

Peasant economy in Late Roman Alava: Zooarchaeology of Zornoztegi

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ABSTRACT: Zornoztegi is a rural settlement located in the Alava plateau (Basque Country, Spain), and it was occupied between the Bronze Age and the Late Middle Ages. During a recent archaeological project, a small settlement consisting of two dwellings dated to the 4th-5th centuries was found. The archaeological evidence suggests that this site was probably a small rural settlement dependent on a higher rural centre, perhaps a Roman *villa*.

In this paper, the results of the analysis of the animal remains recovered in this chronological phase are shown. The faunal assemblage is one of the biggest analysed samples dated to the 4th-5th centuries in the Basque Country. The taxonomic composition, the kill-off patterns, the butchery patterns, the body part frequencies and the biometric data constitute good evidence for understanding peasant economy during Late Roman times. Finally, the faunal evidence will be discussed together with other types of archaeological records for analysing peasant activity in Late Roman Alava.

KEYWORDS: ANCIENT ECONOMY, ANIMAL HUSBANDRY, SMALL RURAL SETTLEMENT, ROMAN PERIOD, BASQUE COUNTRY

RESUMEN: Zornoztegi es un asentamiento rural situado en la Llanada Alavesa (País Vasco, España), y fue ocupado entre la Edad del Bronce y la Baja Edad Media. Durante el reciente proyecto arqueológico, fue localizado un pequeño asentamiento consistente en dos edificios, datados entre los siglos IV y V d.C. El registro arqueológico sugiere que este yacimiento fue probablemente un asentamiento rural de pequeña entidad dependiente de una propiedad rural mayor, quizás una *villa* romana.

En este artículo mostramos los resultados del análisis de los restos faunísticos recuperados en esta fase cronológica. El conjunto de fauna es una de las muestras de mayor tamaño analizadas en el País Vasco, datada entre los siglos IV y V d.C. La composición taxonómica, las cohortes de edad, los patrones de carnicería, las frecuencias anatómicas y los datos biométricos constituyen importantes evidencias para comprender la economía campesina de época tardorromana. Finalmente, interpretamos el registro zooarqueológico de Zornoztegi a través de otros tipos de registros arqueológicos, con intención de comprender las actividades campesinas de época tardorromana en Álava.

PALABRAS CLAVE: ECONOMÍA ANTIGUA, GANADERÍA, PEQUEÑO ASENTAMIENTO RURAL, PERIODO ROMANO, PAÍS VASCO

INTRODUCTION

It is a common place between archaeologist working with historic societies to consider that Roman sites are much more visible than the medieval ones, due to the larger amount of waste they created and to the larger and more sophisticated buildings they constructed, as opposed to the perishable materials used by medieval peasants to build their houses. In the Iberian Peninsula, the monumentality of Roman material remains has somehow set aside other types of archaeological evidence, such as bioarchaeological remains and, until recently, not much work has been done on such archaeological evidence. Moreover, Roman archaeology in Spain has focused its attention on the study of large *villae* and urban centres, but humbler settlements, such as small rural settlement, are still largely unknown.

In this paper, the example of Zornoztegi is discussed, in order to emphasize the central role that faunal evidence has in order to interpret the socio-economic meaning of a small rural settlement, a site that was almost invisible in material terms.

The Late Roman site of Zornoztegi is not similar, in material terms, to any other known rural settlement in the area. It is definitely not a *villa*, such as Arellano (Mezquiriz, 2003) or Cabriana (Vigil-Escalera Guirado, 2010), or a *vicus*, such as Mariturri (Núñez & Sáenz de Urturi, 2005), or an *agglomération secondaire*, such as Arkaia (Sáenz de Urturi, 1996). Taking into account that just a few Late Roman archaeological projects have been edited, the small dimension of Zornoztegi and the nature of the archaeological deposits are uncommon in the Basque Country. However, the kind of pottery and other objects found are similar to other coeval sites. Also, the poor preservation of the structures makes difficult to interpret Late Roman Zornoztegi. In this context, the analysis of bioarchaeological remains is of particular importance in order to understand the social and economic characteristics of this settlement. In the following pages, the faunal remains are analysed.

MATERIALS AND METHODS

The methodology that was followed for the zooarchaeological analysis was fully explained in a preliminary study of the faunal material from

Zornoztegi (Grau, 2009). Most animal remains where recovered in non-primary deposits, but the Late Roman contexts, which are the focus of this talk, were primary deposits and construction levels, well dated between the 4th and the 5th centuries. All animal remains were kept, and samples of soils from all the different contexts were taken, in order to process them through flotation and fine sieving. However, underrepresentation of smaller elements, such as small anatomical parts, young individuals and small taxa is expected. Flotation was done using a machine with a constant water flow from the lower part. Two meshes were used, one inside the water (aperture of 0.5 mm) and another one outside (aperture of 0.25 mm), where the water overflowed. The residues were afterwards dry sieved using a tower of meshes of different sizes, from 2 mm to 0.25 mm.

The taxonomic identification was undertaken through visual comparison of the archaeological materials with atlases, photographs and our own reference collection. For this zooarchaeological analysis, the system of diagnostic zones (Davis, 1992; Albarella & Davis, 1994) was used (for all the bibliographic references regarding taxonomic identification and for the list of recorded elements see Grau, 2009).

Both the total number of identified specimens (NISP) and the minimum number of individuals (MNI) were calculated. The MNI was calculated by dividing each anatomical element by the number of times it appears in the skeleton. The NISP and the MNI were calculated according to the maximum level of aggregation (Grayson, 1984), that is, considering the bone fragments dated to each period of the site as a single group, instead of calculating them for smaller groups, such as stratigraphic contexts. The fragmented condyles of cattle, sheep, goat and cervids were counted as halves, like the two central metapodials of suids; but the metapodials of carnivores and lagomorphs were counted as quarters.

For attributing the age of domestic animals when they were slaughtered, the mandibular wear stage and the epiphyseal fusion stage of the postcranial bones were used (Silver, 1963; Payne, 1973, 1987; Maltby, 1979; Grant, 1982; O'Connor, 1988). In the case of birds, according to the "sponginess" of the bone, they were recorded as juvenile or adult.

