# **Research Article**



# Make a desert and call it peace: massacre at the Iberian Iron Age village of La Hoya

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Once considered rare, archaeological examples of violence in prehistoric Europe have accumulated over recent decades, with new discoveries providing evidence of large-scale, organised warfare among preand protohistoric populations. One example is La Hoya in north-central Iberia. Between the mid fourth and late third centuries BC, the site was subjected to a violent attack, its inhabitants killed and the settlement burned. Here the authors present osteological analyses for a massacre: decapitations, amputations and other sharp-force injuries affecting a wide cross section of the community. They interpret the massacre as an instance of conflict between rival local communities, contributing to a growing picture of the scale and nature of violence in Iron Age Europe.

Keywords: Iberia, Iron Age, palaeopathology, massacre, violence, trauma

# Introduction

Direct evidence from prehistoric Europe for violence inflicted on human bodies and material property remains comparatively scarce, especially that involving large-scale, organised hostilities. Despite the discovery of a number of late prehistoric mass graves, which potentially relate to massacres and/or battles (e.g. in the Western and Central European Neolithic: Vegas *et al.* 2012; Chenal *et al.* 2015; Meyer *et al.* 2018), these burials usually yield only relatively small numbers of individuals, and lack associated evidence for the plunder or destruction of settlements. Conversely, several Neolithic enclosures in Britain appear to have been attacked, but associated skeletal evidence is either rare (e.g. Hambledon Hill) or non-existent (e.g. Crickley Hill, Carn Brea) (Mercer 1999; Schulting 2013). Evidence for violence at other

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prehistoric enclosures, such as the Middle Bronze Age site of Velim in the Czech Republic, can be ambiguous (Harding *et al.* 2007). It is not until the Iron Age that we encounter clear indications of attacks on villages and hillforts, involving both the killing of people and the destruction and abandonment of settlements, providing unique testimonies of everyday life and violent death (e.g. Sandby Borg in Sweden; Alfsdotter *et al.* 2018). Some of these attacks have been attributed to the Roman army where the violence involved was particularly systematic (e.g. Smith 2017). More recently, it has become increasingly clear that some cases pre-date the Roman invasions by centuries, and that large-scale warfare played a role among Iron Age European populations (e.g. Ribemont-sur-Acre in France; Brunaux 2009). Detailed accounts of Iron Age conflict are nevertheless rare (Quesada-Sanz 2015), particularly in Iberia. Here, cremation was the main funerary practice, and most of the available data for conflict are based on indirect evidence of warfare and ideological indicators of power (Sánchez-Moreno 2005), such as fortifications, weapons and images of warriors (e.g. Freire 2005; Sastre 2008; González-García 2009).

The site of La Hoya in north-central Iberia is one of a small but growing number of cases that provide a snapshot of Iron Age violence. Sometime between the mid fourth and late third centuries BC (Iron Age II), La Hoya was violently attacked and set alight. The severity of the attack and the haste of the inhabitants' flight is attested by the skeletons of people and animals found killed on the streets, houses containing food, craft items and personal objects suddenly abandoned and evidence of widespread burning (Llanos 1983). Although the presence of a number of individuals with indicators of violent attack was noted in the relevant excavation reports, with the two most obvious traumatic injuries briefly described (i.e. a decapitation and an arm amputation; Etxeberria *et al.* 2005), the human remains have not previously been analysed in detail. In order to define the group's demographic profile and identify the nature and extent of the violent injuries seen on the human skeletal remains, we present here the first complete osteological study of the victims of the attack.

## La Hoya in its setting

La Hoya (Laguardia, Álava) is located in the Rioja Alavesa region of north-central Iberia (Figure 1). Although the site was discovered in 1935, it was not until 1973 that scientific excavations began (Llanos 1983). These continued until 1990, revealing an impressively well-preserved, multi-period settlement extending over approximately 4ha, of which a small fraction (6230m<sup>2</sup> or 15.5 per cent) of the total area has been excavated. Founded in the Middle Bronze Age around the fifteenth century BC, the site was used through the Late Bronze Age, Iron Age I and Iron Age II (late third century BC) (Llanos 2005). During the latter period, the site was within territory controlled by the Berones, who are thought to have occupied present-day Rioja and parts of the Álava (i.e. Rioja Alavesa), Navarre, Burgos and Soria regions (Castro 2018).

