Anderson 2016, *Cataphracts*, Barnsley.

J. Arce 1986, *El último siglo de la España romana 284-409*, Madrid.

J. Arce2007, *Bárbaros y romanos en Hispania, 400-507 A.D.,* Madrid.

A. Arezes 2018, *Beiral do Lima, uma necrópole do século V no territorio da Gallaecia*, in J. López Quiroga (ed), *In tempore sueborum. El tiempo de los suevos en la Gallaecia (411-585),* Orense, pp. 453-456.

J. Aurrecoechea 1999, *Late roman belts in Hispania*, "Journal of Roman Military Equiment Studies", 10, pp. 55-71.

A. Azzaroli 1985, *An Early History of Horsemanship*, Massachusetts.

B. Bachrach 1967, *The Alans in Gaul*, "Traditio", 23, pp. 476-489.

B. Bachrach 1973, *A History of the Alans in the West*, Minneapolis.

A. Barbero 2005, *The Day of the Barbarians: The Battle that Led to the Fall of the Roman Empire*, New York.

R. Barroso 2018, *Etnicidad vs. Aculturación: Las necrópolis castellanas de los siglos V-VI d.C. y el asentamiento visigodo en la Península Ibérica. Una mirada desde la meseta sur*, Oxford.

R. Barroso 2019, *De la provincia Celtiberia a la Qūrā de Santabariyya. Arqueología de la antigüedad tardía en la provincia de Cuenca (siglos V-VIII d.C.),* Oxford.

R. Barroso J. Morín 2014, *Piezas póntico/danubianas de la Colección Martí Esteve ¿Un ajuar de enterramiento principesco?*, in I. Barceló (ed), *Exposición El oro sobre la piel. Museo de la Ciudad*, Valencia, pp. 77-99.

R. Barroso J. Morín, J. López 2006, *Mundo funerario y presencia 'germánica' en Hispania,* J. López Quiroga, A.M. Martínez, J Morín (eds), *Gallia e Hispania en el contexto de la presencia 'germánica' (ss. V-VII): balances y perspectivas,* Oxford, pp. 213-224.

R. Barroso J. Morín, D. Urbina 2025a, *La esquiva presencia del elemento alano en Hispania. Nueva lectura de la pizarra visigoda de San Vicente del río Almar (Salamanca)*, "Arqueología y Prehistoria del Interior Peninsular", 10, pp. 1-15.

R. Barroso, J. Morín, D. Urbina 2025b, *Grabado de un jinete sobre ladrillo procedente del yacimiento de El Pulpón (Carrascosa del Campo, Cuenca)*, "Arqueología y Prehistoria del Interior Peninsular", 10, pp. 16-29.

R. Barroso, J. Carrobles, J. Morín, I.Mª Sánchez 2015, *Ciudad y territorio toledano entre la Antigüedad tardía y el reino visigodo: la construcción de una ciuitas regia (ss. IV-VIII d.C.)*, "Erytheia", 36, pp. 9-61.

A. Bivar 1995, *The Stirrup and its Origins*, "Oriental Art, New Series", 1, pp. 61-65.

D. Breeze, M. Reddé 2021, *Frontiers of The Roman Empire. The Roman Frontier in Egypt*, Oxford.

R. Brzezinski, M. Mielczarek, G. Embleton 2002, *The Sarmatians 600 BC–AD 450,* Oxford.

J. Conyard 2013, *Recreating the Late Roman Army*, in Sarantis, Christie 2013, pp. 523-567.

J. Coulston 2013, *Late Roman Military Equipment Culture*, in Sarantis, Christie 2013, pp. 463-492.

F. Curta 2008, *The earliest Avar-age stirrups, or the "stirrup controversy" revisited, The Other Europe in the Middle Ages*, in F. Curta, R. Kovalev (eds), *"The" Other Europe in the Middle Ages: Avars, Bulgars, Khazars, and Cumans*, vol. 2, Leiden, pp. 297-326.

F. Daim 2003, *Avars and Avar Archaeology. An Introduction,* in W. Goetz, J. Jarnut, W. Pöhl (ed), *Regna and Gentes. The Relationship between Late Antique and Early Medieval Peoples and Kingdoms in the Transformation of the Roman World,* Leiden-Boston, pp. 463-570.