Measurements for biometric analysis were taken from bones whose epiphyses were fused (not unfused or fusing). The bones whose original size and shape

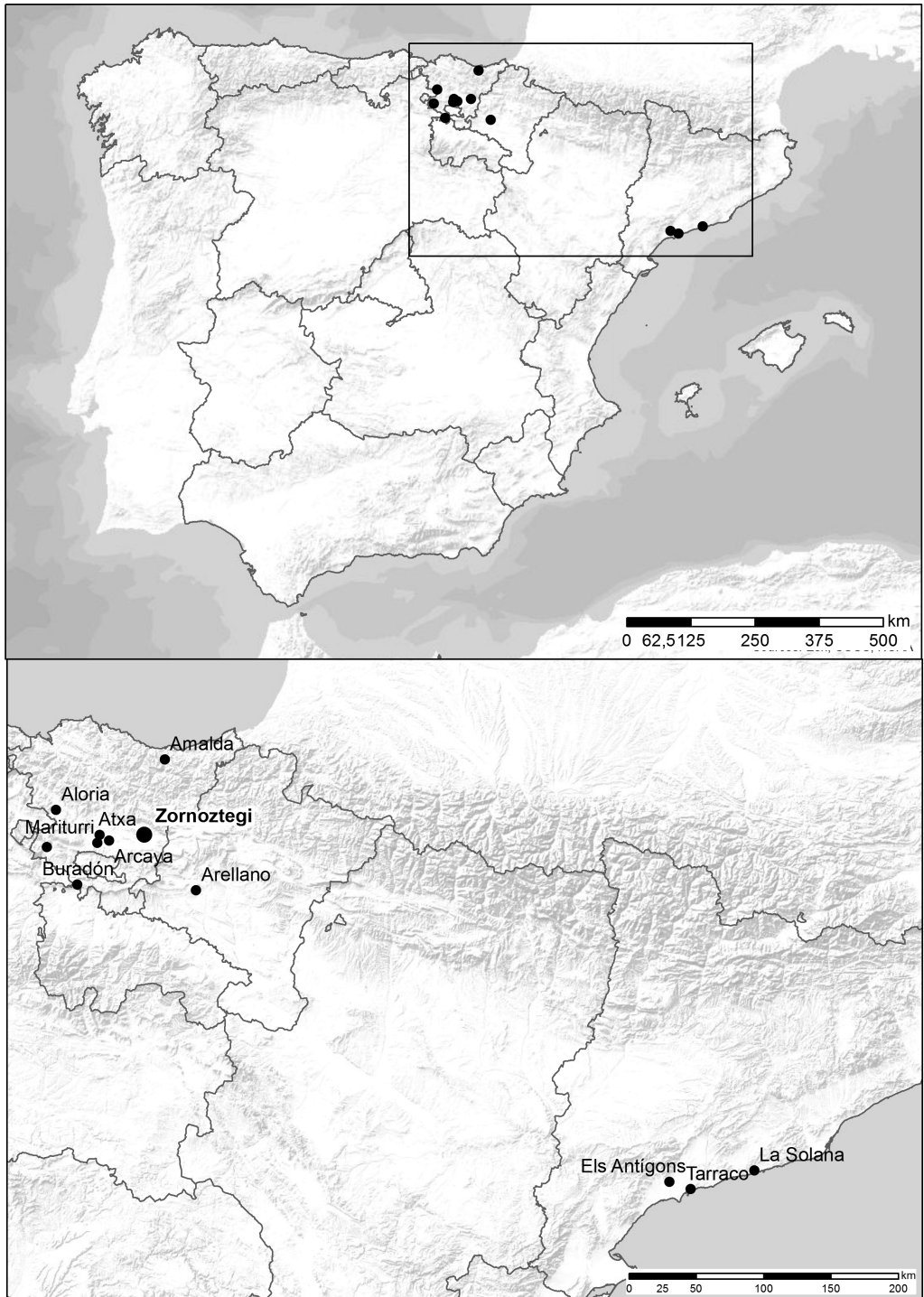


FIGURE 1

Map showing the location of Zornoztegi and other sites mentioned in the text.

may have been modified by taphonomic factors, such as fire, were not measured. In general, the maximum length and the maximum diameter of the diaphysis were measured. Maximum and minimum width of the distal end, the length of the acetabulum, and the maximum length and width of the teeth whose exact position is known (with the exception of the first and second molars of suids) were also measured. The measurements (for the full list and the raw metrical data from Zornoztegi, see Grau, 2009) were taken following the works of Driesch (1976) and Payne & Bull (1988). The biometrical analysis shown in this paper is based in the log ratio technique, using as standards archaeological data for cattle (Johnstone & Albarella, 2002), and modern data for sheep (Davis, 1996). For this analysis mainly widths of postcranial bones were used, as there is better correlation between measurements taken on the same axis than between those on different axis (Davis, 1996). However, some very frequent lengths and depths were also included, such as Dd of the tibia and GLI and GLM of the astragalus, in order to increase the size of the samples. Nevertheless, lengths of long bones were not included.

THE SITE

In five campaigns, from 2005 to 2009, the site of Zornoztegi (Figure 1) was excavated by members of the GIPyPAC of the University of the Basque Country (UPV-EHU). The excavation was directed by J.A. Quirós Castillo, and funded by the City Hall of Salvatierra-Agurain and the Diputación Foral de Álava. The chronology of the site comprises from the 2nd millennium BC to the 15th century AC. (Quirós, 2010), when it became a deserted village, its population attracted by the recently founded town of Salvatierra. Around one hectare was excavated in open area, more or less half of the extension that has been determined for this site. Zornoztegi is located north of the town of Salvatierra-Agurain, in the Eastern part of the plateau of the province of Alava, in the Basque Country. It is located on top of a hill near the villages of Luzuriaga and Zuazo (coordinates: UTM sheet, 113-III/4; X: 549600; Y: 474310), which in the last 40 years has been flattened by local farmers for crop cultivation. The soil is not very deep, so this levelling of the hill has caused dramatic damage to archaeological deposits. To a large extent, only structures excavated on the

rock have been preserved. In the preliminary survey of the surface, no archaeological structures were identified, and only few fragments of late medieval pottery and rough stones indicated that this was the location of an archaeological site. In Zornoztegi, most of the structures are pits excavated on the rock and primary contexts are lacking. Furthermore, many structures are not in direct stratigraphic contact with other elements, and thus, the definition of activities and phases is quite difficult.