La Hoya lies in the fertile valley of the River Ebro, close to major communication routes between the Cantabrian, Mediterranean and Inner Plateau regions. This privileged location, favouring the flow of people, objects and ideas, was key for its development and consequently the economic and political growth of the site. During the Iron Age II (represented by layer A3), the settlement reached its greatest size and complexity. The defensive masonry wall that

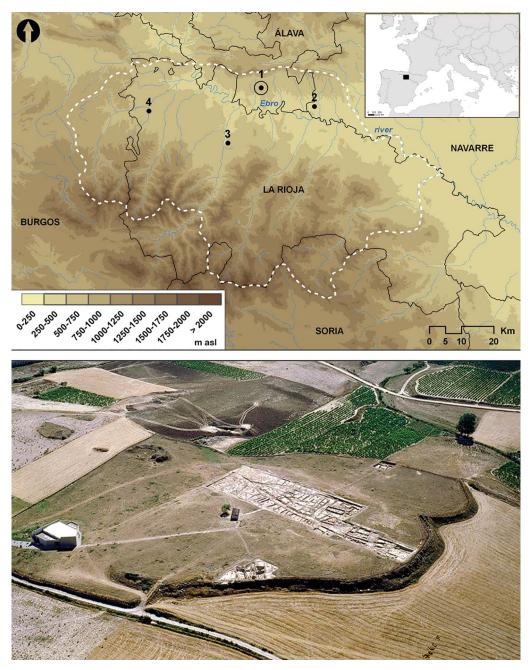


Figure 1. Top: map showing the location of the Iron Age site of La Hoya (1) (map by J. Ordoño) and other north-central Iberian cities cited in the text that were within the territory presumably controlled by the pre-Roman Berones tribe (dashed white line); 2) Vareia; 3) Tritium Magallum; 4) Libia. Bottom: aerial view of La Hoya taken from the north-east (Llanos 2005).

was erected during the Iron Age I was strengthened, and dwellings previously attached to the wall were moved and re-organised into rectilinear blocks. These dwellings were built on masonry footings with wood and adobe walls finished with a layer of clay-plaster or coloured stucco. Living areas were separated by internal partitions. Over time, streets were widened to 5.5m, provided with paved sidewalks (1–1.5m wide) and stone crossings for pedestrians. The number of shops increased, and complex, hybrid buildings that combined commercial and domestic activities appeared. Public squares and communal buildings were created (Llanos 1983). Cremation cemeteries, such as La Costera and Piñuelas (with around 60 Celtiberian reticulated stone cists, in total), were established outside the defensive wall (Llanos 2005). Numerous lines of evidence suggest that the settlement was a major centre of social, economic, commercial and political activities during the Iron Age II. These include: urban development, an estimated population of 1500 inhabitants (Galilea 2003), the existence of a well-established farming economy and large food surpluses (Fernández-Crespo et al. 2019), pottery and metal production, medium- and long-distance exchange of luxury items (including personal adornments and weapons), and burials suggesting the presence of a warrior aristocracy in the Piñuelas cremation cemetery (Llanos 2005).

The site's advantageous setting in the valley lowlands (at 600m asl) was, however, a double-edged sword, as most other contemporaneous fortified settlements in the region were located in more defensible hilltop positions (Llanos 2002). The advantage provided by elevation was particularly important in a natural border area such as this, delimited by the Sierra de Cantabria mountain range to the north and the River Ebro to the south. Here, the Berones may have disputed territorial boundaries with other neighbouring pre-Roman 'tribes'. Indeed, the material culture and new radiocarbon dates on human bone from La Hoya (layer A3: 2215±20 BP, PSUAMS-3466: 365–204 cal BC and 2195±25 BP, PSUAMS-2078: 361–195 cal BC, both at 95.4% confidence; Olalde *et al.* 2019) show that it was violently attacked, set on fire and abandoned at some point between the mid fourth and the late third centuries BC. The resulting data provide a unique snapshot of life and violent death in the Iberian Iron Age.

#### Human remains in non-funerary contexts

The articulated and disarticulated remains of a minimum of 13 individuals were found on the streets and the household floors of layer A3, sector I (Iron Age II) (Figure 2 & Table 1). They consist of nine adults of both sexes, two adolescents, a child of around three years of age and a six-month-old infant, presented here in the first detailed osteological analysis undertaken on this material (for a description of methods and results, see the online supplementary material (OSM)).

Taphonomic features, particularly cracking and cortical exfoliation typical of subaerial weathering and small skeletal movements affecting labile articulations, are consistent with the remains having been left unburied. Individuals recovered from beneath collapsed buildings, however, became skeletonised within filled or partially filled spaces (LHY1, LHY2, LHY9 and LHY13). The presence of disarticulated bones (LHY4, LHY5, LHY7, LHY8, LHY10 and LHY11) and an isolated skull (LHY12) may indicate displacement and scavenging by dogs, although no clear skeletal evidence of canid chewing (e.g. pits, punctures or

