Projectile points as signs of violence in collective burials during the 4th and the 3rd millennia cal. BC in the North-East of the Iberian peninsula

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Summary. During the Late Neolithic and the Chalcolithic in the NE of the Iberian Peninsula two main changes in the burials take place with respect to the previous period: the appearance of collective burials and the high proportion of projectile points among the tools recovered inside the monuments. What is the meaning of these projectile points? Without ruling out the possibility that some of these points were intentionally deposited, stressing the symbolic relevance of these hunting/weapon tools, we think that many of them must have entered the burial place inside the bodies of the deceased people, indicating human violence. We analyse three collective burials showing many signs of violence: some points inserted in the human bones, other points broken by impact, some traumatic fractures in skulls, etc. We think that the violence observed in these burials can be characterised as systematic and organised, showing the social importance of war in this period.

Résumé. Pendant le Néolithique supérieur et le Calcolithique au NE de la Péninsule Iberique les sépultures ont expérimenté deux changements principaux en rapport avec la période précédente: l’apparition des sépultures collectives et la proportion élevée des pointes de projectile parmi les outils découverts à l’intérieur de ces monuments. Quel est la signification de ces pointes de projectile? Sans exclure la possibilité de qu’une partie des pointes furent déposés intentionnellement, en soulignant le symbolisme de ces outils de chasse ou de guerre, nous pensons que la plupart d’elles ont du être introduites dans les sépultures à l’intérieur des corps des morts, en indiquant violence humaine. Nous analysons trois sépultures collectives qui montrent quelques évidences de violence: des pointes insérées dans les os humains, des autres cassées par impact, quelques fractures traumatiques aux crânes, etc. Nous pensons que les évidences de violence observées à ces sépultures peuvent être caractérisées comme systématiques et organisées, en montrant l’importance sociale de la guerre à cette période.

Key words: Neolithic, Chalcolithic, Iberian Peninsula, arrowheads, violence.

Introduction

At the end of the 5th millennium cal. BC, in the NE of the Iberian Peninsula, people were buried in individual graves and offering deposits accompanied the bodies (i.e. sites of Los Cascajos, in Navarre or Bobila Madurell, in Catalonia). Among these offerings we can find several types of tools (sickle elements, blades for working hide, wood, butchery, etc., microliths used as projectile tips, endscrapers for softening hides, etc.). The correlation between the activities represented in the tools and the individuals in the graves showed the existence of a certain division of labour by age and gender. During the 4th millennium cal. BC, at the Late Neolithic and Chalcolithic, two main changes in funerary practices took place: individuals were buried in collective graves (hypogeum, artificial caves, megaliths) and arrowheads became the most common tools recovered in these contexts. What is the meaning of the prevalence of arrowheads among the tools deposited in the graves?

We have carried out analysis on the arrowheads recovered at three collective graves located in the NE of the Iberian Peninsula (Fig. 1): 1) the hypogeum of Longar, located in Navarre and dated to 2500 BC; 2) the approximately contemporary rockshelter of San Juan Ante Portam Latinam, located in Alava (Vegas 1999, p.3) The megalith of Can Martorell, in Catalonia, dated to 2500 cal. BC (Mestres i Torres 2003).

Fig. 1: Location map.
Longar (Armendáriz e Irigaray 1995)

The hypogeeum of Longar is located in Navarre (North Spain). This region offered in the past a perfect natural environment to develop the first productive economies in the northern Peninsula. The density of sites with collective burials is very high.

Longar was discovered in 1989 and excavated from 1991 to 1994. Today, the preserved remains can be visited.

The roof of the chamber collapsed on the inner deposits (Fig. 2). The structure was filled with human remains. The NMI is 112, and all the ages and sex are represented. Some of the corpses were in anatomic position and were deposited through time. There are no elements of personal adornment. Only a small vessel, some flakes, blades and arrowheads have been recovered.

All the arrows are of the leaf type with invasive retouch on one or both faces. 4 of them are directly related to skeletal parts (Fig. 3), and so, the authors consider that they came into the chamber inside the corpses of four adult males.

San Juan Ante Portam Latinam (Vegas 1999)

The archaeological site of San Juan Ante Portam Latinam (SJAPL) is located at Alava, North Spain. It was discovered in 1985 during the works of enlargement of a path, when a singular deposit of human remains was affected by the machines. The deposit, located into a little shelter, was sealed by the roof collapse. Once the slab was removed, the deposit was excavated in 1985 and then in 1990 and 1991.