Although we suspect that Zornoztegi must have been occupied between the 1st and the 3rd centuries, only residual ceramic materials of this chronology were recovered. But the main Roman evidence found in Zornoztegi are two buildings dated between the 4th and the 5th centuries. They are located at the north-eastern part of the hill and occupy approximately 300 square meters. One of them has provided very few animal remains and is composed by postholes. The other building, much bigger and with a base of stone, had probably a wooden roof and mud walls. The appearance of the buildings is, therefore, very modest and humble, only suitable for one or two families. The Late Roman contexts were found and excavated in September 2008. The deposits dated to this phase provided a remarkable collection of domestic materials, including a big proportion of TSHt (*terra sigillata hispanica tardia*) that can be dated between the 4th and the 5th centuries AD. Common Roman cooking and table pottery fragments were found together with several metallic objects, worked bone and antler, glass and Roman coins. Associated occupation levels have provided a big quantity of materials for the zooarchaeological analysis.

Although all animal remains found at Zornoztegi have been analysed, this paper will be focused on the zooarchaeological analysis of the Late Roman period. This analysis is particularly interesting due to the scarce small rural Late Roman faunal assemblages studied in the Iberian Peninsula. Through this analysis, the social and economic characteristics of such small rural settlements are tackled in the following pages.

RESULTS

The bone assemblage recovered at Late Roman Zornoztegi is very fragmented and poorly preserved.

Neither the activity of scavengers nor the butchery activity seem to have played a key role on the high fragmentation. Instead, biological and climatic agents contributed to the bad preservation of the cortical bone. The poor degree of preservation of the cortical surface could be the reason why butchery and gnawing marks are not much visible. Root marks and weathering marks are common, unlike chemical corrosion or metal stain. The number of animal remains that present fire marks is also scarce, so this was not a determinant factor for the preservation of the assemblage.

	NISP	MNI
<i>Ovis-Capra</i>	402	24
<i>Bos</i>	222,5	9
<i>Sus</i>	113,5	10
<i>Equus</i>	4	1
<i>Canis familiaris</i>	1	1
<i>Cervus elaphus</i>	6,5	1
<i>Capreolus capreolus</i>	1	1
Galliform	2	1
Amphibian	2	1
<i>Mus musculus</i>	3	1
Murinae	3	1
<i>Oryctolagus</i>	1	1
Lacertidae	1	1
<i>Homo sapiens</i>	2	1
<i>Bos/Cervus</i>	1	1
TOTAL	765,5	

TABLE 1

Number of identified specimens (NISP) and minimum number of individuals (MNI) of the identified taxa in Late Roman contexts at Zornoztegi.

The total number of fragments of the faunal assemblage found at Zornoztegi is 8858, from which a NISP of 1638 was derived. The chronological phase that provided the largest amount of faunal remains is the Late Roman one, with 765.5 NISP (Table 1). Numerous taxa were identified, being the most frequent, both by NISP and by MNI, sheep and goats (sheep/goat ratio is approximately 2:1), followed by cattle and pig, with much lower proportions. The rest of the taxa are represented by a small number of NISP and with only one MNI: equids, dogs, red deer, roe deer, galliforms, lagomorphs, amphibians, various small rodents, lizards and some human remains (belonging to a foetal or neonatal individual). Therefore, domestic animals predominate, while hunted animals are scarce and limited to red deer and maybe roe deer. None of the suid remains can be attributed to wild boars, according to the metric data. Perhaps also the rabbit, only present at Zornoztegi during the Late Roman period, was hunted. On the contrary, there are no wild birds in the assemblage.

When the relative frequencies of the three main domesticates are compared (Figure 2), sheep/goats predominate both by NISP and by MNI with more than the 50%. Cattle, on the other hand, constitute the second most common taxon according to NISP, followed by pigs. However, both taxa show very similar proportions according to the MNI.

Regarding body part distribution, both by NISP and by MNI, dental pieces are predominant in all the three main domesticates (Figure 3), probably because they survive better to physical agents of de-

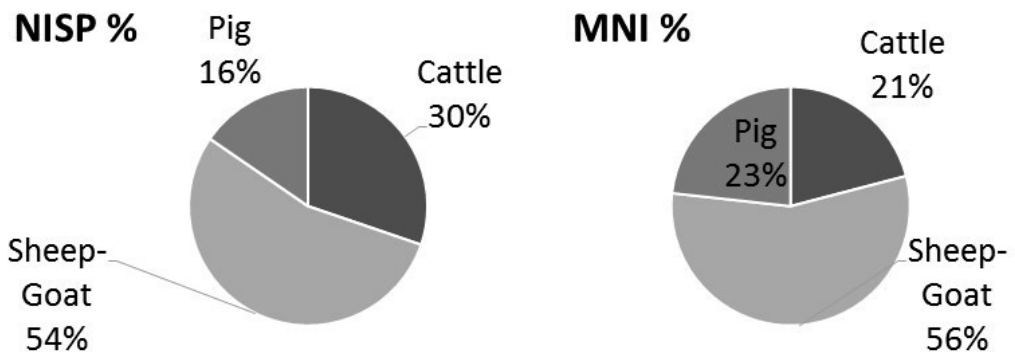
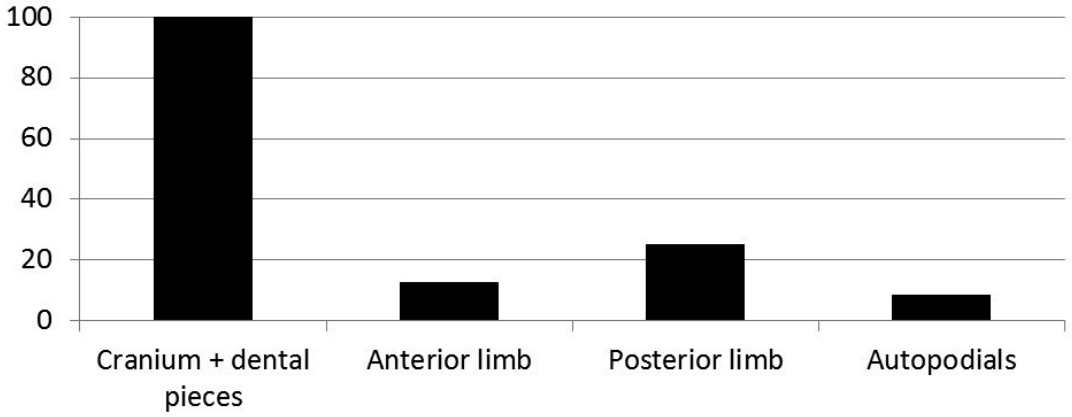