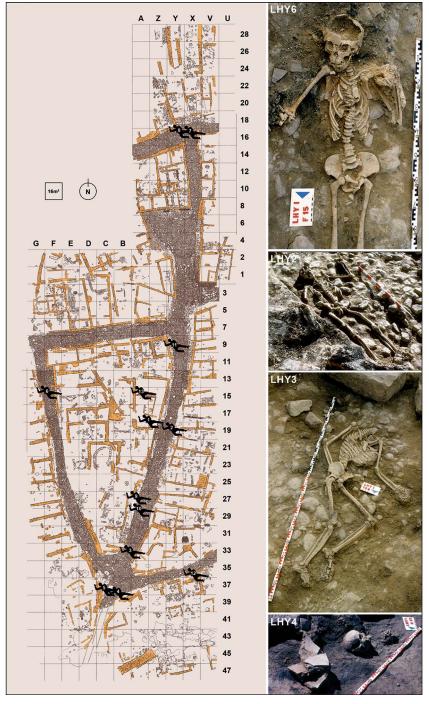


Figure 2. Left: plan of La Hoya sector III, layers A3/A2 (Iron Age II), including the location of the human skeletons and skeletal elements studied (plan by A. Llanos, modified by J. Ordoño), some of which (LHY2, 3-4 & 6) are photographed in situ on the right (Llanos 2005).

Individual	Inventory no.	Unit square	Age <sup>1</sup>	Sex <sup>2</sup>	Preservation	Perimortem trauma location	Action
LHY1	ACC-51, ACC-74	A17-Z19	IA	M?	Partial skeleton	Humerus R; femur R	Mutilation
LHY2	ACC-73	Y19	YA	М	Almost complete skeleton (no forearm)	Humerus R	Amputation
LHY3	ACC-108	B33	YA	М	Almost complete skeleton (no skull)	Neck; clavicle R; scapula R; vertebra S1	Decapitation and mutilation
LHY4	ACC-142	B37	MA	F	Isolated cranium	_	_
LHY5	ACC-136	C37	MA	F	Isolated mandible	_	_
LHY6	ACC-112, ACC-158, 742-1413	F15	J	F?	Complete skeleton	Ulna R; radius R; rib L	Amputation and mutilation
LHY7	LHY.X16 x130.y270.z267	X16	J	М	Isolated ilium R	-	-
LHY8	LHY.A3.Y16 x390.y345.z250	Y16	IA	?	Isolated humerus R	_	-
LHY9	ACC-87, LHY.29A.125.C, LHY.79(A27) x300.y289.z108	A27-A29	IA	М	Almost complete skeleton (no skull nor both forearms)	Humerus R; fibula L	Mutilation
LHY10	LHY.A3 x163.y53.z10	?	IA	?	Isolated humerus L	_	-
LHY11	ACC-63	Y9	IA	?	Isolated frontal bone	_	_
LHY12	ACC-129	X35	С	?	Isolated skull	_	_
LHY13	ACC-13	A15	Ι	?	Complete skeleton	_	_

Table 1. Osteological features of the individuals studied and the location of perimortem trauma (for a detailed description, see the OSM).

 $\frac{1}{2}$  I = infant; C = child; J = adolescent; YA = young adult; MA = mature adult; IA = indeterminate adult.  $\frac{2}{2}$  M = male; M? = probable male; F = female; F? = probable female; ?= indeterminate.

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furrows; e.g. Haglund *et al.* 1989) has been identified. The destruction and charring of soft tissue caused by fire is likely, as burning is observable on the bones of individuals LHY1, LHY2 and LHY9. Bone colour varying from black to grey, and morphological changes and shrinkage are consistent with exposure to temperatures of 350–650°C, while soft tissue was still extant and bones were fresh (Shipman *et al.* 1984). The patterns of thermal alteration and deposition of skeletal material are inconsistent with funerary cremation—an otherwise common practice during this period—and are interpreted instead as relating to the burning of the settlement, with the bodies *in situ*.

## Evidence for trauma

Although the unusual contexts from which the individuals studied here were recovered may suggest a violent cause of death, traumatic perimortem injuries were identified in only five of the 13 individuals (Table 1). A possible explanation for this is that several individuals are only represented by isolated bones unaffected by injuries. Sharp force trauma is the most frequently observed lesion (for a detailed description of these lesions, see the OSM). One adult male (LHY3) shows clear evidence of decapitation (Etxeberria *et al.* 2005): his fourth cervical vertebra is completely bisected by an oblique cut, consistent with a single blow to the neck from left to right, at a downward angle (Figure 3a). Neither the upper vertebrae (C1–C3) nor the skull were recovered. This individual also shows traces of injuries to the right clavicle and scapula, and another sharp force injury that sectioned the first sacral vertebra (Figure 3b–e), suggesting that he was repeatedly struck. Although no clear defensive wounds have been identified, the most plausible explanation for the trauma observed is that it could have been inflicted during a face-to-face encounter in which the victim tried to confront his attacker.