K. Devries R. Smith 2012, *Medieval Military Technology*, Peterborough.

A. Dien 1986, *The Stirrup and Its Effect on Chinese Military History*, "Ars Orientalis", 16, pp. 33-56.

E. Dimitrova 2012, *The Vinica Mystery. The Ceramic Treasuries of a late Antique fortress*, Vinca.

E. Dimitrova 2013, *Riders on the Storm. Dramatic ride of the 'Vinica Cavalier*, "Nis & Byzantium", XI, pp. 147-156.

E. Dimitrova 2016, *The Ceramic Relief Plaques from Vinica. The Most Significant Values of the Cultural and Natural Heritage*, Skopje.

K. Farrokh, A. Mcbride 2012, *Sassanian Elite Cavalry, AD 224–642,* Oxford.

L. García 1974, *Prosopografía del reino visigodo de Toledo,* Salamanca.

F. Heras, A. Olmedo 2015, *Identidad y contexto en la necrópolis tardorromana de Mérida,* in *Identidad y etnicidad en Hispania. Propuestas teóricas y cultura material en los siglos V-VIII,* "Documentos de Arqueología Medieval", 8, pp. 275-290.

F. Heras, A. Olmedo 2018, *Rechila, Rex Suevorum, Emeritam Ingreditur*, in J. López (ed), *La Sedes Regia de Mérida a través de sus princesas, In tempore Sueborum. El tiempo de los suevos (411-585),* Orense, pp. 457-460.

F. Heras, A. Olmedo 2018-2019, *Novedades en la necrópolis tardorromana de Mérida. Las princesas bárbaras*, "Anas", pp. 201-218.

J.A. Hierro 2018, *Los objetos de época visigoda de la cueva de Los Goros, sesenta años después,* in *Septem! Homenaje a Alberto Gómez Castanedo*. Santander, pp. 177-192.

V. Ivanišević I. Bugarski 2012, *Les étriers byzantins: la documentation du Balkan central. Le cheval dans les sociétés Antiques et médiévales,* Turnhout, pp. 135-142.

S. Ivanov 2012, *On question of heavy cavalry in ancient Central Asia on the base of ostracon from Khumbuz-Tepe. Youth in Science – Collection of articles from the International Forum of Young Scientists of the CIS Countries*. Part III, Almaty, pp. 184-188. (in russian).

E. Kavanagh 2015, *Estandartes militares en la Roma antigua: Tipos, simbología y función*, *Anejos de Gladius*, Madrid.

M. Kazanski 1996, *Les Alains et les Sarmates en Occident romain à l'époque des Grandes Migrations: Données archélógiques. L'or des Sarmates. Nomades des steppes dans l'Antiquité,* Exhibition Catalogue, Abbaye de Daoulas.

M. Kazanski 2012, *Les armes et les techniques de combat des guerrier steppiques du début du Moyen Âge. Des Huns aux Avars*. in S. Lazaris (ed), *Le cheval dans les sociétés antiques et mediévales.* Turnhout, pp. 289-299.

M. Kazanski 2013, *Les Alains et les Sarmates en Occident romain à l'époque des Grandes Migrations*, "Bulletin de Liaison", 37, pp. 102-124.

M. Kazanski 2017, *Tombes des élites steppiques de l'époque post-hunnique dans la région Pontique*, "Přehled Výzkumů", 58/1, Brno, pp. 65-84.

V. Kovalenskaja 1993, *La présence alano-sarmate en Gaule: confrontations des données arquéologiques, paléoanthropologiques, historiques et toponimiques,* in F. Vallet, M. Kazanski (eds), *L'Armée romaine et les barbares des IIIe au VIIe siècle,* Paris, pp. 209-216.

S. Lazaris 2005, *Considérations sur l'apparition de l'étrier: Contribution à l'histoire du cheval dans l'Antiquité tardive*, in A. Gardeisen (ed), *Les équidés dans le monde méditerranéen antique.* Actes du colloque international, Lattes, pp. 275-288.

S. Lazaris 2012, *Essai de mise au point sur la place du cheval dans l'Antiquité tardive. Le cheval dans les sociétés Antiques et médiévales*, Turnhout, pp. 15-25.