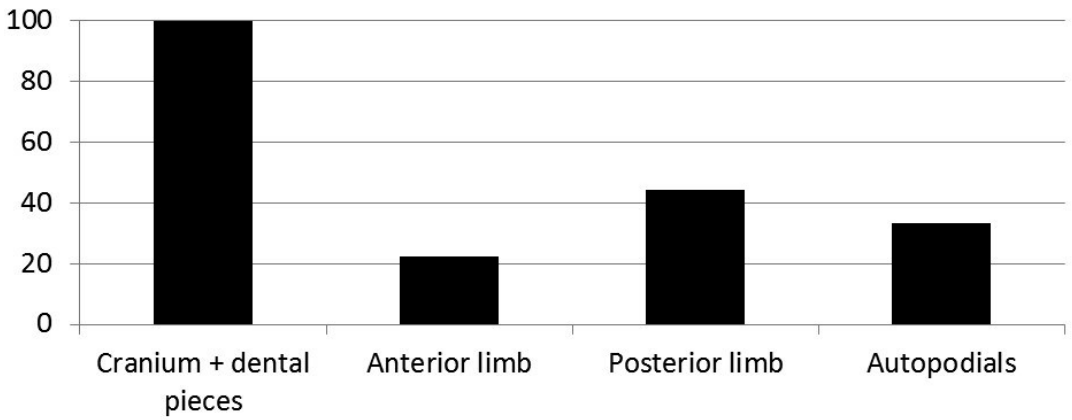
FIGURE 2

Relative proportion (%) of the main domesticates by NISP and by MNI. Late Roman Zornoztegi.

Sheep/goat



Cattle



Pig

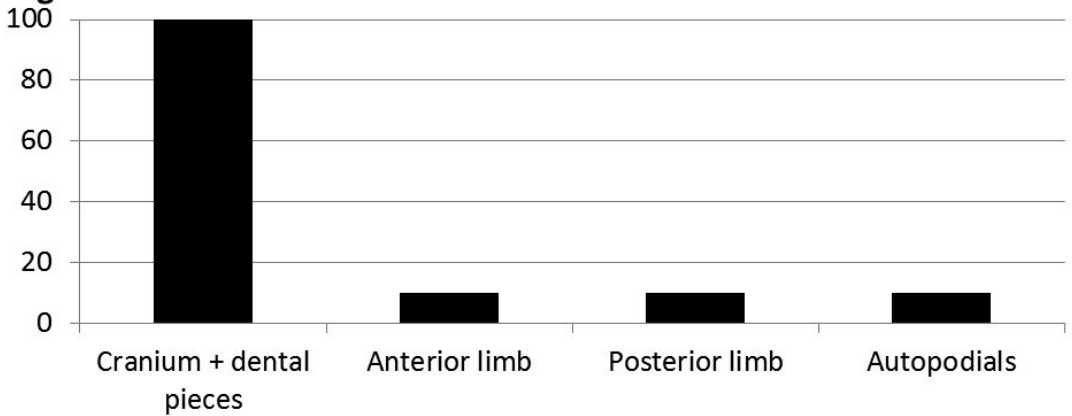


FIGURE 3

Frequency (%) of a body part expressed in relation to the most common one by MNI. Late Roman Zornoztegi.