Another adult male (LHY2) and an adolescent female (LHY6) each had their right arms amputated, affecting the humerus (Figure 4), and the ulna and radius (Figure 5a), respectively. In the latter case, the cut starts on the posterior sides of both bones and follows an oblique angle consistent with the forearm being in pronation (i.e. with palm and forearm facing down). The amputated forearm (medial/distal ulna and radius, together with the hand bones), still wearing five copper-alloy bracelets, was found separated from LHY6 but within the same 16m<sup>2</sup> excavation square (F15; Figure 1). The distance of approximately 2.8m between the forearm and the rest of the skeleton has been interpreted to suggest that the adolescent female was able to move several metres after sustaining the injury, before presumably either losing consciousness from massive blood loss and shock, or receiving another injury (cf. Etxeberria *et al.* 2005). It may also be that whoever cut the arm off threw it, or that the arm and bracelets were displaced some time after the attack. This individual (i.e. LHY6) also exhibits an unhealed 4mm-long incision on the anterior side of an indeterminate left rib (Figure 5b), which was potentially inflicted by an attacker positioned behind the victim.

A probable adult male (LHY1) had perimortem fractures and cuts affecting the distal right humerus and the middle shaft of the right femur (Figure 6a–b). As with the adult male LHY 9, his injuries affected the distal right humerus and the distal right fibula (Figure 7a–b) (for a full description, see the OSM). These are also interpreted as sharp force injuries potentially inflicted from behind by bladed weapons (perhaps similar to the swords and daggers recovered from the Piñuelas cemetery (Figure 8; Llanos 2005)).

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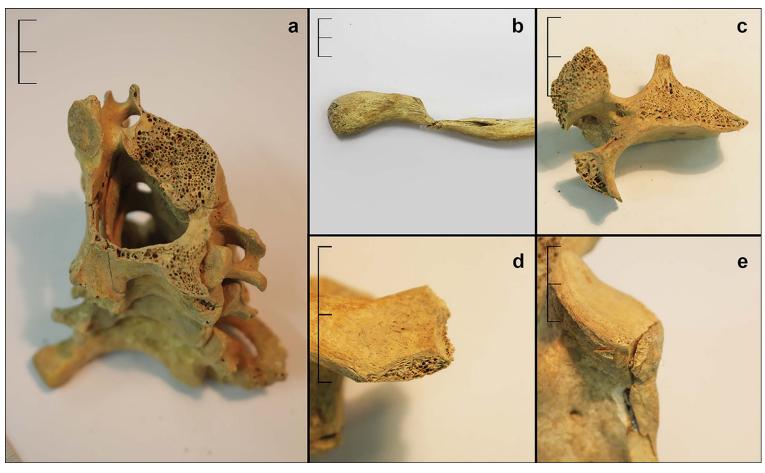


Figure 3. Sharp force trauma on: a) the fourth cervical vertebra; b) the right clavicle; c) the first sacral vertebra; d–e) the acromion and the glenoid fossa of the right scapula of individual LHY3; scale bar lengths are 20mm (photographs by T. Fernández-Crespo).



Figure 4. Sharp force trauma on the right humerus of individual LHY2; scale bar lengths are 20mm (photographs by T. Fernández-Crespo).

# The massacre defined

As warriorhood in most societies is restricted to adolescent and adult males (for ethnographic data, see Divale & Harris 1976; Otterbein 2009; McDonald *et al.* 2012), the presence at La Hoya of men, women and children—some very young—is consistent with an interpretation of a massacre. Bishop and Knüsel (2005) summarise nine elements relevant to the identification of ancient massacres, not all of which need apply in any given instance:

- 1) Victims have little capacity to resist.
- 2) Perpetrators have superior/overwhelming force.
- 3) A history of mutual hostility.
- 4) A call to rally immediately prior to the massacre.
- 5) Surprise attack.
- 6) A loss of control by the perpetrators.
- 7) Ethnic or ideological differences.
- 8) A high level of military activity.
- 9) Occur after extremely dangerous moments, such as breaching a fortified position.

Many of these elements cannot be known in the case of La Hoya, including the identity of the attackers and any previous history of violence involving this community, although the weaponry found at the Piñuelas cemetery could imply the latter (Llanos 2005). The motivation behind the violence also remains unclear. The archaeological and osteological data,

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Figure 5. Sharp force trauma on: a) the amputated distal right ulna and radius, wearing five copper-alloy bracelets; b) a left rib of individual LHY6; scale bar lengths are 20mm (photographs by T. Fernández-Crespo).



Figure 6. Sharp force trauma on: a) the distal right humerus; b) the middle shaft of the right femur of individual LHY1; scale bar lengths are 20mm (photographs by T. Fernández-Crespo).

however, support the hypothesis of a surprise attack, resulting in the indiscriminate and brutal killing of helpless or unresisting people, including adult males and females, as well as children. There is no clear evidence of defensive wounds or associated weapons, and many injuries appear to have been inflicted from behind, perhaps as individuals attempted



Figure 7. Sharp force trauma identified on: a) the distal right humerus; b) the distal left fibula of individual LHY9; scale bar lengths are 20mm (photographs by T. Fernández-Crespo).