S. MacDowall, C.Hook 1995, *Late Roman Cavalryman AD 236-565*, Oxford.

A. Mastykova, M. Kazanski 2006, *A propos des Alains en Occident á l'époque des Grandes Migrations. Le costume à apliques en or*, in J. López, A.M. Martínez, J. Morín (eds), *Gallia e Hispania en el contexto de la presencia 'germánica' (ss. V-VII): balances y perspectivas,* Oxford, pp. 289-306.

P. Mateos 2023 *Ajuar femenino de tradición bárbara*, in A. Chavarría (ed), *Cambio de Era. Córdoba y el Mediterráneo Cristiano,* Exhibition Catalogue, Córdoba, p. 279.

M. Mielczarek 1993, *Cataphractii and Clibanarii. Studies on the Heavy Armoured Cavalry of the Ancient World,* Lodz.

L. Mihailescu-Bîrliba 2009, *A funerary sculptured monument of Chester and its representation*, "Studia Antiqua et Archaeologica", XV, pp. 146-173.

J. Morín 2006, *Pizarra con dibujo de San Vicente del río Almar*, in M. Santonja, I. Velázquez (eds), *En la pizarra: los últimos hispanorromanos de la Meseta,* Burgos, pp. 286-287.

J. Morín 2003, *La época visigoda en el occidente de la Meseta norte. Provincias de León, Zamora y Salamanca (ss. V al VIII d.C.),* tesis doctoral, Madrid.

J. Morín R. Barroso 2025, *El enclave tardoantiguo del Salmoral (Parla, Madrid). Evolución doméstica de un pequeño asentamiento. De las cabañas a las casas (ss. V al VII d.C.)*, Madrid.

J. Morín, S. Jaque Ovejero, P. Oñate Baztán, M. Major, R. Barroso, E. Penedo 2001, *Los yacimientos de Tinto Juan de la Cruz, Pinto, Madrid (ss. I al VI d.C.)*, "Estudios de Prehistoria y Arqueología Madrileñas" 11, pp. 129-204.

A. Negin, R. D'Amato 2018, *Roman heavy cavalry (1) Cataphractarii & Clibanarii, 1st Century BC–5th Century AD*, Oxford.

A. Negin, R. D'Amato 2020, *Roman heavy cavalry (2). AD 500–1450*, Oxford.

D. Nicolle A. McBride 1990, *Attila and the nomad hordes*, Oxford.

D. Nicolle A. McBride 1991, *Rome's enemies 5. The desert frontier*, Oxford.

D. Nicolle A. McBride 1996, *Sassanian armies. The Iranian Empire early 3rd to mid-7th centuries AD*, Stockport.

V. Nikonorov 1997, *The armies of Bactria, 700 a.C.-450 d.C.*, Stockport.

M. Olbricht 2010, *On the origins of the cataphract cavalry in Iran and Central Asia*, in *The role of nomads of the Eurasian steppes in the development of global military art. Scientific readings in memory of N.E. Masanov,* Almaty, pp. 66-85 (in russian).

J. Paz 2008, *Las producciones de terra sigillata hispánica intermedia y tardía,* in D. Bernal, A. Ribera (eds), *Cerámicas hispanorromanas. Un estado de la cuestión,* Cádiz, pp. 497-539.

P. Paulsen, H. Schach-Dörges 1978, *Das alamannische Graberfeld von Giengen an der Brenz (Kreis Heidenheim) Stuttgart,* Stuttgart.

C. Peers, M. Perry 1995, *Imperial Chinese Armies (1) 200 BC-AD 589,* Oxford.

C. Peers, M. Perry 1996, *Imperial Chinese Armies (2) 590-1260*, Oxford.

S. Perea 2003, *Campamentos y defensa del territorio en el Egipto romano*, "Espacio, Tiempo y Forma", Serie II, Historia Antigua, 16, pp. 111-140.

J. Pinar G. Ripoll 2008, *The so-called vandal objects of Hispania*, in R. Steinacher, G. Berndt (eds), *Das Reich der Vandalen und seine (Vor-) Geschichten,* Wien, pp. 105-130.