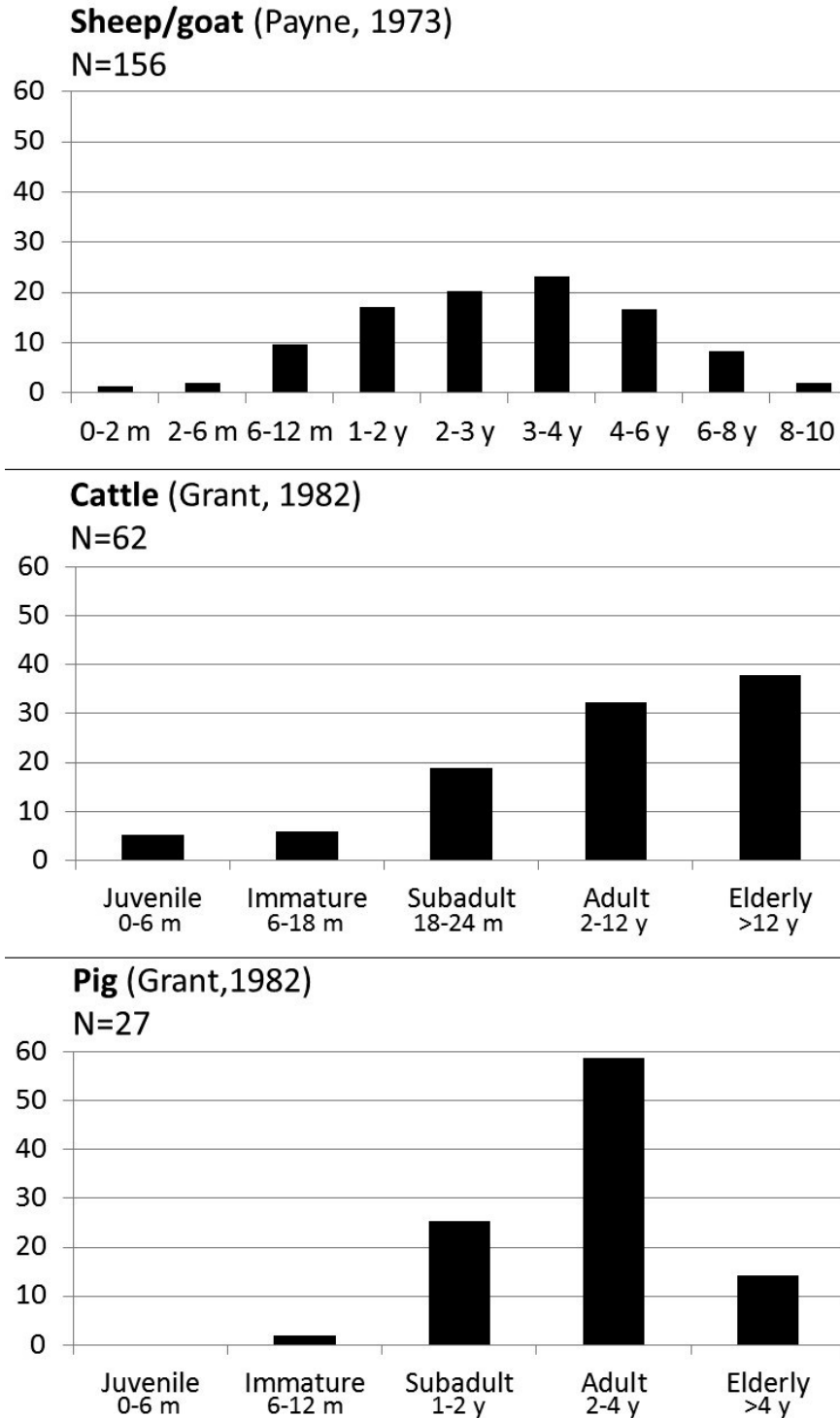


FIGURE 4

Proportion (%) of slaughtered animals at each stage, according to teeth wear stage. Approximate absolute is shown. Late Roman Zornoztegi.

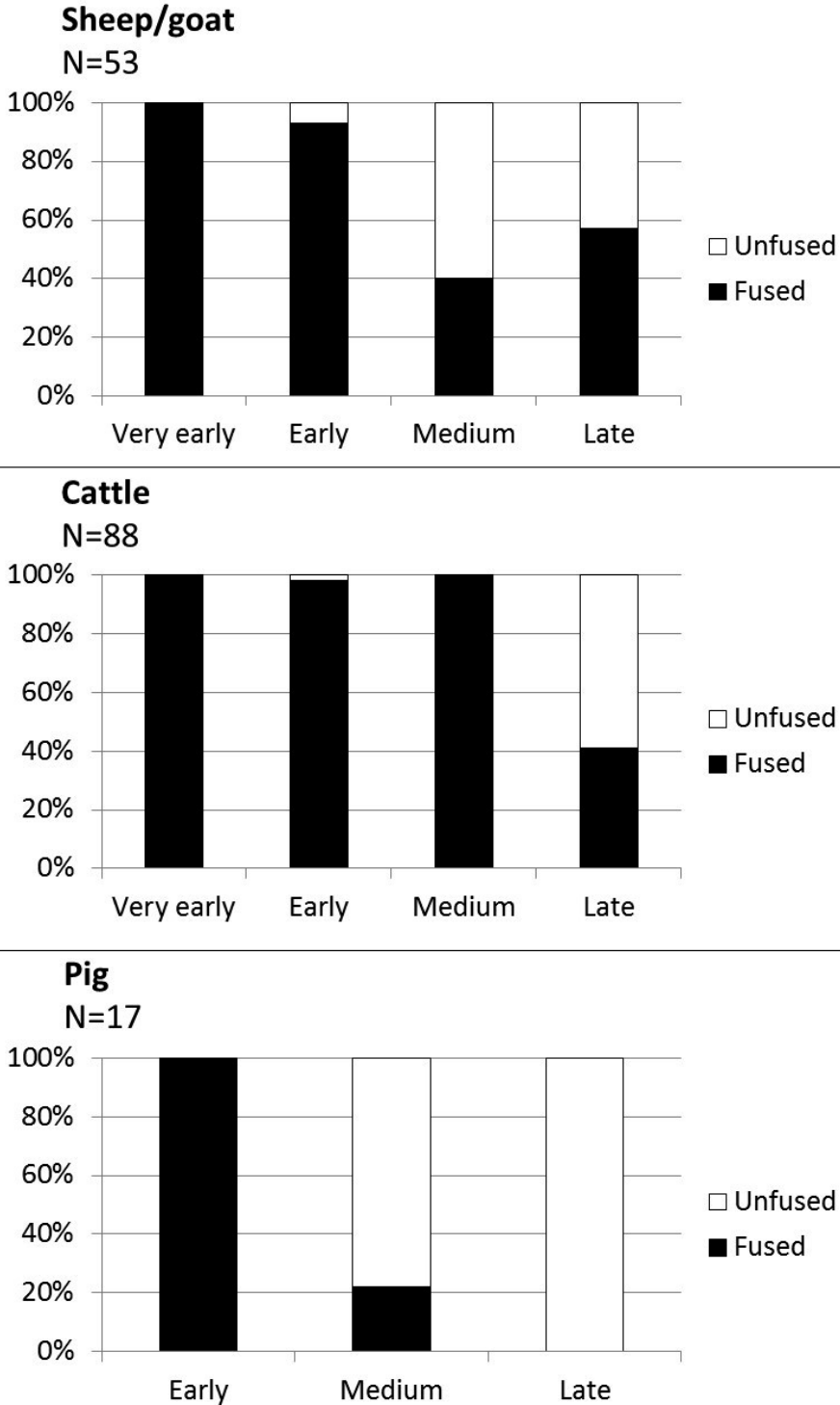


FIGURE 5

Proportion (%) of slaughtered animals at each stage, according to epiphyseal fusion stage. Late Roman Zornoztegi.

struction, but also because a large amount of the faunal assemblage is related to primary butchery waste. All postcranial elements of sheep/goat, cattle and pig were identified in this assemblage.

The two red deer antler fragments dated to the Late Roman times are shed, but there are also teeth and postcranial elements of this species, which suggests that the red deer was indeed being hunted. This is not necessarily the case for the roe deer, which is represented by a single antler piece which cannot be established whether it was shed or not.

Two different ageing methods have been used in Zornoztegi: teeth wear stage (Figure 4) and epiphyseal fusion of postcranial elements (Figure 5), and both methods have resulted in similar kill-off patterns. Evidence suggests that the three main domestic species were raised for a variety of purposes. Sheep/goat were mainly kept for wool and meat production, being most animals killed when they were between 1 year and 6 years old, when they had already proved several clips of wool. Cattle, on the other hand, were mainly kept for traction, with around the 70% of the animals being slaughtered when adult or elderly. However, a 30% was killed early, including a small proportion of juvenile animals. Therefore, a mixed use of cattle for traction, meat and milk is possible. Pigs were kept until they had probably gained their maximum weight. The high proportion of animals killed adult suggests that maybe they were slow growing unimproved pigs. The sample of galliforms is small, but all of them are adult animals, suggesting that they were probably kept for producing eggs.