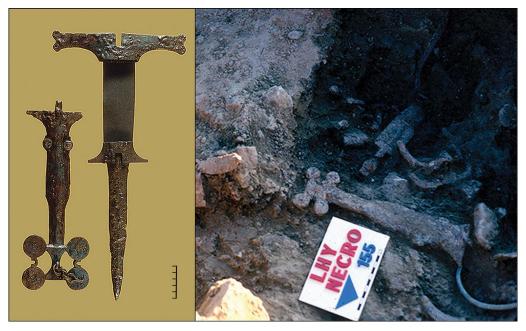


Figure 8. Left: a dagger of Miraveche-Monte Bernorio type recovered from (right) the associated cemetery of Piñuelas (Llanos 2005); scale bar length is 50mm.

to escape. While it is possible that the attackers took the weapons used by the victims, there is no other evidence of pillaging at the site.

The apparent absence of projectile injuries implies that the encounters were close-range, and that the attackers had breached the site's defences. Stone and clay sling-bullets were, however, found in vessels at La Hoya (Llanos 2002), indicating the use of long-distance weaponry at this time, while hand-thrown spears recovered from the Piñuelas cemetery suggest that close-distance combat was practised. Unfortunately, much of the site remains unexcavated, including the gate(s), the areas surrounding the defensive wall and a large part of the settlement. Further investigations may provide more information about the weaponry used and the nature and extent of the attack.

# Causes and timing of the attack

Considerable quantities of material, including metal adornments, tools, animals and cereal grains, were destroyed and abandoned at La Hoya. This suggests that the attack was not intended as a simple act of plunder (Llanos 2007/2008). The fact that bodies were left where they fell and that no one returned to retrieve them or to recover valuable items suggests that many of the inhabitants were killed, abducted or fled, and were unable or unwilling to return. As the Carthaginian army never conquered this region (Olcoz & Medrano 2013) and the attack long pre-dates the second- and first-century BC Roman incursions into northern Iberia (Pérez-Rubio 2017), it has been proposed that the massacre was the result of revenge or punishment by a neighbouring community (Llanos 2005). Regardless of the specific

motivation, given the site's location in a natural boundary area, the attack could have been conducted in the context of regional power struggles and territorial ambitions between different communities. Decapitation (e.g. individual LHY3) and amputated arms (e.g. LHY2), might be related to head-hunting (Llanos 2007/2008) or the taking of body parts as trophies, events that are frequently described in relation to inter-group conflict among Iron Age populations (e.g. Armit 2012; Smith 2017).

While these phenomena and other ritualised aspects of Iron Age warfare are often emphasised (e.g. Brunaux 2009; Armit *et al.* 2011; Løvschal & Holst 2018), La Hoya may be a more mundane instance of conflict, more in keeping with what the earliest written accounts report. These have often extolled the ferocity and bravery of the Iberian protohistoric tribes, particularly the Berones (Aulus Hirtius, *Bellum Alexandrinum* 53.1; Pelling 2005). Indeed, their very name has been linked to the Welsh (a related Celtic language) word '*ber*' for spear, and may mean 'armed men' (von Humboldt 1821: 124). The presence of elaborate masonry defences, the discovery of numerous weapons in the Piñuelas cemetery and, above all, the depictions of warriors on stelae and figurine pendants at La Hoya are consistent with this community belonging to a society that both valourised and engaged in warfare (e.g. Llanos 2002) (Figure 9).

Evidence that potentially places the attack as having occurred on a market day in late summer or early autumn includes numerous vessels filled with recently harvested cereal grains, several hobbled pigs (i.e. restrained by ties to the legs) and a number of craft items and



Figure 9. Examples of warriors depicted on: left) a stone stela (figure by J. Ordoño); and right) a bronze figurine pendant (Llanos 2005) from La Hoya; scale bar lengths are 20mm.

tools found on pathways and kerbs immediately outside the entrances to buildings as though to advertise wares for sale (Llanos 2005). Indeed, the timing of the attack could have been intentionally chosen to coincide with a moment of social aggregation, providing an opportunity to cause the highest number of casualties and the greatest impact on the social, economic and political structure of the Berones beyond the immediate locality (Castro 2018). Although La Hoya has never been claimed as a primary settlement of the Berones, its size, complexity and urban development suggest that it may have been comparable in socioeconomic and political importance to later cities including Vareia (the known capital of the Berones), Libia and Tritium Magallum, in the first century BC (e.g. Ptolemy, *Geography* II.6.55; Berggren & Jones 2002).

#### Consequences and wider impacts

Before the Roman occupation, the destruction of an economically and politically important regional node such as La Hoya, and the killing, deportation, enslaving or assimilation of its inhabitants, may have had wider implications for the region, by either creating a power vacuum or by consolidating the position of a rival community.

Traditionally, it has been assumed that the surviving inhabitants of La Hoya were re-established in the nearby fortified settlement of Laguardia. Sited on a hilltop 1km to the south, Laguardia became an important settlement during the later Iron Age (Llanos 2002). Yet no genetic continuity has been observed at the haplotype level in the modern local population (Núñez *et al.* 2016), despite the present-day inhabitants of Rioja Alavesa being described as descended from Iron Age populations, without the admixture events that later affected the rest of the Iberian Peninsula (Olalde *et al.* 2019).