The remains of SJAPL have been dated to the end of the 4th IV millennium cal. BC. More than 300 individuals were buried (Fig. 4). All the ages and sex are represented, although males are over represented. The study of pathologies shows some wounds surely produced by arrows. Other are not so clear but probably have been caused by the same agent.

One-hundred-and thirty-one lithic object has been recovered. There are 61 arrow points, and some pieces of worked bone (ornaments and tools). There are only a few fragments of ceramics. From a typological point of view the sample of arrow points from San Juan can be grouped into leaf points and barbed-and-tanged points. The latter group has scarcely developed barbs. None of them are heavier than 5 gr.
The hypothesis to the formation of SJAPL sample, points to a deposition in a short period of time. The objects recovered by the corpses did not correspond to ritual offerings but belongings or were included inside the bodies (e.g. some of the arrows) (Vegas 1999).

After the use-wear analysis of the arrows, we can say that apparently most of their fractures are due to their use (Márquez 2007). In fact, we can distinguish some of the type of fractures due to impact showed at the performed experimental programs with arrow points. For example, "burin" (Fig. 5), “flute-like” (Fig. 6) and bending fractures are frequent. “Right” fractures do not mean impact breakage but can be produced by trampling or other non-use processes. Impact striations are also found in 9 of the 37 studied pieces (Fig. 7). They are in fact bright lines generally oriented following the long axis of the arrow and so the direction of motion. Use polish is generally hidden by patination and then we can ensure only that few spots of polish are due to impact.

Among the sample there are two apical parts of an arrow and two medial fragments. Nevertheless proximal parts of the arrows are lacking. These parts normally remain attached to the shafts, which used to be recovered by the hunters. And so, it's easier to find the arrow tips and their medial parts which use to be attached to the game.
use. On the other hand, in most of the pieces (33%) we have recorded striae due to impact (Fig. 10) or contact with a hard material. Also, intense roundings have been found at the external edges of the bars which can be produced by the contact with the leather of the quiver (45% of the pieces) (Fig. 11).

The first conclusion after the study of the pieces of Can Martorell is that most of them were used as projectiles. The fractures recorded at the point, barbs and stems, can only be caused by impact towards a hard object. Most of the pieces could come to the site included in the corpses. As it occurs in SJAPL, neither barbs nor stems have been found at the burial, perhaps because they were recovered together with the shafts. Contrary to what happen in Longar and SJAPL, we have no direct proof of death by an arrow point. Nevertheless, the paleopathological study suggest that some traumatic lesions could have been caused by violent attack.

Fig. 9: Detail of the deposit of Can Martorell.

Finally, in relation to those unbroken points, we can say that they can be part of the offerings, although our experiments show that not all the arrows which have been thrown, broke.

Conclusions

The quantity of individuals buried varies from around one hundred at Longar (Armendáriz and Irigaray 1995), to near two hundred at Can Martorell and three hundred at San Juan (Vegas 1999). All segments of the population (gender and age) are represented in the graves. Some of the bodies are in anatomic position, while other human remains have been removed and concentrated at the sides.
of the grave, in groups of skulls, or long bones. All this indicates that the graves were used to bury all the individuals of prehistoric communities during a certain period of time, when the grave was in use.

The human remains showed abundant signs of violence. Several individuals bear arrowheads inserted in the bones, 9 cases at San Juan and 4 cases at Longar. Some of the individuals survived the wounds while others seem to have died because of the injury. Fractures in the skull, some of them incising, and in the forearms are also common. All these signs of violence affect young males. Use-wear analysis of the arrowheads shows that most of them had been shot (Márquez 2007; Palomo and Gibaja 2003), so these tools were not elaborated specifically for ritual offerings. A certain proportion of arrowheads were inserted in the bones. Some others were broken by impact and were not functional any more. As the custom of offering tools that were potentially functional in the graves is well established we think that these arrowheads entered the grave inside some of the bodies. In conclusion, many of the arrowheads were not part of the offerings, although we cannot rule out this possibility for some of them.

We think that the violence observed in these burials can be characterised as systematic (recurrent in time and space) and organised (affecting young males), so the existence of war can be suggested. There seems to be an increase of systematic violence in these area and at this time, when compared to previous periods. The arrowheads inserted in the bodies are a direct sign of this violence, while the arrowheads deposited as offerings speak about the symbolic relevance of violence. Social and economic factors could explain the importance of war in this period, as the need of new territories in a moment when population seem to be stressing their attachment to land (megalithic phenomenon) or the need of prestige in a context of social ranking that was beginning to develop.

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Bibliography

“PREHISTORIC TECHNOLOGY” 40 YEARS LATER