The available information for the analysis of sexual distribution is unfortunately not conclusive, being very few the elements in which sex could be attributed.

The high fragmentation and the poor preservation of the cortical bone have affected the visibility of cut marks and, in fact, only the remains of cattle showed a significant number of these marks in the Late Roman period. Cut marks were identified on the lingual part of a lower mandible, on a metacarpal diaphysis, on first phalanges, on the femur proximal end and on the calcaneum. Chop marks, on the other side, were identified on the distal humerus and on the astragalus. All these marks suggest that animals were skinned and dismembered in big pieces on site, but none of them can be directly related to the consumption of the flesh.

Very few remains show evidence of pathological conditions, and they cannot be considered as real health issues: we have identified the presence of caries in cattle teeth and a mandible of a sheep-goat with the fourth premolar and the first molar rotated. This suggests that animals were kept in good conditions.

Measurements taken from the main domestic animals (cattle, sheep/goat and pig) found in Late Roman contexts at Zornoztegi have been compared to data from other contemporary sites from the Iberian Peninsula using the log ratio technique: the *villae* of Arellano (Mariezkurrena & Altuna, 1994), La Solana (Estrada & Nadal, 2007) and Els Antígons (Valenzuela, 2010), and the city of Tarragona (Miró, 1989). Pig measurements, both of postcranial bones and of teeth are too scarce to do such comparisons. The metrical analysis of sheep/goat data (Figure 6) and cattle data (Figure 7) show no substantial difference between the sites compared here. Despite the scarce number of measurements, evidence suggests that the size of the livestock raised at Zornoztegi was very similar to the one found in other sites, including *villae* and cities. Only cattle from Tarragona seem to be slightly larger to the other sites, perhaps due to the trade of improved breeds to the city.

Late Roman cattle from the Iberian Peninsula appear to be substantially larger than the Iron Age standard (Johnstone & Albarella, 2002), while sheep are comparable in size to the standard used, which is based on modern female sheep of a breed known for being small (Davis, 1996). The size increase of cattle during the Iron Age-Roman transition has been documented in Great Britain (Albarella *et al.*, 2007), France (Forest & Rodet-Belarbi, 2002), Holland (Lauwerier, 1988) and Germany (Teichert, 1984), and it has also been suggested in the Basque Country (Mariezkurrena, 2004), Catalonia (Colominas & Saña, 2010) and the North-Western Iberian Peninsula (Fernández & Fuertes, 2007). However, this increase has not been observed in Portugal, neither in cattle nor sheep (Davis, 2008). Many authors agree in that Romans improved cattle breeds, perhaps in association with an increasing deforestation activity and an intensification of agriculture, and some have even suggested that the size increase in cattle can be interpreted as characteristic of the Romanization process. There are two possible factors that probably contributed together to the size increase, having an

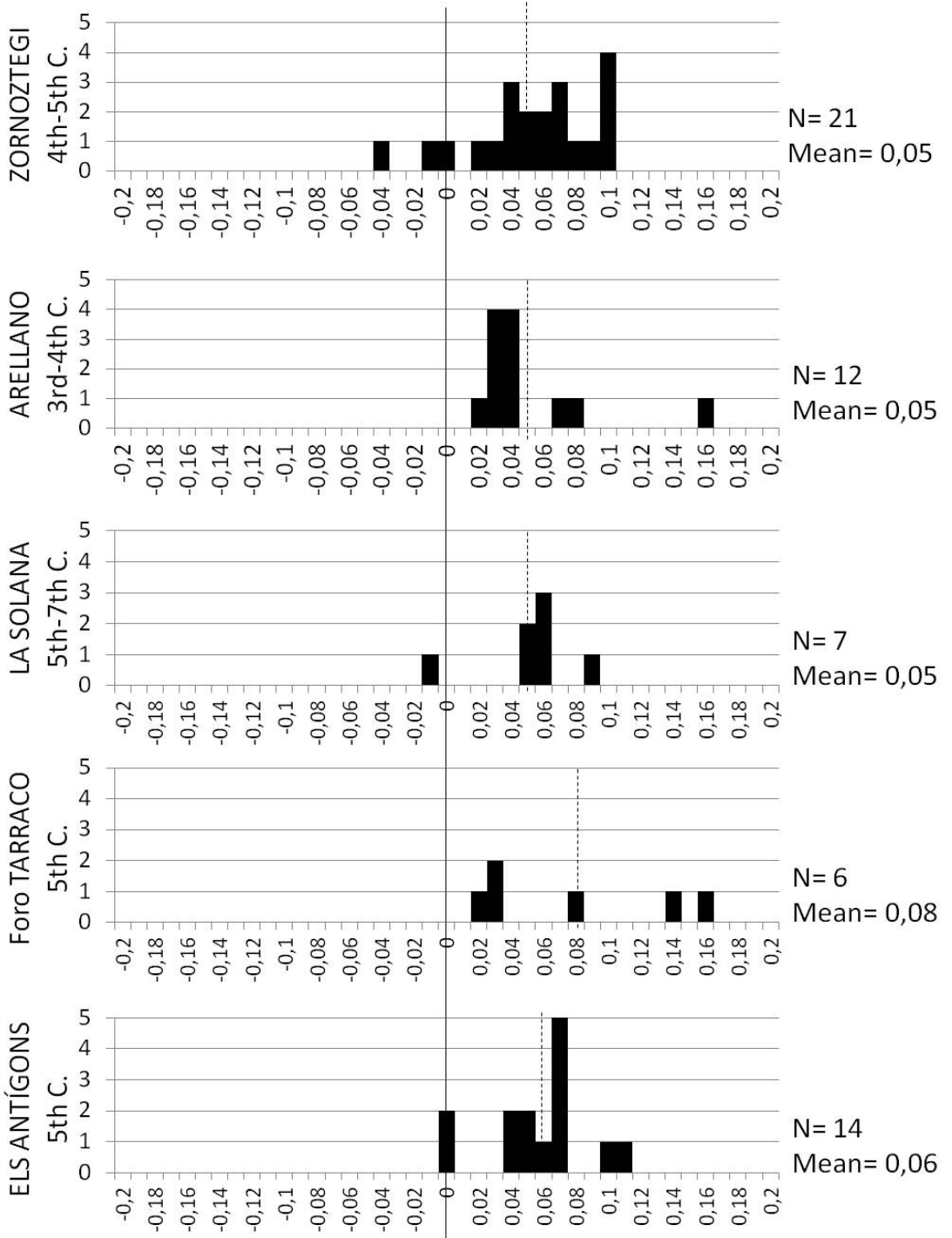


FIGURE 6

Log-ratio histograms comparing sheep/goat postcranial measurements from Late Roman Zornoztegi and other contemporary sites in the Iberian Peninsula. Standard (0): Shetland female sheep (Davis, 1996). Only fused specimens are plotted. The dotted line represents the mean value.