It has also been proposed that the settlement could have continued to exist for a few centuries after the attack, based on some slight evidence in layers A2 and A1 (Llanos 2005). This seems unlikely, however, given the scale of death and destruction revealed by the excavations. It is reasonable to assume that any survivors reoccupying the site would have removed the human and animal remains and spoiled food, retrieved valuable items and stored the remaining resources for future use. Another possibility is that small-scale reoccupation of the site took place decades later, once sediments had obscured the material evidence of the attack.

Limited excavation at La Hoya prevents an estimation of the proportion of its dead in relation to its survivors, and the fate of any potential survivors remains unknown. Nonetheless, an extremely violent episode, consistent with a large-scale destruction and massacre, took place at the site. The abandonment of the settlement—whether temporary or permanent—following the attack suggests that many individuals were affected. Assuming that the available osteological assemblage represents a minimum of 13 victims, and extrapolating from the excavated area to the entire site, the remains of at least 85 individuals may be postulated. This is probably a conservative estimate, as some individuals could have been retrieved for burial or cremation, while others may have been scavenged by animals or lost to the elements, as suggested by some 'individuals' being represented by only single skeletal elements. In addition, any survivors that were not captured would have been made

homeless and forced to rely on the goodwill of other communities. As they seem to have left behind most of their goods and food stores, they would have arrived destitute.

## Assessing the extent of violence beyond La Hoya

Although Iberian and other Western and Northern European Iron Age polities were not fully formed states in the sense of Athens, Sparta or Rome, it is broadly accepted that they were sufficiently cohesive entities to engage in large-scale, organised martial endeavours in proportion to their territorial and demographic resources (e.g. Quesada-Sanz 2015). But is the degree of violence observed at La Hoya comparable to that elsewhere in Roman Iberia in the last centuries BC?

The violence perpetrated by the Roman army during the conquest of Iberia from 218 BC onwards is described in detail in Classical written sources, but the only direct archaeological evidence for this process consists of two examples of massacres. The first is Cerro de la Cruz (Córdoba, Andalusia), which was attacked and burned in c. 150-130 BC. This took place either during the Lusitanian War between Viriathus, leader of the Lusitani (one of the largest Iberian groups), and Servilianus, the Roman consul of Hispania Ulterior, between 142 and 141 BC, or during the large-scale retaliations that Servilianus carried out once Viriathus returned to Lusitania in 141 BC. Appian (Hispanica 12.68; White 1899) reports that these retaliatory attacks captured and enslaved more than 10 000 prisoners, 500 of whom were beheaded. Excavations at Cerro de la Cruz have uncovered the skeletal remains of at least six individuals on one of the main streets and from beneath collapsed buildings. Some of these skeletons exhibit perimortem sharp-force injuries inflicted by bladed weapons (Quesada-Sanz 2015). The second example is La Almoina in Valencia, which was burned and its population massacred by the Pompeian army in 75 BC during the Sertorian Wars (fought between a coalition of Iberian and Roman rebels and Sulla's Roman government). Although only a small area of the forum was excavated, 14 unarmed and shackled male adults appear to have been executed here: one was impaled by a *pilum* (javelin), another was beheaded and others had all four limbs amputated (Ribera 1995).

While the evidence is limited, especially when compared to the written sources, the similarities between these sites and La Hoya suggest that the extent of the violence may have been comparable between Roman and Iron Age communities in the last centuries BC, and that large-scale, politically motivated violence in Iberia was not necessarily introduced by the Romans.

# Conclusion

The demographic profile and the nature of perimortem injuries identified in the La Hoya skeletal assemblage are consistent with a massacre. The presence of considerable quantities of goods, such as wealth items, animals and cereal grains that were abandoned instead of looted, combined with the inability or unwillingness of any survivors to return, suggests that the attack was not an act of outright plunder. Indeed, this event could have had a major impact on the population dynamics of the region, as La Hoya was an important social,

economic and political centre in the mid fourth and the late third centuries BC. Given the site's location in a natural boundary area, the attack may have been a consequence of power struggles and territorial ambitions between neighbouring pre-Roman polities.

La Hoya is the only known Iron Age Iberian site whose destruction may be attributed to rival local communities, and is one of a small but growing number of such cases within a wider European context. It presents early evidence of organised, large-scale violence, and provides a unique snapshot of protohistoric warfare. Similarities between La Hoya and other massacres in Iberia in the last centuries BC suggest that Iberian Iron Age societies were fully capable of resorting to brutal violence in order to settle disputes between small competing polities. Certainly, the Romans were not alone in being able to "make a desert and call it peace" (Tacitus, *Agricola* 30; Woodman & Kraus 2014: 55).

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#### Supplementary material

To view supplementary material for this article, please visit https://doi.org/10.15184/aqy. 2020.161

#### References

ALFSDOTTER, C., L. PAPMEHL-DUFAY & H. VICTOR. 2018. A moment frozen in time: evidence of a late fifth-century massacre at Sandby borg. *Antiquity* 92: 421–36.