W. Pohl 2018, *The Avars. A Steppe Empire in Central Europe, 567-822*, Ithaca.

N. Proeva 1994, *Inscriptions sur les plaques de terre cuite de Viniĉko Kale, in Macédoine*, in M.-O. Jentel, G. Deschênes-Wagner (eds), *Tranquillitas. Mélanges en l'honneur de Tran Tam Tinh*, Quebec, pp. 497-506.

F. Quesada 2009, *El gobierno del caballo montado en la antigüedad clásica con especial referencia al caso de Iberia. Bocados, espuelas y la cuestión de la silla de montar, estribos y herraduras*, "Gladius", XXV, pp. 97-150.

A. Rushworth 2015, Castra *or* centenaria*? Interpreting the later forts of the North African frontier*, in R. Collins, M. Symonds, M. Weber (eds), *Roman Military Architecture on the Frontiers Armies and Their Architecture in Late Antiquity*, Oxford, pp. 123-139.

M. Sadek 1976, *La excavación del Cerro de la Muela, Carrascosa del Campo. Por la Universidad de Guelph,* "Noticiario Arqueológico Hispánico", 4, pp. 213-250.

M. Santonja M. Moreno 1991-1992, *Tres pizarras con dibujos de época visigoda en la provincia de Salamanca,* "Zephyrus", pp. 471-496.

M. Santonja I. Velázquez 2006, *En la pizarra: los últimos hispanorromanos de la Meseta*, Burgos.

A. Sarantis, N. Christie (eds) 2013, *War and Warfare in Late Antiquity,* vol. 8.2, Leiden-Boston.

B. Sasse, 1995, *Las placas de cinturón 'múltiple' hispanovisigodas. A propósito de la hallada en Saucedo, Talavera la Nueva (Toledo)*, "Archivo Español de Arqueología", 68, pp. 165-187.

D. Soria 2012, *Cataphractii y clibanarii. La caballería pesada del ejército romano de Severo Alejandro a Justiniano*, "Aquila Legionis", 15, pp. 117-163.

P. Sothern K. Dixon 1996, *The Late Roman Army*, Yale.

J. Suhr 2019, *The Stirrup: Innovation, Invention, Adoption, and Diffusion*, Assignment submitted in partial fulfillment for the Master of Arts in World History, Norwich University.

J. Suhr 2020, *Riding Astride and the Proto-Stirrup,* Paper submitted in partial fulfillment of the requirements for the Master of Arts in World History, Norwich University.

I. Velázquez 1989, *Las pizarras visigodas: Edición crítica y estudio*, in *Antigüedad y Cristianismo* 6.

I. Velázquez 2004, *Las pizarras visigodas (Entre el latín y su disgregación. La lengua hablada en Hispania, siglos VI-VIII),* Madrid-Valladolid.

R. Vermaat 1999-2011, *The Draco, the Late Roman Military Standard*, http://www.fectio.org.uk/articles/draco.htm.

J.J. Vicente 1999, *Los regimientos de catafractos y clibanarios en la Tardo Antigüedad. Los columbarios de La Rioja*, "Antigüedad y Cristianismo", XVI, pp. 397-415.

A. Vigil-Escalera 2000, *Cabañas de época visigoda: evidencias arqueológicas del sur de Madrid. Tipología, elementos de datación y discusión*, "Archivo Español de Arqueología", 73, pp. 181-252.

A. Vigil-Escalera 2009, *Escenarios de emergencia de un paisaje social y político altomedieval en el interior de la Península Ibérica durante la quinta centuria: cerámica, necrópolis rurales y asentamientos encastillados*, Tesis doctoral, Vitoria-Gasteiz.

L. White 1962, *Medieval Technology and Social Change*, Oxford.

P. Wilcox, A. McBride 1986, *Rome's Enemies (3). Parthians & Sassanid Persians*, Oxford.

S. Wisdom A. McBride 2001, *Gladiators 100 BC-AD 200*, Oxford.

R. Zaroff 2017, *The Vandals and Sarmatians in a new perspective*, "Collegium Medievale: Interdisciplinary Journal of Medieval Research", 30, pp. 234-260.

M. Zarzalejos 2002, *El alfar romano de Villamanta (Madrid)*, Madrid.