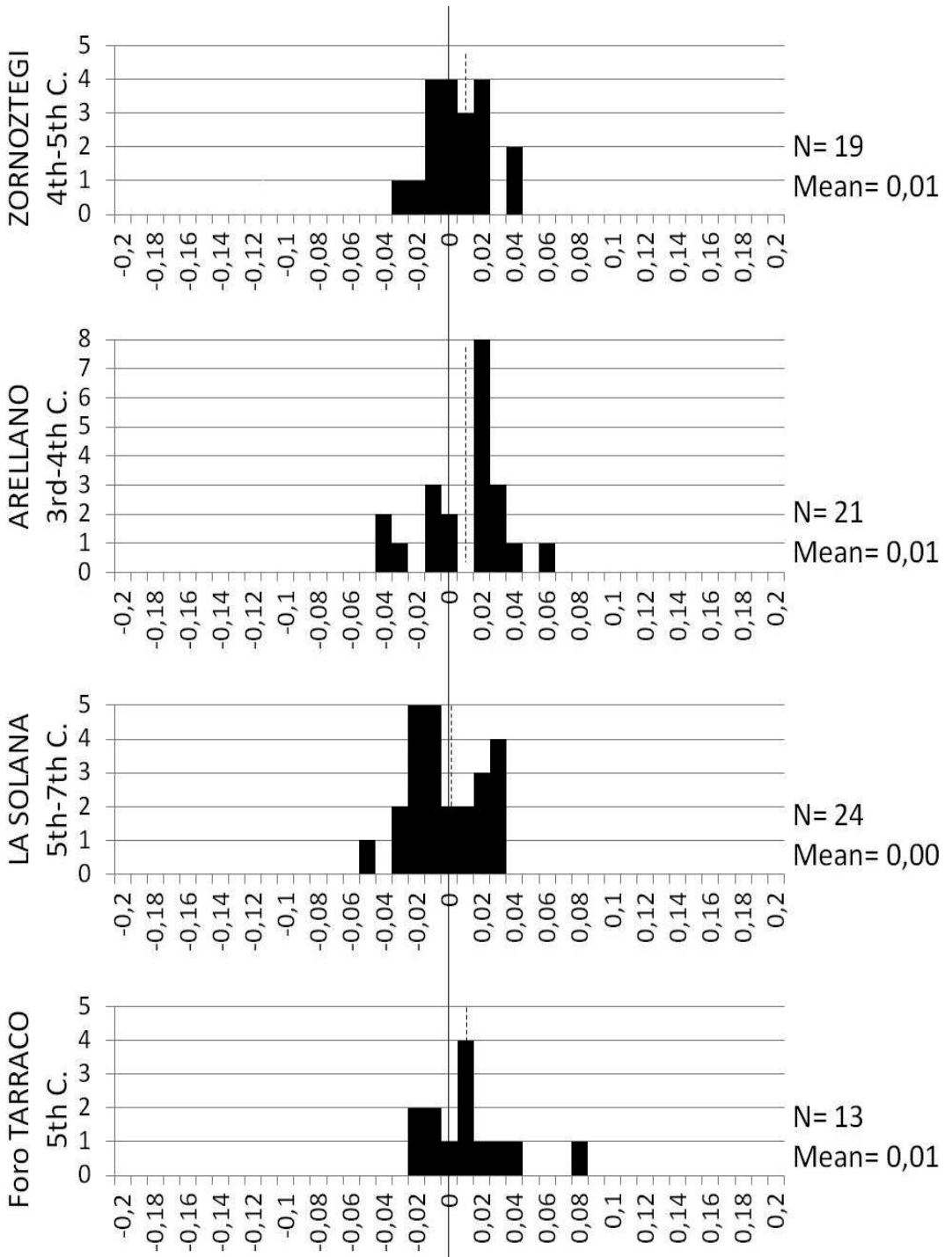


FIGURE 7

Log-ratio histograms comparing cattle postcranial measurements from Late Roman Zornoztegi and other contemporary sites in the Iberian Peninsula. Standard (0): data from Elms Farm (UK), dated to the 1st C. BC-1st C. AD) (Johnstone & Albarella, 2002). Only fused specimens are plotted. The dotted line represents the mean value.

important impact on livestock management: the introduction of large improved breeds and efficient feeding and selection of cattle local breeds.

On the other hand, sheep/goats appear not to have been improved during Roman times in the Iberian Peninsula. A size increase of sheep has been noticed in other areas of Europe, like in France (Lepetz, 1996), Italy (MacKinnon, 2004) and England (Albarella *et al.*, 2007) during Roman times. It is also, however, possible that this improvement happened only in the first centuries of the Roman period and that a reduction in size happened later, as it has been suggested for Catalonia in the 4th C. (Colominas & Saña, 2010), in conjunction with a reduction in the importance of wool production.

All Late Roman worked bone and antler at Zornoztegi are clothing accessories and decorating elements, such as fine *acus crinalis*, other types of pins and bone plates, but none of them suggest that artisanal activities were carried out on the site. In fact, no bone and antler waste related to the manufacture of artefacts has been found at Late Roman Zornoztegi. On the contrary, these artefacts were most probably acquired elsewhere.

DISCUSSION

In the last years, the study of Late Roman *villae* in Iberia has experienced a remarkable development, analysing the processes of landscape transformations and the disarticulation of the *villae* as hierarchical centres (Chavarria, 2007). A synthesis about the Late Roman *villae* at the Ebro basin has also been published (Mezquíriz, 2009). However, smaller rural settlements have not been fully analyzed and, therefore, social and economic characteristics of Late Roman landscapes are not yet fully understood. It is in this context where the analysis of the faunal remains recovered at Zornoztegi becomes of great interest.