#### https://doi.org/10.15184/aqy.2018.21

Armit, I. 2012. *Headhunting and the body in Iron Age Europe*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9781139016971

ARMIT, I., R.J. SCHULTING, C. KNÜSEL & I.A.G. SHEPHERD. 2011. Death, decapitation and display? The Bronze and Iron Age human remains from the Sculptor's Cave, Covesea, north-east Scotland. *Proceedings of the Prehistoric Society* 77: 251–78.

https://doi.org/10.1017/S0079497X00000694

BERGGREN, J.L. & A. JONES. 2002. *Ptolemy's* geography: an annotated translation of the theoretical chapters. Princeton (NJ): Princeton University Press.

BISHOP, N.A. & C.J. KNÜSEL 2005. A paleodemographic investigation of warfare in prehistory, in M. Parker Pearson & I.J.N. Thorpe (ed.) *Warfare, violence and slavery in prehistory*  (British Archaeological Reports International series 1347): 201–16. Oxford: British Archaeological Reports.

BRUNAUX, J.-L. 2009. Les temples du sanctuaire Gallo-Romain de Ribemont-sur-Ancre, Somme. Saint Germain-en-Laye: Commios.

CASTRO, F. 2018. Aproximación al estudio territorial de los Berones. *Arqueología y Territorio* 15: 71–85.

CHENAL, F., B. PERRIN, H. BARRAND-EMAM & B. BOULESTIN. 2015. A farewell to arms: a deposit of human limbs and bodies at Bergheim, France, *c*. 4000 BC. *Antiquity* 89: 1313–30. https://doi.org/10.15184/aqy.2015.180

DIVALE, W.T. & M. HARRIS. 1976. Population, warfare and the male supremacist complex. *American Anthropologist* 78: 521–38. https://doi.org/10.1525/aa.1976.78.3.02a00020

ETXEBERRIA, F., L. HERRASTI & A. BANDRÉS. 2005. Muertes violentas determinadas a través de los estudios de paleopatología. *Munibe* (*Antropologia-Arkeologia*) 57: 345–57.

Fernández-Crespo, T., J. Ordoño, A. Bogaard, A. Llanos & R.J. Schulting. 2019. A snapshot

of subsistence in Iron Age Iberia: the case of La Hoya village. *Journal of Archaeological Science: Reports* 28: 102037.

https://doi.org/10.1016/j.jasrep.2019.102037

- FREIRE, J. 2005. Weaponry, statues and petroglyphs: the ideology of war in Atlantic Iron Age Iberia, in M. Parker Pearson & I.J.N. Thorpe (ed.) *Warfare, violence and slavery in prehistory* (British Archaeological Reports International series 1347): 195–200. Oxford: British Archaeological Reports.
- GALILEA, F. 2003. La demografía en el poblado berón de La Hoya (Laguardia-Álava). *Estudios de Arqueología Alavesa* 20: 117–33.
- GONZÁLEZ-GARCÍA, F.J. 2009. Between warriors and champions: warfare and social change in the later prehistory of the north-western Iberian peninsula. *Oxford Journal of Archaeology* 28: 59–76. https://doi.org/10.1111/j.1468-0092.2008. 00319.x
- HAGLUND, W.D., D.T. REAY & D.R. SWINDLER. 1989. Canid scavenging/disarticulation sequence of human remains in the Pacific Northwest. *Journal of Forensic Sciences* 34: 587–606. https://doi.org/10.1520/JFS12679J
- HARDING, A., R. SUMBEROVÁ, C.J. KNÜSEL & A.K. OUTRAM. 2007. *Velim: violence and death in the Bronze Age*. Prague: Archeologicky ústav.
- VON HUMBOLDT, W. 1821. Prüfung der Untersuchungen über die Urbewohner Hispaniens vermittelst der Waskischen Sprache. Berlin: Bei Ferdinand Dümmler.
- LLANOS, A. 1983. *La Hoya: un poblado del primer milenio antes de Cristo.* Vitoria-Gasteiz: Diputación Foral de Álava.
- 2002. Gentes del Hierro en privado: la casa en la Edad de Hierro en Álava. Vitoria-Gasteiz: Museo de Arqueología de Álava.
- 2005. Mil años de vida en el poblado berón de La Hoya (Laguardia, Álava): guía del yacimiento y del museo. Vitoria-Gasteiz: Diputación Foral de Álava.
- 2007/2008. El rito de las cabezas cortadas en el poblado de La Hoya (Laguardia, Álava). Veleia 24/25: 1273–81. https://doi.org/10.4321/s1576-59622008000100002
- Løvschal, M. & M.K. Holst. 2018. Governing martial traditions: post-conflict ritual sites in Iron Age Northern Europe (200 BC–AD 200).

*Journal of Anthropological Archaeology* 50: 27–39. https://doi.org/10.1016/j.jaa.2018.01.003

- McDonald, M.M., C.D. NAVARRETE & M. VAN VUGT. 2012. Evolution and the psychology of intergroup conflict: the male warrior hypothesis. *Philosophical Transactions of the Royal Society B Biological Sciences* 367: 670–79. https://doi.org/10.1098/rstb.2011.0301
- MERCER, R.J. 1999. The origins of warfare in the British Isles, in J. Carman & A. Harding (ed.) *Ancient warfare*: 143–56. Stroud: Sutton.
- MEYER, C., O. KÜRBIS, V. DRESELY & K.W. ALT. 2018. Patterns of collective violence in the Early Neolithic of Central Europe, in A. Dolfini, R.J. Crellin, C. Horn & M. Uckelmann (ed.) *Prehistoric warfare and violence: quantitative methods in the humanities and social sciences*: 21–38. Cham: Springer.

https://doi.org/10.1007/978-3-319-78828-9\_2

NÚÑEZ, C., M. BAETA, S. CARDOSO,
L. PALENCIA-MADRID, N. GARCÍA-ROMERO,
A. LLANOS & M. MARTÍNEZ DE PANCORBO.
2016. Mitochondrial DNA reveals the trace of the ancient settlers of a violently devastated Late

Bronze and Iron Age village. *PLoS ONE* 11: e0155342.

https://doi.org/10.1371/journal.pone.0155342

- OLALDE, I. *et al.* 2019. The genomic history of the Iberian Peninsula over the past 8000 years. *Science* 363: 1230–34.
- OLCOZ, S. & M.M. MEDRANO. 2013. Las primeras incursiones cartaginesas y romanas en el valle Medio del Ebro, in J. Andreu (ed.) *Entre vascones y romanos: sobre las tierras de Navarra en la antigüedad*: 19–29. Pamplona: Universidad de Navarra.
- OTTERBEIN, K.F. 2009. *The anthropology of war*. Long Grove (IL): Waveland.

PELLING, C.B.R. 2005. Bellum Alexandrinum, in The Oxford Classical dictionary. Oxford: Oxford University Press. https://doi.org/10.1093/acrefore/ 9780199381135.013.1083

PÉREZ-RUBIO, A. 2017. Singing the deeds of the ancestors: the memory of battle in Late Iron Age Gaul and Iberia, in M. Fernández-Götz & N. Roymans (ed.) Conflict archaeology: materialities of collective violence from prehistory to Late Antiquity: 89–102. London: Routledge. https://doi.org/10.4324/9781315144771-9

- QUESADA-SANZ, F. 2015. Genocide and mass-murder in Second Iron Age Europe: methodological issues and case studies in the Iberian Peninsula, in C. Carmichael & R.C. Maguire (ed.) *The Routledge history of genocide*: 9–22. London: Routledge.
- RIBERA, A. 1995. La primera evidencia arqueológica de la destrucción de Valentia por Pompeyo. *Journal of Roman Archaeology* 8: 19–40. https://doi.org/10.1017/S1047759400015956
- SANCHEZ-MORENO, E. 2005. Warfare, redistribution and society in western Iberia, in M. Parker Pearson & I.J.N. Thorpe (ed.) Warfare, violence and slavery in prehistory (British Archaeological Reports International series 1347): 107–125. Oxford: British Archaeological Reports.
- SASTRE, I. 2008. Community, identity, and conflict: Iron Age warfare in the Iberian Northwest. *Current Anthropology* 49: 1021–51. https://doi.org/10.1086/529423
- SCHULTING, R.J. 2013. War without warriors? The nature of interpersonal conflict before the emergence of formalised warrior élites, in S. Ralph (ed.) *The archaeology of violence:*

*interdisciplinary approaches* (IEMA Proceedings 2): 19–36. Albany: SUNY Press.

- SHIPMAN, R., G. FOSTER & M. SCHOENINGER. 1984. Burnt bones and teeth: an experimental study of color, morphology, crystal structure and shrinkage. *Journal of Archaeological Science* 11: 307–25. https://doi.org/10.1016/0305-4403(84)90013-x
- SMITH, M. 2017. *Mortal wounds: the human skeleton as evidence for conflict in the past.* Barnsley: Pen & Sword Military.
- VEGAS, J.I., A. ARMENDARIZ, F. ETXEBERRIA, M.S. FERNÁNDEZ & L. HERRASTI. 2012. Prehistoric violence in northern Spain: San Juan ante Portam Latinam, in R.J. Schulting & L. Fibiger (ed.) Sticks, stones, and broken bones: Neolithic violence in a European perspective: 265–302. Oxford: Oxford University Press. https://doi.org/10.1093/acprof.osobl/ 9780199573066.003.0015
- WHITE, H. 1899. *The Roman history of Appian of Alexandria*. London: Macmillan.
- WOODMAN, A.J. & C.S. KRAUS. 2014. *Tacitus: Agricola*. Cambridge: Cambridge University Press.