The interpretation of the site of Zornoztegi during Late Roman times is not an easy task, especially because it appears to be an exceptional case in this area of the Iberian Peninsula, in light of the available publications at the moment. The available publications of faunal analysis are rare and they frequently deal with other types of settlements, such as *villae* or urban environments, more monumental and visible. Four are the Late Roman faunal assemblages

in the Basque Country that have been published: the *villa* of Arellano (Mariezkurrena & Altuna, 1994), the cave of Amalda (Altuna *et al.*, 1990), the problematic site of Buradón (Castaños, 1997), and Las Ermitas (Castaños, 1997), which despite being described as a rural settlement, its characteristics suggest that it was similar to a *villa*, if it was not an urban centre. In all these four sites, cattle and sheep/goat predominate the faunal assemblages with very similar proportions, with the exception of Buradón, in which cattle predominates.

In other earlier sites from this area, cattle predominated too; this is the case of the *agglomération secondaire* of Arcaya (Castaños, 2007-2008) and the village/farm of Aloria (Castaños, 2001). Sheep/goats only predominate in the assemblage from Atxa (Ruíz, 1995), a military camp dated to the 1st-3rd centuries. All in all, and considering all archaeological evidence, it seems clear that late Roman Zornoztegi was very different to any of these sites that we have just mentioned.

What was it, then? We believe that the faunal remains recovered at Zornoztegi, together with other archaeological records, point towards the interpretation of the site as a small rural settlement. Although *villae* occupy a central role in every characterization of the Roman rural world, two economic systems were probably co-existing: the estate owner producing for a market and smaller farmers with a more self-sufficient husbandry (Faulkner, 2000). In fact, towards the Late Roman period, there is a tendency to the disarticulation of the *villae* system and the emergence of other rural settlement types, with less emphasis on specialized production and an increase in mixed and diversified farming, as has been noticed in most Western European regions (Lewit, 2009). Zornoztegi, with a faunal assemblage that points towards a very high productive diversification, was probably one of these small and modest rural settlements, in which, far from the specialized economy that characterized the *villae*, a variety of animals were being raised and killed at a range of ages, suggesting animal husbandry strategies that focused on a diversity of primary and secondary products (Grant, 2004). At Zornoztegi, all domestic animals were kept for all the possible reasons: cattle for traction, meat and milk; sheep/goat for wool, meat and milk; pigs were slaughtered once the following litter was ensured. The fact that a large part of the assemblage is related to primary butchery



FIGURE 8

Some of the worked bone and antler fragments found in Late Roman contexts at Zornoztegi.

waste, together with the cut marks found in cattle, suggests that carcasses were processed on the site and that some pieces of flesh may have been commercialised or (more probably) used to pay a rent. Furthermore, the inhabitants had also access to forest resources, but no evidence for luxury food, such as oysters, very common in other Roman sites in this geographic area, has been found.

Although this diversification of the production is a characteristic of self-sufficient communities, such as early medieval peasants, the archaeological evidence of Zornoztegi suggests that the farmers who lived here had access to some degree of luxury or non-local goods. Being so, the production of a surplus of animals and animal and agricultural products must have been crucial in providing the means to acquire such products. Also, the zooarchaeological evidence suggests that the livestock raised at Zornoztegi was of similar size to the one found in

other sites in the Iberian Peninsula, including *villae* and towns. Cattle and sheep/goat breeds from Zornoztegi were therefore as improved as in other socioeconomic contexts far more specialized.

The diversification of the production surely made possible to provide the supplies needed for the inhabitants of the settlement, but also to get enough surplus in order to assign it to the market (both to the town and the army) and/or to pay the rent for the usage of the land. In this sense, autarchy is not the economic system of Zornoztegi, but a subsistence farming instead, what allowed the inhabitants to have some surplus and placed them inside dense trading systems and connected them to redistribution centres. Indeed, pottery, glasses, bones objects, metals and other archaeological remains suggest that Zornoztegi was linked with central places where all these products were available.

The social status of the inhabitants of Zornoztegi remains unclear. These farmers may have been dependent of a large estate owner, but this is something difficult to identify, considering that we still do not know much about hierarchies and social networks in the Late Roman Basque Country. But currently, this is the most likely hypothesis taking into account the nature of the Late Roman archaeological record of the eastern Alava plateau. Although this territory lacks of extensive excavations, the concentration of Roman inscriptions in this area recovered in secondary deposits and in medieval buildings is remarkable. Moreover some of them belong to very big structures, in particularly some of the cases found in the area of San Roman de San Millán located 7 km at the East of Zornoztegi. Hence, it is possible to argue that a central place was located in this area during Roman times, perhaps related with the Roman road *Ab Asturica Burdigalam* recorded in the Antonine Itinerary.

CONCLUSIONS

In Iberia, the *dictatorship* of the archaeology of the *villae* has prioritized the role of the elites, setting aside the central role of peasantry on the rural economy in Late Roman times when, in fact, the economy of the *villae* was based in the work of peasants¹. Zornoztegi is part of a complex system that guaranteed the trade of goods, such as the *instrumentum domesticum*, and also the commercialisation of agrarian surplus.

Is Zornoztegi a unique case or can these results be used as an interpretative model for other minor rural settlements? Are these settlements a Late Roman phenomenon or is it a general pattern that is present in other phases? How did the end of the Empire affect to this type of small rural settlements? Similar sites have been found in northern Gaul (Van Ossel & Ouzoulias, 2000) and Britain (e.g. Murphy *et al.*, 2000) but archaeologists have started understanding them only recently. All in all, this scarcity of small rural settlements in the Iberian Peninsula is probably just apparent, probably due to their poor

archaeological visibility and to the difficulties for *reading* the archaeological evidence they provide in socioeconomic terms. Unfortunately, without a bigger or clearer picture of the Roman rural world in the Iberian Peninsula, it is difficult to answer yet to these questions.

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¹ In contrast, the Project ‘The rural settlement of Roman Britain’, based in the analysis of preventive archaeology is showing the complexity of rural Roman settlements in Britain and the role of farmsteads similar to Zornoztegi. (<http://www.reading.ac.uk/archaeology/research/Roman-rural-settlement/arch-mf-settlement.aspx>, consulted 5.5.2014)

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